

HIGH VOLTAGE FUSES

- CURRENT LIMITING TYPE
- HIGH BREAKING CAPACITY
- BACK-UP CLASS



**inter-
teknik**

HIGH VOLTAGE FUSE-LINKS

- Current Limiting Type
- High Breaking Capacity
- Back-Up Class

Standards: IEC 60282-1, VDE 0670-4, VDE 0670-T402, DIN 43625, BS 2692-1, UTE C64-10

Inter-Teknik fuse-links are automatically and selectively acting medium voltage switching devices, which protect your transformers, motors, overhead lines, voltage transformers, capacitor banks and installations safely from the thermal and dynamic effects of short circuits within the voltage range of 6-36 kV.

Our experience from 1969 to date, extreme care in production, conscious quality control and emphasis on continuous development are the basis of the superior quality of Inter-Teknik fuse-links.

Although there are various types of HV fuse-links, the more reliable and economic CURRENT LIMITING TYPES are mostly preferred in many countries including our country. This type operates quietly in a completely hermetically sealed manner. While it functions, no flame or gas overflows outside the system. Therefore no filter, flame cell or special ventilation system is necessary.

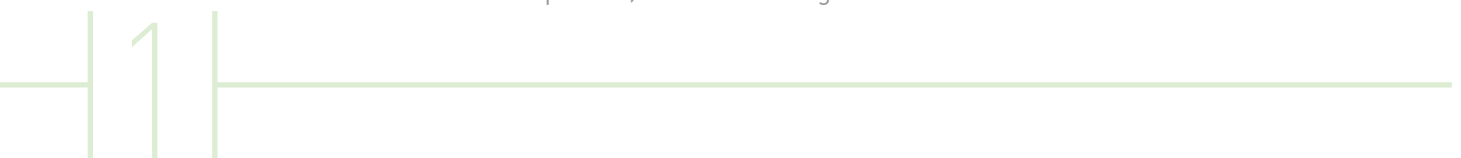
The types of fuse-links with high breaking capacity are used for the short circuit protection of HV installations. When they are integrated with transformers, capacitors, motors, cable outlets or voltage transformers, they protect against heat or other bad effects of shortcircuit with quick circuit breaking capabilities.

Back-up fuses are the most effective and economic ways of protection against short circuits in HV installations.

Back-up fuses are not suitable devices for protection against overload. They work safely only over the I_{min} value. It does not operate safely within the range of I_n (rated current value) and I_{min} value, and in some cases the fuse-links may be damaged. Depending on the quality of the fuse-element used and the construction of the fuse-link, I_{min} by currents in such range.

Naturally the expansion of the safely operating area of a fuse-link is of great advantage. For this reason I_{min} should be as small as possible.

If loading between I_n rated current and I_{min} is a necessity and cannot be prevented, then it is recommended to use load break switches with thermal protective fuse-links. In that case, before the extreme heat generated in the fuselink reaches the tolerance level of the electro porcelain tube of the fuse-link, the thermal protection operates to loosen the striker pin, which in turn triggers the loadbreak switch in three phases, thus minimizing the risk.



CONSTRUCTION

The principal component of the fuse-link is a star-shaped rod. Pure silver fuseelement is wound around the star-shaped rod, thus forming completely similar small cells all along the body. The lengths and cross section of the silver strip in each cell remains the same. Many partial arcs form all along the fuse-element and the thermal heat is evenly distributed in the fuse-link body, thus attaining a higher breaking capacity. The tubes are definitely durable to extreme heat, nonflammable and insulated. The tubes are made up of non-flammable and electrically insulated material. They are highly resistant to extreme heat. Moreover, especially the outdoor type fuse-links are durable to atmospheric changes, corrosion, salts, acids and alkali gases. They do not absorb water or moisture. In case the fuse-link is blown, the body provides insulation. Therefore, it must provide the needed insulation level in rainy or sunny weather conditions. To attain these properties, the ideal material to be used is electro-porcelain.

**Against short-circuits,
fuse-links provide the
most effective and
affordable solution**

To be durable enough to resist the high pressure and heat that may arise, the porcelain tubes should at least conform with the C120 – class as per IEC 60672-3 standards. Metal caps on both ends are made of electrolytic copper and are nickel or silver plated (4 – 6 microns) against oxidation. The caps are tightly pressed onto the porcelain tubes using silicone seal. The terminals of star-shaped core are fitted with metallic rings onto which the fuse elements are welded via pointwelding. Depending on the In value, they are either silver coated or copper striped of oil. Eventually, the fuse-link's main circuit is completed by pointwelding the inner metallic rings of core with contact caps.

The mechanical strength and water insulation of our fuse-links are attained by mounting the metal and optical glass caps on both sides, sealing with high heat resistant insulating material and special pressing methods.



TYPES

The sizes of all our fuse-link types conform with IEC 60282-1 and are fit for indoor and outdoor use.

OPTICAL INDICATOR (TYPE: .../OPT)

The fuse-links with optical indicators, i.e. types H220 and H221, have a mechanism, which indicates that the fuse-link operates correctly. When the fuse-link is blown, a small red cap falls into the transparent capsule at the end of the tube.

STRIKER PIN (TYPE: .../ACT)

IEC 60282-1, Table XII – (Medium)

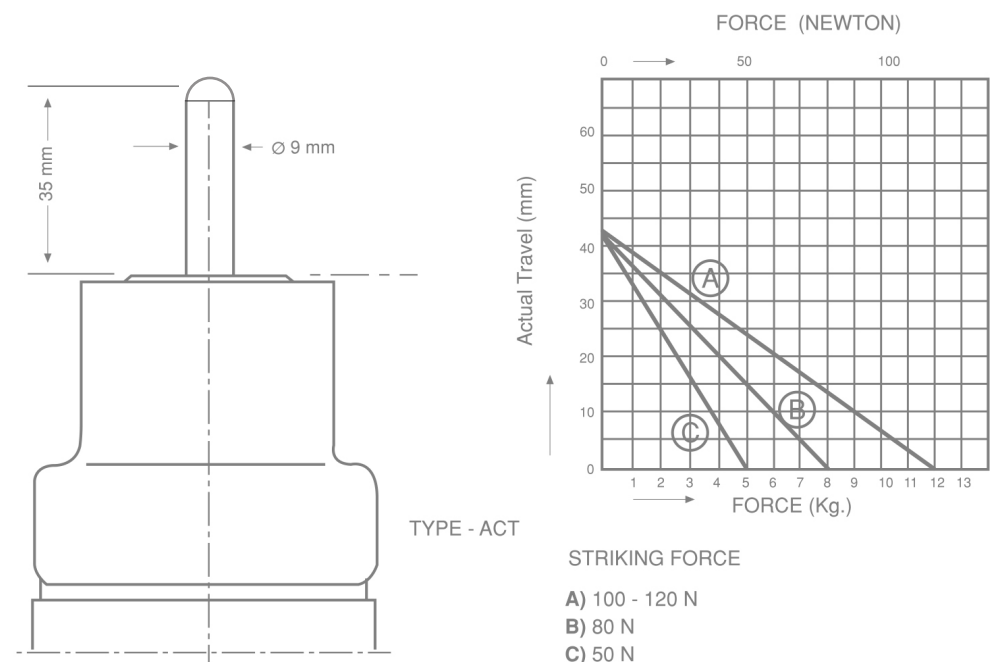
When a fuse-link trips a pin is forcibly pushed out. Hence, you can see the tripped fuse-link and also automatically initiate another system (e.g. : a switch, notification of an alarm system).

STRIKE PIN FORCE

There are three options:

- A) 120 N
- B) 80 N
- C) 50 N

The preferred option should be specified while ordering. If it is necessary to open a switch mechanically, then the options A or B are recommended.



THERMAL PROTECTION

The operation of medium voltage fuse-links with thermal protection is determined by minimum breaking current (I_{min}). These fuse-links only operate safely over the I_{min} value. Between the values I_n (rated current) and I_{min} , a safe operation cannot be guaranteed.

The over loading of fuse-links in between these values may cause explosion and large-scale damage.

The fuse-element will melt in just one or a few small pieces and the arc produced here will continue to travel within the circuit, leading to extreme thermal stress on the fuse-link.

In order to eliminate this problem, our fuse-links have a thermal protection system. In this special design, the fuse-links have a striker device inside the fuse-link, which is released before the temperature reaches a limit endangering the thermal

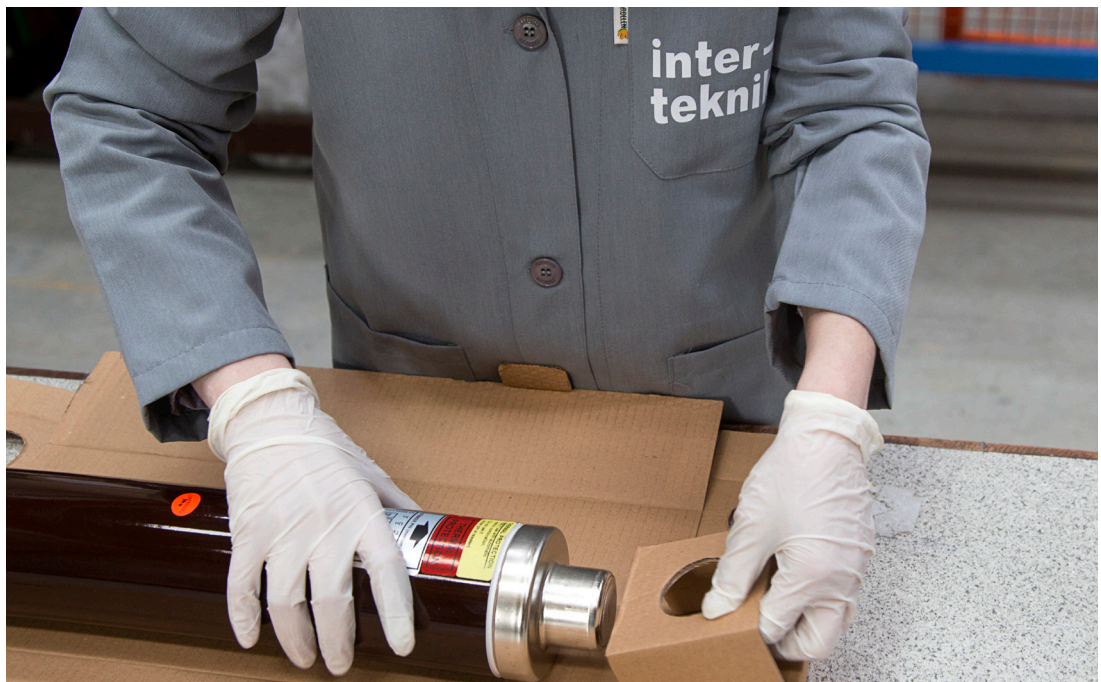
strength of the porcelain tube, and initiates opening of all poles by the help of a load break switch.

The risk caused by the extreme thermal stress may be avoided with the use of thermal protection feature.

Fuse-links with the thermal protection system should be used in combination with a switch. When used in combination with automatic breaking switch or

especially with SF₆ gas insulated "Ring Main Unit" panels, fuse-links with thermal protection system should be preferred.

Please do not hesitate to contact us for more information about thermal protection.



SHORT CIRCUIT CURRENT LIMITATIONS

Our HV HRC fuse-links clear the fault current before the short-circuit current reaches its peak value during the first half-cycle. They are thus current-limiting.

The figure below shows the progress of a short-circuit operation. Without a fuselink in the circuit, the short-circuit current would rise as the prospective current I_k shown as a dashed value below.

However, the current-limiting action of the fuse-link permits the melting current I_S to rise only to the cut-off value I_D (full line). The current decreases during the arcing time t_L with increasing arc length and is finally broken in the area of a voltage zero passage.

The current-limiting action of the fuse-links relieves the protected object and parts of the system of thermal and dynamic stresses. It is clear that the application of current-limiting fuse-links is particularly advantageous in older installations which have not been designed for the increasing short-circuit levels of the system.

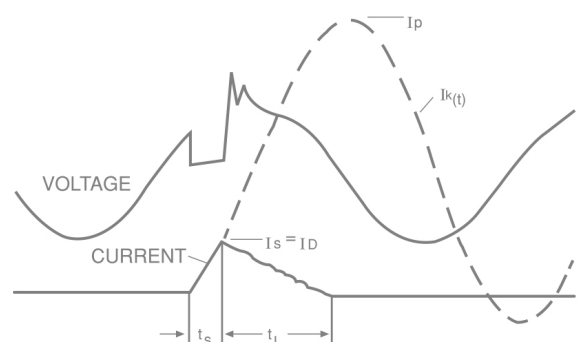
The value of the cut-off current is influenced by the design of the fuse-link. It further depends on the rated current and the instant on the voltage wave, at which the short-circuit occurs.

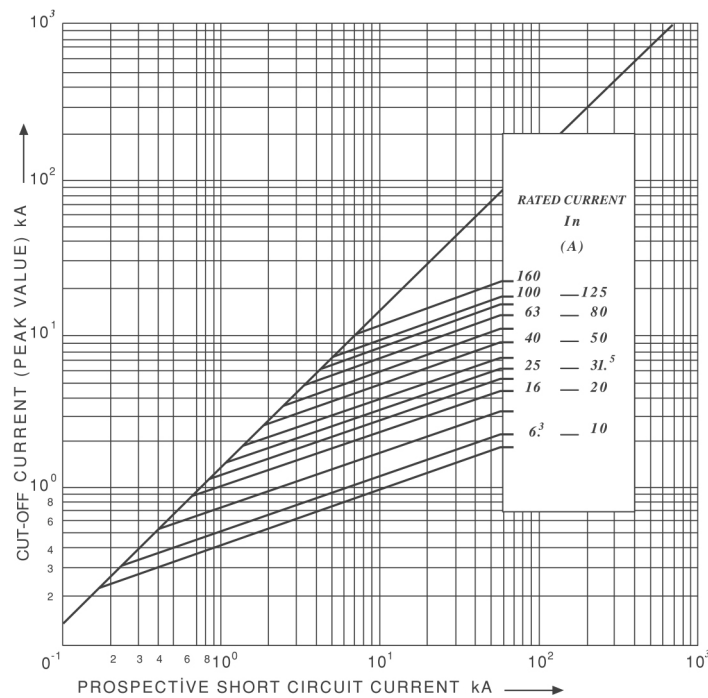
The cut-off current of our HV HRC fuse-links, which can be taken from the diagram, are a function of the prospective short-circuit current (r.m.s. value of the symmetrical component) and of the rated current.

The prospective short-circuit current is expressed by the r.m.s. value of the symmetrical component of the current, which would flow at the location of installation if the fuse-link were replaced by a solid link.

The cut-off currents determined from the diagram are the maximum values that may occur for a given RMS value of the symmetrical component of the prospective short-circuit current with any degree of asymmetry and the highest rate of current rise. Actual values are thus, as a rule, less than the values defined here.

- I_S Melting current
- I_D Cut-off current
- $I_{k(t)}$ Prospective short-circuit current (fuse replaced by metallic link)
- I_P Impulse short-circuit current
- t_S Pre-arcing time
- t_L Arcing time





RATED BREAKING CURRENT CAPACITY

The rated breaking current capacity depends on the inner structure of the fuselink. The special construction of the fuse-link ensures that short pre-arcing and arcing times are obtained on operation and that multiple partial arcs are generated. Accordingly, the amount of heat generated in the fuse-link is relatively low and uniformly divided over the whole length of the fuse-link elements. These factors provide the increase in the rated current breaking capacity of a fuse-link. Inter-Teknik HV fuse-links have the highest breaking capacity (up to 63kA, verified at KEMA) in the global market.

SWITCHING VOLTAGE

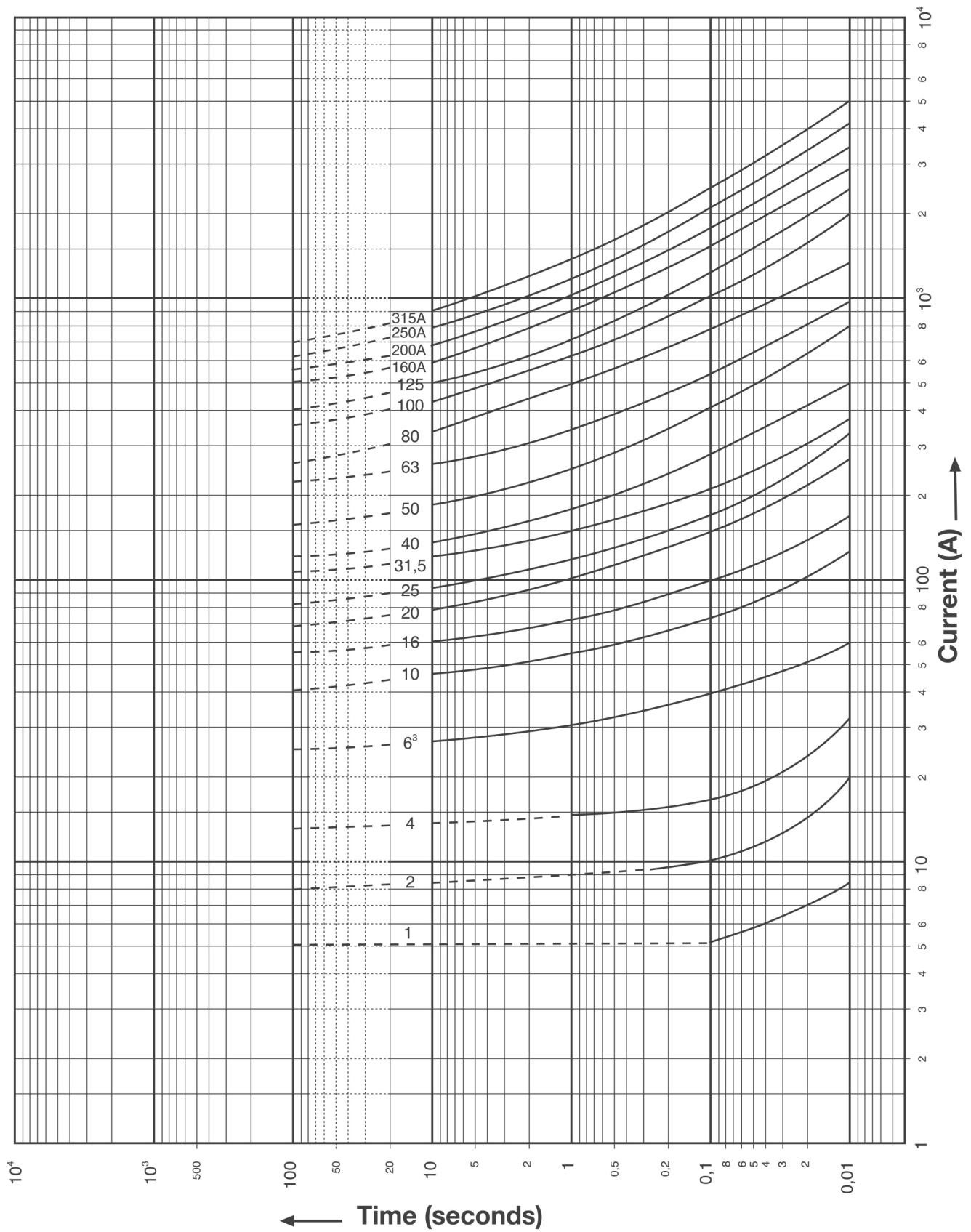
When the short circuit current is interrupted, the voltage spikes up. In order to avert any possible damage to the installation due to these unavoidable voltage spikes, the voltage peak value, also known as switching voltage, is limited as $2 \cdot U_N \cdot (\sqrt{2})$ in the IEC and VDE standards. The advantage of using these fuse-links to protect your transformers, cable outlets and voltage transformers is clear.

POWER DISSIPATION

The heat generated in the fuse-link should be released to the atmosphere. In indoor areas and air insulated switchgears, heat is a vital factor affecting the nominal values of the devices.

Lower power dissipation of HV fuse-links leads to less electrical losses in the grid and occupies less heat dissipation capacity of the surrounding area.

Time Current Characteristics of Medium Voltage High Breaking Capacity Fuses



SELECTIONS

Rated Voltage

Must be properly selected in accordance with the operational voltage.

Rated Breaking Current

Proper fuse-link selection according to the short circuit load of the network is important. In some special occasions, if necessary, a fuse-link of a higher voltage group may be selected.

Rated Current

This value denotes the naming of the fuse-link. Essentially, the selection of the fuse-link according to the purpose and the place of use is very important. Heat is one of the most important factors. For example, for protection of a transformer, a fuse-link of $I_n=16\text{ A}$ is suitable for use outdoors. In extreme cases where higher current values are necessary, two fuse-links with the same value connected parallel can be used. But as the two fuse-links standing side by side will give heat to each other, a specific tolerance level should be set.

Derating Factor

The rated current is the current that a fuse-link link can carry continuously without altering the time/ current characteristic curve. At higher ambient temperatures as well as higher power losses generated by fuse-links of very high rated currents, it is necessary to pay special attention to derating factors.

Depending on conditions of use and due to the overheating of the fuse-link body, it is advisable to reconsider the choice of fuse-link rating and use a fuse-link with a higher I_n value.

In fuse-links that operate with melting fuse-link elements, the heat of the fuse-link body is the main factor that affects the functioning of the fuse-link. As it functions, the heat generated in the fuse-link should be transferred to the atmosphere in an effective way.

As the plants of our day are huge and growing in size, they require fuse-links with very high I_n values for their protection. Meanwhile, as the I_n value of fuse-links increase, due to physical limitations of material and production methods, it becomes very difficult to keep the heat of the fuse-link at normal temperatures. Therefore, especially under these circumstances special attention should be given to the DERATING FACTOR.

Due to their high starting currents, for protection of electrical equipment such as motors, transformers or capacitors, fuse-links with I_n values should be selected. In other words, under normal operating conditions the current passing through the fuse-link will be approximately half; under 25% overload, it will be about 75% of the I_n value of the fuse-link. Generally, the nominal current of the fuse-link should be 2 or 3 times higher than that of the normal circuit current. It is important to keep this fact in mind.

This means that the fuse-links will warm less. During the evaluation process, special attention should be given to this point. For this reason, on the labels of these fuse-links, both current values are indicated. For example “250 RC 160” means:

- the nominal current of the fuse-link $I_n=250$ A. (the starting current is taken into consideration)
- the current value of the continuous current through the circuit RC (rated current) is 160 A.



MOTOR PROTECTION IEC 60644

The first important criteria in fuse-link selection is the value and the duration of the INRUSH current of the motor. The fuse-link should stand this inrush current. In selecting the fuse-link from the time-current curves, the tolerance on current rates given in the standards should not be neglected ($\pm 20\%$ on current value). The second criteria is the frequency of starting the motor that can lead to the aging of the fuse-link, which in turn might result in changes in the characteristics of the fuse-link. Depending on the frequency of the starting time, the I_n value of the fuse link may be uprated. In selecting your fuse-link, please keep in mind following: Usually fuse-link+switch combinations are used for motor protection. If one of the fuse-links blow due to a fault, the striker pin starts the switch to break the current in three phases.

- The breaking capacity of the fuse-link should be higher than the short circuit load of the installation.

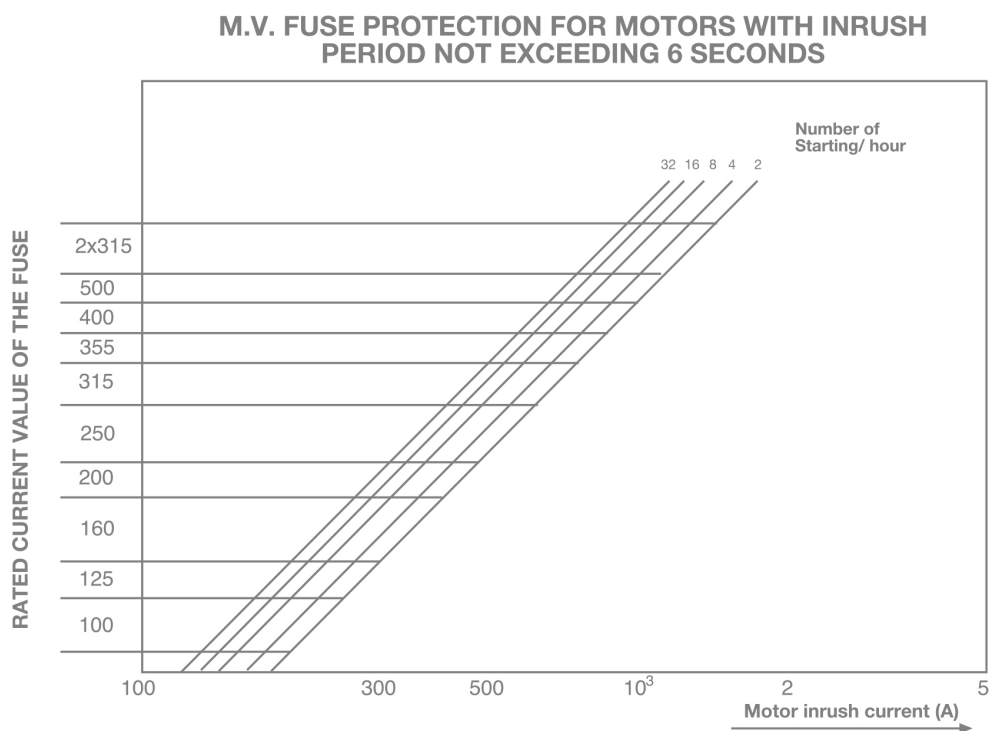
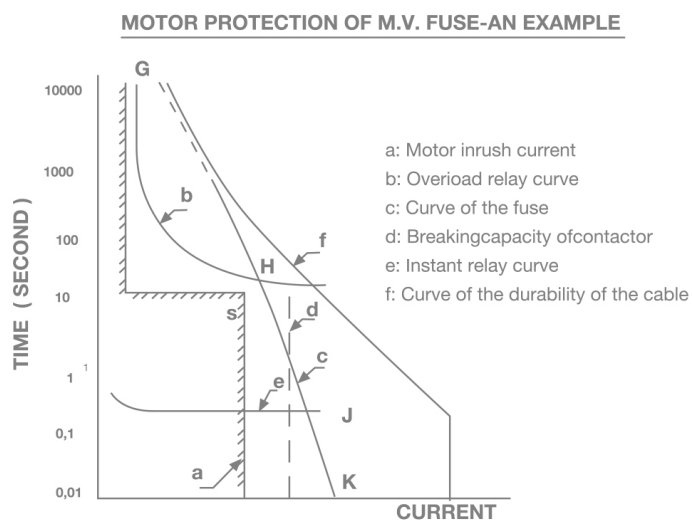
■ The I_n value of the fuse-link should be higher than the rated and overload current of the motor. Derating should be made according to the medium in, which the fuse-link will be used, which means the I_n value of the fuse-link should be increased accordingly.

■ The I_n value should be decided upon with an acceptable margin so that the fuse-link does not blow during starting current period.

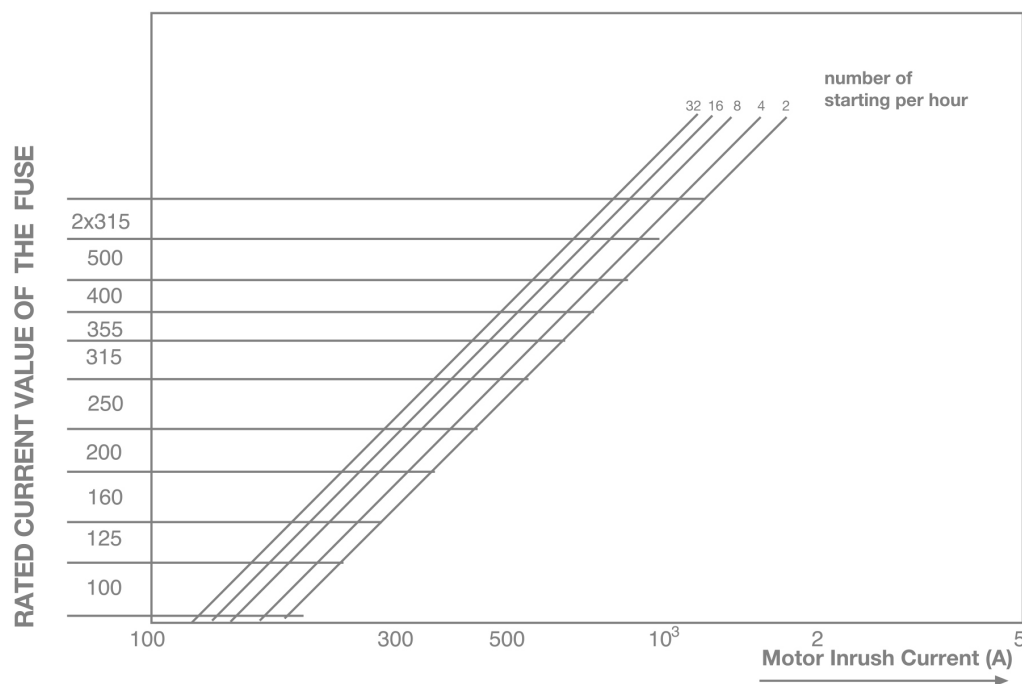
■ Depending on the number of starting/shutting of the motor, there will be material fatigue. I_n value should be increased accordingly.

■ The minimum breaking current (I_{min}) value of the fuse-link should be lower than the value of point H.

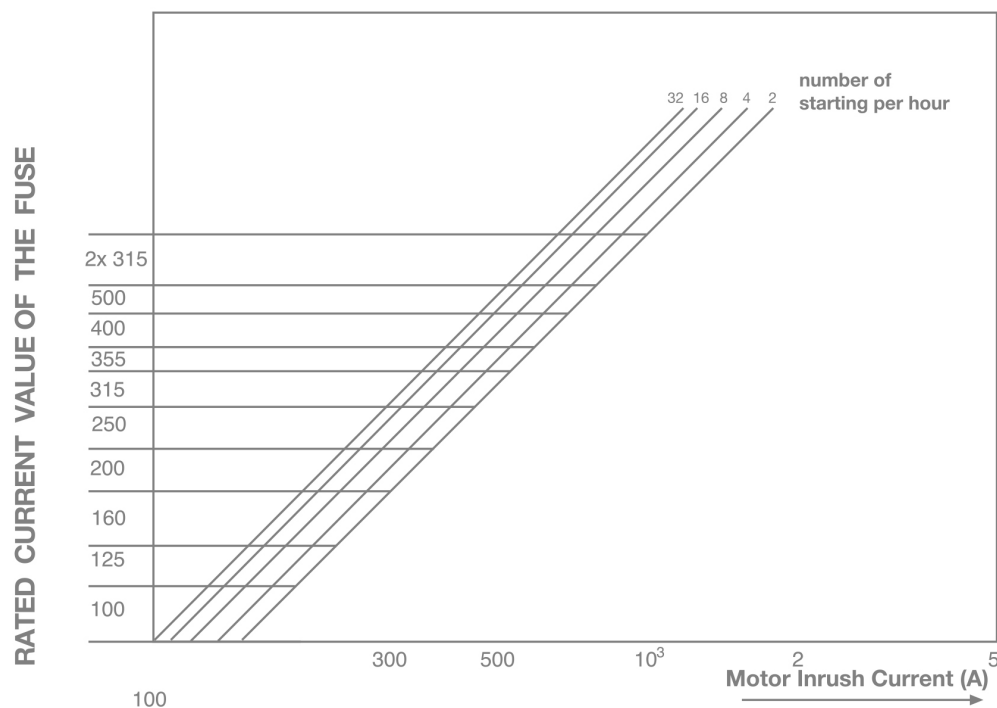
For the coordination between the fuse-link and the protection relay of the switch, and for all the above listed points, please use the following diagram.



MV FUSE PROTECTION FOR MOTORS WITH INRUSH PERIOD NOT EXCEEDING 15 SECONDS



MV FUSE PROTECTION FOR MOTORS WITH INRUSH PERIOD NOT EXCEEDING 30 SECONDS



FUSE-LINK PROTECTION OF TRANSFORMERS IEC 60787

All tests and applications indicate that, when chosen correctly, current limiting HV fuse-links effectively protect transformers by breaking fault currents.

Various criteria have to be observed in selecting HV HRC fuse-links for the short circuit protection of transformers. Here are some of them:

1- The rated current of the HV HRC fuse-link must not be less than a certain value in order not to cause operation of the fuse-link from the transformer inrush current after switching on.

2- The rated current of the fuse-link must be low enough so that the value of the current that may occur during a short-circuit on the low voltage side of the transformer (secondary bolted short circuit current) will not be less than I_{min} value of the fuse-link. This means that the fuse-link will perform its breaking function safely.

3- The rated current of the medium-voltage fuse-link must be sufficiently high to allow the overloading of the transformer and assure selectivity between the fuselinks on the low voltage side.

4- The rated current of the HV HRC fuse-link must be as low as possible so that the fuse-link can break the current quickly when a fault occurs in the transformer windings and assure the selectivity between the fuse-link and relay upstream.

Taking the above mentioned points into account, it is recommended to select the HV HRC fuse-links in accordance with the tables below.

Rated Voltage		$U_{IN} = 6/7,2 \text{ kV}$				$U_{2N} = 400V$	
Trans. Rated Power (kVA)	Transformer Rated Current		M.V. Fuse Rated Current		L.V. Fuse Rated Current		
	prim. (A)	sec. (A)	min. (A)	max. (A)	min. (A)	max. (A)	
25	2,4	36	6,3	6,3	31,5	40	
50	4,8	72	10	16	63	80	
75	7,2	108	16	25	100	125	
100	9,6	144	20	31,5	125	160	
125	12,0	180	25	40	160	200	
160	15,4	231	31,5	50	200	250	
200	19,2	290	40	63	250	315	
250	24,0	360	50	80	315	400	
315	30,3	455	63	100	400	500	
400	38,5	576	80	125	500	630	
500	48,1	720	100	160	630	720	
630	60,6	910	125	200	800	900	
800	77,0	1160	160	200	1000	1200	
1000	96,2	1440	200	200	1200	-	

Rated Voltage		$U_{IN} = 10/12 \text{ kV}$				$U_{2N} = 400V$	
Trans. Rated Power (kVA)	Transformer Rated Current		M.V. Fuse Rated Current		L.V. Fuse Rated Current		
	prim. (A)	sec. (A)	min. (A)	max. (A)	min. (A)	max. (A)	
25	1,45	36	4	6,3	31,5	40	
50	2,9	72	6,3	16	63	80	
75	4,3	108	10	16	100	125	
100	5,8	144	16	25	125	160	
125	7,2	180	16	25	160	200	
160	9,2	231	20	31,5	200	250	
200	11,5	290	25	31,5	250	315	
250	14,4	360	31,5	50	315	400	
315	18,2	455	40	63	400	500	
400	23,1	576	50	80	500	630	
500	28,9	720	63	100	630	720	
630	36,4	910	80	125	800	900	
800	46,2	1160	100	125	1000	1200	
1000	57,7	1440	125	160	1200	-	

Note: The following tables are only for reference. For proper fuse selection please contact us.

Trans. Rated Power (kVA)	Rated Voltage $U_{1N} = 15/17,5 \text{ kV}$ $U_{2N} = 400 \text{ V}$						Rated Voltage $U_{1N} = 20/24 \text{ kV}$ $U_{2N} = 400 \text{ V}$						Rated Voltage $U_{1N} = 30/36 \text{ kV}$ $U_{2N} = 400 \text{ V}$					
	Transformer Rated Current		M.V. Fuse Rated Current		L.V. Fuse Rated Current		Transformer Rated Current		M.V. Fuse Rated Current		L.V. Fuse Rated Current		Transformer Rated Current		M.V. Fuse Rated Current		L.V. Fuse Rated Current	
	prim. (A)	sec. (A)	min. (A)	max. (A)	min. (A)	max. (A)	prim. (A)	sec. (A)	min. (A)	max. (A)	min. (A)	max. (A)	prim. (A)	sec. (A)	min. (A)	max. (A)	min. (A)	max. (A)
25	0,95	36	4	6,3	31,5	40	0,7	36	4	6,3	31,5	40	0,5	36	2	6,3	31,5	40
50	1,9	72	6,3	10	63	80	1,4	72	6,3	6,3	63	80	1,0	72	4	6,3	63	80
75	3	108	10	10	100	125	2,2	108	6,3	6,3	100	125	1,5	108	6,3	6,3	100	125
100	4	144	10	16	125	160	2,9	144	10	10	125	160	1,9	144	6,3	6,3	125	160
125	4,8	180	16	20	160	200	3,6	180	10	16	160	200	2,4	180	6,3	10	160	200
160	6,1	231	16	25	200	250	4,6	231	16	20	200	250	3,1	231	10	16	200	250
200	7,7	290	20	25	250	315	5,8	290	16	20	250	315	3,8	290	10	16	250	315
250	9,6	360	25	25	315	400	7,2	360	20	25	315	400	4,8	360	16	20	315	400
315	12,1	455	25	31,5	400	500	9,1	455	20	25	400	500	6,1	455	16	25	400	500
400	15,3	576	25	31,5	500	630	11,5	576	25	40	500	630	7,7	576	16	25	500	630
500	19,7	720	31,5	40	630	720	14,4	720	31,5	50	630	720	9,6	720	25	31,5	630	720
630	24,9	910	40	50	800	900	18,2	910	40	63	800	900	12,1	910	31,5	40	800	900
800	30,8	1160	63	63	1000	1200	23,1	1160	50	63	1000	1200	15,4	1160	40	50	1000	1200
1000	38,6	1440	80	80	1200	-	28,9	1440	63	80	1200	-	19,2	1440	40	50	1200	-
1250	48,1	1800	100	100	-	-	36,1	1800	80	80	-	-	24	1800	50	63	-	-
1600	61,6	2304	125	125	-	-	46,2	2304	100	100	-	-	30,7	2304	63	80	-	-
2000	77,0	2880	160	160	-	-	57,8	2880	125	125	-	-	38,5	2880	2 x 50		-	-

FUSE PROTECTION OF CAPACITOR BANKS

The existence of numerous types of electrical facilities and unknown circuit parameters usually complicates fuse-link selection. When selecting, keep in mind the following criteria:

- The I_n value of the fuse-link should be high enough to withstand the continuous maximum load current and the allowable harmonic content.
- The I_n value of the fuse-link should be able to tolerate the inrush value of the capacitor bank.
- Transient voltages should not be neglected and for security purposes, fuses of higher voltage level should be selected.
- As for practical information, the I_n value of the fuse-link should not be lower than 2-2,5 times that of the capacitor bank full load current value.

CABLE AND OVERHEAD LINE PROTECTION

It should be noted that cables and overhead lines will be exposed to overloading from time to time. This situation may cause overloads between the I_n value and I_{min} value of the fuse-link, eventually causing extreme heating and damage. For this reason the fuse-link should be selected according to the maximum load that the cable or line can carry.

VOLTAGE TRANSFORMER PROTECTION

Because of the low capacity of voltage transformers, HV fuse-links cannot protect the voltage transformer from internal faults (inter turn) of PTs effectively. More often, they are used to isolate the defected voltage transformer from the system. The principle in selecting the fuse-link is to use a fuse-link that is big enough to withstand the inrush voltage of the transformer. This means that the fuse-link should be at the most $I_n=1-2$ A. The very thin fuse-element used in the fuse-links with low I_n values may lead to a “corona” effect. Therefore, the fuse-link should definitely be used as far away from earthed metal parts as possible.

OPERATIONAL RECOMMENDATIONS

- It is dangerous to use a fuse-link that has been dropped or exposed to any sort of impact without testing it.
- In a three – phase installation, unless you are definitely sure that only the blown fuse-link has been exposed to a faulty current, all three must be replaced, because the fuse-links that are not blown also might have reached a point very close to functioning and their characteristics might have changed.
- As a precaution, the blown fuse-link should be changed 5 – 10 minutes after it is blown.

INFORMATION NEEDED WHILE ORDERING

Type	: H220 – H221 (to be determined by Inter-Teknik as per criteria below)
Indicator	: OPT (Optical) or ACT (striker pin)
If ACT, the force of the striker pin	: F=50 N, F=80 N, F=120 N
Thermal protection	: TRM
Rated voltage (U_n) kV	: from the table at pages
Length (D) mm	: from the table at pages
Rated current (I_n) A	: from the table at pages

Example 1:

H220/ACT	F= 80 N
$U_n= 36$ kV	D= 537 mm
$I_n= 40$ A	$I_1= 40$ kA

Example 2:

H221/OPT	
$U_n=12$ kV	D=442 mm
$I_n= 160$ A	$I_1=63$ kA

Overview of Standard and Non-standard Dimensions of HV Back-up Fuse-links – Voltage Transformer Protection

Rated Voltage (kV)	Rated Current (In)(A)	Breaking Capacity (I1) (kA)	ØA (mm)	B (mm)	L (mm)
5,5	0,3	63	20	15	127
	0,5				
	1				
	2				
	3,15				
	4				
7,2/8,25	0,3	63	20	15	190
	0,5				
	1				
	2				
	3,15				
	4				
	0,3	63	20	15	254
	0,5				
	1				
	2				
	3,15				
	4				
12/15,5	0,3	63	25,4	31	142
	0,5				
	1				
	2				
	3,15				
	4				
	0,3	63	25,4	15	254
	0,5				
	1				
	2				
	3,15				
	4				
	0,3	63	20	15	275
	0,5				
	1				
	2				
	3,15				
	4				
17,5	0,3	63	20	32	220
	0,5				
	1				
	2				
	3,15				
	4				

Rated Voltage (kV)	Rated Current (In)(A)	Breaking Capacity (I1) (kA)	ØA (mm)	B (mm)	L (mm)
24/25,5	0,3	63	41	15	280
	0,5				
	1				
	2				
	3,15				
	4				
	0,3	63	22	15	340
	0,5				
	1				
	2				
	3,15				
	4				
36	0,3	63	20	15	276
	0,5				
	1				
	2				
	3,15				
	4				
	0,3	40	36	27	400
	0,5				
	1				
	2				
	3,15				
	4				
	0,3	40	41	32	439
	0,5				
	1				
	2				
	3,15				
	4				

Electrical characteristics as per IEC 60282-1

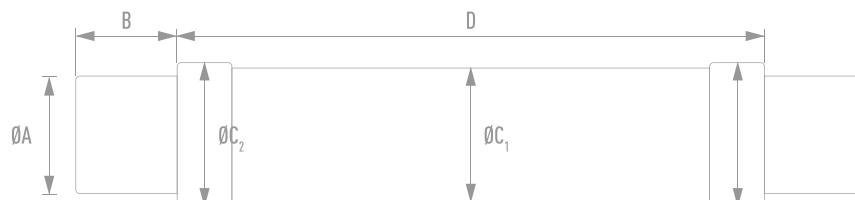


Please contact us for non-standard FUSE-LINKS with special technical specification

Overview of Standard and Non-standard Dimensions of HV Back-up Fuse-links – DIN Type

Rated Current (A)																						
Rated Voltage	Body Length "D" (mm)	1	2	4	6.3	10	16	20	25	31,5	40	50	63	80	100	125	160	200	250	315		
36kV	537	537 x Ø53										537 x Ø68	537 x Ø68									
36kV	442	442 x Ø53						442 x Ø68			442 x Ø68											
36kV	367	367 x Ø53						367 x Ø86														
36kV	292	292 x Ø53			292 x Ø68			292 x Ø68														
24kV	442	442 x Ø53										442 x Ø68		442 x Ø68								
24kV	537	537 x Ø53										537 x Ø86				537 x Ø86						
24kV	367	367 x Ø53						367 x Ø68				367 x Ø68										
24kV	292	292 x Ø53						292 x Ø53			292 x Ø68											
24kV	192	192 x Ø53			192 x Ø68																	
17.5kV	367	367 x Ø53										367 x Ø68			367 x Ø68							
17.5kV	537	537 x Ø53										537 x Ø68			537 x Ø86							
17.5kV	442	442 x Ø53										442 x Ø68			442 x Ø86							
17.5kV	292	292 x Ø53								292 x Ø68			292 x Ø86									
17.5kV	192	192 x Ø53					192 x Ø68			192 x Ø86												
12kV	292	292 x Ø53										292 x Ø68			292 x Ø86							
12kV	537	537 x Ø53										537 x Ø68			537 x Ø86							
12kV	442	442 x Ø53										442 x Ø68			442 x Ø86							
12kV	367	367 x Ø53										367 x Ø68			367 x Ø86							
12kV	192	192 x Ø53							192 x Ø68				192 x Ø86									
7.2kV	192	192 x Ø53										192 x Ø68			192 x Ø68							
7.2kV	537	537 x Ø53										537 x Ø68			537 x Ø86							
7.2kV	442	442 x Ø53										442 x Ø68			442 x Ø86							
7.2kV	367	367 x Ø53										367 x Ø68			367 x Ø86							
7.2kV	292	292 x Ø53										292 x Ø68			292 x Ø86							

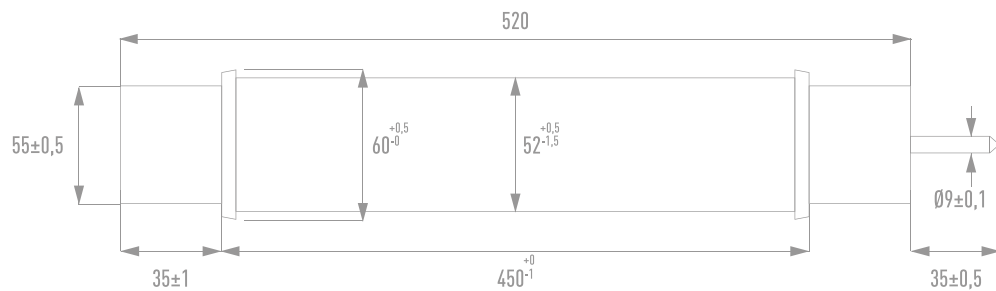
IEC 60282-1
DIN 43625
VDE 0670-4
VDE 0670-T402



Overview of Standard Dimensions of HV Back-up Fuse-links – UTE Type

Rated Voltage	Body Length "D" (mm)	Rated Current (A)												
		1	2	4	6.3	10	16	20	25	31,5	40	50	63	80
36kV	520	520 x Ø52												
24kV	520	520 x Ø52												
17.5kV	520	520 x Ø52												
12kV	520	520 x Ø52												
7.2kV	520	520 x Ø52												

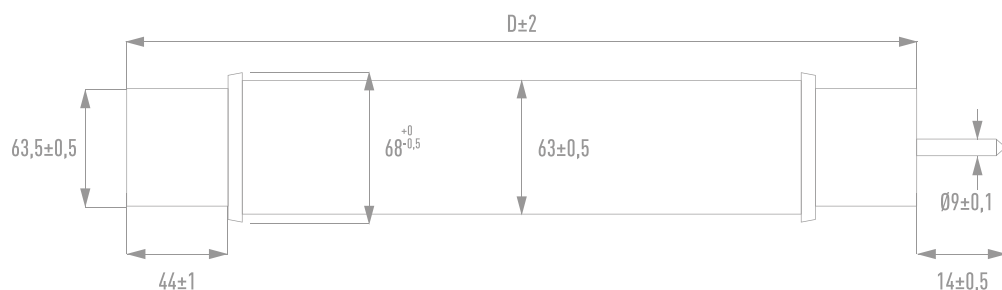
IEC 60282-1
UTE C64-10



Overview of Standard Dimensions of HV Back-up Fuse-links – BS Type

	Rated Current (A)															
Rated Voltage	Body Length "D" (mm)	1	2	4	6.3	10	16	20	25	31,5	40	50	63	80	100	
24kV	359	359 x Ø63														
12kV	254	254 x Ø63														
12kV	359	359 x Ø63														
7.2kV	254	254 x Ø63														
7.2kV	359	359 x Ø63														

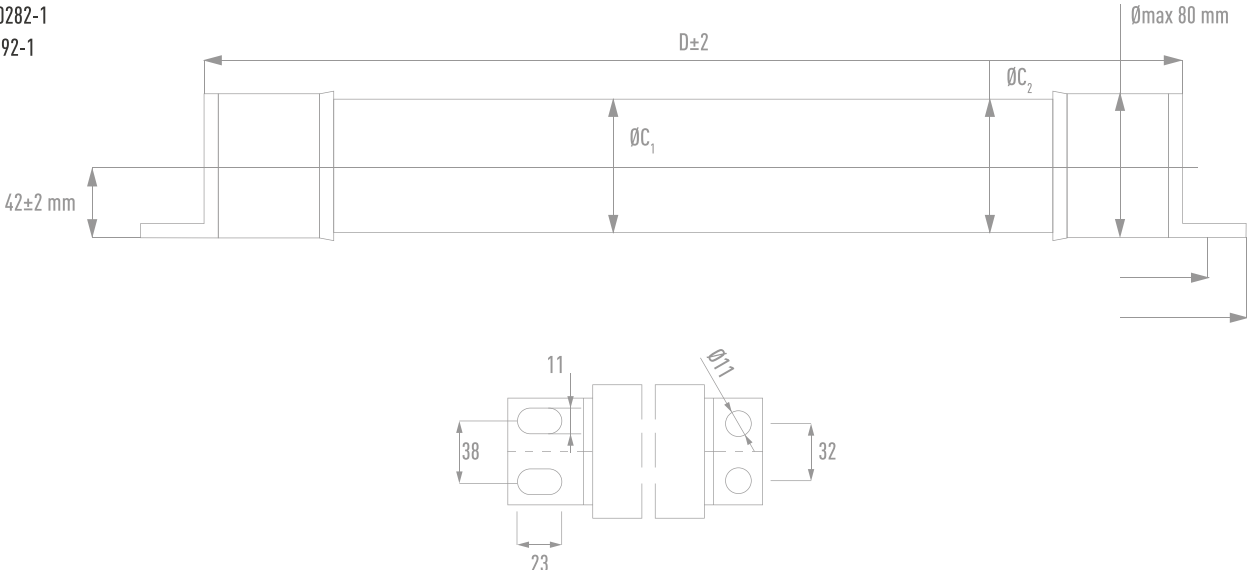
IEC 60282-1
BS 2692-1



Oil-tight version is available upon request

	Rated Current (A)																
Rated Voltage	Body Length "D" (mm)	1	2	4	6.3	10	16	20	25	31,5	40	50	63	80	100	125	
36kV	359	359 x Ø76															
24kV	359	359 x Ø76															
12kV	254	254 x Ø76															
12kV	359	359 x Ø76															
7.2kV	254	254 x Ø76															
7.2kV	359	359 x Ø76															

IEC 60282-1
BS 2692-1



www.inter-teknik.com.tr

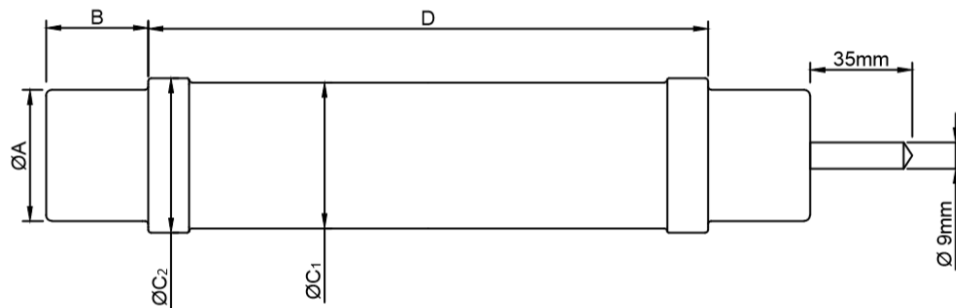
Headquarter

Kemankeş Cad. Fransız Geçidi
İş Merkezi No:53 Kat:1C Blok D:16
Karaköy, Beyoğlu / İstanbul-TR
T +90 212 249 84 58 / 244 32 49

Factory

Şekerpınar Mah. Marmara Geri
Dönüşümcüler Yapı Koop.
Defne Sok. No:3 Çayırova / Kocaeli –TR
T +90 262 658 93 11

	With Trip-activated Striker Pin	With Thermally-activated Striker Pin
Item Code	S4A3160.08	S4T3160.08
Description	$U_n=17,5\text{kV}$, $I_n=160\text{A}$, $I_{RC}=112\text{A}$ D=367mm	
Application	Indoor & Outdoor	
Standards	IEC 60282-1, DIN 43625, VDE0670-4	

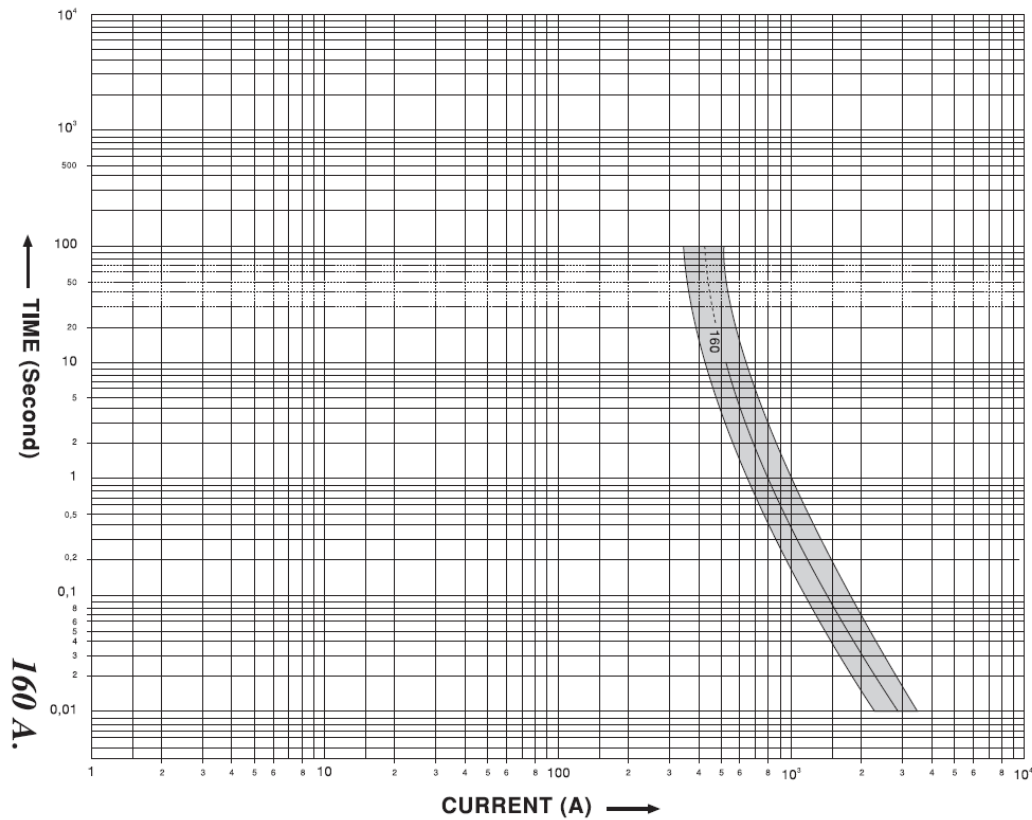


MECHANICAL CHARACTERISTICS						
ØA (±1)	B (+2, -0)	D (+0, -1)	ØC ₁ (±2)	ØC ₂ (±2)	Striker Force*	Weight
mm	mm	mm	mm	mm	N	kg
45	33	367	86	86	80	5

ELECTRICAL CHARACTERISTICS						
Rated Voltage (U_n)	Rated Current (I_n)	Rated Breaking Current (I_1)	Rated Frequency (f)	Minimum Breaking Current (I_3)	Cold Resistance (R) (±10%) (20°C)	Power Loss
kV	A	kA	Hz	A	mΩ	W
17,5	160 _{RC112}	63	50	640	5,75	112

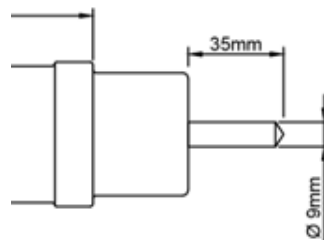
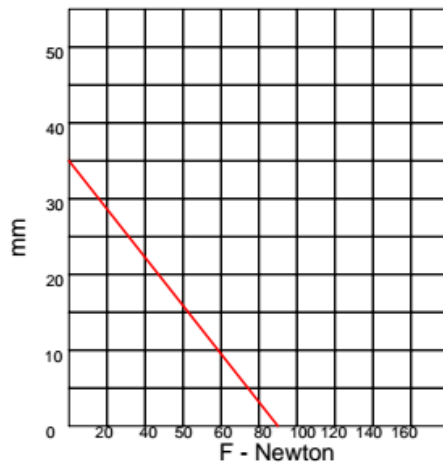
*Different striker pin types and forces are available upon request. Please refer to 2nd page for selection.

Time – Current Curve



Striker Pin Information

Travel – Force Diagram:



Striker Pin: 80N Force, medium class as per IEC 60282-1

Type and Force Selection:

S4□3160.□□

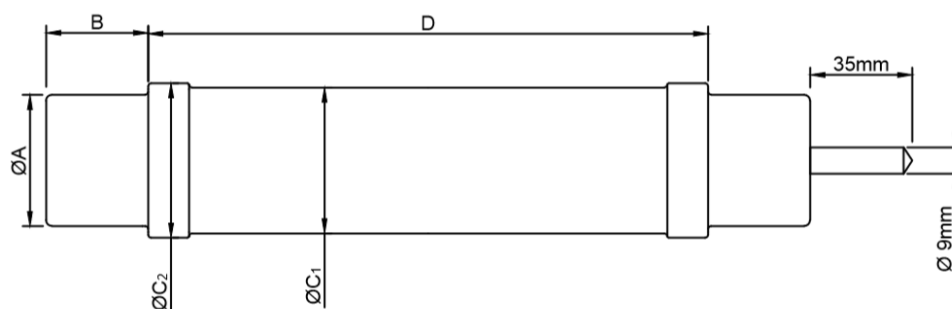
Striker Type:

A: Operates when fuse breaks the current
T: Thermally activated (F=80N only)
O: Optical indication
Z: Without striker

Striker Force:

05: F=50N
08: F=80N
12: F=120N
Not used if Striker Type digit is "O" or "Z"

	With Trip-activated Striker Pin	With Thermally-activated Striker Pin
Item Code	S4A5160.08	S4T5160.08
Description	$U_n=36\text{kV}$, $I_n=160\text{A}$, $I_{RC}=112\text{A}$, $D=537\text{mm}$	
Application	Indoor & Outdoor	
Standards	IEC 60282-1, DIN 43625, VDE0670-4	

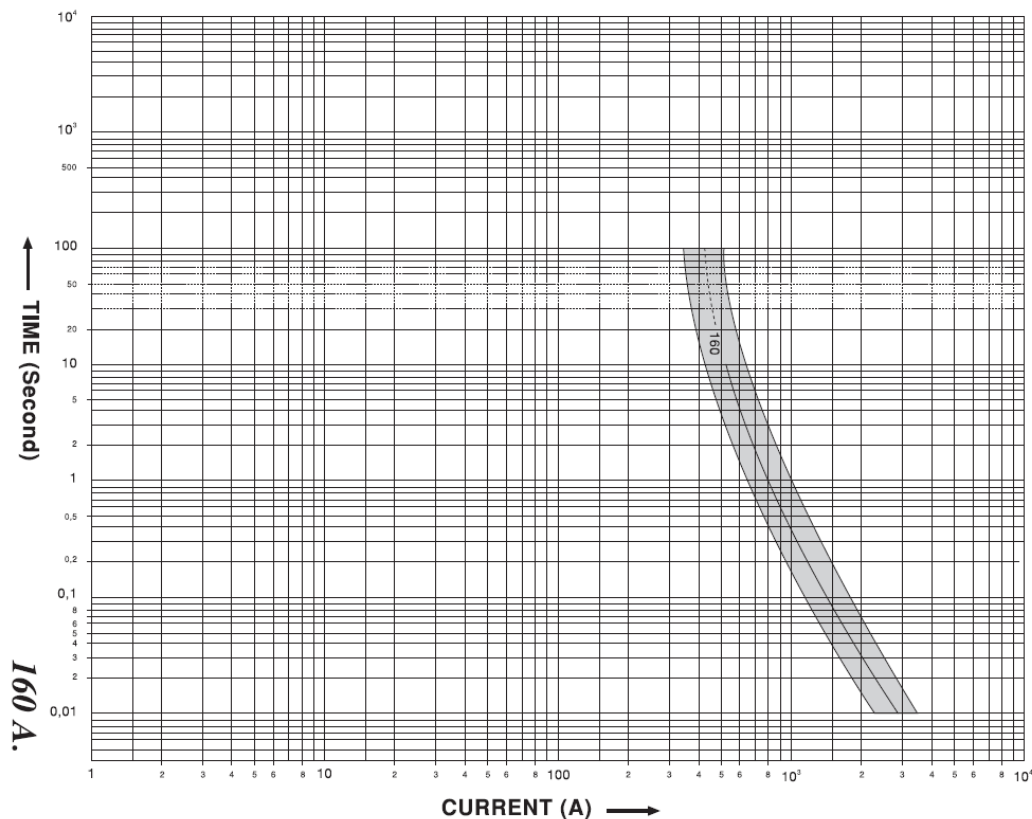


MECHANICAL CHARACTERISTICS						
$\varnothing A$ (± 1)	B (+2, -0)	D (+0, -1)	$\varnothing C_1$ (± 2)	$\varnothing C_2$ (± 2)	Striker Force*	Weight
mm	mm	mm	mm	mm	N	kg
45	33	537	86	86	80	7

ELECTRICAL CHARACTERISTICS						
Rated Voltage (U_n)	Rated Current (I_n)	Rated Breaking Current (I_1)	Rated Frequency (f)	Minimum Breaking Current (I_3)	Cold Resistance (R) ($\pm 10\%$) (20°C)	Power Loss
kV	A	kA	Hz	A	m Ω	W
36	160 _{RC112}	25	60	640	11,8	230

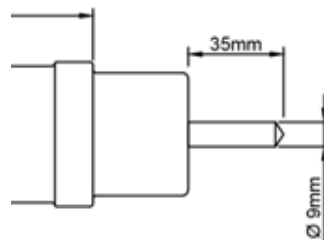
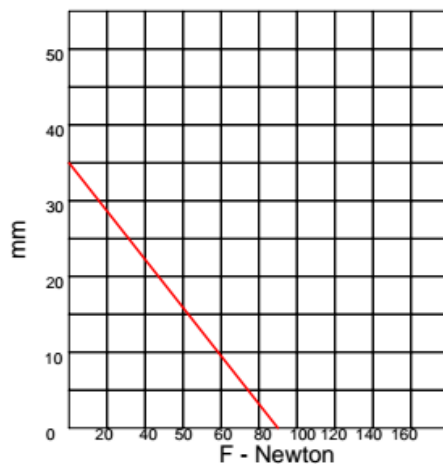
*Different striker pin types and forces are available upon request. Please refer to 2nd page for selection.

Time – Current Curve



Striker Pin Information

Travel – Force Diagram:



Striker Pin: 80N Force, medium class as per IEC 60282-1

Type and Force Selection:

S4□5160.□□

Striker Type:

A: Operates when fuse breaks the current
T: Thermally activated (F=80N only)
O: Optical indication
Z: Without striker

Striker Force:

05: F=50N
08: F=80N
12: F=120N
Not used if Striker Type digit is "O" or "Z"



NH a coltello NH blade type

Fusibili NH a coltello - tipo gG <i>NH blade type fuses - gG type</i>	90
Fusibili NH a coltello - tipo aM <i>NH blade type fuses - aM type</i>	94
Fusibili NH a coltello - tipo extrarapido gR/aR <i>NH blade type fuses - ultra-quick gR/aR type</i>	96
Basi portafusibili per fusibili NH a coltello <i>Fuse bases for NH blade type fuses</i>	100
Accessori per basi portafusibili <i>Accessories for fuse bases</i>	101
Portafusibili sezionabili per fusibili NH a coltello <i>Fuse switch disconnectors for NH blade type fuses</i>	102
Dimensioni e caratteristiche tecniche <i>Dimensions and technical specifications</i>	104

EXCLUSIVELY DISTRIBUTED BY:



L4 B3 Marvex Legacy Homes, Marvex
Drive cor. A. Bonifacio, Quezon City
Phone Nos: +63 2 3734453 | 3735336
Email: info@montrelec.com.ph
Website: www.montrelec.com.ph

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "NH"- "NH/I" - TIPO gG

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "NH"- "NH/I" - gG TYPE

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, VDE 0636, DIN 43620

I fusibili industriali NH di tipo gG sono normalmente utilizzati per la protezione di cavi, linee elettriche e apparecchiature contro i sovraccarichi ed i cortocircuiti. I fusibili NH Kombi sono dotati di un doppio dispositivo di segnalazione dell'intervento, uno dei quali è posto nella parte centrale del fusibile, mentre l'altro è posto nella parte superiore. Quest'ultimo dispositivo può essere associato ad un microinterruttore per ottenere una segnalazione a distanza dell'avvenuto intervento. I fusibili NH/I garantiscono una protezione aggiuntiva dai contatti accidentali perché sono realizzati ponendo delle placche plastiche isolanti nei pressi delle lame del fusibile.

The NH industrial fuses type gG are normally used to protect cables, electrical lines and equipments against overloads and short circuits. The NH Kombi fuses are equipped with two blown fuse indicators, one of which is placed in the central part of the fuse, while the other is placed in the upper part. The latter device may be associated with a microswitch to obtain a remote signaling of the fuse operation. The series NH/I fuses provide additional protection against accidental contacts because they are made by placing an insulating plastic plate in proximity of the blades of the fuse.



Fusibile NH-00C/I gG Kombi
con placche isolate
NH-00C/I gG Kombi fuse
with insulated gripping-lugs



Fusibile NH-00C gG Kombi
standard
NH-00C gG Kombi fuse
standard



Fusibile NH-1C gG Kombi
standard
NH-1C gG Kombi fuse
standard

FUSIBILI NH KOMBI E NH/I 500V - TIPO gG NH KOMBI AND NH/I 500V FUSES - gG TYPE

grandezza size	codice IW - IW code		I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
	NH standard ⁽¹⁾	NH/I con placche isolate ⁽¹⁾⁽⁴⁾ NH/I with insulated gripping-lugs ⁽¹⁾			
NH-00C	1500602	—	2A	500V	3-120
	1500604	—	4A	500V	3-120
	1500606	1500806	6A	500V	3-120
	1500610	1500810	10A	500V	3-120
	1500616	1500816	16A	500V	3-120
	1500620	1500820	20A	500V	3-120
	1500625	1500825	25A	500V	3-120
	1500632	—	32A	500V	3-120
	1500635	1500835	35A	500V	3-120
	1500640	1500840	40A	500V	3-120
	1500650	1500850	50A	500V	3-120
	1500663	1500863	63A	500V	3-120
	1500680	1500880	80A	500V	3-120
	1500690	1500900	100A	500V	3-120
NH-00	1500125	1500925	125A	500V	3-90
	1500160	1500960	160A	500V	3-90
NH-0	1505006	—	6A	500V	3-45
	1505010	—	10A	500V	3-45
	1505016	—	16A	500V	3-45
	1505020	—	20A	500V	3-45
	1505025	—	25A	500V	3-45
	1505036	—	35A	500V	3-45
	1505040	—	40A	500V	3-45
	1505050	—	50A	500V	3-45
	1505063	—	63A	500V	3-45
	1505080	—	80A	500V	3-45
	1505100	—	100A	500V	3-45
	1505125	—	125A	500V	3-45
	1505160	—	160A	500V	3-45
NH-1C	1510040	1510840 ⁽²⁾	40A	500V	3-45
	1510050	1510850 ⁽²⁾	50A	500V	3-45
	1510063	1510863 ⁽²⁾	63A	500V	3-45
	1510080	1510880 ⁽²⁾	80A	500V	3-45
	1510100	1510900 ⁽²⁾	100A	500V	3-45
	1510125	1510905 ⁽²⁾	125A	500V	3-45
NH-1	1510160	1510906 ⁽²⁾	160A	500V	3-45
	1510200	1510907	200A	500V	3-24
NH-2C	1510250	1510908	250A	500V	3-24
	1520080	—	80A	500V	3-15
NH-2	1520100	1520900 ⁽²⁾	100A	500V	3-15
	1520125	1520905 ⁽²⁾	125A	500V	3-15
	1520160	1520906 ⁽²⁾	160A	500V	3-15
	1520200	1520910 ⁽²⁾	200A	500V	3-15
	1520250	1520915 ⁽²⁾	250A	500V	3-15
NH-3C	1520315	1520920	315A	500V	3-15
	1520355	1520925	355A	500V	3-15
	1520400	1520930	400A	500V	3-15
NH-3	1530315	1530920 ⁽²⁾	315A	500V	3-12
	1530400	1530930 ⁽²⁾	400A	500V	3-12
	1530500	1530950	500A	500V	3-12
NH-3	1530630	1530963	630A	500V	3-12
	1563800 ⁽³⁾⁽⁵⁾	—	800A	500V	3-12

- (1) Esecuzione Kombi con doppio indicatore; nella versione standard l'indicatore superiore può azionare un microinterruttore codice IW 2699804.
(2) Esecuzione non compatta
(3) Esecuzione con solo indicatore superiore
(4) Il microinterruttore non è utilizzabile
(5) Portata non normalizzata

- (1) Kombi version with dual indicator; the upper indicator in standard version may operate a microswitch IW code 2699804.
(2) Non compact version
(3) Version with upper indicator only
(4) Microswitch not available
(5) Non standardized current

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "NH"- "NH/CP"- "NH/CP-S" - TIPO gG

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "NH"- "NH/CP"- "NH/CP-S" - gG TYPE

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, VDE 0636, DIN 43620

I fusibili industriali NH di tipo gG sono utilizzati per la protezione di cavi, linee elettriche e apparecchiature contro sovraccarichi e cortocircuiti. I fusibili delle serie NH/CP e NH/CP-S sono equipaggiati con un percussore, che fuoriesce all'atto della fusione del fusibile, e può essere utilizzato insieme a un microinterruttore per la segnalazione a distanza dell'avvenuto intervento. In particolare i fusibili della serie NH/CP vanno utilizzati con apposite basi del tipo "aperto" con microinterruttore già montato a bordo, mentre i fusibili della serie NH/CP-S vanno utilizzati all'interno dei sezionatori della serie LTS/S, a cui va aggiunto il microinterruttore per la segnalazione a distanza dell'intervento.

The industrial NH fuses type gG are used to protect cables, electrical lines and equipment against overloads and short circuits. The fuses of the series NH/CP and NH/CP-S are equipped with a striker, which activates during the melting of the fuse, and can be used with a microswitch for remote signaling of the fuse operation. The fuses NH/CP must be used with appropriate bases of the classic "open" type, in which the microswitch is already mounted on board, while the fuses NH/CP-S must be used within the switch disconnectors of the LTS/S series, in which must be added a microswitch for remote signaling of the fuse operation.



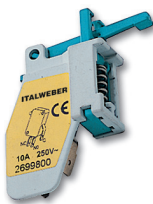
Fusibile NH-0 gG
standard 690V
Standard NH-0 gG
690V fuse



Fusibile NH-2 gG
standard 690V
Standard NH-2 gG
690V fuse



Fusibile NH-2/CP gG
con percussore
NH-2/CP gG fuse
with striker



Microinterruttore
1NA + 1NC
Microswitch
1NO + 1NC

FUSIBILI NH, NH/CP E NH/CP-S 690V - TIPO gG NH, NH/CP AND NH/CP-S 690V FUSES - gG TYPE

grandezza size	codice IW - IW code			I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
	NH ⁽¹⁾ standard	NH/CP ⁽²⁾ con percussore NH/CP ⁽²⁾ with striker	NH/CP-S ⁽³⁾ con percussore NH/CP-S ⁽³⁾ with striker			
	NH ⁽¹⁾ standard	NH/CP ⁽²⁾ with striker	NH/CP-S ⁽³⁾ with striker			
NH-00C	1600506	—	1570006S	6A	690V	3
	1600510	—	1570010S	10A	690V	3
	1600516	—	1570016S	16A	690V	3
	1600520	—	1570020S	20A	690V	3
	1600525	—	1570025S	25A	690V	3
	1600532	—	1570032S	32A	690V	3
	1600535	—	1570035S	35A	690V	3
	1600540	—	1570040S	40A	690V	3
	1600550	—	—	50A	690V	3
	—	—	1570050S	50A	690V	3
NH-00	1600563	—	1570063S	63A	690V	3
	1600580	—	1570080S	80A	690V	3
	1600600	—	1570100S	100A	690V	3
	1600625	—	—	125A	690V	3
	1600660	—	—	160A	690V	3
	—	—	—	—	—	—
NH-0	1605006	—	—	6A	690V	3
	1605010	—	—	10A	690V	3
	1605016	—	—	16A	690V	3
	1605020	—	—	20A	690V	3
	1605025	—	—	25A	690V	3
	1605036	—	—	35A	690V	3
	1605040	—	—	40A	690V	3
	1605050	—	—	50A	690V	3
	1605063	—	—	63A	690V	3
	1605080	—	—	80A	690V	3
	1605100	—	—	100A	690V	3
	1605125	—	—	125A	690V	3
	—	—	—	—	—	—
	—	—	—	—	—	—
NH-1	1610040	—	—	40A	690V	3
	1610050	—	1579050S	50A	690V	3
	1610063	—	1579063S	63A	690V	3
	1610080	1579080	1579080S	80A	690V	3
	1610100	1579100	1579100S	100A	690V	3
	1610125	1579125	1579125S	125A	690V	3
	1610160	1579160	1579160S	160A	690V	3
	1610200	1579200	1579200S	200A	690V	3
	1610250	1579250 ⁽⁴⁾	1579250S	250A	690V	3
	1620100	—	1572100S	100A	690V	3
NH-2	1620125	1572125	1572125S	125A	690V	3
	1620160	1572160	1572160S	160A	690V	3
	1620200	1572200	1572200S	200A	690V	3
	1620250	1572250	1572250S	250A	690V	3
	1620315	1572315	1572315S	315A	690V	3
	—	1572355 ⁽⁴⁾	—	355A	690V	3
	1620400	1572400 ⁽⁴⁾	1572400S	400A	690V	3
	1630315	1573315	1573315S	315A	690V	3
	—	1573355	—	355A	690V	3
	—	—	—	—	—	—
NH-3	1630400	1573400	1573400S	400A	690V	3
	1630500	1573500	1573500S	500A	690V	3
	1630630	1573630 ⁽⁴⁾	1573630S	630A	690V	3

- (1) Un dispositivo di segnalazione permette di azionare un microinterruttore (opzionale). Per ordinare codice IW 2699800 (grandezze 00-0-1-2-3), codice IW 2699802 (grandezza 2C-3C)
- (2) Da utilizzare con basi complete di microinterruttore - Vedere pag. 100
- (3) Da utilizzare con sezionatori LTS/S - Vedere pag. 103
- (4) Esecuzione a 500V

- (1) A blown fuse indicator device is used to activate a microswitch (optional). Order codes: IW code 2699800 (sizes 00-0-1-2-3), IW code 2699802 (sizes 2C-3C).
- (2) To be used with bases complete with microswitch - See page 100
- (3) To be used with disconnector LTS/S - See page 103
- (4) 500V version

NH COLTELLO
NH BLADE

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "NH-4"- "NH-4a"- "NH-1 1000V" - TIPO gG

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "NH-4"- "NH-4a"- "NH-1 1000V" - gG TYPE

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, VDE 0636, DIN 43620

I fusibili industriali NH di tipo gG sono utilizzati per la protezione di cavi, linee elettriche e apparecchiature contro i sovraccarichi ed i cortocircuiti. A differenza delle altre grandezze dei fusibili NH, i fusibili aventi grandezza NH-4 presentano le lame asolate, e vanno quindi fissati mediante bulloni, utilizzando le apposite basi aperte di grandezza NH-4. Invece, i fusibili della grandezza NH-4a, compresa la serie NH/CP-S dotata di percussore, vanno utilizzati all'interno degli appositi portafusibili sezionabili della serie LTS/S. I fusibili gG con tensione nominale di 1000V presentano una lunghezza particolare e vanno utilizzati solo con la relativa base portafusibili.

The industrial NH fuses type gG are normally used to protect cables, electrical lines and equipment against overloads and short circuits. Unlike other sizes of NH fuses, the fuses size NH-4 have the blades that present holes, and must therefore be fixed by means of bolts, using the appropriate classic base of size NH-4. Instead, the fuses of size NH-4a, including the series NH/CP-S equipped with a striker, must be used within the appropriate switch disconnectors of the LTS/S series. The gG fuses with rated voltage of 1000V have a particular length and must only be used with the corresponding PK/1000 fuse base.



Fusibile NH-4 gG
NH-4 gG fuse

FUSIBILI NH-4 500V - TIPO gG NH-4 500V FUSES - gG TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NH-4	1541630	630A	500V	1-12
	1541700	700A	500V	1-12
	1541800	800A	500V	1-12
	1541899	1000A	500V	1-12
	1541999	1250A	500V	1-12



Fusibile NH-4a gG 500V
NH-4a gG 500V fuse

FUSIBILI NH-4a 500V - TIPO gG NH-4a 500V FUSES - gG TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NH-4a	1542630	630A	500V	1
	1542700	700A	500V	1
	1542800	800A	500V	1
	1542900	900A	500V	1
	1542910	1000A	500V	1
	1542920	1250A	500V	1
	1542930	1600A	500V	1

Da utilizzare con portafusibili sezionabili tipo LTS/S NH-4a (vedi pag. 103)

To the used with fuseholder LTS/S, NH-4a (see pag. 103)



Fusibile NH-4a gG 690V
NH-4a gG 690V fuse

FUSIBILI NH-4a 690V - TIPO gG NH-4a 690V FUSES - gG TYPE

grandezza size	codice IW - IW code		I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
	NH standard	NH/CP-S con percussore NH/CP-S with striker			
NH-4a	1542630P	1574630S	630A	690V	1
	1542700P	-	700A	690V	1
	1542800P	1574800S	800A	690V	1
	1542900P	-	900A	690V	1
	1542910P	1574910S	1000A	690V	1
	1542920P	1574920S	1250A	690V	1

Da utilizzare con portafusibili sezionabili tipo LTS/S NH-4a (vedi pag. 103)

To the used with fuseholder LTS/S, NH-4a (see pag. 103)



Fusibile NH-1 1000V
NH-1 1000V fuse

FUSIBILI NH-1 1000V - TIPO gG NH-1 1000V FUSES - gG TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NH-1	1561310	10A	1000V	3
	1561316	16A	1000V	3
	1561325	25A	1000V	3
	1561335	35A	1000V	3
	1561350	50A	1000V	3
	1561363	63A	1000V	3
	1561380	80A	1000V	3
	1561400	100A	1000V	3
	1561425	125A	1000V	3
	1561460	160A	1000V	3
	1561500	200A	1000V	3

Fusibile da utilizzare con base PK-1/1000 (vedi pag. 100)

Fuses to be used with PK-1/1000 fusebase (see page 100)

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "NHL"- "NH 1200V" - TIPO gG

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "NHL"- "NH 1200V" - gG TYPE

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, VDE 0636, DIN 43620

I fusibili industriali NH di tipo gG sono normalmente utilizzati per la protezione di cavi, linee elettriche e apparecchiature contro i sovraccarichi ed i cortocircuiti. I fusibili della serie NHL sono speciali, in quanto presentano le lame asolate e sono quindi da fissare mediante bulloni. Il loro interasse di fissaggio è di 110 mm, e sono conformi alle tabelle Enel. I fusibili gG con tensione nominale di 1200V AC sono utilizzati per applicazioni speciali. Anche le loro dimensioni sono particolari, e pertanto essi vanno utilizzati in combinazione con le basi portafusibili presenti a pagina 249.

The industrial NH fuses type gG are normally used to protect cables, electrical lines and equipments against overloads and short circuits. The NHL series fuses are special, because the blades are slotted and they are therefore to be fixed by means of bolts. Their fixing center distance is 110 mm, and they are in accordance with the Enel specifications. The gG fuses with rated voltage of 1200V AC are used for special applications. Also their dimensions are special, and therefore they should be used in combination with the fuse bases present on page 249.



Fusibile NHL
NHL fuse

FUSIBILI NHL 500V - TIPO gG NHL 500V FUSES - gG TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NHL-1	1561025/L	25A	500V	3
	1561036/L	36A	500V	3
	1561040/L	40A	500V	3
	1561050/L	50A	500V	3
	1561063/L	63A	500V	3
	1561080/L	80A	500V	3
	1561100/L	100A	500V	3
	1561125/L	125A	500V	3
	1561160/L	160A	500V	3
	1561200/L	200A	500V	3
NHL-2	1561250/L	250A	500V	3
	1562100/L	100A	500V	3
	1562125/L	125A	500V	3
	1562160/L	160A	500V	3
	1562200/L	200A	500V	3
	1562250/L	250A	500V	3
	1562315/L	315A	500V	3
	1562355/L	355A	500V	3
	1562400/L	400A	500V	3



Fusibile NH 1200V
NH 1200V fuse

FUSIBILI NH 1200V - TIPO gG NH 1200V FUSES - gG TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NH-1XL	1634006	6A	1200V	1
	1634010	10A	1200V	1
	1634016	16A	1200V	1
	1634020	20A	1200V	1
	1634025	25A	1200V	1
	1634032	32A	1200V	1
	1634040	40A	1200V	1
	1634050	50A	1200V	1
	1634063	63A	1200V	1
	1634080	80A	1200V	1
	1634100	100A	1200V	1
	1634125	125A	1200V	1
	1634160	160A	1200V	1
NH-2XL	1634200	200A	1200V	1
	1634250	250A	1200V	1
	1634315	315A	1200V	1
NH-3L	1634355	355A	1200V	1
	1634400	400A	1200V	1
	1634500	500A	1200V	1
	1634630	630A	1200V	1

NH COLTELLO
NH BLADE

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "NH"- "NH/CP"- "NH/CP-S" - TIPO aM

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 SERIES "NH"- "NH/CP"- "NH/CP-S" - aM TYPE

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, VDE 0636, DIN 43620

I fusibili NH aM sono utilizzati per proteggere motori, trasformatori e apparecchiature con spunto di corrente all'avvio. Essi proteggono solo dai cortocircuiti e vanno abbinati a dispositivi per la protezione dai sovraccarichi. I fusibili NH/CP e NH/CP-S dispongono di un percussore che fuoriesce all'atto della fusione del fusibile e può essere utilizzato con un microinterruttore per segnalare a distanza l'avvenuto intervento. I fusibili NH/CP vanno usati con basi aperte con microinterruttore già montato a bordo (vedi pag. 100), mentre i fusibili NH/CP-S vanno usati nei sezionatori LTS/S (vedi pag. 103), a cui va aggiunto il microinterruttore per la segnalazione a distanza dell'intervento.

The aM NH fuses are used for protecting motors, transformers and equipments with a current peak at startup. They are used for protection against short circuits and must be used with other devices for overload protection. The fuses NH/CP and NH/CP-S are equipped with a striker which comes out during the fuse operation, and can be used with a micro for remote signalization. The fuses NH/CP should be used with a base with a micro mounted on board (see page 100), while the fuses NH/CP-S must be used with switch disconnectors LTS/S (see page 103), to which must be added the micro for remote signalization.



Fusibile NH-00C aM
standard
NH-00C aM standard fuse



Fusibile NH-1C aM
standard
NH-1C aM
standard fuse



Fusibile NH-2/CP aM
con percussore
NH-2/CP aM fuse
with striker

FUSIBILI NH, NH/CP E NH/CP-S - TIPO aM NH, NH/CP AND NH/CP-S FUSES - aM TYPE

grandezza size	codice IW - IW code			I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
	NH ⁽¹⁾ standard NH ⁽¹⁾ standard	NH/CP con percussore NH/CP with striker	NH/CP-S ⁽³⁾ con percussore NH/CP-S ⁽³⁾ with striker			
NH-00C	1602006	—	1590006S	6A	690V	3-120
	1602010	—	1590010S	10A	690V	3-120
	1602016	—	1590016S	16A	690V	3-120
	1602020	—	1590020S	20A	690V	3-120
	1602025	—	1590025S	25A	690V	3-120
	1602035	—	1590035S	35A	690V	3-120
	1602040	—	1590040S	40A	690V	3-120
	1602050	—	1590050S	50A	690V	3-120
	1602063	—	1590063S	63A	690V	3-120
	1602080	—	1590080S ⁽²⁾	80A	500V	3-120
NH-00	1602100	—	1590100S ⁽²⁾	100A	500V	3-120
	1602125	—	—	125A	500V	3-60
NH-0	1602160	—	—	160A	500V	3-60
	1507006	—	—	6A	690V	3-36
	1507010	—	—	10A	690V	3-36
	1507016	—	—	16A	690V	3-36
	1507020	—	—	20A	690V	3-36
	1507025	—	—	25A	690V	3-36
	1507036	—	—	35A	690V	3-36
	1507050	—	—	50A	690V	3-36
	1507063	—	—	63A	690V	3-36
	1507080	—	—	80A	690V	3-36
NH-1C	1507100	—	—	100A	690V	3-36
	1507125	—	—	125A	690V	3-36
	1507160	—	—	160A	690V	3-36
	1612036	—	—	35A	690V	3-36
	1612050	—	—	50A	690V	3-36
	1612063	—	1591063S ⁽²⁾	63A	690V	3-36
NH-1	1612080	1591080 ⁽²⁾	1591080S ⁽²⁾	80A	690V	3-36
	1612100	1591100 ⁽²⁾	1591100S ⁽²⁾	100A	690V	3-36
	1612125	1591125 ⁽²⁾	1591125S ⁽²⁾	125A	690V	3-36
	1612160	1591160	1591160S	160A	690V	3-36
NH-2C	1612200	1591200	1591200S	200A	690V	3-36
	1612250	1591250 ⁽³⁾	1591250S	250A	690V	3-36
	1622063	—	—	63A	690V	3-30
	1622080	—	—	80A	690V	3-30
NH-2	1622100	—	—	100A	690V	3-30
	1622125	1592125 ⁽²⁾	—	125A	690V	3-30
	1622160	1592160 ⁽²⁾	1592160S ⁽²⁾	160A	690V	3-30
	1622200	1592200 ⁽²⁾	1592200S ⁽²⁾	200A	690V	3-30
	1622250	1592225 ⁽²⁾	1592250S ⁽²⁾	250A	690V	3-30
	1622315	1592315	1592315S	315A	690V	3-30
NH-3C	1622355	1592355	1592355S	355A	690V	3-30
	1622400	1592400 ⁽³⁾	1592400S	400A	690V	3-30
	1632200	—	—	200A	690V	3-24
NH-3	1632250	—	—	250A	690V	3-24
	1632315	—	—	315A	690V	3-24
	1632355	—	—	355A	690V	3-24
	1632400	1593400 ⁽²⁾	1593400S ⁽²⁾	400A	690V	3-24
NH-3	1632500 ⁽³⁾	1593500	1593500S	500A	690V	3-24
	1632630 ⁽³⁾	1593630 ⁽³⁾	1593630S	630A	690V	3-24

(1) Un dispositivo di segnalazione permette di azionare un microinterruttore (opzionale). Per ordinare codice IW 2699800 (grandezze 00-0-1-2), codice IW 2699802 (grandezze 2C-3C-3-4)

(2) Esecuzione non compatta

(3) Esecuzione a 500V

(1) A blown fuse indicator device is used to activate a microswitch (optional). Order codes: IW code 2699800 (sizes 00-0-1-2), IW code 2699802 (sizes 2C-3C-3-4).

(2) Non compact version

(3) 500V version

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "NH"- "NH/MK"- "NH-4a"- "NH-1 1000V" - TIPO aM

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "NH"- "NH/MK"- "NH-4a"- "NH-1 1000V" - aM TYPE

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, VDE 0636, DIN 43620

I fusibili NH di tipo aM sono utilizzati per la protezione di motori, trasformatori e apparecchiature con uno spunto di corrente all'avvio. Questi fusibili sono utilizzati per la protezione contro i cortocircuiti e vanno abbinati ad altri dispositivi per la protezione dai sovraccarichi. I fusibili NH-00 della serie standard presentano una tensione nominale di 690V per tutti i valori di corrente fino a 160A. I fusibili della grandezza NH-4a vanno utilizzati all'interno dei portafusibili sezionabili LTS/S (vedi pagina 103). I fusibili aM con tensione nominale di 1000V presentano una lunghezza particolare e vanno utilizzati con la relativa base portafusibili PK-1/1000 (vedi pagina 100).

The NH fuses type aM are used for protection of motors, transformers and all equipments that have a current peak at startup. These fuses are used for protection against short circuit and must be combined with other devices for overload protection. The fuses NH-00 standard series have a nominal voltage of 690V for all the values of rated current up to 160A. The fuses NH-4a must be used within the appropriate switch disconnectors of the series LTS/S (see page 103). The aM fuses with rated voltage of 1000V have a particular length and must only be used in combination with its base PK-1/1000 (see page 100).



Fusibile NH-00 aM standard
NH-00 aM standard fuse

FUSIBILI NH-00 690V - TIPO aM NH-00 690V FUSES - aM TYPE

grandezza size	codice IW - IW code		I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
	NH standard	NH/MK con placche isolate NH/MK with insulated gripping-lugs			
NH-00	1603006	—	6A	690V	3-120
	1603010	—	10A	690V	3-120
	1603016	1600816	16A	690V	3-120
	1603020	1600820	20A	690V	3-120
	1603025	1600825	25A	690V	3-120
	1603035	1600835	35A	690V	3-120
	1603040	1600840	40A	690V	3-120
	1603050	1600850	50A	690V	3-120
	1603063	1600863	63A	690V	3-120
	1603080	1600880	80A	690V	3-120
	1603100	1600900	100A	690V	3-120
	1603125	1600925 ⁽¹⁾	125A	690V	3-60
	1603160	1600960 ⁽¹⁾	160A	690V	3-60

1) Esecuzione a 500V

1) 500V version



Fusibile NH-4a aM 690V
NH-4a aM 690V fuse

FUSIBILI NH-4a 690V - TIPO aM NH-4a 690V FUSES - aM TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NH-4a	1631630	630A	690V	1
	1631700	700A	690V	1
	1631800	800A	690V	1
	1631900	900A	690V	1
	1631910	1000A	690V	1
	1631920	1250A	690V	1



Fusibile NH-1 aM 1000V
NH-1 aM 1000V fuse

FUSIBILI NH-1 1000V - TIPO aM NH-1 1000V FUSES - aM TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NH-1	1633050	50A	1000V	1
	1633063	63A	1000V	1
	1633080	80A	1000V	1
	1633100	100A	1000V	1
	1633125	125A	1000V	1
	1633160	160A	1000V	1
	1633200	200A	1000V	1

NH COLTELLO
NH BLADE

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "HRC" - TIPO EXTRARAPIDO

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 SERIES "HRC" - ULTRA-QUICK TYPE

Norme - Standards CEI 32-1, CEI 32-7, IEC EN 60269-1, IEC EN 60269-4, VDE 0636, DIN 43620

Il corpo dei fusibili gR/aR è realizzato in steatite, ad alta resistenza termica e meccanica, e dispongono di una ampia camera per l'estinzione dell'arco elettrico. L'elemento fusibile interno è realizzato in rame argentato. Il fusibile è riempito con sabbia di quarzo. La caratteristica di intervento di tipo extrarapido rende questi fusibili indicati per la protezione di apparecchiature che contengono semiconduttori (inverter, UPS, soft starters, ecc). I fusibili aR proteggono le apparecchiature dai cortocircuiti, mentre i fusibili gR forniscono una protezione completa, dai cortocircuiti e dai sovraccarichi. Il potere di interruzione è di 50 kA.

The body of the fuses type gR/aR is made of steatite, with high thermal and mechanical resistance, and have a large chamber to extinguish the electric arc. The internal fuse element is made of silver-plated copper. The fuse is filled with quartz sand. The tripping characteristic of type ultra-quick makes these fuses ideal for protection of equipments containing semiconductors (inverters, UPS, soft starters, etc.). The aR fuses protect equipment from short circuits, while gR fuses provide complete protection against short circuits and overloads. The breaking capacity is 50 kA.



Fusibile
NH-00 HRC
NH-00 HRC fuse



Fusibile
NH-1 HRC
NH-1 HRC fuse



Microinterruttore
Microswitch

FUSIBILI NH EXTRARAPIDI SERIE HRC - TIPO gR/aR ULTRA-QUICK SERIES HRC NH FUSES - gR/aR TYPE

grandezza size	codice IW - IW code		I _n (A) I _n (A)	V _n (V) V _n (V)	caratteristica characteristic	conf. pack.
	tipo standard standard type	tipo compatto compact type				
NH-00/00C	1543006	1539006	6A	690V	gR	3
	1543010	1539010	10A	690V	gR	3
	1543016	1539016	16A	690V	gR	3
	1543020	1539020	20A	690V	gR	3
	1543025	1539025	25A	690V	gR	3
	—	1539032	32A	690V	gR	3
	1543035	1539035	35A	690V	gR	3
	1543040	1539040	40A	690V	gR	3
	1543050	1539050	50A	690V	gR	3
	1543063	1539063	63A	690V	gR	3
	1543080	1539080	80A	690V	gR	3
	1543100	1539100	100A	690V	gR	3
	1543125	1539125	125A	690V	gR	3
	1543160	1539160 ⁽¹⁾	160A	690V	aR	3
	1544025	—	25A	690V	gR	3
	1544035	—	35A	690V	gR	3
NH-0	1544040	—	40A	690V	gR	3
	1544050	—	50A	690V	gR	3
	1544063	—	63A	690V	gR	3
	1544080	—	80A	690V	gR	3
	1544100	—	100A	690V	gR	3
	1544125	—	125A	690V	gR	3
	1544160	—	160A	690V	aR	3
NH-1	1545050	—	50A	690V	gR	3
	1545063	—	63A	690V	gR	3
	1545080	—	80A	690V	gR	3
	1545100	—	100A	690V	gR	3
	1545125	—	125A	690V	gR	3
	1545160	—	160A	690V	aR	3
	1545200	—	200A	690V	aR	3
	1545250	—	250A	690V	aR	3
NH-2	1546080	—	80A	690V	gR	3
	1546100	—	100A	690V	gR	3
	1546125	—	125A	690V	gR	3
	1546160	—	160A	690V	aR	3
	1546200	—	200A	690V	aR	3
	1546250	—	250A	690V	aR	3
	1546315	—	315A	690V	aR	3
	1546355	—	355A	690V	aR	3
	1546400	—	400A	690V	aR	3
	1547250	—	250A	690V	aR	3
NH-3	1547315	—	315A	690V	aR	3
	1547355	—	355A	690V	aR	3
	1547400	—	400A	690V	aR	3
	1547500	—	500A	690V	aR	3
	1547630	—	630A	690V	aR	3

Un dispositivo di segnalazione sul corpo del fusibile permette di azionare un microinterruttore. Per ordinare codice IW 2699804.

(1) Caratteristica di intervento: gR

A blown fuse indicator on the fuse body is used to activate a microswitch. Order codes: IW code 2699804.

(1) Time-current characteristic: gR

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "ACR" - TIPO EXTRARAPIDO gR

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 SERIES "ACR" - ULTRA-QUICK TYPE gR

Norme - Standards CEI 32-1, CEI 32-7, IEC EN 60269-1, IEC EN 60269-4, VDE 0636, DIN 43620

I fusibili gR hanno una caratteristica di intervento extrarapida, un elevato potere di interruzione e bassi valori dell'energia specifica passante (I^2t). Sono indicati per la protezione di apparecchiature che contengono semiconduttori (inverter, UPS, soft starters, ecc.). I fusibili gR forniscono protezione completa delle apparecchiature sia dal cortocircuito che dal sovraccarico. I fusibili con percussore, che fuoriesce all'atto dell'intervento del fusibile, vanno utilizzati con i sezionatori LTS/S (vedi pag. 103), a cui va aggiunto il micro di segnalazione. Visti gli elevati valori di potenza dissipata da tali fusibili, occorre verificare la compatibilità del loro utilizzo all'interno dei sezionatori LTS/S.

The NH fuses type gR present an ultra-quick tripping characteristic, high values of breaking capacity and low values of the let-through energy (I^2t). They are suitable for protection of equipments containing semiconductors (inverters, UPS, soft starters, etc.). The fuses gR provide complete protection of the equipment, against short circuit and overload. The fuses with striker, that comes out at the fuse operation, should be used within the switch disconnectors LTS/S (see page 103) to which a micro must be added. Given the high values of power dissipation, it is necessary to check the compatibility of their use inside the disconnectors LTS/S.



Fusibile NH-00C gR
NH-00C gR fuse



Fusibile NH-1 gR
NH-1 gR fuse

FUSIBILI NH EXTRARAPIDI - TIPO gR ULTRA-QUICK NH FUSES - gR TYPE

grandezza size	codice IW - IW code		I_n (A) I_n (A)	V_n (V) V_n (V)	caratteristica characteristic	conf. pack.
	con indicatore visivo (1) with visual indicator (1)	con percussore with striker				
NH-00C	1539010G	—	10A	690V	gR	3
	1539016G	1539016T	16A	690V	gR	3
	1539020G	1539020T	20A	690V	gR	3
	1539025G	1539025T	25A	690V	gR	3
	1539032G	1539032T	32A	690V	gR	3
	1539035G	1539035T	35A	690V	gR	3
	1539040G	1539040T	40A	690V	gR	3
	1539050G	1539050T	50A	690V	gR	3
	1539063G	1539063T	63A	690V	gR	3
	1539080G	1539080T	80A	690V	gR	3
	1539100G	1539100T	100A	690V	gR	3
	1539125G	1539125T	125A	690V	gR	3
	1539160G	1539160T	160A	690V	gR	3
	1545050G	1545050T	50A	690V	gR	3
	1545063G	1545063T	63A	690V	gR	3
NH-1	1545080G	1545080T	80A	690V	gR	3
	1545100G	1545100T	100A	690V	gR	3
	1545125G	1545125T	125A	690V	gR	3
	1545160G	1545160T	160A	690V	gR	3
	1545200G	1545200T	200A	690V	gR	3
	1545250G	1545250T	250A	690V	gR	3
	1546125G	1546125T	125A	690V	gR	3
NH-2	1546160G	1546160T	160A	690V	gR	3
	1546200G	1546200T	200A	690V	gR	3
	1546250G	1546250T	250A	690V	gR	3
	1546315G	1546315T	315A	690V	gR	3
	1546350G	1546350T	350A	690V	gR	3
	1546400G	1546400T	400A	690V	gR	3
	1547250G	1547250T	250A	690V	gR	3
NH-3	1547315G	1547315T	315A	690V	gR	3
	1547350G	1547350T	350A	690V	gR	3
	1547400G	1547400T	400A	690V	gR	3
	1547500G	1547500T	500A	690V	gR	3
	1547630G	1547630T	630A	690V	gR	3
NH-4	1548800G	—	800A	500V	gR	1
	1548910G	—	1000A	500V	gR	1
	1548990G	—	1250A	500V	gR	1
NH-4a	1549800G	—	800A	500V	gR	1
	1549910G	—	1000A	500V	gR	1
	1549990G	—	1250A	500V	gR	1
	1549995G	—	1500A	500V	gR	1
	1549996G	—	1600A	500V	gR	1

(1) Un dispositivo di segnalazione sul corpo del fusibile permette di azionare un microinterruttore. Per ordinare codice IW 2699804

(1) A blown fuse indicator on the fuse body is used to activate a microswitch. Order codes: IW code 2699804

NH COLTELLO
NH BLADE

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "ACR" - TIPO EXTRARAPIDO aR

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 SERIES "ACR" - ULTRA-QUICK TYPE aR

Norme - Standards CEI 32-1, CEI 32-7, IEC EN 60269-1, IEC EN 60269-4, VDE 0636, DIN 43620

I fusibili aR presentano una caratteristica di intervento extrarapida, un elevato potere di interruzione e bassi valori dell'energia specifica passante (I^2t). Queste caratteristiche li rendono indicati per la protezione di apparecchiature che contengono semiconduttori (inverter, UPS, soft starters, ecc). I fusibili aR forniscono una protezione delle apparecchiature dal solo cortocircuito. Tali fusibili possono essere utilizzati con un apposito microinterruttore (codice 2699804) per la segnalazione a distanza dell'avvenuto intervento. I fusibili NH-0 a 1000V possono essere usati con la base PKO (vedi pag. 249), mentre i fusibili a 1200V vanno utilizzati con le basi PKUN (vedi pag. 249).

The NH fuses of the type aR present an ultra-quick tripping characteristic, high values of breaking capacity and low values of let-through energy (I^2t). These fuses are suitable for protection of equipments containing semiconductors (inverters, UPS, soft starters, etc.). The aR fuses provide protection of equipments from short circuits only. These fuses may be used with a micro (code 2699804) for remote signalization. The fuses NH-0 with rated voltage of 1000V can be used with the base PKO (see page 249), while the fuses with rated voltage of 1200V must be used with the bases of the series PKUN (see page 249).



Fusibile NH-00 aR
NH-00 aR fuse



Fusibile NH-3 aR 1200V
NH-3 aR 1200V fuse

FUSIBILI NH EXTRARAPIDI - TIPO aR ULTRA-QUICK NH FUSES - aR TYPE

grandezza size	codice IW - IW code		I_n (A) I_n (A)	caratteristica characteristic	conf. pack.
	con indicatore visivo with visual indicator	con indicatore visivo with visual indicator			
	690V	1000V / 1200V			
NH-00	1543010A	—	10A	aR	3
	1543016A	—	16A	aR	3
	1543020A	—	20A	aR	3
	1543025A	—	25A	aR	3
	1543032A	—	32A	aR	3
	1543035A	—	35A	aR	3
	1543040A	—	40A	aR	3
	1543050A	—	50A	aR	3
	1543063A	—	63A	aR	3
	1543080A	—	80A	aR	3
	1543100A	—	100A	aR	3
	1543125A	—	125A	aR	3
	1543160A	—	160A	aR	3
	1543200A	—	200A	aR	3
	1543250A	—	250A	aR	3
	—	1544016M ⁽¹⁾	16A	aR	3
NH-0	—	1544020M ⁽¹⁾	20A	aR	3
	—	1544025M ⁽¹⁾	25A	aR	3
	—	1544032M ⁽¹⁾	32A	aR	3
	—	1544040M ⁽¹⁾	40A	aR	3
	—	1544050M ⁽¹⁾	50A	aR	3
	—	1544063M ⁽¹⁾	63A	aR	3
	—	1544080M ⁽¹⁾	80A	aR	3
	—	1544100M ⁽¹⁾	100A	aR	3
	—	1544125M ⁽¹⁾	125A	aR	3
	—	1544160M ⁽¹⁾	160A	aR	3
NH-1	1545063A ⁽³⁾	—	63A	aR	3
	1545080A ⁽³⁾	1545080M ⁽²⁾	80A	aR	3
	1545100A ⁽³⁾	1545100M ⁽²⁾	100A	aR	3
	1545125A ⁽³⁾	1545125M ⁽²⁾	125A	aR	3
	1545160A ⁽³⁾	1545160M ⁽²⁾	160A	aR	3
	1545200A ⁽³⁾	1545200M ⁽²⁾	200A	aR	3
	1545250A ⁽³⁾	1545250M ⁽²⁾	250A	aR	3
	1545315A ⁽³⁾	—	315A	aR	3
	1545350A ⁽³⁾	—	350A	aR	3
	1545400A ⁽³⁾	—	400A	aR	3
NH-2	1546250A ⁽³⁾	—	250A	aR	3
	1546315A ⁽³⁾	1546315M ⁽²⁾	315A	aR	3
	1546350A ⁽³⁾	1546350M ⁽²⁾	350A	aR	3
	1546400A ⁽³⁾	1546400M ⁽²⁾	400A	aR	3
	1546450A ⁽³⁾	—	450A	aR	3
	1546500A ⁽³⁾	—	500A	aR	3
	1546550A ⁽³⁾	—	550A	aR	3
	1546630A ⁽³⁾	—	630A	aR	3
NH-3	1547400A ⁽³⁾	—	400A	aR	3
	1547450A ⁽³⁾	—	450A	aR	3
	1547500A ⁽³⁾	1547500M ⁽²⁾	500A	aR	3
	1547630A ⁽³⁾	1547630M ⁽²⁾	630A	aR	3
	1547710A ⁽³⁾	—	710A	aR	3
	1547800A ⁽³⁾	—	800A	aR	3
	1547900A ⁽³⁾	—	900A	aR	3
	1547999A ⁽³⁾	—	1000A	aR	3

(1) Fusibili tensione 1000V

(2) Fusibili tensione 1200V

(3) Solo indicazione visiva (utilizzo del micro non possibile)

(1) Fuses with rated voltage 1000V

(2) Fuses 1200V voltage

(3) Only visual indication (use of micro not possible)

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "ULTRA" - TIPO EXTRARAPIDO

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 SERIES "ULTRA" - HIGH SPEED TYPE

Norme - Standards CEI 32-1, CEI 32-7, IEC EN 60269-1, IEC EN 60269-4, VDE 0636, DIN 43620

I fusibili extrarapidi della serie ULTRA presentano il corpo in steatite ad alta resistenza termica e meccanica. L'elemento fusibile è in rame argentato. L'elemento estinguente dell'arco è sabbia di quarzo. Questa serie si distingue per il bassissimo valore dell'energia specifica passante (I^2t), l'elevato potere d'interruzione e l'ampia gamma di correnti nominali. I fusibili aR forniscono una protezione delle apparecchiature dal solo cortocircuito. Tutti i fusibili sono omologati UR. Per alcune correnti nominali non esiste una base portafusibili appropriata. In questi casi si può valutare, in alternativa, l'utilizzo di fusibili extrarapidi per fissaggio a bullone (vedi sezione seguente del catalogo).

The high speed fuses of the ULTRA series have steatite body. The fuse element is made by silver plated copper. The extinguishing mean of the electric arc is the quartz sand. This series is distinguished by the very low value of let-through energy (I^2t), high breaking capacity values and the wide range of current ratings. The aR fuses provide protection of equipments from short circuits only. All these fuses are UR approved. For some nominal currents there is no appropriate fuse base. In these cases, it can be evaluated, as an alternative, the use of high speed fuses for screw fixing (see the following section of catalogue).



Fusibile
NH-000 ULTRA
NH-000 ULTRA fuse



Fusibile
NH-2 ULTRA
NH-2 ULTRA fuse



Microinterruttore
1NA + 1NC
Microswitch
1NO + 1NC

FUSIBILI NH EXTRARAPIDI SERIE ULTRA - TIPO gR/aR - CON OMOLOGAZIONE HIGH SPEED SERIES ULTRA NH FUSES - gR/aR TYPE - APPROVED

grandezza size	codice IW IW code	I_n (A) I_n (A)	V_n (V) V_n (V)	caratteristica characteristic	conf. pack.
NH-000	1754010	10A	690V	gR	1-10
	1754016	16A	690V	gR	1-10
	1754020	20A	690V	gR	1-10
	1754025	25A	690V	gR	1-10
	1754032	32A	690V	gR	1-10
	1754040	40A	690V	gR	1-10
	1754050	50A	690V	gR	1-10
	1754063	63A	690V	gR	1-10
	1754080	80A	690V	aR	1-10
	1754100	100A	690V	aR	1-10
	1754125	125A	690V	aR	1-10
	1754160	160A	690V	aR	1-10
	1754200	200A	690V	aR	1-10
	1754250	250A	690V	aR	1-10
	1754315	315A	690V	aR	1-10
NH-00	1759040	80A	690V	aR	1-6
	1759100	100A	690V	aR	1-6
	1759125	125A	690V	aR	1-6
	1759160	160A	690V	aR	1-6
	1759200	200A	690V	aR	1-6
	1759250	250A	690V	aR	1-6
	1759315	315A	690V	aR	1-6
	1759350	350A	690V	aR	1-6
	1759400	400A	690V	aR	1-6
NH-1	1768315	315A	690V	aR	1-3
	1768350	350A	690V	aR	1-3
	1768400	400A	690V	aR	1-3
	1768450	450A	690V	aR	1-3
	1768500	500A	690V	aR	1-3
	1768550	550A	690V	aR	1-3
	1768630	630A	690V	aR	1-3
	1768700	700A	690V	aR	1-3
NH-2	1769500	500A	690V	aR	1
	1769550	550A	690V	aR	1
	1769630	630A	690V	aR	1
	1769700	700A	690V	aR	1
	1769800	800A	690V	aR	1
	1769900	900A	690V	aR	1
	1769999	1000A	690V	aR	1
	1769950	1100A	690V	aR	1
	1769951	1250A	690V	aR	1
	1769952	1400A	690V	aR	1
	1769953	1500A	690V	aR	1
	1769954	1600A	690V	aR	1
NH-3	1769500	500A	690V	aR	1
	1769550	550A	690V	aR	1
	1769630	630A	690V	aR	1
	1769700	700A	690V	aR	1
	1769800	800A	690V	aR	1
	1769900	900A	690V	aR	1
	1769999	1000A	690V	aR	1
	1769950	1100A	690V	aR	1
	1769951	1250A	690V	aR	1
	1769952	1400A	690V	aR	1

Un dispositivo di segnalazione dell'avenuto intervento, posto nella parte superiore del fusibile, permette di azionare un microinterruttore. Per fusibili NH Gr. 000-1-3: micro tipo 170H0236 codice IW 1750008. Per fusibili NH Gr. 2: micro tipo 170H0235 codice IW 1750007.

A blown fuse indicator on the fuse body is used to activate a microswitch. For NH fuses size 000-1-3: microswitch type 170H0236, IW code 1750008. For NH fuses size 2: microswitch type 170H0235, IW code 1750007.

NH COLTELLO
NH BLADE

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 BASI PORTAFUSIBILI

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 FUSE BASES

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, DIN 43620

Le basi portafusibili per fusibili NH, del tipo unipolare o tripolare, sono realizzate in materiale termoplastico autoestinguente UL-94 V0 mentre i contatti sono in rame argentato. Rondelle e bulloni sono in acciaio 8.8. Una ampia gamma di accessori permette di realizzare una efficace protezione contro i contatti accidentali (vedere pag. 101). Le basi portafusibili della serie NHD vanno montate a vite su piastra di fondo, mentre le basi della serie NHU possono essere montate sia a vite su piastra di fondo che su guida DIN. Le basi portafusibili NHU-MS sono corredate di microinterruttore e sono utilizzabili con gli appositi fusibili dotati di percussore della serie NH/CP.

The fuse bases for NH fuse, single-pole or three-poles versions, are made of self-extinguishing thermoplastic UL 94-V0 material. Washers and bolts are made of steel 8.8. A wide range of accessories allows to create an effective protection against accidental contacts (see page 101). The fuse bases of the NHD series must be mounted with screws on a mounting plate, while the fuse bases of the NHU series can be mounted either by screw on a mounting plate and on a DIN rail. The fuse bases NHU-MS are equipped with a microswitch and are usable with the appropriate fuses equipped with a striker of the series NH/CP.



Portafusibile unipolare
NHD-00
NHD-00 single pole
fuseholder



Portafusibile unipolare
con microinterruttore
NHU-3 DIN-MS
Single pole fuseholder
with microswitch
NHD-3 DIN-MS



Portafusibile tripolare
NHU-00 DINx3S
"Kombi"
NHU-00 DINx3S "Kombi"
three-poles fuseholder

PORTAFUSIBILI UNIPOLARI PER FUSIBILI NH A COLTELLO - FISSAGGIO A VITE O SU GUIDA DIN SINGLE POLE FUSE BASES FOR BLADE TYPE NH FUSES - FOR SCREW OR DIN RAIL MOUNTING

grandezza size	codice IW IW code	tipo type	fissaggio fixing	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
00	2541005	NHD-00	a vite - by screw	160A	690V	3
	2561005	NHD-00/IP20	a vite - by screw	160A	690V	3
	2502010	NHU-00 DIN-S	su guida DIN - on DIN rail	160A	690V	3
	2572010	NHU-00 DIN-S/IP20	su guida DIN - on DIN rail	160A	690V	3
0	2541010	NHD-0	a vite - by screw	160A	690V	3
	2561010	NHD-0/IP20	a vite - by screw	160A	690V	3
	2540010	NHU-0 DIN-S	su guida DIN - on DIN rail	160A	690V	3
	2570010	NHU-0 DIN-S/IP20	su guida DIN - on DIN rail	160A	690V	3
1	2550010	NHU-0 DIN-MS	su guida DIN, con micro - on DIN rail, with microswitch	160A	690V	1
	2541110	NHD-1	a vite - by screw	250A	690V	3
	2561110	NHD-1/IP20	a vite - by screw	250A	690V	3
	2540110	NHU-1 DIN-S	su guida DIN - on DIN rail	250A	690V	3
2	2570110	NHU-1 DIN-S/IP20	su guida DIN - on DIN rail	250A	690V	3
	2550110	NHU-1 DIN-MS	su guida DIN, con micro - on DIN rail, with microswitch	250A	690V	1
	2640015P	PK-1/1000	a vite - by screw	250A	1000V	3
	2541210	NHD-2	a vite - by screw	400A	690V	3
3	2561210	NHD-2/IP20	a vite - by screw	400A	690V	3
	2540210	NHU-2 DIN-S	su guida DIN - on DIN rail	400A	690V	3
	2570210	NHU-2 DIN-S/IP20	su guida DIN - on DIN rail	400A	690V	3
	2550210	NHU-2 DIN-MS	su guida DIN, con micro - on DIN rail, with microswitch	400A	690V	1
4	2541310	NHD-3	a vite - by screw	630A	690V	3
	2561310	NHD-3/IP20	a vite - by screw	630A	690V	3
	2540310	NHU-3 DIN-S	su guida DIN - on DIN rail	630A	690V	3
	2570310	NHU-3 DIN-S/IP20	su guida DIN - on DIN rail	630A	690V	3
5	2550310	NHU-3 DIN-MS	su guida DIN, con micro - on DIN rail, with microswitch	630A	690V	1
	2541415	NHK-4S	a vite - by screw	1250A	690V	1
	2541410	NHZ-4S	a vite - by screw	1250A	690V	1

PORTAFUSIBILI TRIPOLARI PER FUSIBILI NH A COLTELLO - FISSAGGIO A VITE O SU GUIDA DIN THREE POLES FUSE BASES FOR BLADE TYPE NH FUSES - FOR SCREW OR DIN RAIL MOUNTING

grandezza size	codice IW IW code	tipo type	descrizione description	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
00	2503210	NHU-00 DINx3S Kombi	bullone - bolt	160A	690V	1
	2503211	NHU-00 DINx3SB Kombi	bullone/brida - bolt/clamp	160A	690V	1
	2503212	NHU-00 DINx3B Kombi	brida - clamp	160A	690V	1
	2573310	NHU-00 DINx3S/IP20 Kombi	bullone - bolt	160A	690V	1
0	2573311	NHU-00 DINx3SB/IP20 Kombi	bullone/brida - bolt/clamp	160A	690V	1
	2573312	NHU-00 DINx3B/IP20 Kombi	brida - clamp	160A	690V	1
	2543010	NHD-0x3S	a vite - by screw	160A	690V	1
	2563010	NHD-0x3S/IP20	a vite - by screw	160A	690V	1
1	2503000	NHU-0 DINx3S	su guida DIN - on DIN rail	160A	690V	1
	2573000	NHU-0 DINx3S/IP20	su guida DIN - on DIN rail	160A	690V	1
	2543011	NHD-1x3S	a vite - by screw	250A	690V	1
	2563011	NHD-1x3S/IP20	a vite - by screw	250A	690V	1
2	2503011	NHU-1 DINx3S	su guida DIN - on DIN rail	250A	690V	1
	2573011	NHU-1 DINx3S/IP20	su guida DIN - on DIN rail	250A	690V	1
	2543012	NHD-2x3S	a vite - by screw	400A	690V	1
	2563012	NHD-2x3S/IP20	a vite - by screw	400A	690V	1
3	2503012	NHU-2 DINx3S	su guida DIN - on DIN rail	400A	690V	1
	2573012	NHU-2 DINx3S/IP20	su guida DIN - on DIN rail	400A	690V	1
	2543013	NHD-3x3S	a vite - by screw	630A	690V	1
	2563013	NHD-3x3S/IP20	a vite - by screw	630A	690V	1
4	2503013	NHU-3 DINx3S	su guida DIN - on DIN rail	630A	690V	1
	2573013	NHU-3 DINx3S/IP20	su guida DIN - on DIN rail	630A	690V	1

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 ACCESSORI

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 ACCESSORIES



Coltello NH CSK00
NH CSK00 solid link

COLTELLI NH SEZIONABILI NH SOLID LINKS

grandezza size	codice IW IW code	tipo type	agganci tags	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
00	2690200	CSK00	isolati - <i>insulated</i>	160A	690V	3
	2690100	CS00	in metallo - <i>metal</i>	160A	690V	3
0	2690210	CSK0	isolati - <i>insulated</i>	160A	690V	3
	2690110	CS0	in metallo - <i>metal</i>	160A	690V	3
1	2690211	CSK1	isolati - <i>insulated</i>	250A	690V	3
	2690111	CS1	in metallo - <i>metal</i>	250A	690V	3
2	2690212	CSK2	isolati - <i>insulated</i>	400A	690V	3
	2690112	CS2	in metallo - <i>metal</i>	400A	690V	3
3	2690213	CSK3	isolati - <i>insulated</i>	630A	690V	3
	2690113	CS3	in metallo - <i>metal</i>	630A	690V	3
4	2690114	CS4	in metallo - <i>metal</i>	1250A	690V	3
4a	2690115	CS4a	in metallo - <i>metal</i>	1250A	690V	3



Maniglia NHP00/3
Fuse handle NHP00/3

MANIGLIA DI ESTRAZIONE UNIVERSALE FUSIBILI NH UNIVERSAL FUSE HANDLE FOR NH FUSES

grandezza size	codice IW IW code	tipo type	protezione contro contatti accidentali protection against accidental contacts	conf. pack.
00-3	26903045	NHP00/3	no - <i>no</i>	1
	2690304	NHP00/3	no - <i>no</i>	5
	2690305	NHP00/5	si - <i>yes</i>	2



Accessorio T21
per composizione
portafusibili
T21 accessory for fuse bases
connection

ADATTATORI PER UNIONE PORTAFUSIBILI NHD E NHU ADAPTERS FOR NHD AND NHU FUSE BASES CONNECTION

grandezza size	codice IW IW code	tipo type	conf. pack.
00	2590402	T20	1 set
0	2590399	T21	1 set
1-2	2590400	T22	1 set
3	2590401	T23	1 set

I portafusibili serie NHD e NHU possono essere affiancati tra loro in esecuzioni a più poli. Questa componibilità è realizzata mediante gli adattatori T20, T21, T22 e T23. Forniti in confezione da 2 pz.

Fuse bases, series NHD and NHU, may be installed one beside the other when multi pole versions are required. This is possible using adapters T20, T21, T22 and T23. Supplied in 2 pcs package.



Calotta 00-WB con 00-WCT
00-WB cover with 00-WCT

COMPONENTI PER PROTEZIONE DA UTILIZZARSI CON I PORTAFUSIBILI TRIPOLARI NHU-00 "KOMBI" COMPONENTS FOR PROTECTION TO BE USED WITH THREE POLES NHU-00 "KOMBI" FUSE BASES

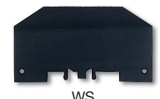
grandezza size	codice IW IW code	tipo type	descrizione description	conf. pack.
00	2590181	00-WB	calotta per base tripolare NHU-00 Kombi	1
	2590195	00-WCT	calotta trasparente per la protezione totale	3



WC



WCT



WS

Accessori per protezione
Accessories for protection

COMPONENTI PER PROTEZIONE PORTAFUSIBILI NHD E NHU COMPONENTS FOR NHD AND NHU FUSE BASES PROTECTION

grandezza size	codice IW IW code	tipo type	descrizione description	set (pz) set (pcs)	conf. pack.
00	2590180	00-WC	calotte di protezione per pinze	2	3 set
	2590195	00-WCT	calotta trasparente per protezione totale		3
	2590705	00-WS	separatori in tela bakelite	2	1 set
0	2590183	0-WC	calotte di protezione per pinze	2	3 set
	2590197	0-WCT	calotta trasparente per protezione totale		3
	2590707	0-WS	separatori in tela bakelite	2	1 set
1	2590185	1-WC	calotte di protezione per pinze	2	3 set
	2590200	1/2-WCT	calotta trasparente per protezione totale		3
	2590710	1/2-WS	separatori in tela bakelite	2	1 set
2	2590187	2-WC	calotte di protezione per pinze	2	3 set
	2590200	1/2-WCT	calotta trasparente per protezione totale		3
	2590710	1/2-WS	separatori in tela bakelite	2	1 set
3	2590190	3-WC	calotte di protezione per pinze	2	3 set
	2590205	3-WCT	calotta trasparente per protezione totale		3
	2590715	3-WS	separatori in tela bakelite	2	1 set
4	2590718	4-WS	separatori in tela bakelite	2	1 set

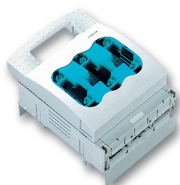
FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 PORTAFUSIBILI SEZIONABILI SERIE "LTS"

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 SERIES "LTS" FUSE SWITCH DISCONNECTORS

Norme - Standards IEC EN 60269-1, IEC EN 60947-3, DIN 43620

I portafusibili sezionabili della serie LTS sono realizzati in materiale termoplastico autoestinguente. Essi vengono normalmente montati su piastra di fondo ma, tramite un apposito kit, possono essere montati su guida DIN (solo grandezze 000-00-1-2). Il sezionamento, che può avvenire anche sotto carico, avviene tramite l'apertura della maniglia, nella quale sono inseriti i fusibili, che quindi rimangono all'interno della maniglia aperta. La maniglia contenente i fusibili può anche essere completamente tolta dalla base. Sono disponibili versioni con monitoraggio elettronico dell'intervento del fusibile e per fissaggio su sistema a sbarre con interasse 60 mm.

The fuse switch disconnectors of the LTS series are made of self-extinguishing thermoplastic material. They are usually mounted on a mounting plate, but using a special kit, they can be mounted on a DIN rail (only sizes 000-00-1-2). The disconnection, which can occur even under load, takes place through the opening of the handle, in which are inserted the fuses, which therefore remain inside it. The handle can also be completely removed from the base. Versions are available with an electronic monitoring that can give a remote signal of the fuse operation and for mounting on the standard 60 mm busbar system.



Portafusibile sezionabile
tripolare LTS
LTS three-poles
fuse switch disconnector

PORTAFUSIBILI TRIPOLARI SEZIONABILI SERIE "LTS" SERIES "LTS" THREE-POLES FUSE SWITCH DISCONNECTORS

grandezza size	codice IW IW code	tipo type	n. poli poles	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
senza monitoraggio fusibili - without fuse monitoring						
000	33217	LTS000	3P	100A	690V	1
00	33200	LTS00	3P	160A	690V	1
1	33201	LTS1	3P	250A	690V	1
2	33202	LTS2	3P	400A	690V	1
3	33203	LTS3	3P	630A	690V	1
con monitoraggio elettronico fusibili - with electronic fuse monitoring						
00	33329	LTS00MFE	3P	160A	500V	1
1	33330	LTS1MFE	3P	250A	690V	1
2	33331	LTS2MFE	3P	400A	690V	1
3	33332	LTS3MFE	3P	630A	690V	1

Il tipo LTS-MFE può essere utilizzato con fusibili NH senza percussore.

LTS-MFE fuse-disconnectors can be used with NH fuses without striker.



Microinterruttore
000-3HID
Microswitch
000-3HID

ACCESSORI PER PORTAFUSIBILI SEZIONABILI SERIE "LTS" ACCESSORIES FOR SERIES "LTS" FUSE SWITCH DISCONNECTORS

codice IW IW code	tipo type	descrizione description	conf. pack.
79811	00EA/LTS	calotte coprimorsetti per LTS00 (105 x 34 mm)	1
33142	1EA/LTS	calotte coprimorsetti per LTS1 (182,5 x 68 mm)	2
33143	2EA/LTS	calotte coprimorsetti per LTS2 (208,5 x 51,5 mm)	2
33144	3EA/LTS	calotte coprimorsetti per LTS3 (254 x 48 mm)	2
33247	000DIN	kit montaggio guida DIN per LTS000	1
33193	000DIN	kit montaggio guida DIN per LTS00	1
33158	12DIN	kit montaggio guida DIN per LTS1-2	1
33156	000-3HID	micro per LTS000-00-2-3 per controllo posizione coperchio del sezionatore	1
33917	1HID	micro per LTS1 per controllo posizione coperchio del sezionatore	1
33155	PROT1-2-3	profilo di protezione dai contatti accidentali	10
03849	PBTR00	piombatura coperchio per sigillo a filo	1
33157	PBTR1-2-3	piombatura coperchio per 3 lucchetti con gambo	10



Portafusibile sez. LTS
per sistema a sbarre 60 mm
LTS fuse switch disconnector
for 60 mm busbar system

PORTAFUSIBILI TRIPOLARI SEZIONABILI SERIE "LTS" PER SISTEMA A BARRE 60 mm SERIES "LTS" THREE-POLES FUSE SWITCH DISCONNECTORS FOR 60 mm BUSBAR SYSTEM

grandezza size	codice IW IW code	tipo type	n. poli poles	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
000	33216	LTS000-CAV	3P	125A	690V	1
00	33198	LTS00-CAV	3P	160A	690V	1
1	33601	LTS1-CAV	3P	250A	690V	1
2	33602	LTS2-CAV	3P	400A	690V	1
3	33603	LTS3-CAV	3P	630A	690V	1

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 PORTAFUSIBILI SEZIONABILI SERIE "LTS/S"

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "LTS/S" FUSE SWITCH DISCONNECTORS

Norme - Standards IEC EN 60269-1, IEC EN 60947-3, DIN 43620

I portafusibili sezionabili LTS/S sono realizzati in materiali autoestinguenti. Il sezionamento, che può avvenire anche sotto carico, avviene tramite l'apertura della maniglia, nella quale sono inseriti i fusibili, che quindi rimangono all'interno della maniglia aperta. La maniglia può essere completamente tolta dalla base. Sono disponibili in svariate versioni, da 1 a 4 poli e per fusibili aventi grandezze da NH-000 a NH-4a. Una vasta gamma di accessori è disponibile per monitorare l'intervento dei fusibili oppure lo stato della maniglia del sezionatore (aperto/chiuso). Gli accessori di copertura dei terminali consentono la massima protezione contro i contatti accidentali.

The fuse switch disconnectors LTS/S are made of high quality, self-extinguishing materials. The sectioning, which can occur even under load, takes place through the opening of the front handle, in which are inserted the fuses, which therefore remain inside it. The handle can also be completely removed from the base. They are available in several versions, from 1 to 4 poles and for fuses with sizes from NH-000 to NH-4a. A wide range of accessories is available to monitor the fuse operation or the status of the switch handle (open/closed). The covers for the terminals enable the maximum protection against accidental contacts.



Portafusibile sezionabile unipolare LTS/S
LTS/S single pole fuse switch disconnecter

PORTAFUSIBILI SEZIONABILI SERIE "LTS/S" SERIES "LTS/S" FUSE SWITCH DISCONNECTORS

grandezza size	codice IW IW code	tipo type	n. poli poles	I _n (A) / V _n (V) I _n (A) / V _n (V)	conf. pack.
000	3100198	LTS/S-000x3	3P	100A/690V	1
00	3100400	LTS/S-00	1P	160A/500V - 100A/690V	1
	3100300	LTS/S-00x2	2P	160A/500V - 100A/690V	1
	3100200	LTS/S-00x3	3P	160A/500V - 100A/690V	1
	3110250	LTS/S-00x4	4P	160A/500V - 100A/690V	1
1	3100401	LTS/S-1	1P	250A/500V - 200A/690V	1
	3100301	LTS/S-1x2	2P	250A/500V - 200A/690V	1
	3100201	LTS/S-1x3	3P	250A/500V - 200A/690V	1
	3110251	LTS/S-1x4	4P	250A/500V - 200A/690V	1
2	3100202	LTS/S-2x3	3P	400A/500V - 315A/690V	1
3	3100403	LTS/S-3	1P	630A/500V - 500A/690V	1
	3100302	LTS/S-3x2	2P	630A/500V - 500A/690V	1
	3100203	LTS/S-3x3	3P	630A/500V - 500A/690V	1
	3110252	LTS/S-3x4	4P	630A/500V - 500A/690V	1
4a	3100404	LTS/S-4a-1	1P	1250A/500V - 1000A/690V	1
4a	1811874	LTS/S-4a-1x3	3P	1250A/500V - 1000A/690V	1
	3100405	LTS/S-4a-2	1P	1600A/500V - 1000A/690V	1
4a	1811875	LTS/S-4a-2x3	3P	1600A/500V - 1000A/690V	1



Microinterruttore stato maniglia
Microswitch for handle indication

MICROINTERRUTTORI PER PORTAFUSIBILI SEZIONABILI SERIE "LTS/S" MICROSWITCHES FOR SERIES "LTS/S" FUSE SWITCH DISCONNECTORS

codice IW IW code	tipo type	per sezionatore for switch disconnecter	tipo microinterruttore microswitch type	conf. pack.
3100410	EV-LTL00-3	LTS/S 00 (1P / 3P)	stato maniglia - handle indication	1
3100411	EV-LTL1-2-3 / 1	LTS/S 1-2-3 (1P)	stato maniglia - handle indication	1
3100412	EV-LTL1-2-3 / 3	LTS/S 1-2-3 (3P)	stato maniglia - handle indication	1
3100409	EV-LTL4a	LTS/S 4a (1P / 3P)	stato maniglia e intervento fusibile handle indication and fuse operation	1
3100406	K-LTL00-1/H	LTS/S 00 (1P)	intervento fusibile - fuse operation	1
3100407	K-LTL1-1/H	LTS/S 1 (1P)	intervento fusibile - fuse operation	1
3100408	K-LTL3-1/H	LTS/S 3 (1P)	intervento fusibile - fuse operation	1
3100413	K-LTL00-3/H	LTS/S 00 (3P)	intervento fusibile - fuse operation	1
3100414	K-LTL1-3/H	LTS/S 1 (3P)	intervento fusibile - fuse operation	1
3100415	K-LTL2-3/H	LTS/S 2 (3P)	intervento fusibile - fuse operation	1
3100416	K-LTL3-3/H	LTS/S 3 (3P)	intervento fusibile - fuse operation	1



Calotta per sezionatori LTS/S
Cover for LTS/S disconnectors

ACCESSORI PER PORTAFUSIBILI SEZIONABILI SERIE "LTS/S" ACCESSORIES FOR SERIES "LTS/S" FUSE SWITCH DISCONNECTORS

codice IW IW code	tipo type	per sezionatore for switch disconnecter	descrizione description	conf. pack.
3100420	GOU-LTL00-3	LTS/S 00 (3P)	copertura inferiore e superiore - top and bottom cover	1
3100421	GO-LTL1-3	LTS/S 1 (3P)	copertura superiore - top cover	1
3100422	GO-LTL2-3	LTS/S 2 (3P)	copertura superiore - top cover	1
3100423	GO-LTL3-3	LTS/S 3 (3P)	copertura superiore - top cover	1
3100424	GU-LTL1-3	LTS/S 1 (3P)	copertura inferiore - bottom cover	1
3100425	GU-LTL2-3	LTS/S 2 (3P)	copertura inferiore - bottom cover	1
3100426	GU-LTL3-3	LTS/S 3 (3P)	copertura inferiore - bottom cover	1
3100427	GOU-LTL00-1	LTS/S 00 (1P)	copertura inferiore e superiore - top and bottom cover	1
3100428	GOU-LTL01-1	LTS/S 1 (1P)	copertura inferiore e superiore - top and bottom cover	1
3100429	GOU-LTL03-1	LTS/S 3 (1P)	copertura inferiore e superiore - top and bottom cover	1
3100430	Z-LTL00	LTS/S 00	aggancio guida DIN - Din rail fixing part	1

DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620

Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH A COLTELLO BLADE TYPE NH INDUSTRIAL FUSES

Il sistema di fusibili NH con caratteristiche di fusione gG, aM, gR/aR è suddiviso in 11 grandezze costruttive 00C, 00, 0, 1C, 1, 2C, 2, 3C, 3, 4, 4a con correnti nominali da 6A a 1600A.

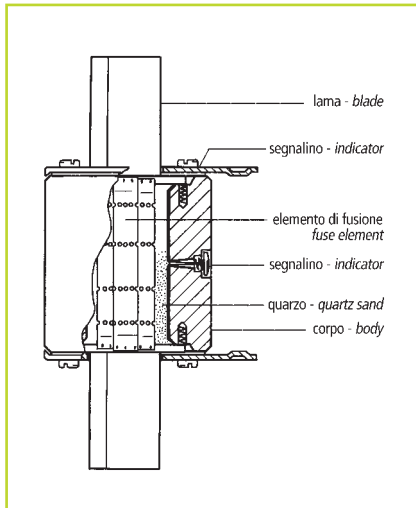
I livelli di tensione nominale delle cartucce sono:

- 500V, 690V, 1000V, 1200V per la serie con caratteristiche d'intervento gG;
- 500V, 690V, 1000V per la serie con caratteristiche d'intervento aM.
- 500V, 690V, 1000V, 1200V per la serie con caratteristiche d'intervento gR/aR.

Le cartucce gG sono indicate per protezione da sovraccarichi e corto circuiti relativi a tutti gli utilizzatori classici.

Le cartucce aM sono indicate per la protezione di motori e delle relative apparecchiature di manovra (sezionatori, contattori e relé termici) contro le sole correnti di cortocircuito o contro le sovracorrenti di valore elevato. Generalmente esse vanno abbinate a dispositivi di protezione contro i sovraccarichi (esempio relé termici).

Le cartucce gR/aR sono indicate per protezione di semiconduttori per applicazioni industriali ed elettronica di potenza quali diodi, triac, transistor, ecc.



The range of NH fuses with gG, aM, and gR/aR melting characteristics is divided in 11 sizes: 00C, 00, 0, 1C, 1, 2C, 2, 3C, 3, 4 and 4a, and is available with current ratings from 6A through 1600A.

Cartridge rated voltages are:

- 500V, 690V, 1000V, 1200V for gG time/current characteristic fuses;
- 500V, 690V, 1000V for aM time/current characteristic fuses.
- 500V, 690V, 1000V, 1200V for gR/aR time/current characteristic fuses.

gG cartridge fuses are ideal for protecting traditional systems against overloads and short circuits.

aM cartridge fuses are ideal for protecting motors and operating equipments (disconnectors, contactors and thermal relays) against short circuit currents or very large overloads. They are usually installed in combination with another overload protection devices (e.g. thermal relays).

gR/aR cartridge fuses are ideal for protecting semiconductors in industrial and electronic power applications such as diodes, triacs, transistors, etc.

Caratteristiche costruttive

I fusibili NH hanno il corpo in steatite ad alta resistenza termica e meccanica con ampia camera per l'estinzione dell'arco. Gli elementi fusibili di rame o rame argentato, sono saldati alle lame di contatto, che vengono inserite nel corpo fusibile chiuso con guarnizioni speciali e placche di aggancio, il tutto è riempito completamente con sabbia di quarzo. Le cartucce NH sono dotate di un dispositivo di segnalazione, situato nella parte superiore o sul corpo del fusibile, che fuoriesce dalla sua sede dopo l'intervento. Questa segnalazione può essere utilizzata, per alcune serie di fusibili NH, come segnalazione a distanza dell'avvenuto intervento mediante relativo microinterruttore.

Potere di interruzione e temperature di esercizio

I fusibili NH si contraddistinguono per il loro elevato potere di interruzione (fino a 120 kA). Le condizioni di prova e le caratteristiche del circuito per le verifiche, quali tensione, fattore di potenza, ecc. sono riportate nelle norme CEI 32-1 (armonizzate con le norme internazionali IEC 60269-1). Per ottenere un potere di interruzione elevato e costante, dalla più piccola corrente di sovraccarico alla più elevata corrente di cortocircuito, occorre curare diversi particolari nella progettazione e nella produzione delle serie di fusibili. Ad esempio sono di notevole importanza la scelta degli elementi di fusione, il loro posizionamento nel corpo del fusibile, la resistenza della steatite alle sovrappressioni e variazioni di temperatura innescate da un cortocircuito, la purezza chimica e la grandezza dei granuli della sabbia di quarzo.

I fusibili NH sono stati studiati per funzionare correttamente con valori di temperatura ambiente compresa tra -15°C e +50°C. Per eventuali temperature ambiente superiori ai +50°C è preferibile ridurre la corrente nominale del 5% ogni 10°C.

Construction specifications

NH fuses feature a steatite body having a high thermal and mechanical resistance and a large arc extinguishing chamber. Copper or silver plated copper fuse elements are welded on the contact blades which are installed in the fuse body with special seals and attachment plates. Quartz sand is used to fill the entire system. NH cartridge fuses are equipped with a blown fuse indicator installed on the upper part of the fuse body which comes out of its housing after the fuse has blown. For some series of NH fuses this indicator may be used as a remote blown fuse indicator using the corresponding microswitch.

Breaking capacity and working temperatures

NH fuses are characterised by a high breaking capacity (up to 120 kA). Test conditions and circuit test features such as voltage, power factor, etc. are described in standards CEI 32-1 (harmonised with IEC 60269-1 international standards). In order to keep the breaking capacity high and constant from the smallest overload current to the highest short circuit current, several different details have to be considered when designing and manufacturing fuse series.

For instance, the selection of fuse elements, their position in the fuse body, the steatite resistance to overpressures and temperature variations originated by a short circuit, the chemical pureness and grain size of quartz sand are all essential factors.

NH fuses were designed to operate correctly at ambient temperatures from -15°C through +50°C.

When ambient temperature exceeds +50°C it is common use to reduce the current rating by 5% every 10°C.

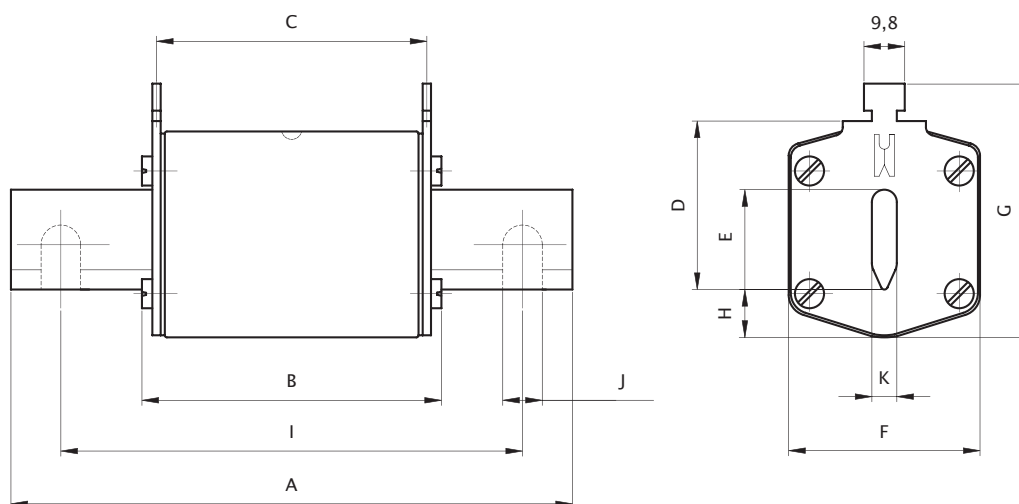
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620

*DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620*

Dimensioni in mm - Dimensions in mm

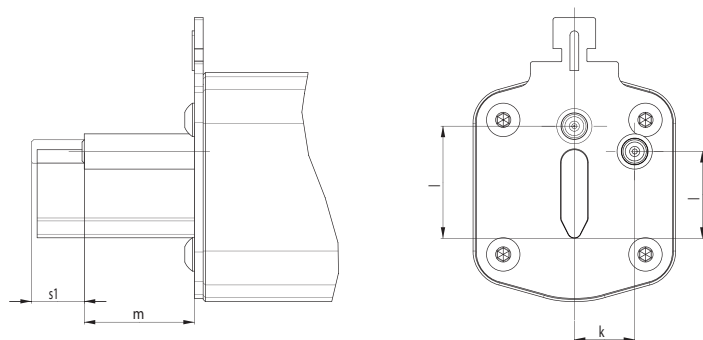
FUSIBILI INDUSTRIALI NH A COLTELLO BLADE TYPE NH INDUSTRIAL FUSES

Fusibili gr. NH 00-0-1-2-3-4-4a - Fuses size NH 00-0-1-2-3-4-4a



tipo type	A	B	C	D	E	F	G	H	I	J	K
NH-00C	79	53	47	35	15	21	52	7,5	—	—	6
NH-00	79	53	47	35	15	28	56	12	—	—	6
NH-0	125	68	65	35	15	28	56	12	—	—	6
NH-1C	135	68	65	40	15	28	61	12	—	—	6
NH-1	135	72	65	40	20	46	65	14	—	—	6
NH-2C	150	72	65	48	20	46	73	14	—	—	6
NH-2	150	72	65	48	26	54	73	14	—	—	6
NH-3C	150	72	65	60	26	54	84	14	—	—	6
NH-3	150	72	65	60	33	65	84	14	—	—	6
NH-4	200	75	66	87	50	100	121	24	150	16	8
NH-4a	200	99	87	85	50	95	121	27	—	—	6
NH-1 1000V~	155	90	87	40	20	45	59	9	—	—	6

Fusibili gr. NH 00-1-2-3-4a con percussore - Fuses size NH 00-1-2-3-4a with striker



tipo type	K	L	M	S1
NH-00C	—	20,7	16,7	7,5
NH-00	—	20,7	16,7	7,5
NH-1	13,7	19,7	25	12
NH-2	16,2	27,4	25	12
NH-3	17	35,6	25	12
NH-4a	24	49	25	12

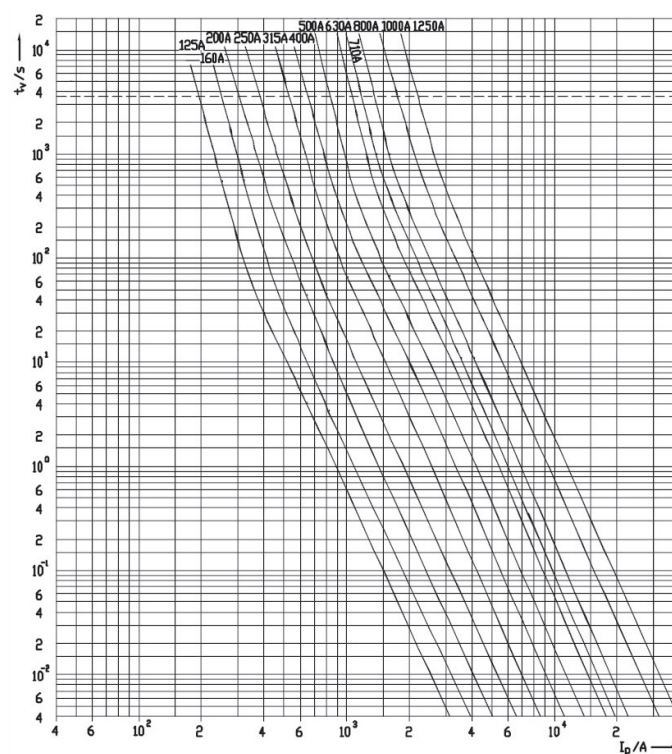
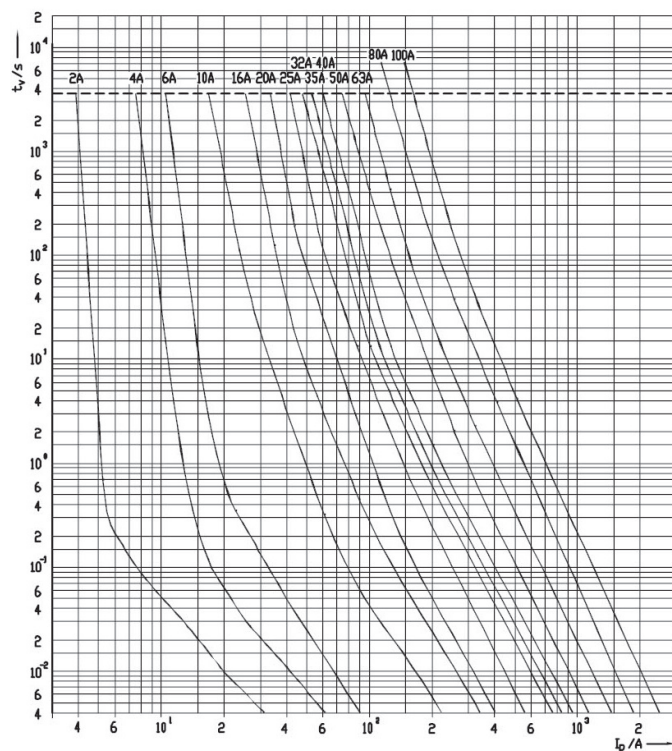
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO gG

DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH INDUSTRIAL FUSES - gG TYPE

Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO gG BLADE TYPE NH INDUSTRIAL FUSES - gG TYPE

Caratteristiche d'intervento tempo-corrente - Time-current characteristics



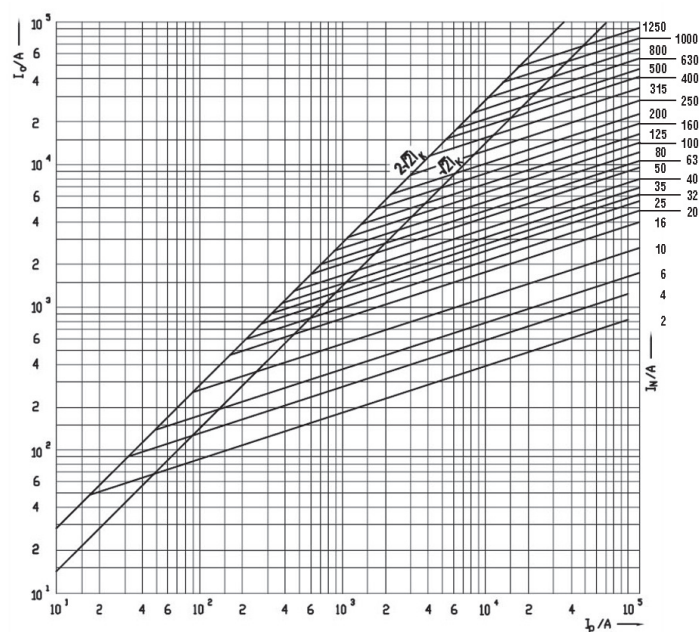
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO gG

DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH INDUSTRIAL FUSES - gG TYPE

Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO gG BLADE TYPE NH INDUSTRIAL FUSES - gG TYPE

Caratteristiche di limitazione - Cut-off characteristics



Caratteristiche tecniche - Technical characteristics

I _n (A)	I _k (kA)		I ² t prearco (A ² s) prearcing I ² t (A ² s)	I ² t totale (A ² s) total I ² t (A ² s)		potenza dissipata (grandezza fusibile) P _w (W) power dissipation (fuse size) P _w (W)					
	500V	690V		500V	690V	00	0	1	2	3	4
6	120	100	40	84	90	2,3	1,6	—	—	—	—
10	120	100	240	702	816	1,5	1,2	—	—	—	—
16	120	100	550	1.610	1.870	2,7	1,9	—	—	—	—
20	120	100	870	2.550	2.960	2,8	2,1	—	—	—	—
25	120	100	1.500	3.350	3.700	2,9	2,8	—	—	—	—
32	120	100	2.500	6.750	7.440	3,1	3,1	—	—	—	—
35	120	100	3.300	7.380	8.140	3,3	3,3	—	—	—	—
40	120	100	4.600	8.440	9.300	3,8	3,8	3,8	—	—	—
50	120	100	6.000	13.400	14.800	4,8	5,6	5,8	—	—	—
63	120	100	9.600	21.500	23.700	6,1	6,9	6,1	—	—	—
80	120	100	19.200	43.500	51.600	5,4	6,7	6,9	—	—	—
100	120	100	31.500	71.400	84.600	7,1	8,1	8,8	8,5	—	—
125	120	100	42.000	95.200	112.800	9,7	10,8	10,9	10,7	—	—
160	120	100	78.000	176.900	209.500	11,0	12,3	13,3	13,3	—	—
200	120	100	145.000	329.000	389.000	—	—	16,6	16,6	—	—
250	120	100	250.000	567.000	671.000	—	—	21,8	21,8	17,9	—
315	120	100	310.000	971.000	1.230.000	—	—	—	24,1	22,6	—
400	120	100	580.000	1.816.000	2.301.000	—	—	—	30,7	25,3	—
500	120	100	1.450.000	3.446.000	3.956.000	—	—	—	—	35,1	—
630	120	100	2.610.000	6.202.000	7.121.000	—	—	—	—	40,2	49,88
800	100	100	3.913.746	19.860.799	26.613.470	—	—	—	—	—	63,99
1000	100	100	7.109.709	36.079.122	48.346.024	—	—	—	—	—	75,43
1250	100	100	14.065.272	71.376.009	95.643.852	—	—	—	—	—	88,92
Valori max. secondo IEC 60269-1 Max. values according to IEC 60269-1						12W	25W	32W	45W	60W	90W

NH COLTELLO
NH BLADE

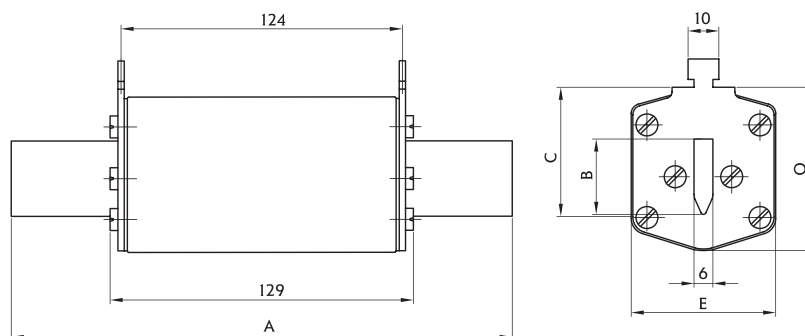
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO gG

*DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH INDUSTRIAL FUSES - gG TYPE*

Dimensioni in mm e caratteristiche tecniche - Dimensions in mm and technical characteristics

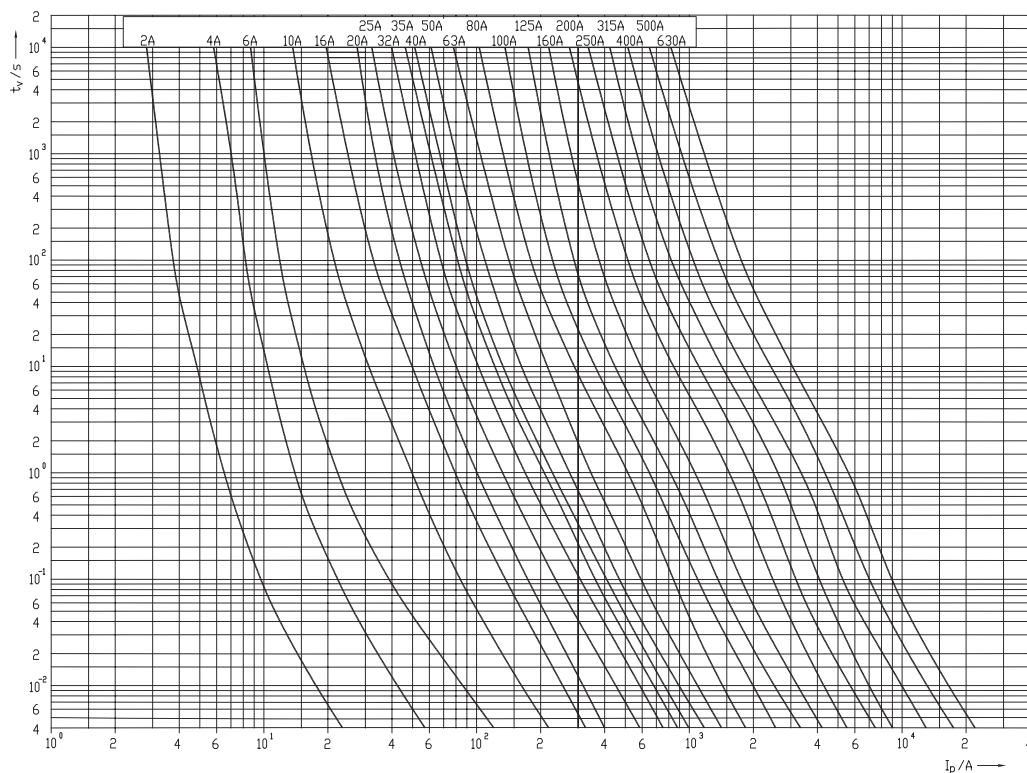
FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO gG - SERIE 1200V BLADE TYPE NH INDUSTRIAL FUSES - gG TYPE - SERIES 1200V

Dimensioni in mm - Dimensions in mm



size	A	B	C	E	G	P	R	M	O
1XL	194	24	40	46	61,5	20,5	13,7	50	52
2XL	209	30	48	54	71	27,3	16,2	59	61
3L	209	37	60	64	82	35,6	17	70	74

Caratteristiche d'intervento tempo-corrente - Time-current characteristics



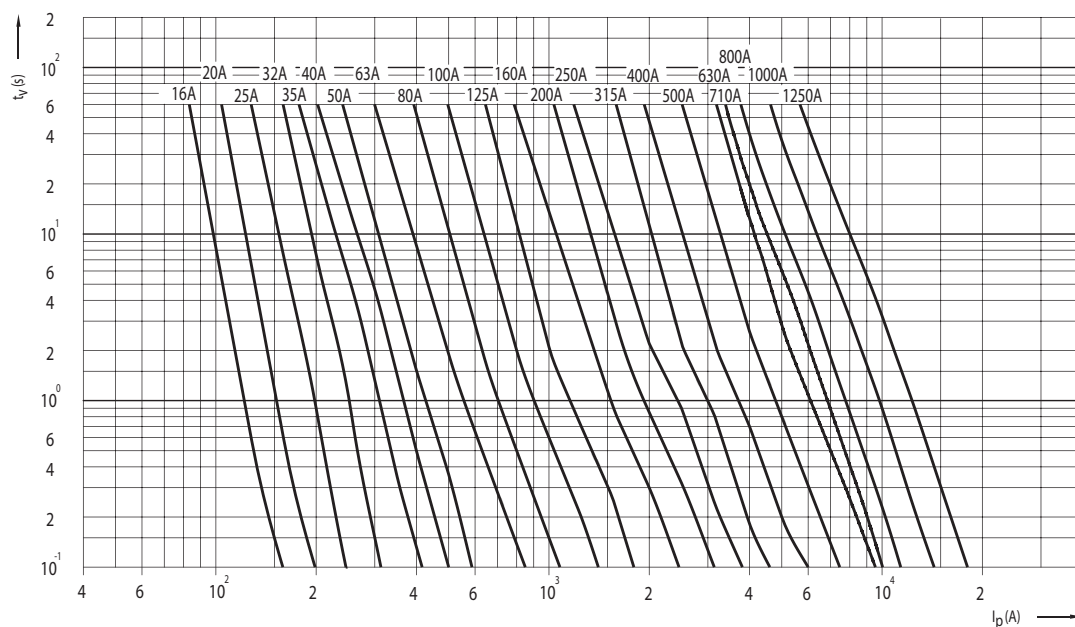
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO aM

*DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH INDUSTRIAL FUSES - aM TYPE*

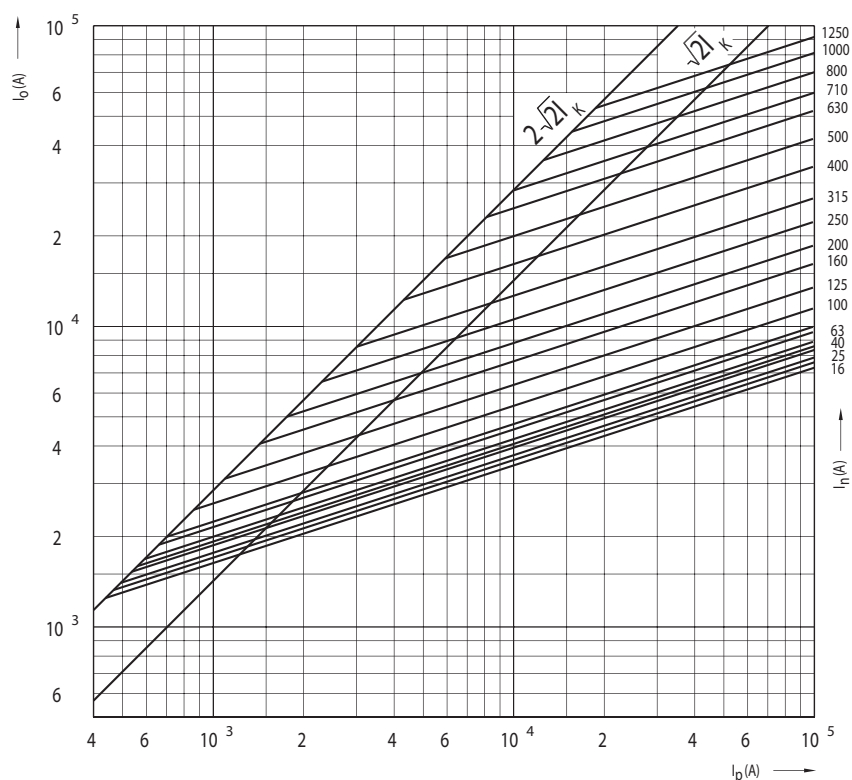
Caratteristiche tecniche - *Technical characteristics*

FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO aM BLADE TYPE NH INDUSTRIAL FUSES - aM TYPE

Caratteristiche d'intervento tempo-corrente - *Time-current characteristics*



Caratteristiche di limitazione - *Cut-off characteristics*



NH COLTELLO
NH BLADE

DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO aM

*DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH INDUSTRIAL FUSES - aM TYPE*

Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO aM BLADE TYPE NH INDUSTRIAL FUSES - aM TYPE

Tabella valori potenza dissipata - Power dissipation values table

I _n (A)	I _k (kA)	grandezza fusibile - fuse size					
		00 P _w (W)	0 P _w (W)	1 P _w (W)	2 P _w (W)	3 P _w (W)	4a P _w (W)
6	100	0,3	0,5	—	—	—	—
10	100	0,4	0,6	—	—	—	—
16	100	0,7	0,9	—	—	—	—
20	100	1,0	1,3	—	—	—	—
25	100	1,3	1,7	—	—	—	—
35	100	1,7	2,3	2,3	—	—	—
40	100	1,9	2,4	—	—	—	—
50	100	2,4	3,1	3,1	—	—	—
63	100	3,8	3,9	3,9	3,8	—	—
80	100	4,5	4,9	4,9	4,7	—	—
100	100	6,2	6,5	6,5	6,3	—	—
125	100	6,7	8,9	8,9	8,7	—	—
160	100	9,4	11,2	12,4	11,0	—	—
200	100	—	—	13,5	13,5	13,3	—
250	100	—	—	21,8	21,8	20,1	—
315	100	—	—	—	25,8	25,8	—
355	100	—	—	—	29,9	30,2	—
400	100	—	—	—	33,7	33,4	—
500	100	—	—	—	—	41,0	—
630	100	—	—	—	—	50,0	50,0
800	100	—	—	—	—	—	65,5
1000	100	—	—	—	—	—	81,5
1250	100	—	—	—	—	—	110
Valori max. secondo IEC 60269-1 Max. values according to IEC 60269-1		12W	25W	32W	45W	60W	110W

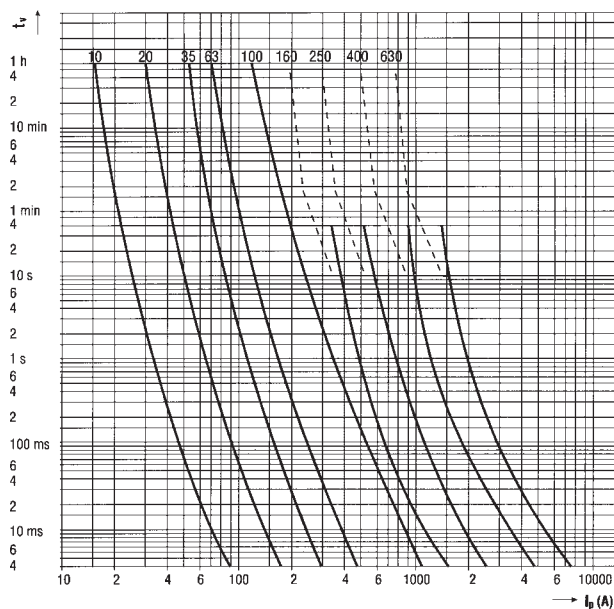
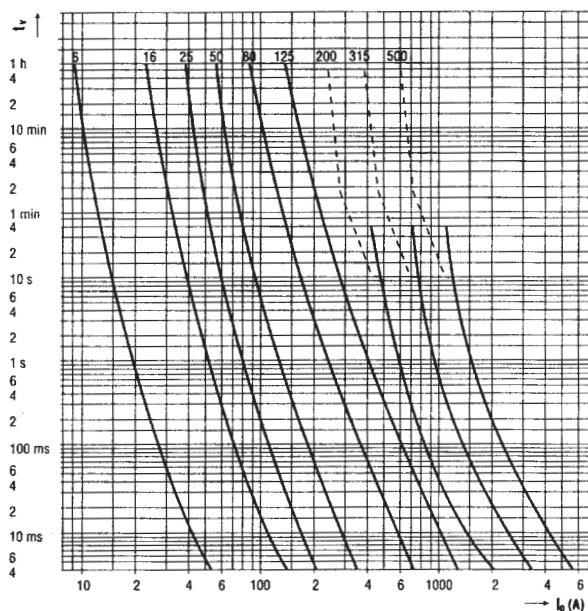
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

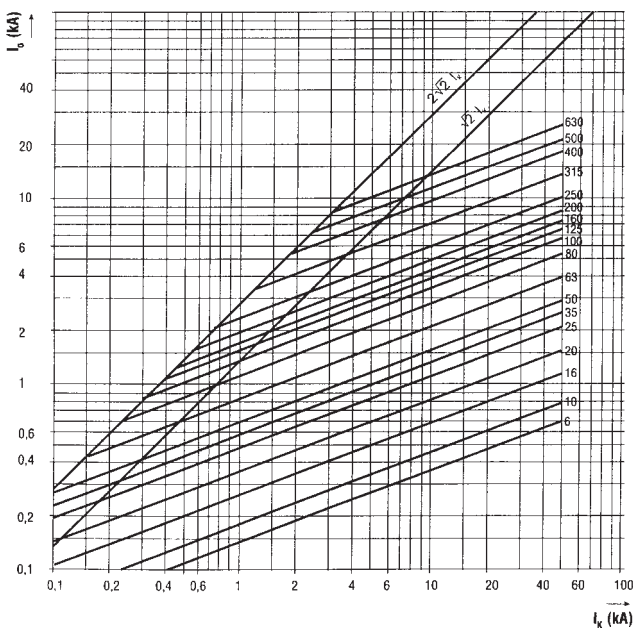
Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE HRC - TIPO gR/aR BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES HRC - gR/aR TYPE

Caratteristiche d'intervento tempo-corrente - Time-current characteristics



Caratteristiche di limitazione - Cut-off characteristics



NH COLTELLO
NH BLADE

DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

*DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES*

Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE HRC - TIPO gR/aR BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES HRC - gR/aR TYPE

grandezza size	I_n (A) I_n (A)	I_k (kA) I_k (kA)	P_w (W) P_w (W)	I^2t di prearco (A ² s) prearcing I^2t (A ² s)	I^2t totale (A ² s) total I^2t (A ² s)
HRC 00 / HRC 00C	6	50	2,8	4	19
	10	50	3,3	13	62
	16	50	4,1	32	170
	20	50	5	60	290
	25	50	5,8	123	590
	35	50	8	242	1.160
	40	50	11	313	1.500
	50	50	16	490	2.370
	63	50	20	960	4.650
	80	50	25	1.100	5.350
	100	50	32	2.180	10.000
	125	50	40	4.450	21.300
	160	50	44	10.000	24.000
HRC 0	25	50	5,8	85	460
	35	50	8	190	1.000
	40	50	11	250	1.300
	50	50	16	290	1.500
	63	50	20	500	3.000
	80	50	25	1.000	5.300
	100	50	32	2.000	9.000
	125	50	40	3.100	16.000
	160	50	44	10.000	24.000
HRC 1	50	50	16	290	1.500
	63	50	20	500	3.000
	80	50	25	1.000	5.300
	100	50	32	2.000	9.000
	125	50	40	3.100	16.000
	160	50	44	10.000	24.000
	200	50	58	17.000	40.000
HRC 2	250	50	63	29.000	65.000
	80	50	25	1.000	5.300
	100	50	32	2.000	9.000
	125	50	40	3.100	16.000
	160	50	44	10.000	24.000
	200	50	58	17.000	40.000
	250	50	63	31.000	65.000
	315	50	95	48.000	175.000
	355	50	100	60.000	220.000
HRC 3	400	50	105	85.000	270.000
	250	50	63	31.000	60.000
	315	50	95	48.000	175.000
	355	50	100	60.000	300.000
	400	50	105	90.000	440.000
	500	50	130	160.000	660.000
	630	50	140	270.000	850.000

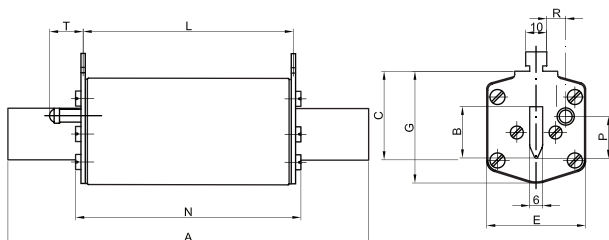
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

Dimensioni in mm e caratteristiche tecniche - Dimensions in mm and technical characteristics

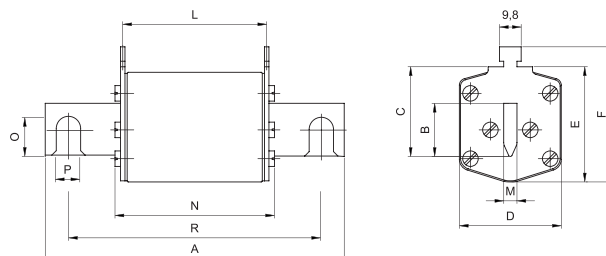
FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO gR BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - gR TYPE

Fusibili NH-00C, NH-1, NH-2, NH-3 - Fuses NH-00C, NH-1, NH-2, NH-3



size	A	B	C	E	G	S	L	N	P	R	T
00C	78	15	35	21	42	6	46	53	20,5	—	18
1	135	24	40	46	52	6	65	73	20,5	13,7	27,5
2	150	30	48	54	61	6	65	73	27,3	16,2	27,5
3	150	37	60	64	74	6	65	73	35,6	17	27,5

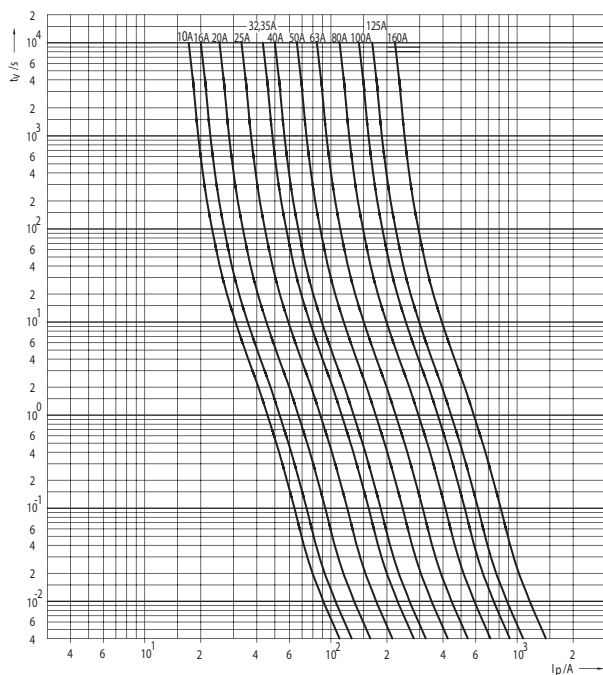
Fusibili NH-4, NH-4a - Fuses NH-4, NH-4a



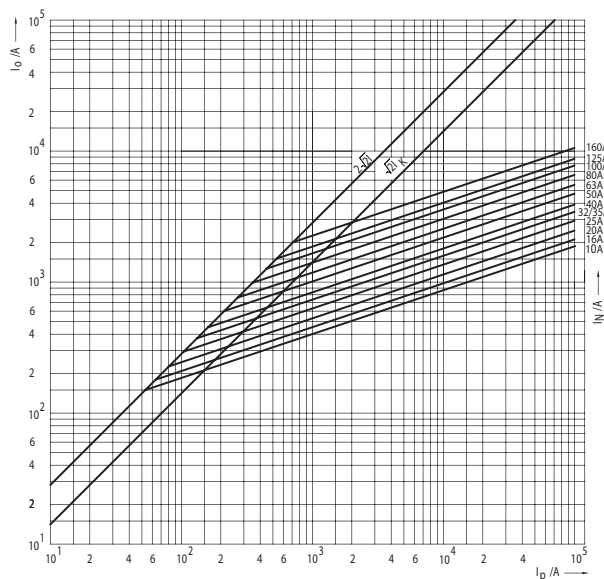
size	A	B	C	D	E	F	L	N	M	O	P	R
4	200	50	87	95	112	122	65	78	8	32	16	150
4a	200	50	85	95	112	122	87	97	6	—	—	—

NH COLTELLO
NH BLADE

Caratteristiche d'intervento tempo-corrente - Time-current characteristics Fusibili grandezza NH-00C, NH-00, NH-0 - Fuses size NH-00C, NH-00, NH-0



Caratteristiche di limitazione - Cut-off characteristics Fusibili grandezza NH-00C, NH-00, NH-0 - Fuses size NH-00C, NH-00, NH-0



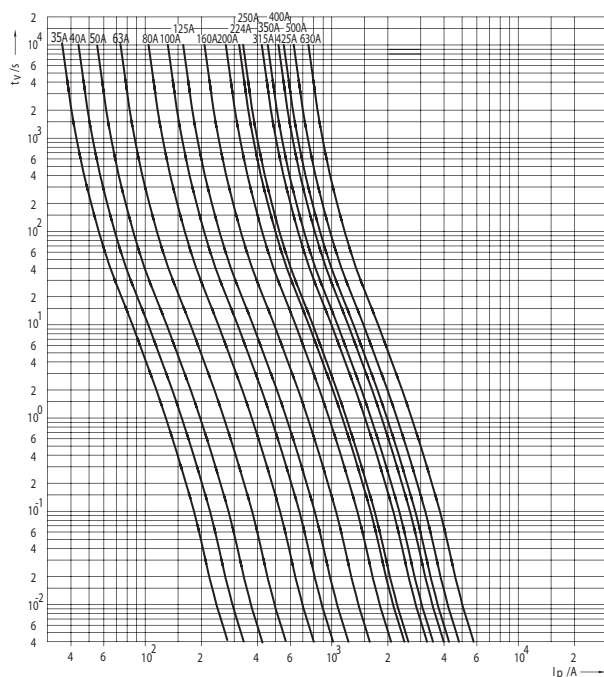
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

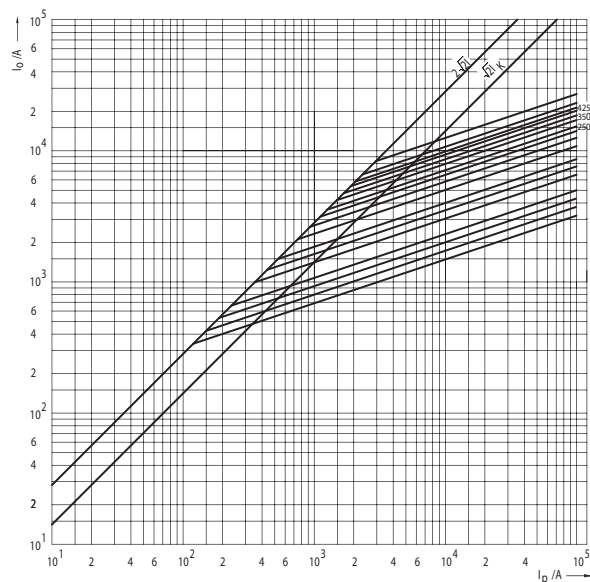
Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO gR BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - gR TYPE

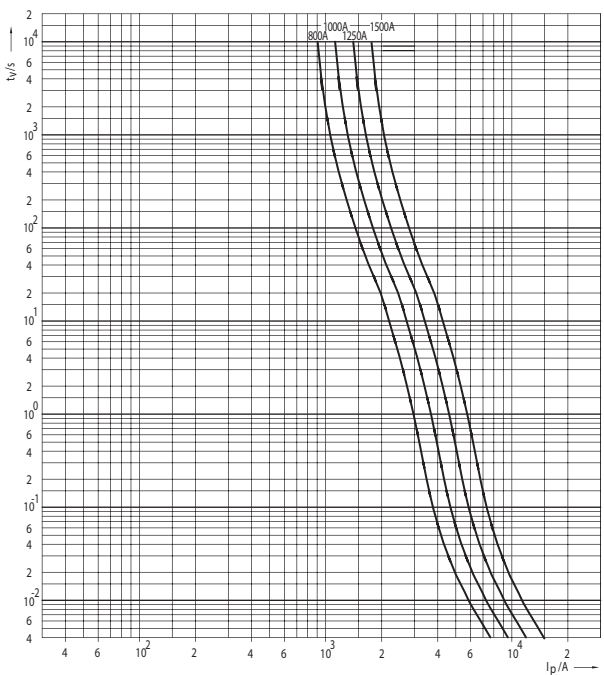
Caratteristiche d'intervento tempo-corrente - Time-current characteristics Fusibili grandezza NH-1, NH-2, NH-3 - Fuses size NH-1, NH-2, NH-3



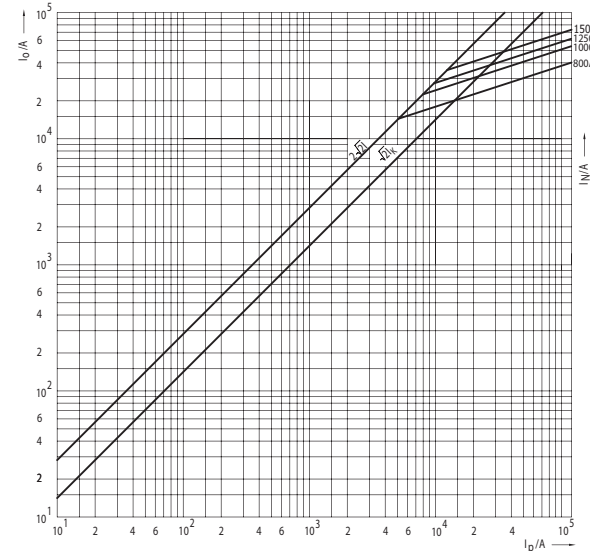
Caratteristiche di limitazione - Cut-off characteristics Fusibili grandezza NH-1, NH-2, NH-3 - Fuses size NH-1, NH-2, NH-3



Caratteristiche d'intervento tempo-corrente - Time-current characteristics Fusibili grandezza NH-4, NH-4a - Fuses size NH-4, NH-4a



Caratteristiche di limitazione - Cut-off characteristics Fusibili grandezza NH-4, NH-4a - Fuses size NH-4, NH-4a



DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

*DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES*

Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO gR BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - gR TYPE

grandezza size	I_n (A) I_n (A)	I_k (kA) I_k (kA)	P_w (W) P_w (W)	I^t di prearco (A ² s) prearcing I^t (A ² s)	I^t totale (A ² s) total I^t (A ² s)
NH 00C	6	200	4,8	10	60
	10	200	6,5	20	100
	16	200	8	42	220
	20	200	9,5	63	320
	25	200	11,8	110	600
	32	200	12,5	180	920
	35	200	13,1	200	990
	40	200	14,1	250	1.400
	50	200	15,6	450	2.200
	63	200	17,8	700	3.600
	80	200	20,6	1.100	6.200
	100	200	23,7	2.000	10.000
	125	200	30	2.500	13.000
	160	200	36	4.400	23.000
NH 1	50	200	15,6	450	2.200
	63	200	17,8	700	3.600
	80	200	20,6	1.100	6.200
	100	200	23,7	2.000	10.000
	125	200	30	2.500	13.000
	160	200	36	4.400	23.000
	200	200	37	8.500	47.000
	250	200	48	15.000	70.000
NH 2	125	200	30	2.500	13.000
	160	200	36	4.400	23.000
	200	200	37	8.500	47.000
	250	200	48	15.000	70.000
	315	200	57	20.000	110.000
	355	200	67	28.000	150.000
	400	200	76	32.000	170.000
NH 3	250	200	48	15.000	70.000
	315	200	57	20.000	110.000
	355	200	67	28.000	150.000
	400	200	76	32.000	170.000
	500	200	102	44.000	240.000
	630	200	138	80.000	400.000
NH 4	800	200	164	100.000	620.000
	1000	200	188	210.000	1.150.000
	1250	200	246	320.000	2.000.000
NH 4a	800	200	164	100.000	620.000
	1000	200	188	210.000	1.150.000
	1250	200	246	320.000	2.000.000
	1500	200	310	450.000	3.800.000
	1600	200	330	700.000	4.500.000

NH COLTELLO
NH BLADE

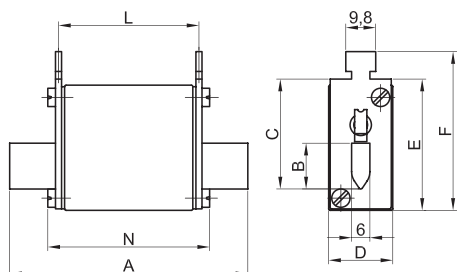
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

Dimensioni in mm e caratteristiche tecniche - Dimensions in mm and technical characteristics

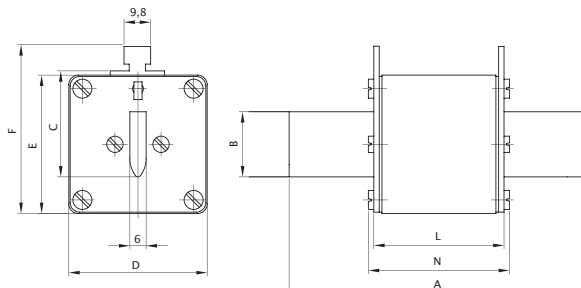
FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO aR 690V BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - aR TYPE 690V

Fusibili NH-00 - Fuses NH-00



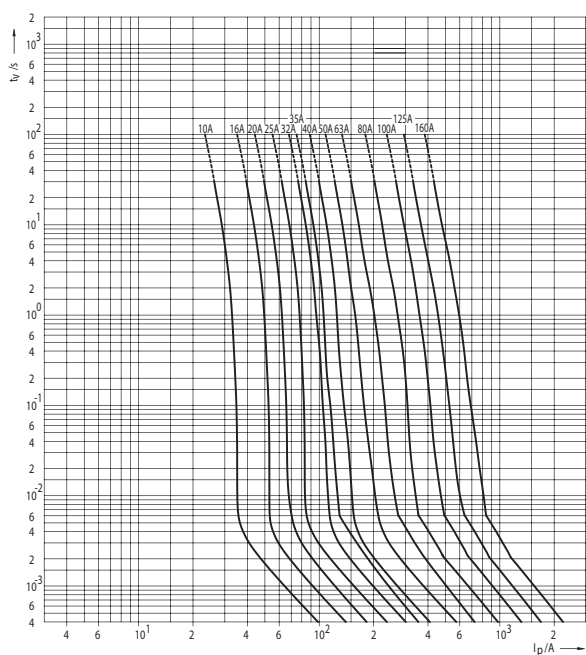
size	A	B	C	D	E	F	L	N
00	78	15	35	30	42	51	48	52

Fusibili NH-1, NH-2, NH-3 - Fuses NH-1, NH-2, NH-3

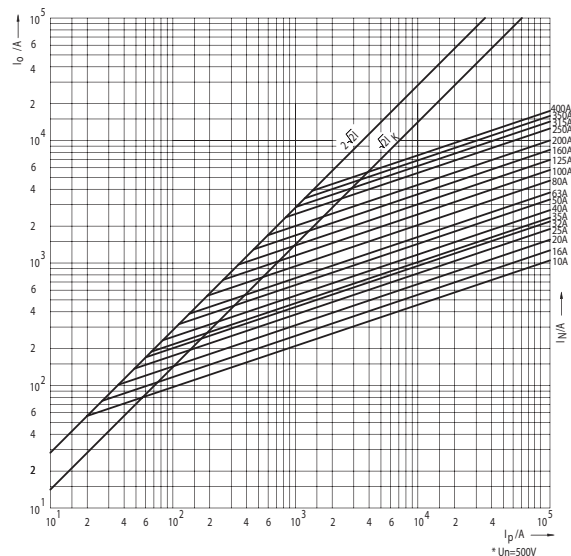


size	A	B	C	D	E	F	L	N
1	135	24	40	46	52	62	65	72
2	150	30	48	54	61	71	65	72
3	150	37	60	64	74	84	65	72

Caratteristiche d'intervento tempo-corrente - Fusibili aR - Grandezza 00 Time-current characteristics - aR fuses - Size 00



Caratteristiche di limitazione - Fusibili aR - Grandezza 00 Cut-off characteristics - aR fuses - Size 00



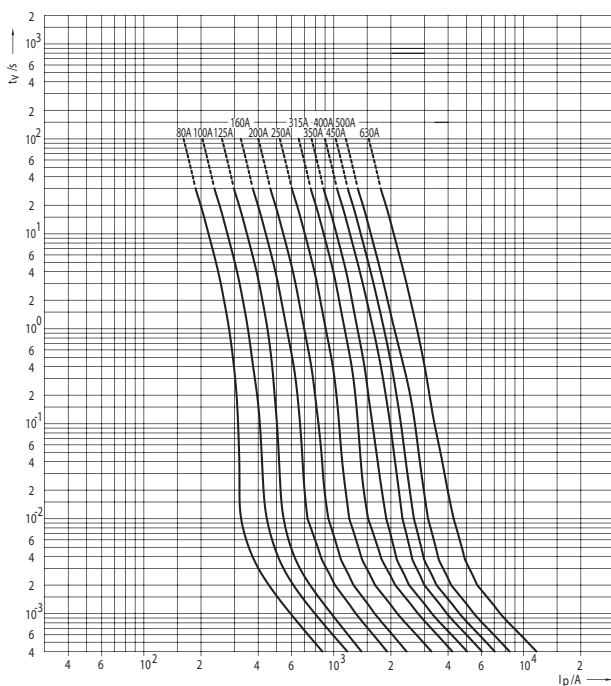
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

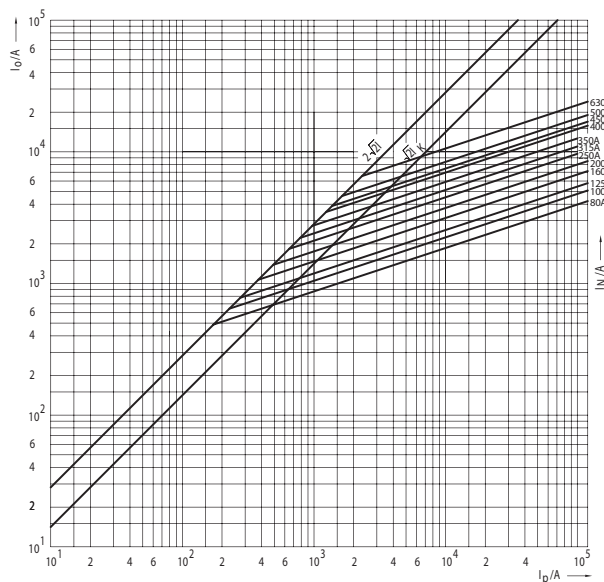
Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO aR 690V BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - aR TYPE 690V

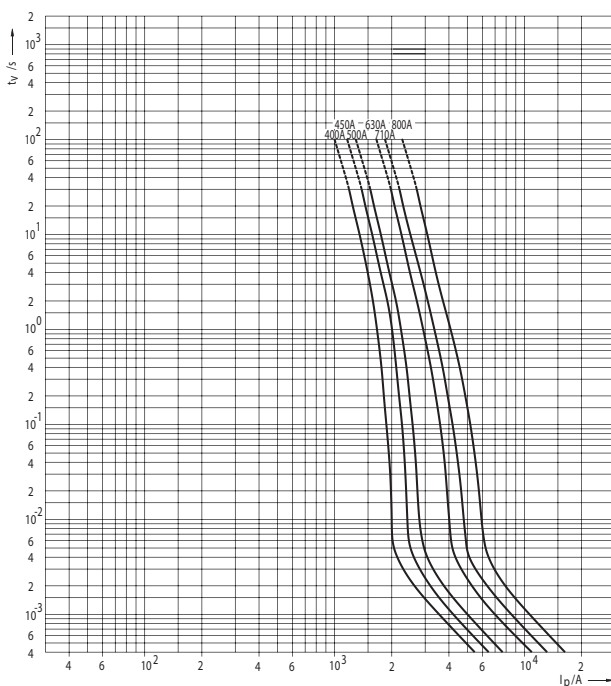
Caratteristiche d'intervento tempo-corrente - Fusibili aR - Grandezza 1 Time-current characteristics - aR fuses - Size 1



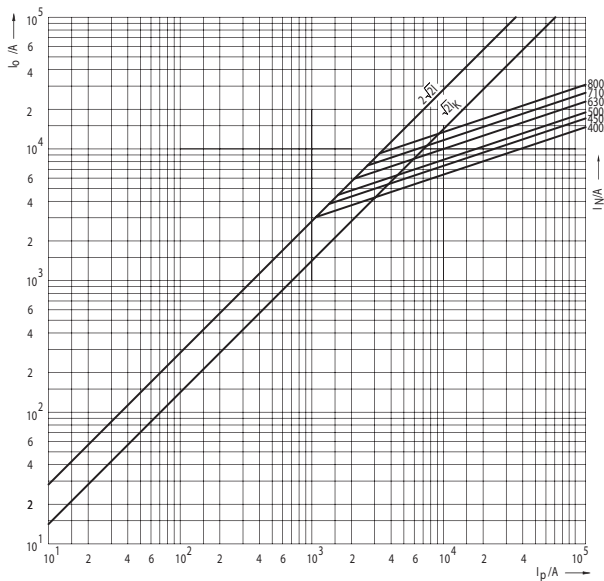
Caratteristiche di limitazione - Fusibili aR - Grandezza 1 Cut-off characteristics - aR fuses - Size 1



Caratteristiche d'intervento tempo-corrente - Fusibili aR - Grandezza 2 Time-current characteristics - aR fuses - Size 2



Caratteristiche di limitazione - Fusibili aR - Grandezza 2 Cut-off characteristics - aR fuses - Size 2



NH COLTELLO
NH BLADE

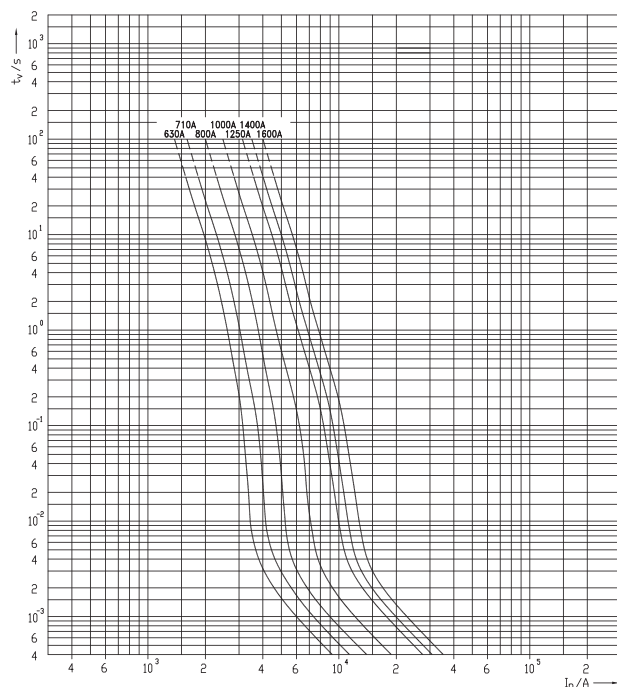
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

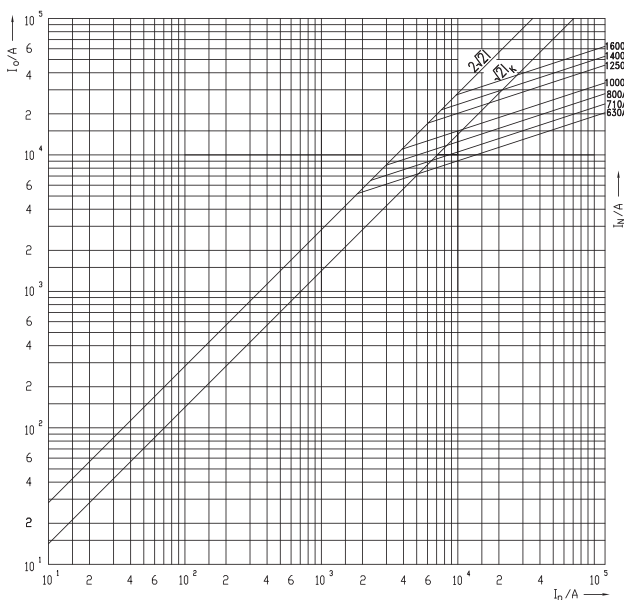
Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO aR 690V BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - aR TYPE 690V

Caratteristiche d'intervento tempo-corrente - Fusibili aR - Grandezza 3 Time-current characteristics - aR fuses - Size 3



Caratteristiche di limitazione - Fusibili aR - Grandezza 3 Cut-off characteristics - aR fuses - Size 3



Caratteristiche tecniche - Technical characteristics

grandezza size	I_n (A) I_n (A)	I_k (kA) I_k (kA)	P_w (W) P_w (W)	I^2t di prearco (A ² s) prearcing I^2t (A ² s)	I^2t totale (A ² s) total I^2t (A ² s)
NH 00C	10	200	3	10	23
	16	200	4	21	46
	20	200	5	32	95
	25	200	6	55	165
	32	200	7	90	290
	35	200	8	100	400
	40	200	9	125	640
	50	200	10	225	1.000
	63	200	12,3	350	1.800
	80	200	16,3	550	2.800
	100	200	20	1.000	4.600
	125	200	26,9	1.500	8.000
	160	200	31,6	2.400	16.500
	200	200	46	3.400	22.000
	250	200	49	4.100	44.000
NH 1 NH 2 NH 3	63	200	16	350	1.200
	80	200	21	550	1.800
	100	200	27	1.000	2.500
	125	200	32	1.500	4.600
	160	200	36	2.400	8.400
	200	200	46	3.400	14.000
	250	200	51	4.100	26.000
	315	200	66	7.000	42.000
	350	200	69	8.000	54.000
	400	200	80	10.000	98.000
	500	200	110	13.000	150.000
	550	200	115	15.000	200.000
	630	200	121	25.000	225.000
	710	200	130	35.000	320.000
	800	200	145	45.000	525.000
	900	200	160	60.000	900.000
	1000	200	170	80.000	1.000.000

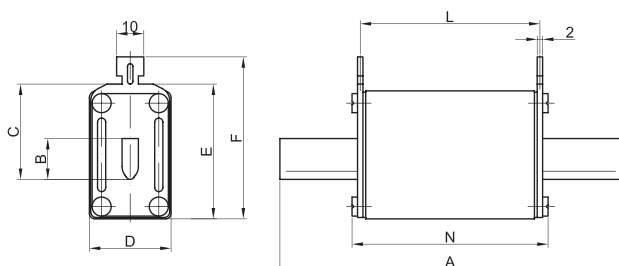
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

Dimensioni in mm e caratteristiche tecniche - Dimensions in mm and technical characteristics

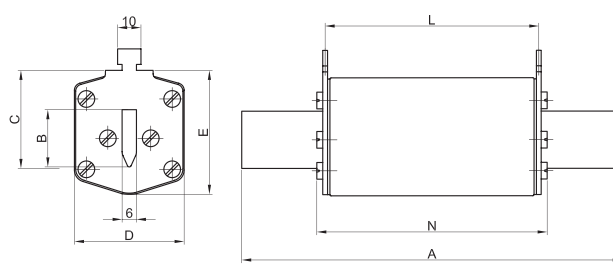
FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO aR 1000V / 1200V BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - aR TYPE 1000V / 1200V

Fusibili NH-0 - Fuses NH-0



size	A	B	C	D	E	F	L	N
0	125	15	35	30	50	59,5	66	72

Fusibili NH-1, NH-2, NH-3 - Fuses NH-1, NH-2, NH-3

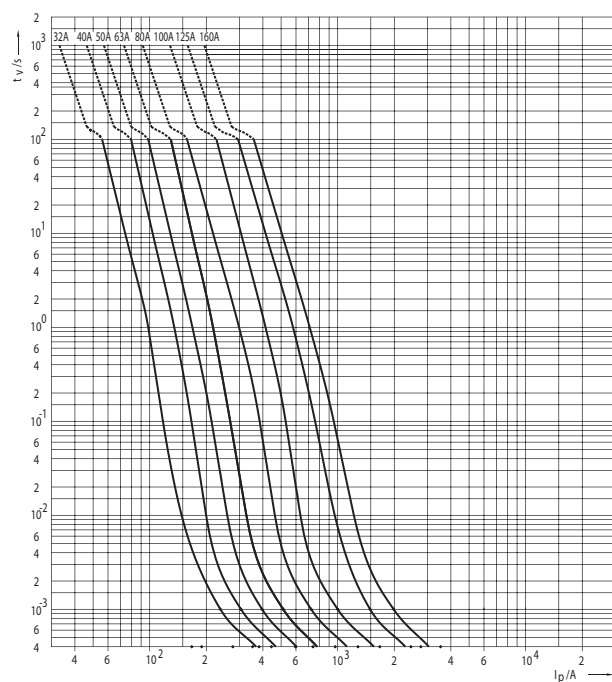


size	A	B	C	D	E	L	N
1	194	20 / 24 *	40	46	61,5	124	132
2	209	26 / 30 *	48	54	71	124	132
3	209	32 / 37 *	60	64	82	124	132

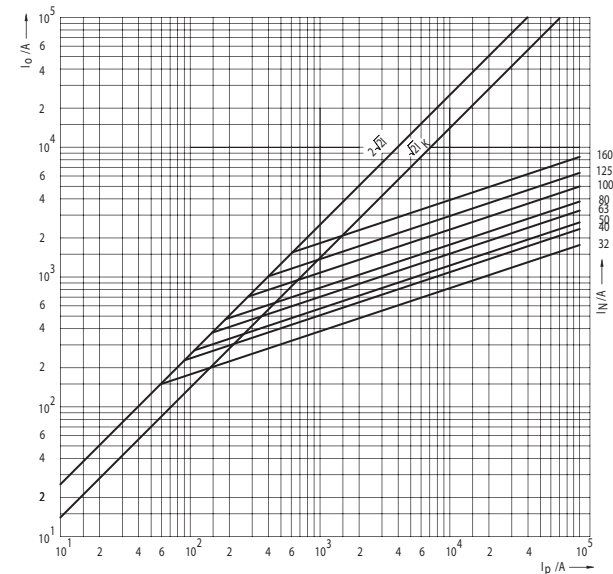
* L'altezza del coltello dipende dalla corrente nominale
* The height of the knife depends on current rating

NH COLTELLO
NH BLADE

Caratteristiche d'intervento tempo-corrente - Fusibili aR - Grandezza 0 Time-current characteristics - aR fuses - Size 0



Caratteristiche di limitazione - Fusibili aR - Grandezza 0 Cut-off characteristics - aR fuses - Size 0



DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

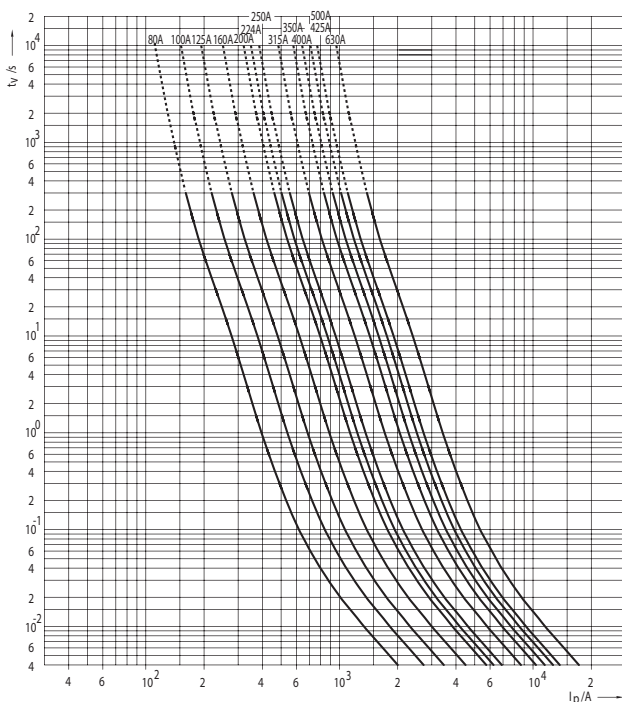
Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO aR 1000V / 1200V

BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - aR TYPE 1000V / 1200V

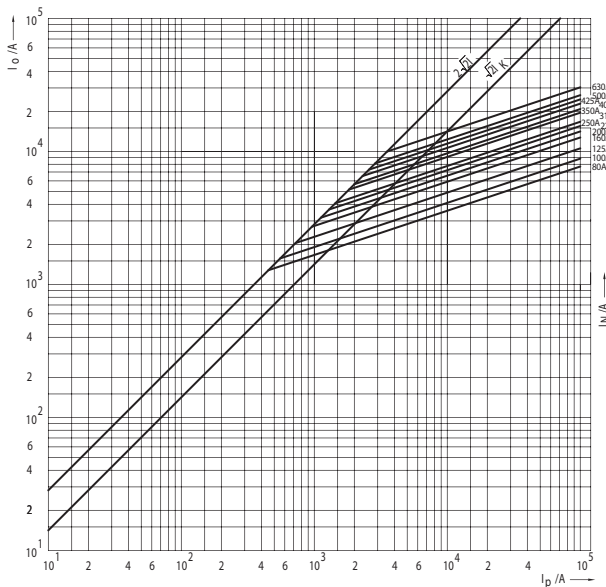
Caratteristiche d'intervento tempo-corrente - Fusibili aR - Grandezza 1/2/3

Time-current characteristics - aR fuses - Size 1/2/3



Caratteristiche di limitazione - Fusibili aR - Grandezza 1/2/3

Cut-off characteristics - aR fuses - Size 1/2/3



Caratteristiche tecniche - Technical characteristics

grandezza size	I_n (A) I_n (A)	V_n (V) V_n (V)	I_k (kA) I_k (kA)	P_w (W) P_w (W)	I^2t di prearco (A ² s) prearcing I^2t (A ² s)	I^2t totale (A ² s) total I^2t (A ² s)
NH 0	16	1000	200	8	20	210
	20	1000	200	9	25	260
	25	1000	200	11	40	350
	32	1000	200	12,5	51	480
	40	1000	200	14,4	90	840
	50	1000	200	19,3	140	1.300
	63	1000	200	22,3	250	2.300
	80	1000	200	28,8	420	3.900
	100	1000	200	31,5	860	8.000
	125	1000	200	34,3	1.970	18.000
NH 1	160	1000	200	40,5	3.800	35.000
	80	1200	200	35	1.600	8.000
	100	1200	200	46	2.500	12.500
	125	1200	200	55	4.200	20.000
	160	1200	200	67	7.000	32.000
	200	1200	200	84	11.000	50.000
NH 2	250	1200	200	104	17.000	80.000
	315	1200	200	125	25.000	120.000
	350	1200	200	141	32.000	160.000
NH 3	400	1200	200	159	42.000	200.000
	500	1200	200	185	77.000	320.000
	630	1200	200	198	110.000	500.000

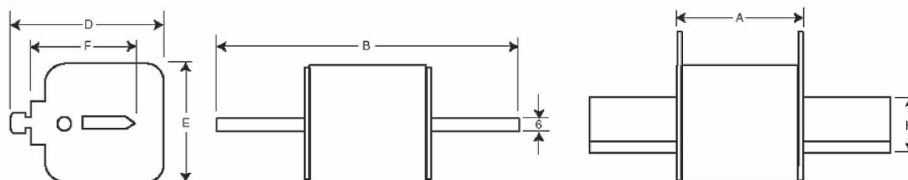
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH HIGH SPEED INDUSTRIAL FUSES

Dimensioni in mm e caratteristiche tecniche - Dimensions in mm and technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ULTRA - TIPO gR/aR BLADE TYPE NH HIGH SPEED INDUSTRIAL FUSES - SERIES ULTRA - gR/aR TYPE

Dimensioni in mm e caratteristiche tecniche - Dimensions in mm and technical specifications



grandezza - size	A	B	D	E	F	H
000	49,7	78,5	52	20,5	35	15
00	49,7	78,5	59	30	35	15
1	68	135	64	40	40	20
2	68	150	72	54	48	25
3	68	150	87	71	60	32

grandezza size	I_n (A) I_n (A)	V_n (V) V_n (V)	I_k (kA) I_k (kA)	I^2t prearco (A ² s) prearcing Pt (A ² s)	I^2t totale (A ² s) total Pt (A ² s)	P_w (W) P_w (W)
000	10	690	200	4	27	2,5
	16	690	200	7	51	4
	20	690	200	11,5	82,5	5
	25	690	200	19	140	6
	32	690	200	40	285	7
	40	690	200	65	490	8,5
	50	690	200	115	815	9,5
	63	690	200	215	1.550	11,5
	80	690	200	380	2.700	15
	100	690	200	695	4.950	16,5
	125	690	200	1.180	8.250	21,5
	160	690	200	2.300	16.500	25
00	200	690	200	4.350	31.000	29,5
	250	690	200	7.900	56.000	35,5
	315	690	200	12.000	84.500	45
	80	690	200	185	1.350	8,5
	100	690	200	360	2.600	10
	125	690	200	550	3.900	11
	160	690	200	1.150	8.250	12
	200	690	200	2.300	16.500	12,5
	250	690	200	4.350	31.000	16
	315	690	200	7.300	52.000	20
	350	690	200	10.000	73.000	21,5
	400	690	200	16.000	115.000	23
1	315	690	200	4.950	33.000	61
	350	690	200	7.000	46.500	64
	400	690	200	11.000	79.000	29
	450	690	200	16.000	115.000	32
	500	690	200	21.500	155.000	34
	550	690	200	29.000	215.000	36
	630	690	200	41.000	295.000	42
	700	690	200	60.500	430.000	43
	500	690	200	14.000	99.500	43
	550	690	200	19.500	140.000	44
	630	690	200	31.000	220.000	45
	700	690	200	45.000	320.000	46
2	800	690	200	69.500	490.000	48
	900	690	200	100.000	720.000	50
	1000	690	200	140.000	985.000	56
	1100	690	200	190.000	1.400.000	57
	1250	690	200	300.000	2.150.000	61
	1400	690	200	380.000	2.700.000	70
	1500	690	200	470.000	3.350.000	72
	1600	690	200	585.000	4.150.000	74
	500	690	200	14.000	99.500	43
	550	690	200	19.500	140.000	44
	630	690	200	31.000	220.000	45
	700	690	200	45.000	320.000	46
3	800	690	200	69.500	490.000	48
	900	690	200	100.000	720.000	50
	1000	690	200	140.000	985.000	56
	1100	690	200	190.000	1.400.000	57
	1250	690	200	300.000	2.150.000	61
	1400	690	200	380.000	2.700.000	70
	1500	690	200	470.000	3.350.000	72
	1600	690	200	585.000	4.150.000	74
	500	690	200	14.000	99.500	43
	550	690	200	19.500	140.000	44
	630	690	200	31.000	220.000	45
	700	690	200	45.000	320.000	46

NH COLTELLO
NH BLADE

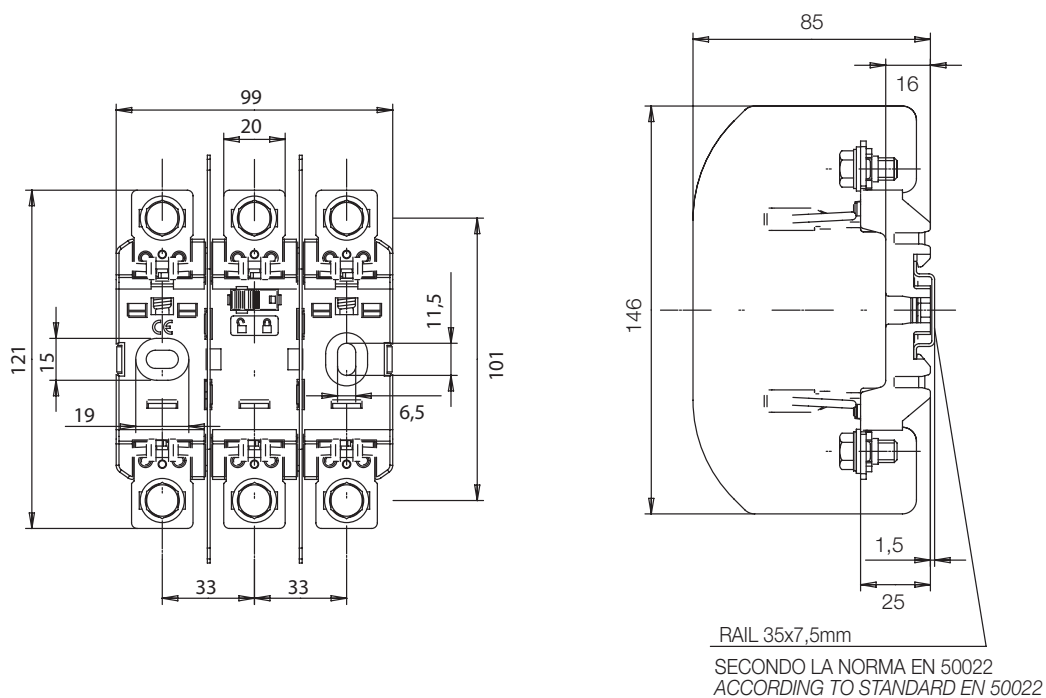
DIMENSIONI E CARATTERISTICHE PORTAFUSIBILI PER FUSIBILI NH - SERIE "NHU KOMBI"

*DIMENSIONS AND SPECIFICATIONS
FUSE BASES FOR NH FUSES - SERIES "NHU KOMBI"*

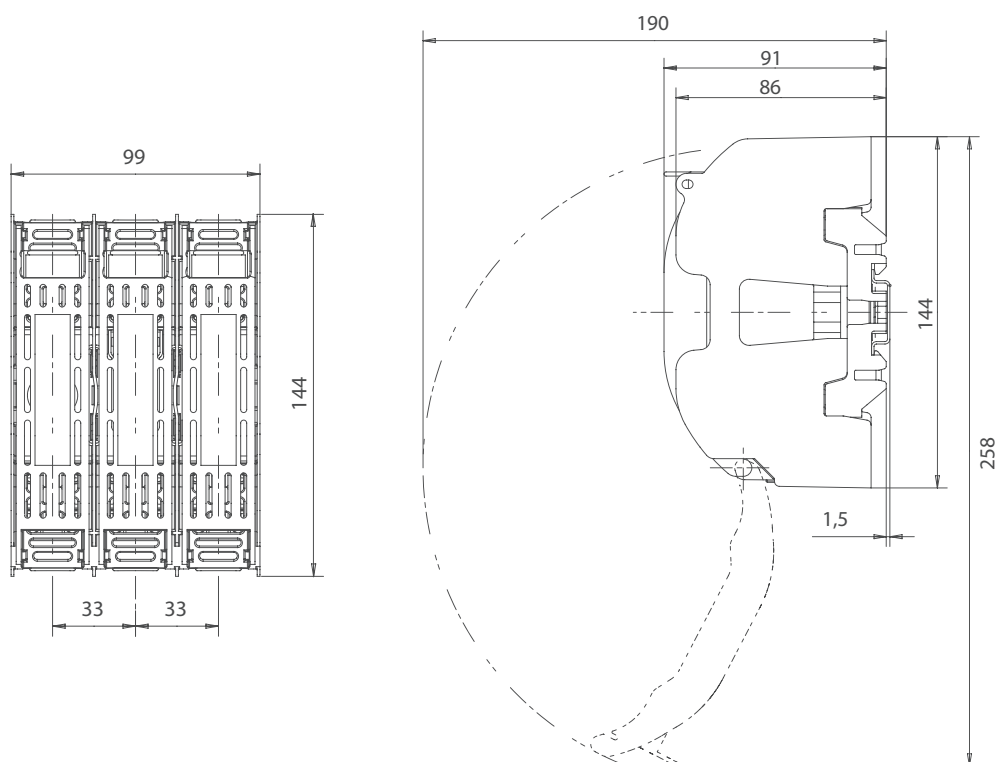
Dimensioni in mm - Dimensions in mm

PORTAFUSIBILI PER FUSIBILI NH - SERIE "NHU KOMBI" FUSE BASES FOR NH FUSES - SERIES "NHU KOMBI"

Versione standard - Standard version



Versione Kombi - Kombi version



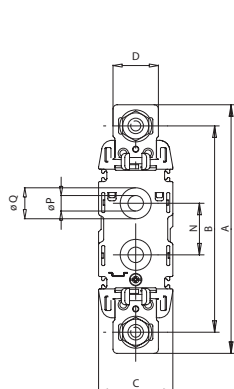
DIMENSIONI E CARATTERISTICHE PORTAFUSIBILI PER FUSIBILI NH - SERIE "NHD" E "NHU"

*DIMENSIONS AND SPECIFICATIONS
FUSE BASES FOR NH FUSES - SERIES "NHD" AND "NHU"*

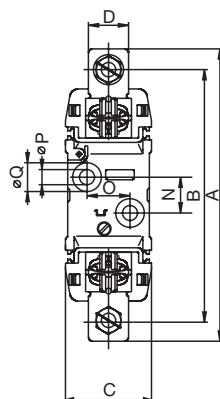
Dimensioni in mm - Dimensions in mm

PORTAFUSIBILI PER FUSIBILI NH - SERIE "NHD" E "NHU" FUSE BASES FOR NH FUSES - SERIES "NHD" AND "NHU"

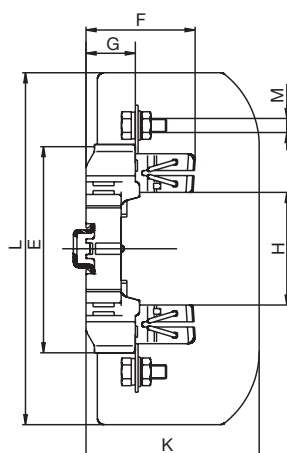
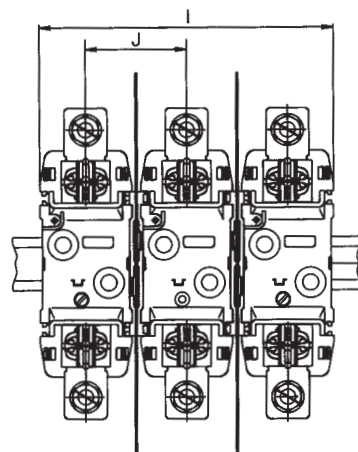
Basi per fusibili NH-00, NH-1, NH-2, NH-3 - Fuse bases for NH-00, NH-1, NH-2, NH-3



grandezza 00-0
size 00-0



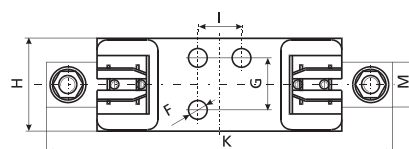
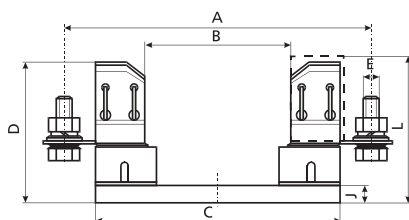
grandezza 1-2-3
size 1-2-3



grandezza - size

	NH-00	NH-0	NH-1	NH-2	NH-3
A	120	170	200	225	240
B	100	150	175	200	210
C	37	47	60	60	60
D	20	24	28	32	38
E	86	122	148	148	148
F	58	63	77,5	88	97
G	23	29	35	35	35
H	56,5	74	80	80	80
I	114	144	192	192	224
J	38,5	48,5	66	66	82
K	84,5	91,5	123	123	143
L	146	185	250	250	270
M	M8	M8	M10	M12	M12
N	25	25	25	25	25
O	0	0	30	30	30
P	7,5	7,5	10,5	10,5	10,5
Q	15	15	20,5	20,5	20,5

Basi per fusibili NH-1 1000V - Fuse bases for NH-1 1000V fuses



size	A	B	C	D	E	F	G	H	I	J	K	M
1	193	100	160	81	M10	10,5	30	55	25	10	220	26

NH COLTELLO
NH BLADE

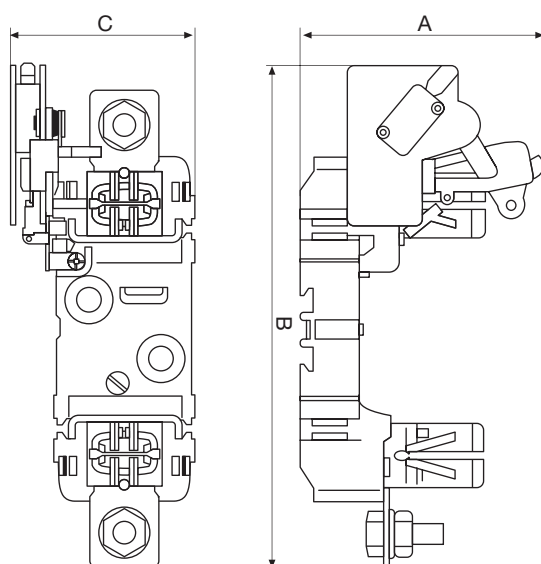
DIMENSIONI E CARATTERISTICHE PORTAFUSIBILI PER FUSIBILI NH - SERIE "NHU-MS" E "NHK"

*DIMENSIONS AND SPECIFICATIONS
FUSE BASES FOR NH FUSES - SERIES "NHU-MS" AND "NHK"*

Dimensioni in mm - Dimensions in mm

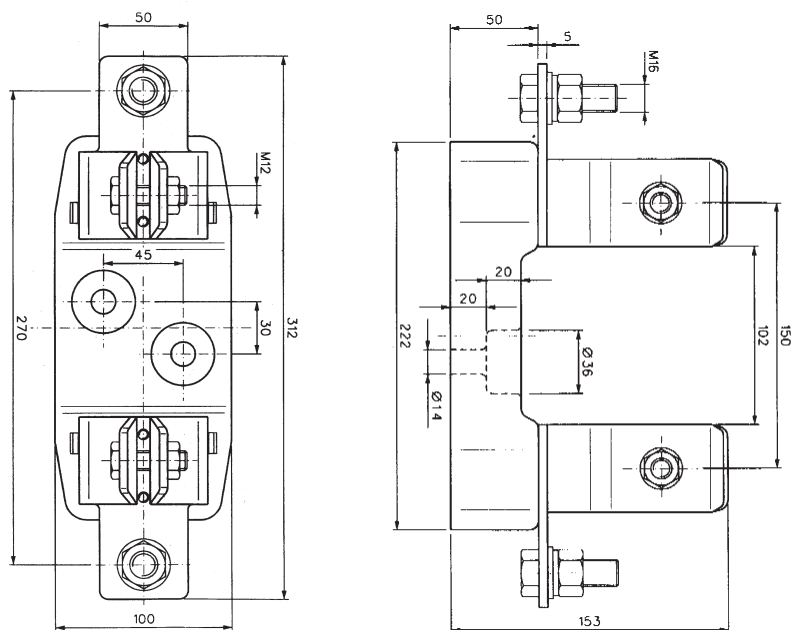
PORTAFUSIBILI PER FUSIBILI NH - SERIE "NHU-MS" E "NHK" FUSE BASES FOR NH FUSES - SERIES "NHU-MS" AND "NHK"

Portafusibile unipolare NHU-MS con micro per fusibili NH/CP - NHU-MS single pole fuse base with microswitch for use with NH/CP fuses



	grandezza - size			
	NH-0	NH-1	NH-2	NH-3
A	90	98	102	102
B	193	215	227	235
C	65,5	76	76	76

Portafusibile NHK-4S - NHK-4S fuse base



DIMENSIONI E CARATTERISTICHE PORTAFUSIBILI SEZIONABILI - SERIE "LTS"

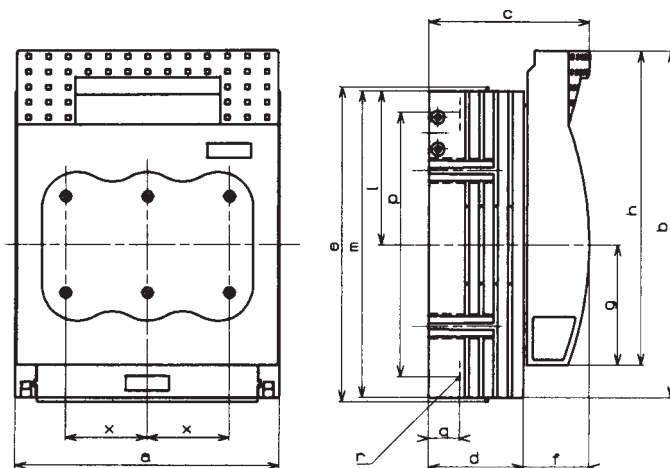
*DIMENSIONS AND SPECIFICATIONS
FUSE SWITCH DISCONNECTORS - SERIES "LTS"*

Caratteristiche tecniche e dimensioni in mm - *Technical characteristics and dimensions in mm*

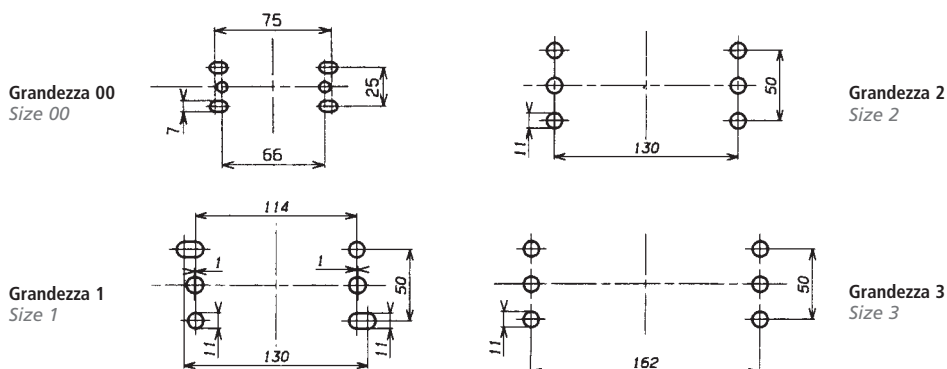
NH COITELLO
NH BLADE

PORTAFUSIBILI SEZIONABILI TRIPOLARI - SERIE "LTS" THREE-POLES FUSE SWITCH DISCONNECTORS - SERIES "LTS"

Dimensioni portafusibili sezionabili serie LTS - *Dimensions fuse switch disconnectors series LTS*



tipo - type	a	b	c	d	e	f	g	h	i	m	p	q	r	x
LTS-000	89	143	74,5	44	140	30,5	47	127,5	77,5	—	—	—	—	25,5
LTS-00	106	200	82,5	45	—	37	60	155	100	181	115	17	M8	33
LTS-1	184	243	111,5	66	220	45,5	84	220	107	214,5	185	21,5	M10	57
LTS-2	210	288	128	80	—	48	92	249	124	255	210	25	M10	65
LTS-3	256	300	142,5	94,5	—	48	98,5	259	127,5	267	210	30	M12	81



Caratteristiche tecniche portafusibili sezionabili serie LTS - *Technical characteristics fuse switch disconnectors series LTS*

	000	00	1	2	3
Tipo di corrente <i>Current type</i>	AC (50-60Hz)	AC (50-60Hz)	AC (50-60Hz)	AC (50-60Hz)	AC (50-60Hz)
Tensione nominale <i>Rated voltage</i>	690V AC / 440V DC	690V AC / 440V DC	690V AC / 440V DC	690V AC / 440V DC	690V AC / 440V DC
Tensione d'isolamento <i>Insulation voltage</i>	690V	800V	800V	800V	800V
Tensione di picco <i>Peak voltage</i>	6kV	6kV	6kV	6kV	6kV
Categorie d'applicazione <i>Utilization categories</i> (DC = L1 + L3 in serie)	AC-21B (690V) AC-22B (500V) DC-21B (440V / 80A) DC-21B (220V / 125A)	AC-22B (690V) AC-21B (690V) DC-21B (440V)	AC-21B (690V) AC-22B (400V) DC-22B (440V / 125A) DC-23B (440V)	AC-21B (690V) AC-22B (690V) DC-21B (440V)	AC-21B (690V) AC-22B (690V) DC-21B (440V)
Corrente di corto circuito <i>Short circuit current</i>	50kA (picco 105kA) 50kA (105 kA peak)	50kA (picco 105kA) 50kA (105 kA peak)	50kA (picco 105kA) 50kA (105 kA peak)	50kA (picco 105kA) 50kA (105 kA peak)	50kA (picco 105kA) 50kA (105 kA peak)
Max potenza dissipata fusibile <i>Max fuse power dissipation</i>	9W	12W	23W	34W	48W

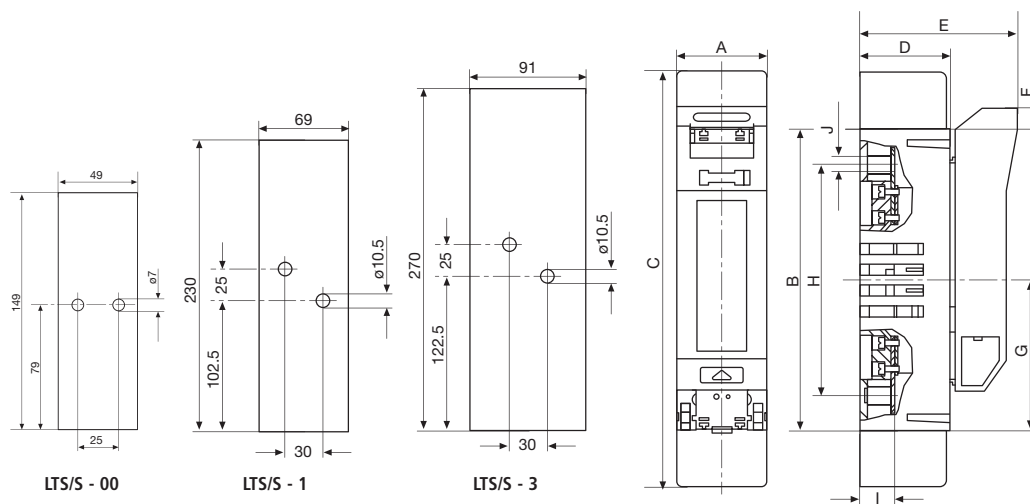
DIMENSIONI E CARATTERISTICHE PORTAFUSIBILI SEZIONABILI - SERIE "LTS/S"

DIMENSIONS AND SPECIFICATIONS FUSE SWITCH DISCONNECTORS - SERIES "LTS/S"

Caratteristiche tecniche e dimensioni in mm - Technical characteristics and dimensions in mm

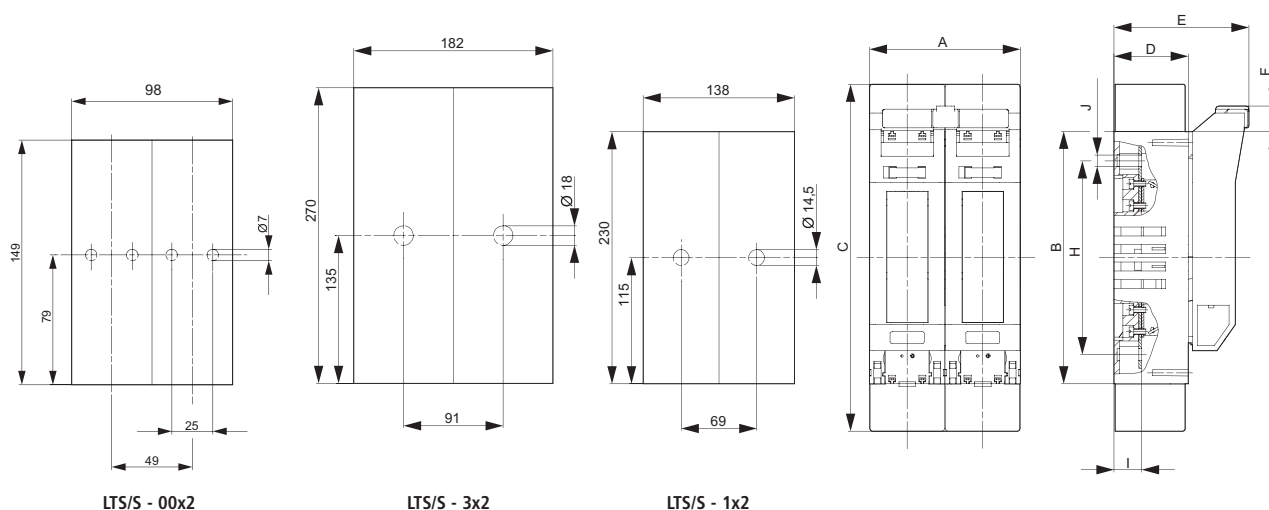
PORTAFUSIBILI SEZIONABILI - SERIE "LTS/S" FUSE SWITCH DISCONNECTORS - SERIES "LTS/S"

Portafusibili sezionabili unipolari LTS/S - LTS/S single pole fuse switch disconnectors



tipo - type	A	B	C	D	E	F	G	H	I	J
LTS/S - 00	49	149	200	45	86	20,5	—	120	17	9
LTS/S - 1	69	230	317	68	119	16,5	115	177	25	10,5
LTS/S - 3	91	270	430	96	147	9	135	220,5	30,5	10,5

Portafusibili sezionabili bipolari LTS/S - LTS/S two poles fuse switch disconnectors



tipo - type	A	B	C	D	E	F	H	I	J
LTS/S - 00x2	98	149	220	45	89	23	120	17	9
LTS/S - 1x2	138	230	317	68	123,5	23	177	25	10,5
LTS/S - 3x2	182	270	430	96	151,5	15,5	220,5	30,5	10,5

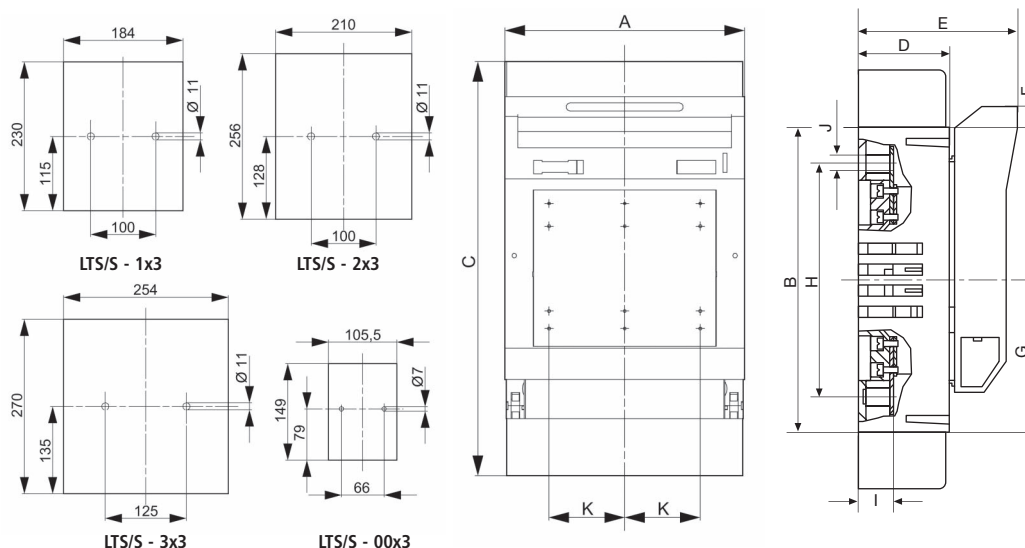
DIMENSIONI E CARATTERISTICHE PORTAFUSIBILI SEZIONABILI - SERIE "LTS/S"

*DIMENSIONS AND SPECIFICATIONS
FUSE SWITCH DISCONNECTORS - SERIES "LTS/S"*

Caratteristiche tecniche e dimensioni in mm - Technical characteristics and dimensions in mm

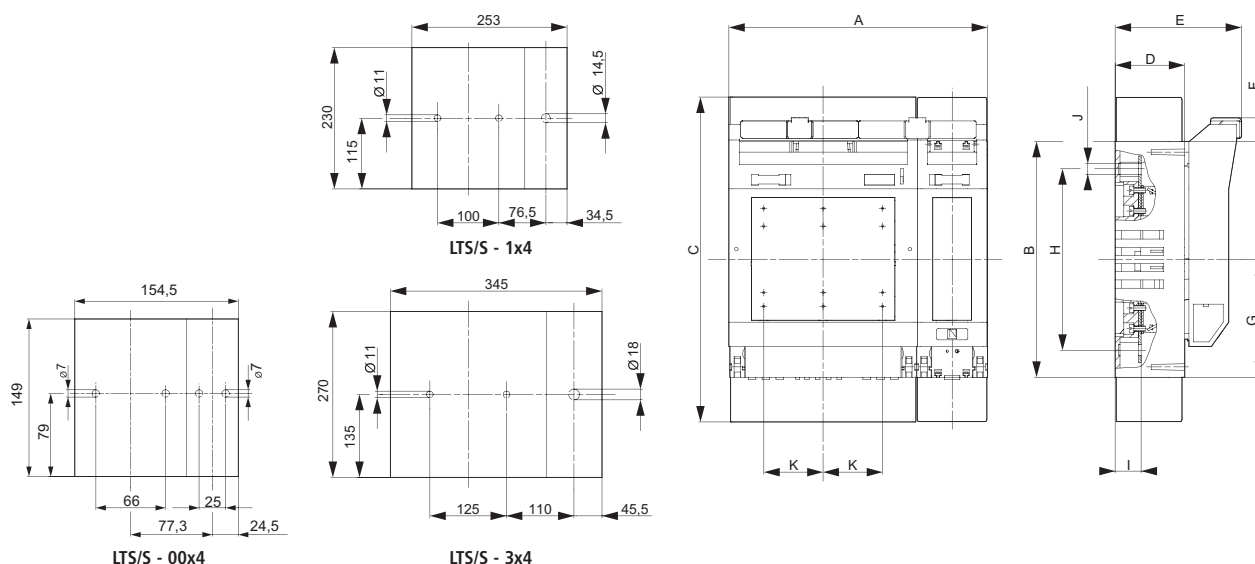
PORTAFUSIBILI SEZIONABILI - SERIE "LTS/S" FUSE SWITCH DISCONNECTORS - SERIES "LTS/S"

Portafusibili sezionabili tripolari LTS/S - LTS/S three poles fuse switch disconnectors



tipo - type	A	B	C	D	E	F	G	H	I	K	J
LTS/S - 00x3	105,5	149	220	45	86	20,5	74,5	120	17	33	9
LTS/S - 1x3	184	230	317	68	119	16,5	115	177	25	58	10,5
LTS/S - 2x3	210	256	397	81	133	16,5	128	205	25	66	10,5
LTS/S - 3x3	254	270	430	96	147	9	135	220,5	30,5	82	10,5

Portafusibili sezionabili quadripolari LTS/S - LTS/S four poles fuse switch disconnectors



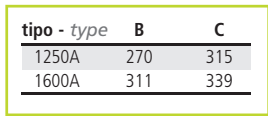
tipo - type	A	B	C	D	E	F	G	H	I	K	J
LTS/S - 00x4	154,5	149	220	45	89	23	74,5	120	17	33	9
LTS/S - 1x4	253	230	317	68	123,5	23	115	177	25	58	10,5
LTS/S - 3x4	345	270	430	96	151,5	15,5	135	220,5	30,5	82	10,5

NH COLTELLO
NH BLADE

DIMENSIONS AND SPECIFICATIONS

PORTAFUSIBILI SEZIONABILI - SERIE "LTS/S"
FUSE SWITCH DISCONNECTORS - SERIES "LTS/S"

Portafusibili sezionabili unipolari e tripolari LTS/S-4a - LTS/S-4a single pole and three poles fuse switch disconnectors



Caratteristiche tecniche portafusibili sezionabili serie LTS/S - Technical characteristics fuse switch disconnectors series LTS/S

	000	00	1	2	3	4a (1250A)	4a (1600A)
Corrente nominale <i>Rated current</i>	160A	160A	250A	400A	630A	1250A	1600A
Tensione nominale <i>Rated voltage</i>	690V AC / 220V DC	690V AC / 440V DC	690V AC / 440V DC	690V AC / 440V DC	690V AC / 440V DC	690V AC	690V AC
Tensione di picco <i>Peak voltage</i>	8kV	8kV	8kV	8kV	8kV	8kV	8kV
Categorie di utilizzo <i>Utilization categories</i>	AC-22B (400V/160A) AC-22B (500V/100A) AC-21B (690V/100A) DC-22B (220V/100A)	AC-22B (690V/100A) AC-22B (500V/160A) DC-21B (440V/100A) DC-22B (220V/160A)	AC-22B (690V/200A) AC-22B (500V/250A) DC-21B (440V/200A) DC-22B (220V/250A)	AC-22B (690V/315A) AC-22B (500V/400A) DC-21B (440V/315A) DC-22B (220V/400A)	AC-22B (690V/500A) AC-22B (500V/630A) DC-21B (440V/500A) DC-22B (220V/630A)	AC-21B (690V/1000A) AC-22B (500V/1250A)	AC-21B (690V/1000A) AC-22B (500V/1600A)
Potenza dissipata per polo <i>Power dissipation x pole</i>	7W	7W	13W	27W	52W	32W	52W
Max potenza dissipata fusibile <i>Max fuse power dissipation</i>	9W	12W	23W	34W	48W	110W	164W



NH a coltello NH blade type

Fusibili NH a coltello - tipo gG <i>NH blade type fuses - gG type</i>	90
Fusibili NH a coltello - tipo aM <i>NH blade type fuses - aM type</i>	94
Fusibili NH a coltello - tipo extrarapido gR/aR <i>NH blade type fuses - ultra-quick gR/aR type</i>	96
Basi portafusibili per fusibili NH a coltello <i>Fuse bases for NH blade type fuses</i>	100
Accessori per basi portafusibili <i>Accessories for fuse bases</i>	101
Portafusibili sezionabili per fusibili NH a coltello <i>Fuse switch disconnectors for NH blade type fuses</i>	102
Dimensioni e caratteristiche tecniche <i>Dimensions and technical specifications</i>	104

EXCLUSIVELY DISTRIBUTED BY:



L4 B3 MARVEX LEGACY HOMES
MARVEX DRIVE A.BONIFACIO, QUEZON CITY
PHONE NUMBERS: +632 3734453/3735336
EMAIL ADDRESS: montrelec@gmail.com
Website: www.montrelec.com.ph

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "NH"- "NH/I" - TIPO gG

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "NH"- "NH/I" - gG TYPE

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, VDE 0636, DIN 43620

I fusibili industriali NH di tipo gG sono normalmente utilizzati per la protezione di cavi, linee elettriche e apparecchiature contro i sovraccarichi ed i cortocircuiti. I fusibili NH Kombi sono dotati di un doppio dispositivo di segnalazione dell'intervento, uno dei quali è posto nella parte centrale del fusibile, mentre l'altro è posto nella parte superiore. Quest'ultimo dispositivo può essere associato ad un microinterruttore per ottenere una segnalazione a distanza dell'avvenuto intervento. I fusibili NH/I garantiscono una protezione aggiuntiva dai contatti accidentali perché sono realizzati ponendo delle placche plastiche isolanti nei pressi delle lame del fusibile.

The NH industrial fuses type gG are normally used to protect cables, electrical lines and equipments against overloads and short circuits. The NH Kombi fuses are equipped with two blown fuse indicators, one of which is placed in the central part of the fuse, while the other is placed in the upper part. The latter device may be associated with a microswitch to obtain a remote signaling of the fuse operation. The series NH/I fuses provide additional protection against accidental contacts because they are made by placing an insulating plastic plate in proximity of the blades of the fuse.



Fusibile NH-00C/I gG Kombi
con placche isolate
NH-00C/I gG Kombi fuse
with insulated gripping-lugs



Fusibile NH-00C gG Kombi
standard
NH-00C gG Kombi fuse
standard



Fusibile NH-1C gG Kombi
standard
NH-1C gG Kombi fuse
standard

FUSIBILI NH KOMBI E NH/I 500V - TIPO gG NH KOMBI AND NH/I 500V FUSES - gG TYPE

grandezza size	codice IW - IW code		I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
	NH standard ⁽¹⁾	NH/I con placche isolate ⁽¹⁾⁽⁴⁾ NH/I with insulated gripping-lugs ⁽¹⁾			
NH-00C	1500602	—	2A	500V	3-120
	1500604	—	4A	500V	3-120
	1500606	1500806	6A	500V	3-120
	1500610	1500810	10A	500V	3-120
	1500616	1500816	16A	500V	3-120
	1500620	1500820	20A	500V	3-120
	1500625	1500825	25A	500V	3-120
	1500632	—	32A	500V	3-120
	1500635	1500835	35A	500V	3-120
	1500640	1500840	40A	500V	3-120
	1500650	1500850	50A	500V	3-120
	1500663	1500863	63A	500V	3-120
	1500680	1500880	80A	500V	3-120
	1500690	1500900	100A	500V	3-120
NH-00	1500125	1500925	125A	500V	3-90
	1500160	1500960	160A	500V	3-90
NH-0	1505006	—	6A	500V	3-45
	1505010	—	10A	500V	3-45
	1505016	—	16A	500V	3-45
	1505020	—	20A	500V	3-45
	1505025	—	25A	500V	3-45
	1505036	—	35A	500V	3-45
	1505040	—	40A	500V	3-45
	1505050	—	50A	500V	3-45
	1505063	—	63A	500V	3-45
	1505080	—	80A	500V	3-45
	1505100	—	100A	500V	3-45
	1505125	—	125A	500V	3-45
	1505160	—	160A	500V	3-45
NH-1C	1510040	1510840 ⁽²⁾	40A	500V	3-45
	1510050	1510850 ⁽²⁾	50A	500V	3-45
	1510063	1510863 ⁽²⁾	63A	500V	3-45
	1510080	1510880 ⁽²⁾	80A	500V	3-45
	1510100	1510900 ⁽²⁾	100A	500V	3-45
	1510125	1510905 ⁽²⁾	125A	500V	3-45
NH-1	1510160	1510906 ⁽²⁾	160A	500V	3-45
	1510200	1510907	200A	500V	3-24
NH-2C	1510250	1510908	250A	500V	3-24
	1520080	—	80A	500V	3-15
NH-2	1520100	1520900 ⁽²⁾	100A	500V	3-15
	1520125	1520905 ⁽²⁾	125A	500V	3-15
	1520160	1520906 ⁽²⁾	160A	500V	3-15
	1520200	1520910 ⁽²⁾	200A	500V	3-15
	1520250	1520915 ⁽²⁾	250A	500V	3-15
NH-3C	1530315	1530920	315A	500V	3-15
	1530355	1530925	355A	500V	3-15
	1530400	1530930	400A	500V	3-15
NH-3	1530500	1530950	500A	500V	3-12
	1530630	1530963	630A	500V	3-12
	1563800 ⁽³⁾⁽⁵⁾	—	800A	500V	3-12

- (1) Esecuzione Kombi con doppio indicatore; nella versione standard l'indicatore superiore può azionare un microinterruttore codice IW 2699804.
(2) Esecuzione non compatta
(3) Esecuzione con solo indicatore superiore
(4) Il microinterruttore non è utilizzabile
(5) Portata non normalizzata

- (1) Kombi version with dual indicator; the upper indicator in standard version may operate a microswitch IW code 2699804.
(2) Non compact version
(3) Version with upper indicator only
(4) Microswitch not available
(5) Non standardized current

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "NH"- "NH/CP"- "NH/CP-S" - TIPO gG

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "NH"- "NH/CP"- "NH/CP-S" - gG TYPE

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, VDE 0636, DIN 43620

I fusibili industriali NH di tipo gG sono utilizzati per la protezione di cavi, linee elettriche e apparecchiature contro sovraccarichi e cortocircuiti. I fusibili delle serie NH/CP e NH/CP-S sono equipaggiati con un percussore, che fuoriesce all'atto della fusione del fusibile, e può essere utilizzato insieme a un microinterruttore per la segnalazione a distanza dell'avenuto intervento. In particolare i fusibili della serie NH/CP vanno utilizzati con apposite basi del tipo "aperto" con microinterruttore già montato a bordo, mentre i fusibili della serie NH/CP-S vanno utilizzati all'interno dei sezionatori della serie LTS/S, a cui va aggiunto il microinterruttore per la segnalazione a distanza dell'intervento.

The industrial NH fuses type gG are used to protect cables, electrical lines and equipment against overloads and short circuits. The fuses of the series NH/CP and NH/CP-S are equipped with a striker, which activates during the melting of the fuse, and can be used with a microswitch for remote signaling of the fuse operation. The fuses NH/CP must be used with appropriate bases of the classic "open" type, in which the microswitch is already mounted on board, while the fuses NH/CP-S must be used within the switch disconnectors of the LTS/S series, in which must be added a microswitch for remote signaling of the fuse operation.



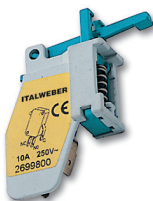
Fusibile NH-0 gG
standard 690V
Standard NH-0 gG
690V fuse



Fusibile NH-2 gG
standard 690V
Standard NH-2 gG
690V fuse



Fusibile NH-2/CP gG
con percussore
NH-2/CP gG fuse
with striker



Microinterruttore
1NA + 1NC
Microswitch
1NO + 1NC

FUSIBILI NH, NH/CP E NH/CP-S 690V - TIPO gG NH, NH/CP AND NH/CP-S 690V FUSES - gG TYPE

grandezza size	codice IW - IW code			I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
	NH ⁽¹⁾ standard	NH/CP ⁽²⁾ con percussore NH/CP ⁽²⁾ with striker	NH/CP-S ⁽³⁾ con percussore NH/CP-S ⁽³⁾ with striker			
	NH ⁽¹⁾ standard	NH/CP ⁽²⁾ with striker	NH/CP-S ⁽³⁾ with striker			
NH-00C	1600506	—	1570006S	6A	690V	3
	1600510	—	1570010S	10A	690V	3
	1600516	—	1570016S	16A	690V	3
	1600520	—	1570020S	20A	690V	3
	1600525	—	1570025S	25A	690V	3
	1600532	—	1570032S	32A	690V	3
	1600535	—	1570035S	35A	690V	3
	1600540	—	1570040S	40A	690V	3
	1600550	—	—	50A	690V	3
	—	—	1570050S	50A	690V	3
NH-00	1600563	—	1570063S	63A	690V	3
	1600580	—	1570080S	80A	690V	3
	1600600	—	1570100S	100A	690V	3
	1600625	—	—	125A	690V	3
	1600660	—	—	160A	690V	3
	—	—	—	—	—	—
NH-0	1605006	—	—	6A	690V	3
	1605010	—	—	10A	690V	3
	1605016	—	—	16A	690V	3
	1605020	—	—	20A	690V	3
	1605025	—	—	25A	690V	3
	1605036	—	—	35A	690V	3
	1605040	—	—	40A	690V	3
	1605050	—	—	50A	690V	3
	1605063	—	—	63A	690V	3
	1605080	—	—	80A	690V	3
	1605100	—	—	100A	690V	3
	1605125	—	—	125A	690V	3
	—	—	—	—	—	—
NH-1	1610040	—	—	40A	690V	3
	1610050	—	1579050S	50A	690V	3
	1610063	—	1579063S	63A	690V	3
	1610080	1579080	1579080S	80A	690V	3
	1610100	1579100	1579100S	100A	690V	3
	1610125	1579125	1579125S	125A	690V	3
	1610160	1579160	1579160S	160A	690V	3
	1610200	1579200	1579200S	200A	690V	3
	1610250	1579250 ⁽⁴⁾	1579250S	250A	690V	3
	1620100	—	1572100S	100A	690V	3
NH-2	1620125	1572125	1572125S	125A	690V	3
	1620160	1572160	1572160S	160A	690V	3
	1620200	1572200	1572200S	200A	690V	3
	1620250	1572250	1572250S	250A	690V	3
	1620315	1572315	1572315S	315A	690V	3
	—	1572355 ⁽⁴⁾	—	355A	690V	3
	1620400	1572400 ⁽⁴⁾	1572400S	400A	690V	3
	1630315	1573315	1573315S	315A	690V	3
	—	1573355	—	355A	690V	3
	1630400	1573400	1573400S	400A	690V	3
NH-3	1630500	1573500	1573500S	500A	690V	3
	1630630	1573630 ⁽⁴⁾	1573630S	630A	690V	3
	—	—	—	—	—	—

- (1) Un dispositivo di segnalazione permette di azionare un microinterruttore (opzionale). Per ordinare codice IW 2699800 (grandezze 00-0-1-2-3), codice IW 2699802 (grandezza 2C-3C)
- (2) Da utilizzare con basi complete di microinterruttore - Vedere pag. 100
- (3) Da utilizzare con sezionatori LTS/S - Vedere pag. 103
- (4) Esecuzione a 500V

- (1) A blown fuse indicator device is used to activate a microswitch (optional). Order codes: IW code 2699800 (sizes 00-0-1-2-3), IW code 2699802 (sizes 2C-3C).
- (2) To be used with bases complete with microswitch - See page 100
- (3) To be used with disconnector LTS/S - See page 103
- (4) 500V version

NH COLTELLO
NH BLADE

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "NH-4"- "NH-4a"- "NH-1 1000V" - TIPO gG

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "NH-4"- "NH-4a"- "NH-1 1000V" - gG TYPE

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, VDE 0636, DIN 43620

I fusibili industriali NH di tipo gG sono utilizzati per la protezione di cavi, linee elettriche e apparecchiature contro i sovraccarichi ed i cortocircuiti. A differenza delle altre grandezze dei fusibili NH, i fusibili aventi grandezza NH-4 presentano le lame asolate, e vanno quindi fissati mediante bulloni, utilizzando le apposite basi aperte di grandezza NH-4. Invece, i fusibili della grandezza NH-4a, compresa la serie NH/CP-S dotata di percussore, vanno utilizzati all'interno degli appositi portafusibili sezionabili della serie LTS/S. I fusibili gG con tensione nominale di 1000V presentano una lunghezza particolare e vanno utilizzati solo con la relativa base portafusibili.

The industrial NH fuses type gG are normally used to protect cables, electrical lines and equipment against overloads and short circuits. Unlike other sizes of NH fuses, the fuses size NH-4 have the blades that present holes, and must therefore be fixed by means of bolts, using the appropriate classic base of size NH-4. Instead, the fuses of size NH-4a, including the series NH/CP-S equipped with a striker, must be used within the appropriate switch disconnectors of the LTS/S series. The gG fuses with rated voltage of 1000V have a particular length and must only be used with the corresponding PK/1000 fuse base.



Fusibile NH-4 gG
NH-4 gG fuse

FUSIBILI NH-4 500V - TIPO gG NH-4 500V FUSES - gG TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NH-4	1541630	630A	500V	1-12
	1541700	700A	500V	1-12
	1541800	800A	500V	1-12
	1541899	1000A	500V	1-12
	1541999	1250A	500V	1-12



Fusibile NH-4a gG 500V
NH-4a gG 500V fuse

FUSIBILI NH-4a 500V - TIPO gG NH-4a 500V FUSES - gG TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NH-4a	1542630	630A	500V	1
	1542700	700A	500V	1
	1542800	800A	500V	1
	1542900	900A	500V	1
	1542910	1000A	500V	1
	1542920	1250A	500V	1
	1542930	1600A	500V	1

Da utilizzare con portafusibili sezionabili tipo LTS/S NH-4a (vedi pag. 103)

To be used with fuseholder LTS/S, NH-4a (see pag. 103)



Fusibile NH-4a gG 690V
NH-4a gG 690V fuse

FUSIBILI NH-4a 690V - TIPO gG NH-4a 690V FUSES - gG TYPE

grandezza size	codice IW - IW code		I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
	NH standard	NH/CP-S con percussore NH/CP-S with striker			
NH-4a	1542630P	1574630S	630A	690V	1
	1542700P	-	700A	690V	1
	1542800P	1574800S	800A	690V	1
	1542900P	-	900A	690V	1
	1542910P	1574910S	1000A	690V	1
	1542920P	1574920S	1250A	690V	1

Da utilizzare con portafusibili sezionabili tipo LTS/S NH-4a (vedi pag. 103)

To be used with fuseholder LTS/S, NH-4a (see pag. 103)



Fusibile NH-1 1000V
NH-1 1000V fuse

FUSIBILI NH-1 1000V - TIPO gG NH-1 1000V FUSES - gG TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NH-1	1561310	10A	1000V	3
	1561316	16A	1000V	3
	1561325	25A	1000V	3
	1561335	35A	1000V	3
	1561350	50A	1000V	3
	1561363	63A	1000V	3
	1561380	80A	1000V	3
	1561400	100A	1000V	3
	1561425	125A	1000V	3
	1561460	160A	1000V	3
	1561500	200A	1000V	3

Fusibile da utilizzare con base PK-1/1000 (vedi pag. 100)

Fuses to be used with PK-1/1000 fusebase (see page 100)

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "NHL"- "NH 1200V" - TIPO gG

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "NHL"- "NH 1200V" - gG TYPE

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, VDE 0636, DIN 43620

I fusibili industriali NH di tipo gG sono normalmente utilizzati per la protezione di cavi, linee elettriche e apparecchiature contro i sovraccarichi ed i cortocircuiti. I fusibili della serie NHL sono speciali, in quanto presentano le lame asolate e sono quindi da fissare mediante bulloni. Il loro interasse di fissaggio è di 110 mm, e sono conformi alle tabelle Enel. I fusibili gG con tensione nominale di 1200V AC sono utilizzati per applicazioni speciali. Anche le loro dimensioni sono particolari, e pertanto essi vanno utilizzati in combinazione con le basi portafusibili presenti a pagina 249.

The industrial NH fuses type gG are normally used to protect cables, electrical lines and equipments against overloads and short circuits. The NHL series fuses are special, because the blades are slotted and they are therefore to be fixed by means of bolts. Their fixing center distance is 110 mm, and they are in accordance with the Enel specifications. The gG fuses with rated voltage of 1200V AC are used for special applications. Also their dimensions are special, and therefore they should be used in combination with the fuse bases present on page 249.



Fusibile NHL
NHL fuse

FUSIBILI NHL 500V - TIPO gG NHL 500V FUSES - gG TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NHL-1	1561025/L	25A	500V	3
	1561036/L	36A	500V	3
	1561040/L	40A	500V	3
	1561050/L	50A	500V	3
	1561063/L	63A	500V	3
	1561080/L	80A	500V	3
	1561100/L	100A	500V	3
	1561125/L	125A	500V	3
	1561160/L	160A	500V	3
	1561200/L	200A	500V	3
NHL-2	1561250/L	250A	500V	3
	1562100/L	100A	500V	3
	1562125/L	125A	500V	3
	1562160/L	160A	500V	3
	1562200/L	200A	500V	3
	1562250/L	250A	500V	3
	1562315/L	315A	500V	3
	1562355/L	355A	500V	3
	1562400/L	400A	500V	3



Fusibile NH 1200V
NH 1200V fuse

FUSIBILI NH 1200V - TIPO gG NH 1200V FUSES - gG TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NH-1XL	1634006	6A	1200V	1
	1634010	10A	1200V	1
	1634016	16A	1200V	1
	1634020	20A	1200V	1
	1634025	25A	1200V	1
	1634032	32A	1200V	1
	1634040	40A	1200V	1
	1634050	50A	1200V	1
	1634063	63A	1200V	1
	1634080	80A	1200V	1
	1634100	100A	1200V	1
	1634125	125A	1200V	1
	1634160	160A	1200V	1
NH-2XL	1634200	200A	1200V	1
	1634250	250A	1200V	1
	1634315	315A	1200V	1
NH-3L	1634355	355A	1200V	1
	1634400	400A	1200V	1
	1634500	500A	1200V	1
	1634630	630A	1200V	1

NH COLTELLO
NH BLADE

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "NH"- "NH/CP"- "NH/CP-S" - TIPO aM

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "NH"- "NH/CP"- "NH/CP-S" - aM TYPE

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, VDE 0636, DIN 43620

I fusibili NH aM sono utilizzati per proteggere motori, trasformatori e apparecchiature con spunto di corrente all'avvio. Essi proteggono solo dai cortocircuiti e vanno abbinati a dispositivi per la protezione dai sovraccarichi. I fusibili NH/CP e NH/CP-S dispongono di un percussore che fuoriesce all'atto della fusione del fusibile e può essere utilizzato con un microinterruttore per segnalare a distanza l'avvenuto intervento. I fusibili NH/CP vanno usati con basi aperte con microinterruttore già montato a bordo (vedi pag. 100), mentre i fusibili NH/CP-S vanno usati nei sezionatori LTS/S (vedi pag. 103), a cui va aggiunto il microinterruttore per la segnalazione a distanza dell'intervento.

The aM NH fuses are used for protecting motors, transformers and equipments with a current peak at startup. They are used for protection against short circuits and must be used with other devices for overload protection. The fuses NH/CP and NH/CP-S are equipped with a striker which comes out during the fuse operation, and can be used with a micro for remote signalization. The fuses NH/CP should be used with a base with a micro mounted on board (see page 100), while the fuses NH/CP-S must be used with switch disconnectors LTS/S (see page 103), to which must be added the micro for remote signalization.



Fusibile NH-00C aM
standard
NH-00C aM standard fuse



Fusibile NH-1C aM
standard
NH-1C aM
standard fuse



Fusibile NH-2/CP aM
con percussore
NH-2/CP aM fuse
with striker

FUSIBILI NH, NH/CP E NH/CP-S - TIPO aM NH, NH/CP AND NH/CP-S FUSES - aM TYPE

grandezza size	codice IW - IW code			I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
	NH ⁽¹⁾ standard NH ⁽¹⁾ standard	NH/CP con percussore NH/CP with striker	NH/CP-S ⁽³⁾ con percussore NH/CP-S ⁽³⁾ with striker			
NH-00C	1602006	—	1590006S	6A	690V	3-120
	1602010	—	1590010S	10A	690V	3-120
	1602016	—	1590016S	16A	690V	3-120
	1602020	—	1590020S	20A	690V	3-120
	1602025	—	1590025S	25A	690V	3-120
	1602035	—	1590035S	35A	690V	3-120
	1602040	—	1590040S	40A	690V	3-120
	1602050	—	1590050S	50A	690V	3-120
	1602063	—	1590063S	63A	690V	3-120
	1602080	—	1590080S ⁽²⁾	80A	500V	3-120
NH-00	1602100	—	1590100S ⁽²⁾	100A	500V	3-120
	1602125	—	—	125A	500V	3-60
NH-0	1602160	—	—	160A	500V	3-60
	1507006	—	—	6A	690V	3-36
	1507010	—	—	10A	690V	3-36
	1507016	—	—	16A	690V	3-36
	1507020	—	—	20A	690V	3-36
	1507025	—	—	25A	690V	3-36
	1507036	—	—	35A	690V	3-36
	1507050	—	—	50A	690V	3-36
	1507063	—	—	63A	690V	3-36
	1507080	—	—	80A	690V	3-36
NH-1C	1507100	—	—	100A	690V	3-36
	1507125	—	—	125A	690V	3-36
	1507160	—	—	160A	690V	3-36
	1612036	—	—	35A	690V	3-36
	1612050	—	—	50A	690V	3-36
	1612063	—	1591063S ⁽²⁾	63A	690V	3-36
NH-1	1612080	1591080 ⁽²⁾	1591080S ⁽²⁾	80A	690V	3-36
	1612100	1591100 ⁽²⁾	1591100S ⁽²⁾	100A	690V	3-36
	1612125	1591125 ⁽²⁾	1591125S ⁽²⁾	125A	690V	3-36
	1612160	1591160	1591160S	160A	690V	3-36
NH-2C	1612200	1591200	1591200S	200A	690V	3-36
	1612250	1591250 ⁽³⁾	1591250S	250A	690V	3-36
	1622063	—	—	63A	690V	3-30
	1622080	—	—	80A	690V	3-30
NH-2	1622100	—	—	100A	690V	3-30
	1622125	1592125 ⁽²⁾	—	125A	690V	3-30
	1622160	1592160 ⁽²⁾	1592160S ⁽²⁾	160A	690V	3-30
	1622200	1592200 ⁽²⁾	1592200S ⁽²⁾	200A	690V	3-30
	1622250	1592225 ⁽²⁾	1592250S ⁽²⁾	250A	690V	3-30
	1622315	1592315	1592315S	315A	690V	3-30
NH-3C	1622355	1592355	1592355S	355A	690V	3-30
	1622400	1592400 ⁽³⁾	1592400S	400A	690V	3-30
	1632200	—	—	200A	690V	3-24
NH-3	1632250	—	—	250A	690V	3-24
	1632315	—	—	315A	690V	3-24
	1632355	—	—	355A	690V	3-24
	1632400	1593400 ⁽²⁾	1593400S ⁽²⁾	400A	690V	3-24
NH-3	1632500 ⁽³⁾	1593500	1593500S	500A	690V	3-24
	1632630 ⁽³⁾	1593630 ⁽³⁾	1593630S	630A	690V	3-24

(1) Un dispositivo di segnalazione permette di azionare un microinterruttore (opzionale). Per ordinare codice IW 2699800 (grandezze 00-0-1-2), codice IW 2699802 (grandezze 2C-3C-3-4)

(2) Esecuzione non compatta

(3) Esecuzione a 500V

(1) A blown fuse indicator device is used to activate a microswitch (optional). Order codes: IW code 2699800 (sizes 00-0-1-2), IW code 2699802 (sizes 2C-3C-3-4).

(2) Non compact version

(3) 500V version

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "NH"- "NH/MK"- "NH-4a"- "NH-1 1000V" - TIPO aM

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "NH"- "NH/MK"- "NH-4a"- "NH-1 1000V" - aM TYPE

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, VDE 0636, DIN 43620

I fusibili NH di tipo aM sono utilizzati per la protezione di motori, trasformatori e apparecchiature con uno spunto di corrente all'avvio. Questi fusibili sono utilizzati per la protezione contro i cortocircuiti e vanno abbinati ad altri dispositivi per la protezione dai sovraccarichi. I fusibili NH-00 della serie standard presentano una tensione nominale di 690V per tutti i valori di corrente fino a 160A. I fusibili della grandezza NH-4a vanno utilizzati all'interno dei portafusibili sezionabili LTS/S (vedi pagina 103). I fusibili aM con tensione nominale di 1000V presentano una lunghezza particolare e vanno utilizzati con la relativa base portafusibili PK-1/1000 (vedi pagina 100).

The NH fuses type aM are used for protection of motors, transformers and all equipments that have a current peak at startup. These fuses are used for protection against short circuit and must be combined with other devices for overload protection. The fuses NH-00 standard series have a nominal voltage of 690V for all the values of rated current up to 160A. The fuses NH-4a must be used within the appropriate switch disconnectors of the series LTS/S (see page 103). The aM fuses with rated voltage of 1000V have a particular length and must only be used in combination with its base PK-1/1000 (see page 100).



Fusibile NH-00 aM standard
NH-00 aM standard fuse

FUSIBILI NH-00 690V - TIPO aM NH-00 690V FUSES - aM TYPE

grandezza size	codice IW - IW code		I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
	NH standard	NH/MK con placche isolate NH/MK with insulated gripping-lugs			
NH-00	1603006	—	6A	690V	3-120
	1603010	—	10A	690V	3-120
	1603016	1600816	16A	690V	3-120
	1603020	1600820	20A	690V	3-120
	1603025	1600825	25A	690V	3-120
	1603035	1600835	35A	690V	3-120
	1603040	1600840	40A	690V	3-120
	1603050	1600850	50A	690V	3-120
	1603063	1600863	63A	690V	3-120
	1603080	1600880	80A	690V	3-120
	1603100	1600900	100A	690V	3-120
	1603125	1600925 ⁽¹⁾	125A	690V	3-60
	1603160	1600960 ⁽¹⁾	160A	690V	3-60

1) Esecuzione a 500V

1) 500V version



Fusibile NH-4a aM 690V
NH-4a aM 690V fuse

FUSIBILI NH-4a 690V - TIPO aM NH-4a 690V FUSES - aM TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NH-4a	1631630	630A	690V	1
	1631700	700A	690V	1
	1631800	800A	690V	1
	1631900	900A	690V	1
	1631910	1000A	690V	1
	1631920	1250A	690V	1



Fusibile NH-1 aM 1000V
NH-1 aM 1000V fuse

FUSIBILI NH-1 1000V - TIPO aM NH-1 1000V FUSES - aM TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NH-1	1633050	50A	1000V	1
	1633063	63A	1000V	1
	1633080	80A	1000V	1
	1633100	100A	1000V	1
	1633125	125A	1000V	1
	1633160	160A	1000V	1
	1633200	200A	1000V	1

NH COLTELLO
NH BLADE

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "HRC" - TIPO EXTRARAPIDO

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 SERIES "HRC" - ULTRA-QUICK TYPE

Norme - Standards CEI 32-1, CEI 32-7, IEC EN 60269-1, IEC EN 60269-4, VDE 0636, DIN 43620

Il corpo dei fusibili gR/aR è realizzato in steatite, ad alta resistenza termica e meccanica, e dispongono di una ampia camera per l'estinzione dell'arco elettrico. L'elemento fusibile interno è realizzato in rame argentato. Il fusibile è riempito con sabbia di quarzo. La caratteristica di intervento di tipo extrarapido rende questi fusibili indicati per la protezione di apparecchiature che contengono semiconduttori (inverter, UPS, soft starters, ecc). I fusibili aR proteggono le apparecchiature dai cortocircuiti, mentre i fusibili gR forniscono una protezione completa, dai cortocircuiti e dai sovraccarichi. Il potere di interruzione è di 50 kA.

The body of the fuses type gR/aR is made of steatite, with high thermal and mechanical resistance, and have a large chamber to extinguish the electric arc. The internal fuse element is made of silver-plated copper. The fuse is filled with quartz sand. The tripping characteristic of type ultra-quick makes these fuses ideal for protection of equipments containing semiconductors (inverters, UPS, soft starters, etc.). The aR fuses protect equipment from short circuits, while gR fuses provide complete protection against short circuits and overloads. The breaking capacity is 50 kA.



Fusibile
NH-00 HRC
NH-00 HRC fuse



Fusibile
NH-1 HRC
NH-1 HRC fuse



Microinterruttore
Microswitch

FUSIBILI NH EXTRARAPIDI SERIE HRC - TIPO gR/aR ULTRA-QUICK SERIES HRC NH FUSES - gR/aR TYPE

grandezza size	codice IW - IW code		I _n (A) I _n (A)	V _n (V) V _n (V)	caratteristica characteristic	conf. pack.
	tipo standard standard type	tipo compatto compact type				
NH-00/00C	1543006	1539006	6A	690V	gR	3
	1543010	1539010	10A	690V	gR	3
	1543016	1539016	16A	690V	gR	3
	1543020	1539020	20A	690V	gR	3
	1543025	1539025	25A	690V	gR	3
	—	1539032	32A	690V	gR	3
	1543035	1539035	35A	690V	gR	3
	1543040	1539040	40A	690V	gR	3
	1543050	1539050	50A	690V	gR	3
	1543063	1539063	63A	690V	gR	3
	1543080	1539080	80A	690V	gR	3
	1543100	1539100	100A	690V	gR	3
	1543125	1539125	125A	690V	gR	3
	1543160	1539160 ⁽¹⁾	160A	690V	aR	3
	1544025	—	25A	690V	gR	3
	1544035	—	35A	690V	gR	3
NH-0	1544040	—	40A	690V	gR	3
	1544050	—	50A	690V	gR	3
	1544063	—	63A	690V	gR	3
	1544080	—	80A	690V	gR	3
	1544100	—	100A	690V	gR	3
	1544125	—	125A	690V	gR	3
	1544160	—	160A	690V	aR	3
	1545050	—	50A	690V	gR	3
NH-1	1545063	—	63A	690V	gR	3
	1545080	—	80A	690V	gR	3
	1545100	—	100A	690V	gR	3
	1545125	—	125A	690V	gR	3
	1545160	—	160A	690V	aR	3
	1545200	—	200A	690V	aR	3
	1545250	—	250A	690V	aR	3
NH-2	1546080	—	80A	690V	gR	3
	1546100	—	100A	690V	gR	3
	1546125	—	125A	690V	gR	3
	1546160	—	160A	690V	aR	3
	1546200	—	200A	690V	aR	3
	1546250	—	250A	690V	aR	3
	1546315	—	315A	690V	aR	3
	1546355	—	355A	690V	aR	3
	1546400	—	400A	690V	aR	3
	1547250	—	250A	690V	aR	3
NH-3	1547315	—	315A	690V	aR	3
	1547355	—	355A	690V	aR	3
	1547400	—	400A	690V	aR	3
	1547500	—	500A	690V	aR	3
	1547630	—	630A	690V	aR	3

Un dispositivo di segnalazione sul corpo del fusibile permette di azionare un microinterruttore. Per ordinare codice IW 2699804.

(1) Caratteristica di intervento: gR

A blown fuse indicator on the fuse body is used to activate a microswitch. Order codes: IW code 2699804.

(1) Time-current characteristic: gR

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "ACR" - TIPO EXTRARAPIDO gR

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 SERIES "ACR" - ULTRA-QUICK TYPE gR

Norme - Standards CEI 32-1, CEI 32-7, IEC EN 60269-1, IEC EN 60269-4, VDE 0636, DIN 43620

I fusibili gR hanno una caratteristica di intervento extrarapida, un elevato potere di interruzione e bassi valori dell'energia specifica passante (I^2t). Sono indicati per la protezione di apparecchiature che contengono semiconduttori (inverter, UPS, soft starters, ecc.). I fusibili gR forniscono protezione completa delle apparecchiature sia dal cortocircuito che dal sovraccarico. I fusibili con percussore, che fuoriesce all'atto dell'intervento del fusibile, vanno utilizzati con i sezionatori LTS/S (vedi pag. 103), a cui va aggiunto il micro di segnalazione. Visti gli elevati valori di potenza dissipata da tali fusibili, occorre verificare la compatibilità del loro utilizzo all'interno dei sezionatori LTS/S.

The NH fuses type gR present an ultra-quick tripping characteristic, high values of breaking capacity and low values of the let-through energy (I^2t). They are suitable for protection of equipments containing semiconductors (inverters, UPS, soft starters, etc.). The fuses gR provide complete protection of the equipment, against short circuit and overload. The fuses with striker, that comes out at the fuse operation, should be used within the switch disconnectors LTS/S (see page 103) to which a micro must be added. Given the high values of power dissipation, it is necessary to check the compatibility of their use inside the disconnectors LTS/S.



Fusibile NH-00C gR
NH-00C gR fuse



Fusibile NH-1 gR
NH-1 gR fuse

FUSIBILI NH EXTRARAPIDI - TIPO gR ULTRA-QUICK NH FUSES - gR TYPE

grandezza size	codice IW - IW code		I_n (A) I_n (A)	V_n (V) V_n (V)	caratteristica characteristic	conf. pack.
	con indicatore visivo (1) with visual indicator (1)	con percussore with striker				
NH-00C	1539010G	—	10A	690V	gR	3
	1539016G	1539016T	16A	690V	gR	3
	1539020G	1539020T	20A	690V	gR	3
	1539025G	1539025T	25A	690V	gR	3
	1539032G	1539032T	32A	690V	gR	3
	1539035G	1539035T	35A	690V	gR	3
	1539040G	1539040T	40A	690V	gR	3
	1539050G	1539050T	50A	690V	gR	3
	1539063G	1539063T	63A	690V	gR	3
	1539080G	1539080T	80A	690V	gR	3
	1539100G	1539100T	100A	690V	gR	3
	1539125G	1539125T	125A	690V	gR	3
	1539160G	1539160T	160A	690V	gR	3
	1545050G	1545050T	50A	690V	gR	3
	1545063G	1545063T	63A	690V	gR	3
NH-1	1545080G	1545080T	80A	690V	gR	3
	1545100G	1545100T	100A	690V	gR	3
	1545125G	1545125T	125A	690V	gR	3
	1545160G	1545160T	160A	690V	gR	3
	1545200G	1545200T	200A	690V	gR	3
	1545250G	1545250T	250A	690V	gR	3
	1546125G	1546125T	125A	690V	gR	3
NH-2	1546160G	1546160T	160A	690V	gR	3
	1546200G	1546200T	200A	690V	gR	3
	1546250G	1546250T	250A	690V	gR	3
	1546315G	1546315T	315A	690V	gR	3
	1546350G	1546350T	350A	690V	gR	3
	1546400G	1546400T	400A	690V	gR	3
	1547250G	1547250T	250A	690V	gR	3
NH-3	1547315G	1547315T	315A	690V	gR	3
	1547350G	1547350T	350A	690V	gR	3
	1547400G	1547400T	400A	690V	gR	3
	1547500G	1547500T	500A	690V	gR	3
	1547630G	1547630T	630A	690V	gR	3
NH-4	1548800G	—	800A	500V	gR	1
	1548910G	—	1000A	500V	gR	1
	1548990G	—	1250A	500V	gR	1
NH-4a	1549800G	—	800A	500V	gR	1
	1549910G	—	1000A	500V	gR	1
	1549990G	—	1250A	500V	gR	1
	1549995G	—	1500A	500V	gR	1
	1549996G	—	1600A	500V	gR	1

(1) Un dispositivo di segnalazione sul corpo del fusibile permette di azionare un microinterruttore. Per ordinare codice IW 2699804

(1) A blown fuse indicator on the fuse body is used to activate a microswitch. Order codes: IW code 2699804

NH COLTELLO
NH BLADE

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "ACR" - TIPO EXTRARAPIDO aR

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 SERIES "ACR" - ULTRA-QUICK TYPE aR

Norme - Standards CEI 32-1, CEI 32-7, IEC EN 60269-1, IEC EN 60269-4, VDE 0636, DIN 43620

I fusibili aR presentano una caratteristica di intervento extrarapida, un elevato potere di interruzione e bassi valori dell'energia specifica passante (I^2t). Queste caratteristiche li rendono indicati per la protezione di apparecchiature che contengono semiconduttori (inverter, UPS, soft starters, ecc). I fusibili aR forniscono una protezione delle apparecchiature dal solo cortocircuito. Tali fusibili possono essere utilizzati con un apposito microinterruttore (codice 2699804) per la segnalazione a distanza dell'avvenuto intervento. I fusibili NH-0 a 1000V possono essere usati con la base PKO (vedi pag. 249), mentre i fusibili a 1200V vanno utilizzati con le basi PKUN (vedi pag. 249).

The NH fuses of the type aR present an ultra-quick tripping characteristic, high values of breaking capacity and low values of let-through energy (I^2t). These fuses are suitable for protection of equipments containing semiconductors (inverters, UPS, soft starters, etc.). The aR fuses provide protection of equipments from short circuits only. These fuses may be used with a micro (code 2699804) for remote signalization. The fuses NH-0 with rated voltage of 1000V can be used with the base PKO (see page 249), while the fuses with rated voltage of 1200V must be used with the bases of the series PKUN (see page 249).



Fusibile NH-00 aR
NH-00 aR fuse



Fusibile NH-3 aR 1200V
NH-3 aR 1200V fuse

FUSIBILI NH EXTRARAPIDI - TIPO aR ULTRA-QUICK NH FUSES - aR TYPE

grandezza size	codice IW - IW code		I_n (A) I_n (A)	caratteristica characteristic	conf. pack.
	con indicatore visivo with visual indicator	con indicatore visivo with visual indicator			
	690V	1000V / 1200V			
NH-00	1543010A	—	10A	aR	3
	1543016A	—	16A	aR	3
	1543020A	—	20A	aR	3
	1543025A	—	25A	aR	3
	1543032A	—	32A	aR	3
	1543035A	—	35A	aR	3
	1543040A	—	40A	aR	3
	1543050A	—	50A	aR	3
	1543063A	—	63A	aR	3
	1543080A	—	80A	aR	3
	1543100A	—	100A	aR	3
	1543125A	—	125A	aR	3
	1543160A	—	160A	aR	3
	1543200A	—	200A	aR	3
	1543250A	—	250A	aR	3
NH-0	—	1544016M ⁽¹⁾	16A	aR	3
	—	1544020M ⁽¹⁾	20A	aR	3
	—	1544025M ⁽¹⁾	25A	aR	3
	—	1544032M ⁽¹⁾	32A	aR	3
	—	1544040M ⁽¹⁾	40A	aR	3
	—	1544050M ⁽¹⁾	50A	aR	3
	—	1544063M ⁽¹⁾	63A	aR	3
	—	1544080M ⁽¹⁾	80A	aR	3
	—	1544100M ⁽¹⁾	100A	aR	3
	—	1544125M ⁽¹⁾	125A	aR	3
NH-1	—	1544160M ⁽¹⁾	160A	aR	3
	1545063A ⁽³⁾	—	63A	aR	3
	1545080A ⁽³⁾	1545080M ⁽²⁾	80A	aR	3
	1545100A ⁽³⁾	1545100M ⁽²⁾	100A	aR	3
	1545125A ⁽³⁾	1545125M ⁽²⁾	125A	aR	3
	1545160A ⁽³⁾	1545160M ⁽²⁾	160A	aR	3
	1545200A ⁽³⁾	1545200M ⁽²⁾	200A	aR	3
	1545250A ⁽³⁾	1545250M ⁽²⁾	250A	aR	3
	1545315A ⁽³⁾	—	315A	aR	3
	1545350A ⁽³⁾	—	350A	aR	3
NH-2	1545400A ⁽³⁾	—	400A	aR	3
	1546250A ⁽³⁾	—	250A	aR	3
	1546315A ⁽³⁾	1546315M ⁽²⁾	315A	aR	3
	1546350A ⁽³⁾	1546350M ⁽²⁾	350A	aR	3
	1546400A ⁽³⁾	1546400M ⁽²⁾	400A	aR	3
	1546450A ⁽³⁾	—	450A	aR	3
	1546500A ⁽³⁾	—	500A	aR	3
	1546550A ⁽³⁾	—	550A	aR	3
	1546630A ⁽³⁾	—	630A	aR	3
NH-3	1547400A ⁽³⁾	—	400A	aR	3
	1547450A ⁽³⁾	—	450A	aR	3
	1547500A ⁽³⁾	1547500M ⁽²⁾	500A	aR	3
	1547630A ⁽³⁾	1547630M ⁽²⁾	630A	aR	3
	1547710A ⁽³⁾	—	710A	aR	3
	1547800A ⁽³⁾	—	800A	aR	3
	1547900A ⁽³⁾	—	900A	aR	3
	1547999A ⁽³⁾	—	1000A	aR	3

(1) Fusibili tensione 1000V

(2) Fusibili tensione 1200V

(3) Solo indicazione visiva (utilizzo del micro non possibile)

(1) Fuses with rated voltage 1000V

(2) Fuses 1200V voltage

(3) Only visual indication (use of micro not possible)

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "ULTRA" - TIPO EXTRARAPIDO

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 SERIES "ULTRA" - HIGH SPEED TYPE

Norme - Standards CEI 32-1, CEI 32-7, IEC EN 60269-1, IEC EN 60269-4, VDE 0636, DIN 43620

I fusibili extrarapidi della serie ULTRA presentano il corpo in steatite ad alta resistenza termica e meccanica. L'elemento fusibile è in rame argentato. L'elemento estinguente dell'arco è sabbia di quarzo. Questa serie si distingue per il bassissimo valore dell'energia specifica passante (I^2t), l'elevato potere d'interruzione e l'ampia gamma di correnti nominali. I fusibili aR forniscono una protezione delle apparecchiature dal solo cortocircuito. Tutti i fusibili sono omologati UR. Per alcune correnti nominali non esiste una base portafusibili appropriata. In questi casi si può valutare, in alternativa, l'utilizzo di fusibili extrarapidi per fissaggio a bullone (vedi sezione seguente del catalogo).

The high speed fuses of the ULTRA series have steatite body. The fuse element is made by silver plated copper. The extinguishing mean of the electric arc is the quartz sand. This series is distinguished by the very low value of let-through energy (I^2t), high breaking capacity values and the wide range of current ratings. The aR fuses provide protection of equipments from short circuits only. All these fuses are UR approved. For some nominal currents there is no appropriate fuse base. In these cases, it can be evaluated, as an alternative, the use of high speed fuses for screw fixing (see the following section of catalogue).



Fusibile
NH-000 ULTRA
NH-000 ULTRA fuse



Fusibile
NH-2 ULTRA
NH-2 ULTRA fuse



Microinterruttore
1NA + 1NC
Microswitch
1NO + 1NC

FUSIBILI NH EXTRARAPIDI SERIE ULTRA - TIPO gR/aR - CON OMOLOGAZIONE HIGH SPEED SERIES ULTRA NH FUSES - gR/aR TYPE - APPROVED

grandezza size	codice IW IW code	I_n (A) I_n (A)	V_n (V) V_n (V)	caratteristica characteristic	conf. pack.
NH-000	1754010	10A	690V	gR	1-10
	1754016	16A	690V	gR	1-10
	1754020	20A	690V	gR	1-10
	1754025	25A	690V	gR	1-10
	1754032	32A	690V	gR	1-10
	1754040	40A	690V	gR	1-10
	1754050	50A	690V	gR	1-10
	1754063	63A	690V	gR	1-10
	1754080	80A	690V	aR	1-10
	1754100	100A	690V	aR	1-10
	1754125	125A	690V	aR	1-10
	1754160	160A	690V	aR	1-10
	1754200	200A	690V	aR	1-10
	1754250	250A	690V	aR	1-10
	1754315	315A	690V	aR	1-10
NH-00	1759040	80A	690V	aR	1-6
	1759100	100A	690V	aR	1-6
	1759125	125A	690V	aR	1-6
	1759160	160A	690V	aR	1-6
	1759200	200A	690V	aR	1-6
	1759250	250A	690V	aR	1-6
	1759315	315A	690V	aR	1-6
	1759350	350A	690V	aR	1-6
	1759400	400A	690V	aR	1-6
NH-1	1768315	315A	690V	aR	1-3
	1768350	350A	690V	aR	1-3
	1768400	400A	690V	aR	1-3
	1768450	450A	690V	aR	1-3
	1768500	500A	690V	aR	1-3
	1768550	550A	690V	aR	1-3
	1768630	630A	690V	aR	1-3
	1768700	700A	690V	aR	1-3
NH-2	1769500	500A	690V	aR	1
	1769550	550A	690V	aR	1
	1769630	630A	690V	aR	1
	1769700	700A	690V	aR	1
	1769800	800A	690V	aR	1
	1769900	900A	690V	aR	1
	1769999	1000A	690V	aR	1
	1769950	1100A	690V	aR	1
	1769951	1250A	690V	aR	1
	1769952	1400A	690V	aR	1
	1769953	1500A	690V	aR	1
	1769954	1600A	690V	aR	1
NH-3	1769500	500A	690V	aR	1
	1769550	550A	690V	aR	1
	1769630	630A	690V	aR	1
	1769700	700A	690V	aR	1
	1769800	800A	690V	aR	1
	1769900	900A	690V	aR	1
	1769999	1000A	690V	aR	1
	1769950	1100A	690V	aR	1
	1769951	1250A	690V	aR	1
	1769952	1400A	690V	aR	1

Un dispositivo di segnalazione dell'avenuto intervento, posto nella parte superiore del fusibile, permette di azionare un microinterruttore. Per fusibili NH Gr. 000-1-3: micro tipo 170H0236 codice IW 1750008. Per fusibili NH Gr. 2: micro tipo 170H0235 codice IW 1750007.

A blown fuse indicator on the fuse body is used to activate a microswitch. For NH fuses size 000-1-3: microswitch type 170H0236, IW code 1750008. For NH fuses size 2: microswitch type 170H0235, IW code 1750007.

NH COLTELLO
NH BLADE

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 BASI PORTAFUSIBILI

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 FUSE BASES

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, DIN 43620

Le basi portafusibili per fusibili NH, del tipo unipolare o tripolare, sono realizzate in materiale termoplastico autoestinguente UL-94 V0 mentre i contatti sono in rame argentato. Rondelle e bulloni sono in acciaio 8.8. Una ampia gamma di accessori permette di realizzare una efficace protezione contro i contatti accidentali (vedere pag. 101). Le basi portafusibili della serie NHD vanno montate a vite su piastra di fondo, mentre le basi della serie NHU possono essere montate sia a vite su piastra di fondo che su guida DIN. Le basi portafusibili NHU-MS sono corredate di microinterruttore e sono utilizzabili con gli appositi fusibili dotati di percussore della serie NH/CP.

The fuse bases for NH fuse, single-pole or three-poles versions, are made of self-extinguishing thermoplastic UL 94-V0 material. Washers and bolts are made of steel 8.8. A wide range of accessories allows to create an effective protection against accidental contacts (see page 101). The fuse bases of the NHD series must be mounted with screws on a mounting plate, while the fuse bases of the NHU series can be mounted either by screw on a mounting plate and on a DIN rail. The fuse bases NHU-MS are equipped with a microswitch and are usable with the appropriate fuses equipped with a striker of the series NH/CP.



Portafusibile unipolare
NHD-00
NHD-00 single pole
fuseholder



Portafusibile unipolare
con microinterruttore
NHU-3 DIN-MS
Single pole fuseholder
with microswitch
NHD-3 DIN-MS



Portafusibile tripolare
NHU-00 DINx3S
"Kombi"
NHU-00 DINx3S "Kombi"
three-poles fuseholder

PORTAFUSIBILI UNIPOLARI PER FUSIBILI NH A COLTELLO - FISSAGGIO A VITE O SU GUIDA DIN SINGLE POLE FUSE BASES FOR BLADE TYPE NH FUSES - FOR SCREW OR DIN RAIL MOUNTING

grandezza size	codice IW IW code	tipo type	fissaggio fixing	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
00	2541005	NHD-00	a vite - by screw	160A	690V	3
	2561005	NHD-00/IP20	a vite - by screw	160A	690V	3
	2502010	NHU-00 DIN-S	su guida DIN - on DIN rail	160A	690V	3
	2572010	NHU-00 DIN-S/IP20	su guida DIN - on DIN rail	160A	690V	3
0	2541010	NHD-0	a vite - by screw	160A	690V	3
	2561010	NHD-0/IP20	a vite - by screw	160A	690V	3
	2540010	NHU-0 DIN-S	su guida DIN - on DIN rail	160A	690V	3
	2570010	NHU-0 DIN-S/IP20	su guida DIN - on DIN rail	160A	690V	3
1	2550010	NHU-0 DIN-MS	su guida DIN, con micro - on DIN rail, with microswitch	160A	690V	1
	2541110	NHD-1	a vite - by screw	250A	690V	3
	2561110	NHD-1/IP20	a vite - by screw	250A	690V	3
	2540110	NHU-1 DIN-S	su guida DIN - on DIN rail	250A	690V	3
2	2570110	NHU-1 DIN-S/IP20	su guida DIN - on DIN rail	250A	690V	3
	2550110	NHU-1 DIN-MS	su guida DIN, con micro - on DIN rail, with microswitch	250A	690V	1
	2640015P	PK-1/1000	a vite - by screw	250A	1000V	3
	2541210	NHD-2	a vite - by screw	400A	690V	3
3	2561210	NHD-2/IP20	a vite - by screw	400A	690V	3
	2540210	NHU-2 DIN-S	su guida DIN - on DIN rail	400A	690V	3
	2570210	NHU-2 DIN-S/IP20	su guida DIN - on DIN rail	400A	690V	3
	2550210	NHU-2 DIN-MS	su guida DIN, con micro - on DIN rail, with microswitch	400A	690V	1
4	2541310	NHD-3	a vite - by screw	630A	690V	3
	2561310	NHD-3/IP20	a vite - by screw	630A	690V	3
	2540310	NHU-3 DIN-S	su guida DIN - on DIN rail	630A	690V	3
	2570310	NHU-3 DIN-S/IP20	su guida DIN - on DIN rail	630A	690V	3
5	2550310	NHU-3 DIN-MS	su guida DIN, con micro - on DIN rail, with microswitch	630A	690V	1
	2541415	NHK-4S	a vite - by screw	1250A	690V	1
	2541410	NHZ-4S	a vite - by screw	1250A	690V	1

PORTAFUSIBILI TRIPOLARI PER FUSIBILI NH A COLTELLO - FISSAGGIO A VITE O SU GUIDA DIN THREE POLES FUSE BASES FOR BLADE TYPE NH FUSES - FOR SCREW OR DIN RAIL MOUNTING

grandezza size	codice IW IW code	tipo type	descrizione description	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
00	2503210	NHU-00 DINx3S Kombi	bullone - bolt	160A	690V	1
	2503211	NHU-00 DINx3SB Kombi	bullone/brida - bolt/clamp	160A	690V	1
	2503212	NHU-00 DINx3B Kombi	brida - clamp	160A	690V	1
	2573310	NHU-00 DINx3S/IP20 Kombi	bullone - bolt	160A	690V	1
0	2573311	NHU-00 DINx3SB/IP20 Kombi	bullone/brida - bolt/clamp	160A	690V	1
	2573312	NHU-00 DINx3B/IP20 Kombi	brida - clamp	160A	690V	1
	2543010	NHD-0x3S	a vite - by screw	160A	690V	1
	2563010	NHD-0x3S/IP20	a vite - by screw	160A	690V	1
1	2503000	NHU-0 DINx3S	su guida DIN - on DIN rail	160A	690V	1
	2573000	NHU-0 DINx3S/IP20	su guida DIN - on DIN rail	160A	690V	1
	2543011	NHD-1x3S	a vite - by screw	250A	690V	1
	2563011	NHD-1x3S/IP20	a vite - by screw	250A	690V	1
2	2503011	NHU-1 DINx3S	su guida DIN - on DIN rail	250A	690V	1
	2573011	NHU-1 DINx3S/IP20	su guida DIN - on DIN rail	250A	690V	1
	2543012	NHD-2x3S	a vite - by screw	400A	690V	1
	2563012	NHD-2x3S/IP20	a vite - by screw	400A	690V	1
3	2503012	NHU-2 DINx3S	su guida DIN - on DIN rail	400A	690V	1
	2573012	NHU-2 DINx3S/IP20	su guida DIN - on DIN rail	400A	690V	1
	2543013	NHD-3x3S	a vite - by screw	630A	690V	1
	2563013	NHD-3x3S/IP20	a vite - by screw	630A	690V	1
4	2503013	NHU-3 DINx3S	su guida DIN - on DIN rail	630A	690V	1
	2573013	NHU-3 DINx3S/IP20	su guida DIN - on DIN rail	630A	690V	1

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 ACCESSORI

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 ACCESSORIES



Coltello NH CSK00
NH CSK00 solid link

COLTELLI NH SEZIONABILI NH SOLID LINKS

grandezza size	codice IW IW code	tipo type	agganci tags	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
00	2690200	CSK00	isolati - <i>insulated</i>	160A	690V	3
	2690100	CS00	in metallo - <i>metal</i>	160A	690V	3
0	2690210	CSK0	isolati - <i>insulated</i>	160A	690V	3
	2690110	CS0	in metallo - <i>metal</i>	160A	690V	3
1	2690211	CSK1	isolati - <i>insulated</i>	250A	690V	3
	2690111	CS1	in metallo - <i>metal</i>	250A	690V	3
2	2690212	CSK2	isolati - <i>insulated</i>	400A	690V	3
	2690112	CS2	in metallo - <i>metal</i>	400A	690V	3
3	2690213	CSK3	isolati - <i>insulated</i>	630A	690V	3
	2690113	CS3	in metallo - <i>metal</i>	630A	690V	3
4	2690114	CS4	in metallo - <i>metal</i>	1250A	690V	3
4a	2690115	CS4a	in metallo - <i>metal</i>	1250A	690V	3



Maniglia NHP00/3
Fuse handle NHP00/3

MANIGLIA DI ESTRAZIONE UNIVERSALE FUSIBILI NH UNIVERSAL FUSE HANDLE FOR NH FUSES

grandezza size	codice IW IW code	tipo type	protezione contro contatti accidentali protection against accidental contacts	conf. pack.
00-3	26903045	NHP00/3	no - <i>no</i>	1
	2690304	NHP00/3	no - <i>no</i>	5
	2690305	NHP00/5	si - <i>yes</i>	2



Accessorio T21
per composizione
portafusibili
T21 accessory for fuse bases
connection

ADATTATORI PER UNIONE PORTAFUSIBILI NHD E NHU ADAPTERS FOR NHD AND NHU FUSE BASES CONNECTION

grandezza size	codice IW IW code	tipo type	conf. pack.
00	2590402	T20	1 set
0	2590399	T21	1 set
1-2	2590400	T22	1 set
3	2590401	T23	1 set

I portafusibili serie NHD e NHU possono essere affiancati tra loro in esecuzioni a più poli. Questa componibilità è realizzata mediante gli adattatori T20, T21, T22 e T23. Forniti in confezione da 2 pz.

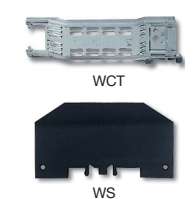
Fuse bases, series NHD and NHU, may be installed one beside the other when multi pole versions are required. This is possible using adapters T20, T21, T22 and T23. Supplied in 2 pcs package.



Calotta 00-WB con 00-WTC
00-WB cover with 00-WTC

COMPONENTI PER PROTEZIONE DA UTILIZZARSI CON I PORTAFUSIBILI TRIPOLARI NHU-00 "KOMBI" COMPONENTS FOR PROTECTION TO BE USED WITH THREE POLES NHU-00 "KOMBI" FUSE BASES

grandezza size	codice IW IW code	tipo type	descrizione description	conf. pack.
00	2590181	00-WB	calotta per base tripolare NHU-00 Kombi	1
	2590195	00-WCT	calotta trasparente per la protezione totale	3



Accessori per protezione
Accessories for protection

COMPONENTI PER PROTEZIONE PORTAFUSIBILI NHD E NHU COMPONENTS FOR NHD AND NHU FUSE BASES PROTECTION

grandezza size	codice IW IW code	tipo type	descrizione description	set (pz) set (pcs)	conf. pack.
00	2590180	00-WC	calotte di protezione per pinze	2	3 set
	2590195	00-WCT	calotta trasparente per protezione totale		3
	2590705	00-WS	separatori in tela bakelite	2	1 set
0	2590183	0-WC	calotte di protezione per pinze	2	3 set
	2590197	0-WCT	calotta trasparente per protezione totale		3
	2590707	0-WS	separatori in tela bakelite	2	1 set
1	2590185	1-WC	calotte di protezione per pinze	2	3 set
	2590200	1/2-WCT	calotta trasparente per protezione totale		3
	2590710	1/2-WS	separatori in tela bakelite	2	1 set
2	2590187	2-WC	calotte di protezione per pinze	2	3 set
	2590200	1/2-WCT	calotta trasparente per protezione totale		3
	2590710	1/2-WS	separatori in tela bakelite	2	1 set
3	2590190	3-WC	calotte di protezione per pinze	2	3 set
	2590205	3-WCT	calotta trasparente per protezione totale		3
	2590715	3-WS	separatori in tela bakelite	2	1 set
4	2590718	4-WS	separatori in tela bakelite	2	1 set

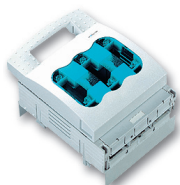
FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 PORTAFUSIBILI SEZIONABILI SERIE "LTS"

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 SERIES "LTS" FUSE SWITCH DISCONNECTORS

Norme - Standards IEC EN 60269-1, IEC EN 60947-3, DIN 43620

I portafusibili sezionabili della serie LTS sono realizzati in materiale termoplastico autoestinguente. Essi vengono normalmente montati su piastra di fondo ma, tramite un apposito kit, possono essere montati su guida DIN (solo grandezze 000-00-1-2). Il sezionamento, che può avvenire anche sotto carico, avviene tramite l'apertura della maniglia, nella quale sono inseriti i fusibili, che quindi rimangono all'interno della maniglia aperta. La maniglia contenente i fusibili può anche essere completamente tolta dalla base. Sono disponibili versioni con monitoraggio elettronico dell'intervento del fusibile e per fissaggio su sistema a sbarre con interasse 60 mm.

The fuse switch disconnectors of the LTS series are made of self-extinguishing thermoplastic material. They are usually mounted on a mounting plate, but using a special kit, they can be mounted on a DIN rail (only sizes 000-00-1-2). The disconnection, which can occur even under load, takes place through the opening of the handle, in which are inserted the fuses, which therefore remain inside it. The handle can also be completely removed from the base. Versions are available with an electronic monitoring that can give a remote signal of the fuse operation and for mounting on the standard 60 mm busbar system.



Portafusibile sezionabile
tripolare LTS
LTS three-poles
fuse switch disconnector

PORTAFUSIBILI TRIPOLARI SEZIONABILI SERIE "LTS" SERIES "LTS" THREE-POLES FUSE SWITCH DISCONNECTORS

grandezza size	codice IW IW code	tipo type	n. poli poles	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
senza monitoraggio fusibili - without fuse monitoring						
000	33217	LTS000	3P	100A	690V	1
00	33200	LTS00	3P	160A	690V	1
1	33201	LTS1	3P	250A	690V	1
2	33202	LTS2	3P	400A	690V	1
3	33203	LTS3	3P	630A	690V	1
con monitoraggio elettronico fusibili - with electronic fuse monitoring						
00	33329	LTS00MFE	3P	160A	500V	1
1	33330	LTS1MFE	3P	250A	690V	1
2	33331	LTS2MFE	3P	400A	690V	1
3	33332	LTS3MFE	3P	630A	690V	1

Il tipo LTS-MFE può essere utilizzato con fusibili NH senza percussore.

LTS-MFE fuse-disconnectors can be used with NH fuses without striker.



Microinterruttore
000-3HID
Microswitch
000-3HID

ACCESSORI PER PORTAFUSIBILI SEZIONABILI SERIE "LTS" ACCESSORIES FOR SERIES "LTS" FUSE SWITCH DISCONNECTORS

codice IW IW code	tipo type	descrizione description	conf. pack.
79811	00EA/LTS	calotte coprimorsetti per LTS00 (105 x 34 mm)	1
33142	1EA/LTS	calotte coprimorsetti per LTS1 (182,5 x 68 mm)	2
33143	2EA/LTS	calotte coprimorsetti per LTS2 (208,5 x 51,5 mm)	2
33144	3EA/LTS	calotte coprimorsetti per LTS3 (254 x 48 mm)	2
33247	000DIN	kit montaggio guida DIN per LTS000	1
33193	000DIN	kit montaggio guida DIN per LTS00	1
33158	12DIN	kit montaggio guida DIN per LTS1-2	1
33156	000-3HID	micro per LTS000-00-2-3 per controllo posizione coperchio del sezionatore	1
33917	1HID	micro per LTS1 per controllo posizione coperchio del sezionatore	1
33155	PROT1-2-3	profilo di protezione dai contatti accidentali	10
03849	PBTR00	piombatura coperchio per sigillo a filo	1
33157	PBTR1-2-3	piombatura coperchio per 3 lucchetti con gambo	10



Portafusibile sez. LTS
per sistema a sbarre 60 mm
LTS fuse switch disconnector
for 60 mm busbar system

PORTAFUSIBILI TRIPOLARI SEZIONABILI SERIE "LTS" PER SISTEMA A BARRE 60 mm SERIES "LTS" THREE-POLES FUSE SWITCH DISCONNECTORS FOR 60 mm BUSBAR SYSTEM

grandezza size	codice IW IW code	tipo type	n. poli poles	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
000	33216	LTS000-CAV	3P	125A	690V	1
00	33198	LTS00-CAV	3P	160A	690V	1
1	33601	LTS1-CAV	3P	250A	690V	1
2	33602	LTS2-CAV	3P	400A	690V	1
3	33603	LTS3-CAV	3P	630A	690V	1

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 PORTAFUSIBILI SEZIONABILI SERIE "LTS/S"

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "LTS/S" FUSE SWITCH DISCONNECTORS

Norme - Standards IEC EN 60269-1, IEC EN 60947-3, DIN 43620

I portafusibili sezionabili LTS/S sono realizzati in materiali autoestinguenti. Il sezionamento, che può avvenire anche sotto carico, avviene tramite l'apertura della maniglia, nella quale sono inseriti i fusibili, che quindi rimangono all'interno della maniglia aperta. La maniglia può essere completamente tolta dalla base. Sono disponibili in svariate versioni, da 1 a 4 poli e per fusibili aventi grandezze da NH-000 a NH-4a. Una vasta gamma di accessori è disponibile per monitorare l'intervento dei fusibili oppure lo stato della maniglia del sezionatore (aperto/chiuso). Gli accessori di copertura dei terminali consentono la massima protezione contro i contatti accidentali.

The fuse switch disconnectors LTS/S are made of high quality, self-extinguishing materials. The sectioning, which can occur even under load, takes place through the opening of the front handle, in which are inserted the fuses, which therefore remain inside it. The handle can also be completely removed from the base. They are available in several versions, from 1 to 4 poles and for fuses with sizes from NH-000 to NH-4a. A wide range of accessories is available to monitor the fuse operation or the status of the switch handle (open/closed). The covers for the terminals enable the maximum protection against accidental contacts.



Portafusibile sezionabile unipolare LTS/S
LTS/S single pole fuse switch disconnecter

PORTAFUSIBILI SEZIONABILI SERIE "LTS/S" SERIES "LTS/S" FUSE SWITCH DISCONNECTORS

grandezza size	codice IW IW code	tipo type	n. poli poles	I _n (A) / V _n (V) I _n (A) / V _n (V)	conf. pack.
000	3100198	LTS/S-000x3	3P	100A/690V	1
00	3100400	LTS/S-00	1P	160A/500V - 100A/690V	1
	3100300	LTS/S-00x2	2P	160A/500V - 100A/690V	1
	3100200	LTS/S-00x3	3P	160A/500V - 100A/690V	1
	3110250	LTS/S-00x4	4P	160A/500V - 100A/690V	1
1	3100401	LTS/S-1	1P	250A/500V - 200A/690V	1
	3100301	LTS/S-1x2	2P	250A/500V - 200A/690V	1
	3100201	LTS/S-1x3	3P	250A/500V - 200A/690V	1
	3110251	LTS/S-1x4	4P	250A/500V - 200A/690V	1
2	3100202	LTS/S-2x3	3P	400A/500V - 315A/690V	1
3	3100403	LTS/S-3	1P	630A/500V - 500A/690V	1
	3100302	LTS/S-3x2	2P	630A/500V - 500A/690V	1
	3100203	LTS/S-3x3	3P	630A/500V - 500A/690V	1
	3110252	LTS/S-3x4	4P	630A/500V - 500A/690V	1
4a	3100404	LTS/S-4a-1	1P	1250A/500V - 1000A/690V	1
4a	1811874	LTS/S-4a-1x3	3P	1250A/500V - 1000A/690V	1
	3100405	LTS/S-4a-2	1P	1600A/500V - 1000A/690V	1
4a	1811875	LTS/S-4a-2x3	3P	1600A/500V - 1000A/690V	1



Microinterruttore stato maniglia
Microswitch for handle indication

MICROINTERRUTTORI PER PORTAFUSIBILI SEZIONABILI SERIE "LTS/S" MICROSWITCHES FOR SERIES "LTS/S" FUSE SWITCH DISCONNECTORS

codice IW IW code	tipo type	per sezionatore for switch disconnecter	tipo microinterruttore microswitch type	conf. pack.
3100410	EV-LTL00-3	LTS/S 00 (1P / 3P)	stato maniglia - handle indication	1
3100411	EV-LTL1-2-3 / 1	LTS/S 1-2-3 (1P)	stato maniglia - handle indication	1
3100412	EV-LTL1-2-3 / 3	LTS/S 1-2-3 (3P)	stato maniglia - handle indication	1
3100409	EV-LTL4a	LTS/S 4a (1P / 3P)	stato maniglia e intervento fusibile handle indication and fuse operation	1
3100406	K-LTL00-1/H	LTS/S 00 (1P)	intervento fusibile - fuse operation	1
3100407	K-LTL1-1/H	LTS/S 1 (1P)	intervento fusibile - fuse operation	1
3100408	K-LTL3-1/H	LTS/S 3 (1P)	intervento fusibile - fuse operation	1
3100413	K-LTL00-3/H	LTS/S 00 (3P)	intervento fusibile - fuse operation	1
3100414	K-LTL1-3/H	LTS/S 1 (3P)	intervento fusibile - fuse operation	1
3100415	K-LTL2-3/H	LTS/S 2 (3P)	intervento fusibile - fuse operation	1
3100416	K-LTL3-3/H	LTS/S 3 (3P)	intervento fusibile - fuse operation	1



Calotta per sezionatori LTS/S
Cover for LTS/S disconnectors

ACCESSORI PER PORTAFUSIBILI SEZIONABILI SERIE "LTS/S" ACCESSORIES FOR SERIES "LTS/S" FUSE SWITCH DISCONNECTORS

codice IW IW code	tipo type	per sezionatore for switch disconnecter	descrizione description	conf. pack.
3100420	GOU-LTL00-3	LTS/S 00 (3P)	copertura inferiore e superiore - top and bottom cover	1
3100421	GO-LTL1-3	LTS/S 1 (3P)	copertura superiore - top cover	1
3100422	GO-LTL2-3	LTS/S 2 (3P)	copertura superiore - top cover	1
3100423	GO-LTL3-3	LTS/S 3 (3P)	copertura superiore - top cover	1
3100424	GU-LTL1-3	LTS/S 1 (3P)	copertura inferiore - bottom cover	1
3100425	GU-LTL2-3	LTS/S 2 (3P)	copertura inferiore - bottom cover	1
3100426	GU-LTL3-3	LTS/S 3 (3P)	copertura inferiore - bottom cover	1
3100427	GOU-LTL00-1	LTS/S 00 (1P)	copertura inferiore e superiore - top and bottom cover	1
3100428	GOU-LTL01-1	LTS/S 1 (1P)	copertura inferiore e superiore - top and bottom cover	1
3100429	GOU-LTL03-1	LTS/S 3 (1P)	copertura inferiore e superiore - top and bottom cover	1
3100430	Z-LTL00	LTS/S 00	aggancio guida DIN - Din rail fixing part	1

DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620

Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH A COLTELLO BLADE TYPE NH INDUSTRIAL FUSES

Il sistema di fusibili NH con caratteristiche di fusione gG, aM, gR/aR è suddiviso in 11 grandezze costruttive 00C, 00, 0, 1C, 1, 2C, 2, 3C, 3, 4, 4a con correnti nominali da 6A a 1600A.

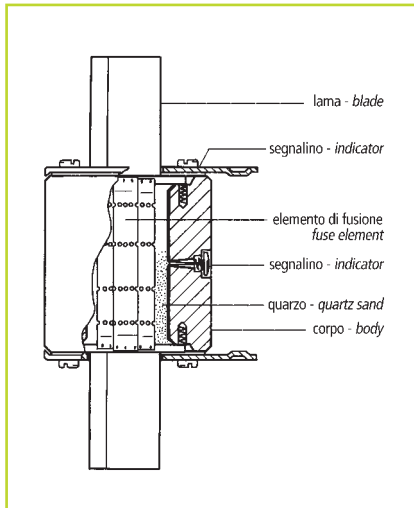
I livelli di tensione nominale delle cartucce sono:

- 500V, 690V, 1000V, 1200V per la serie con caratteristiche d'intervento gG;
- 500V, 690V, 1000V per la serie con caratteristiche d'intervento aM.
- 500V, 690V, 1000V, 1200V per la serie con caratteristiche d'intervento gR/aR.

Le cartucce gG sono indicate per protezione da sovraccarichi e corto circuiti relativi a tutti gli utilizzatori classici.

Le cartucce aM sono indicate per la protezione di motori e delle relative apparecchiature di manovra (sezionatori, contattori e relé termici) contro le sole correnti di cortocircuito o contro le sovracorrenti di valore elevato. Generalmente esse vanno abbinate a dispositivi di protezione contro i sovraccarichi (esempio relé termici).

Le cartucce gR/aR sono indicate per protezione di semiconduttori per applicazioni industriali ed elettronica di potenza quali diodi, triac, transistor, ecc.



The range of NH fuses with gG, aM, and gR/aR melting characteristics is divided in 11 sizes: 00C, 00, 0, 1C, 1, 2C, 2, 3C, 3, 4 and 4a, and is available with current ratings from 6A through 1600A.

Cartridge rated voltages are:

- 500V, 690V, 1000V, 1200V for gG time/current characteristic fuses;
- 500V, 690V, 1000V for aM time/current characteristic fuses.
- 500V, 690V, 1000V, 1200V for gR/aR time/current characteristic fuses.

gG cartridge fuses are ideal for protecting traditional systems against overloads and short circuits.

aM cartridge fuses are ideal for protecting motors and operating equipments (disconnectors, contactors and thermal relays) against short circuit currents or very large overloads. They are usually installed in combination with another overload protection devices (e.g. thermal relays).

gR/aR cartridge fuses are ideal for protecting semiconductors in industrial and electronic power applications such as diodes, triacs, transistors, etc.

Caratteristiche costruttive

I fusibili NH hanno il corpo in steatite ad alta resistenza termica e meccanica con ampia camera per l'estinzione dell'arco. Gli elementi fusibili di rame o rame argentato, sono saldati alle lame di contatto, che vengono inserite nel corpo fusibile chiuso con guarnizioni speciali e placche di aggancio, il tutto è riempito completamente con sabbia di quarzo. Le cartucce NH sono dotate di un dispositivo di segnalazione, situato nella parte superiore o sul corpo del fusibile, che fuoriesce dalla sua sede dopo l'intervento. Questa segnalazione può essere utilizzata, per alcune serie di fusibili NH, come segnalazione a distanza dell'avvenuto intervento mediante relativo microinterruttore.

Potere di interruzione e temperature di esercizio

I fusibili NH si contraddistinguono per il loro elevato potere di interruzione (fino a 120 kA). Le condizioni di prova e le caratteristiche del circuito per le verifiche, quali tensione, fattore di potenza, ecc. sono riportate nelle norme CEI 32-1 (armonizzate con le norme internazionali IEC 60269-1). Per ottenere un potere di interruzione elevato e costante, dalla più piccola corrente di sovraccarico alla più elevata corrente di cortocircuito, occorre curare diversi particolari nella progettazione e nella produzione delle serie di fusibili. Ad esempio sono di notevole importanza la scelta degli elementi di fusione, il loro posizionamento nel corpo del fusibile, la resistenza della steatite alle sovrappressioni e variazioni di temperatura innescate da un cortocircuito, la purezza chimica e la grandezza dei granuli della sabbia di quarzo.

I fusibili NH sono stati studiati per funzionare correttamente con valori di temperatura ambiente compresa tra -15°C e +50°C. Per eventuali temperature ambiente superiori ai +50°C è preferibile ridurre la corrente nominale del 5% ogni 10°C.

Construction specifications

NH fuses feature a steatite body having a high thermal and mechanical resistance and a large arc extinguishing chamber. Copper or silver plated copper fuse elements are welded on the contact blades which are installed in the fuse body with special seals and attachment plates. Quartz sand is used to fill the entire system. NH cartridge fuses are equipped with a blown fuse indicator installed on the upper part of the fuse body which comes out of its housing after the fuse has blown. For some series of NH fuses this indicator may be used as a remote blown fuse indicator using the corresponding microswitch.

Breaking capacity and working temperatures

NH fuses are characterised by a high breaking capacity (up to 120 kA). Test conditions and circuit test features such as voltage, power factor, etc. are described in standards CEI 32-1 (harmonised with IEC 60269-1 international standards). In order to keep the breaking capacity high and constant from the smallest overload current to the highest short circuit current, several different details have to be considered when designing and manufacturing fuse series.

For instance, the selection of fuse elements, their position in the fuse body, the steatite resistance to overpressures and temperature variations originated by a short circuit, the chemical pureness and grain size of quartz sand are all essential factors.

NH fuses were designed to operate correctly at ambient temperatures from -15°C through +50°C.

When ambient temperature exceeds +50°C it is common use to reduce the current rating by 5% every 10°C.

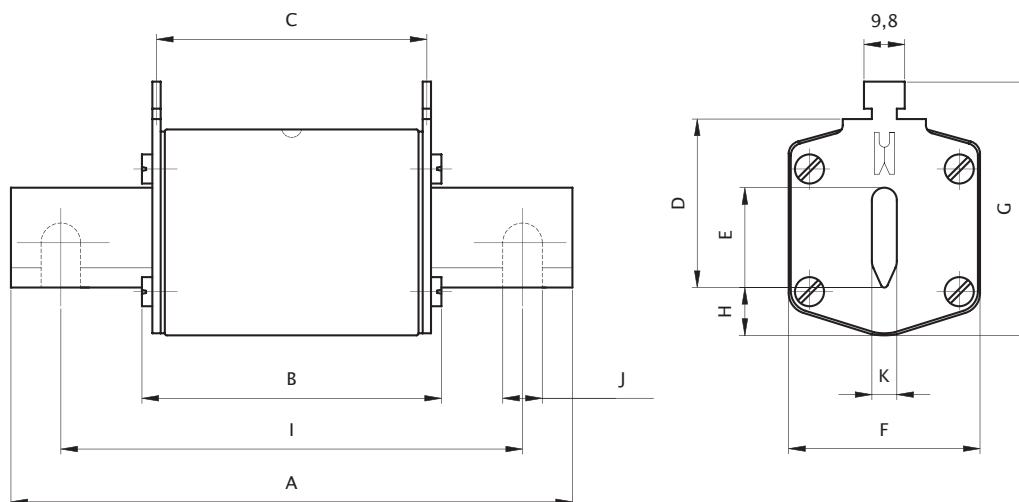
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620

*DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620*

Dimensioni in mm - Dimensions in mm

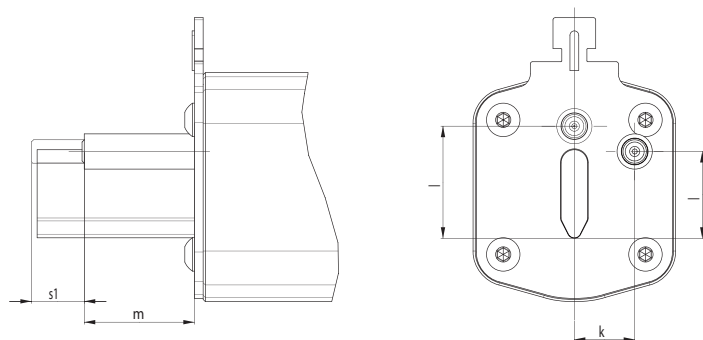
FUSIBILI INDUSTRIALI NH A COLTELLO BLADE TYPE NH INDUSTRIAL FUSES

Fusibili gr. NH 00-0-1-2-3-4-4a - Fuses size NH 00-0-1-2-3-4-4a



tipo type	A	B	C	D	E	F	G	H	I	J	K
NH-00C	79	53	47	35	15	21	52	7,5	—	—	6
NH-00	79	53	47	35	15	28	56	12	—	—	6
NH-0	125	68	65	35	15	28	56	12	—	—	6
NH-1C	135	68	65	40	15	28	61	12	—	—	6
NH-1	135	72	65	40	20	46	65	14	—	—	6
NH-2C	150	72	65	48	20	46	73	14	—	—	6
NH-2	150	72	65	48	26	54	73	14	—	—	6
NH-3C	150	72	65	60	26	54	84	14	—	—	6
NH-3	150	72	65	60	33	65	84	14	—	—	6
NH-4	200	75	66	87	50	100	121	24	150	16	8
NH-4a	200	99	87	85	50	95	121	27	—	—	6
NH-1 1000V~	155	90	87	40	20	45	59	9	—	—	6

Fusibili gr. NH 00-1-2-3-4a con percussore - Fuses size NH 00-1-2-3-4a with striker



tipo type	K	L	M	S1
NH-00C	—	20,7	16,7	7,5
NH-00	—	20,7	16,7	7,5
NH-1	13,7	19,7	25	12
NH-2	16,2	27,4	25	12
NH-3	17	35,6	25	12
NH-4a	24	49	25	12

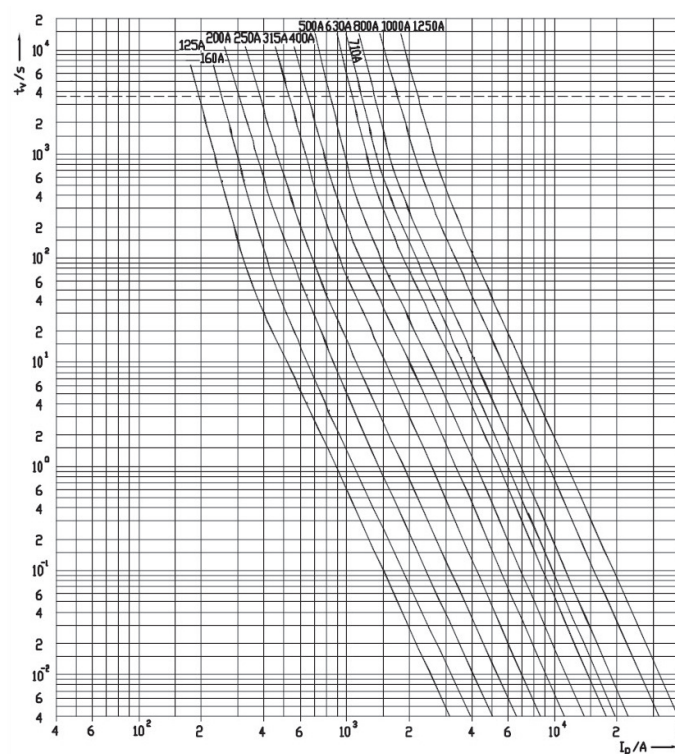
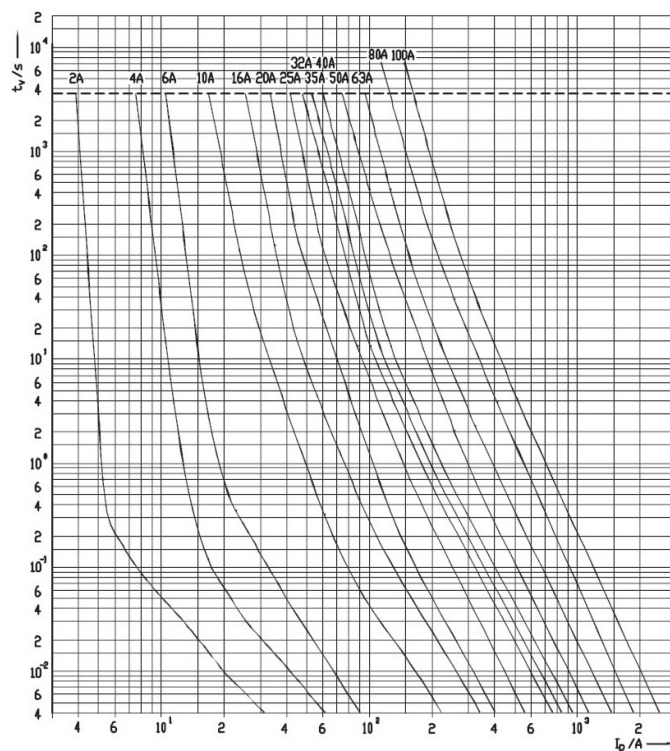
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO gG

DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH INDUSTRIAL FUSES - gG TYPE

Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO gG BLADE TYPE NH INDUSTRIAL FUSES - gG TYPE

Caratteristiche d'intervento tempo-corrente - Time-current characteristics



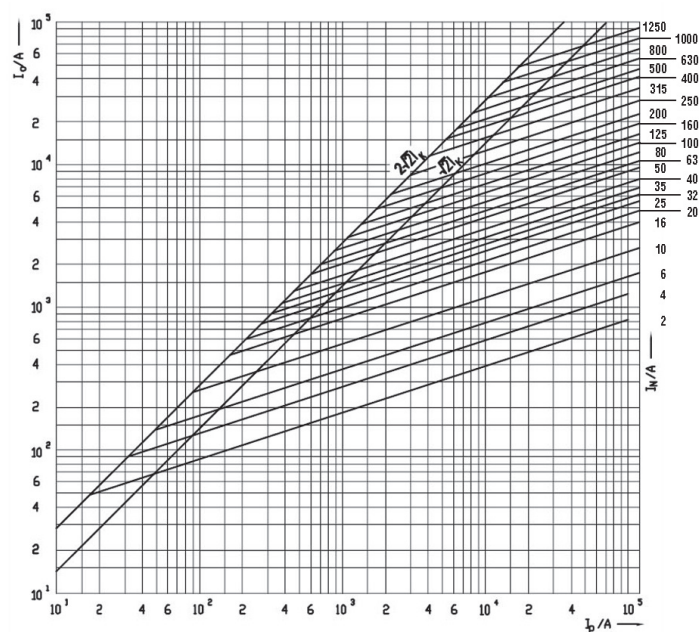
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO gG

DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH INDUSTRIAL FUSES - gG TYPE

Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO gG BLADE TYPE NH INDUSTRIAL FUSES - gG TYPE

Caratteristiche di limitazione - Cut-off characteristics



Caratteristiche tecniche - Technical characteristics

I _n (A)	I _k (kA)		I ² t prearco (A ² s) prearcing I ² t (A ² s)	I ² t totale (A ² s) total I ² t (A ² s)		potenza dissipata (grandezza fusibile) P _w (W) power dissipation (fuse size) P _w (W)					
	500V	690V		500V	690V	00	0	1	2	3	4
6	120	100	40	84	90	2,3	1,6	—	—	—	—
10	120	100	240	702	816	1,5	1,2	—	—	—	—
16	120	100	550	1.610	1.870	2,7	1,9	—	—	—	—
20	120	100	870	2.550	2.960	2,8	2,1	—	—	—	—
25	120	100	1.500	3.350	3.700	2,9	2,8	—	—	—	—
32	120	100	2.500	6.750	7.440	3,1	3,1	—	—	—	—
35	120	100	3.300	7.380	8.140	3,3	3,3	—	—	—	—
40	120	100	4.600	8.440	9.300	3,8	3,8	3,8	—	—	—
50	120	100	6.000	13.400	14.800	4,8	5,6	5,8	—	—	—
63	120	100	9.600	21.500	23.700	6,1	6,9	6,1	—	—	—
80	120	100	19.200	43.500	51.600	5,4	6,7	6,9	—	—	—
100	120	100	31.500	71.400	84.600	7,1	8,1	8,8	8,5	—	—
125	120	100	42.000	95.200	112.800	9,7	10,8	10,9	10,7	—	—
160	120	100	78.000	176.900	209.500	11,0	12,3	13,3	13,3	—	—
200	120	100	145.000	329.000	389.000	—	—	16,6	16,6	—	—
250	120	100	250.000	567.000	671.000	—	—	21,8	21,8	17,9	—
315	120	100	310.000	971.000	1.230.000	—	—	—	24,1	22,6	—
400	120	100	580.000	1.816.000	2.301.000	—	—	—	30,7	25,3	—
500	120	100	1.450.000	3.446.000	3.956.000	—	—	—	—	35,1	—
630	120	100	2.610.000	6.202.000	7.121.000	—	—	—	—	40,2	49,88
800	100	100	3.913.746	19.860.799	26.613.470	—	—	—	—	—	63,99
1000	100	100	7.109.709	36.079.122	48.346.024	—	—	—	—	—	75,43
1250	100	100	14.065.272	71.376.009	95.643.852	—	—	—	—	—	88,92
Valori max. secondo IEC 60269-1 Max. values according to IEC 60269-1						12W	25W	32W	45W	60W	90W

NH COLTELLO
NH BLADE

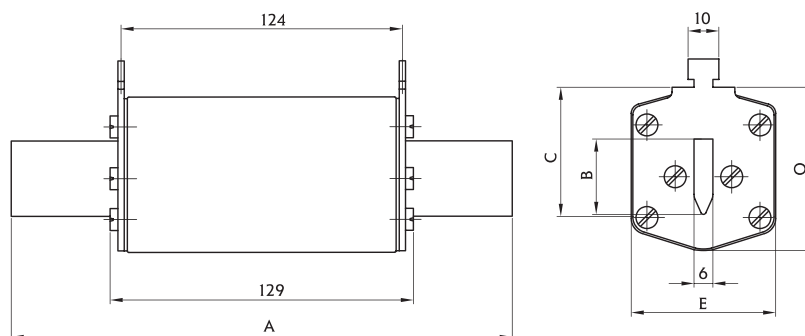
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO gG

*DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH INDUSTRIAL FUSES - gG TYPE*

Dimensioni in mm e caratteristiche tecniche - *Dimensions in mm and technical characteristics*

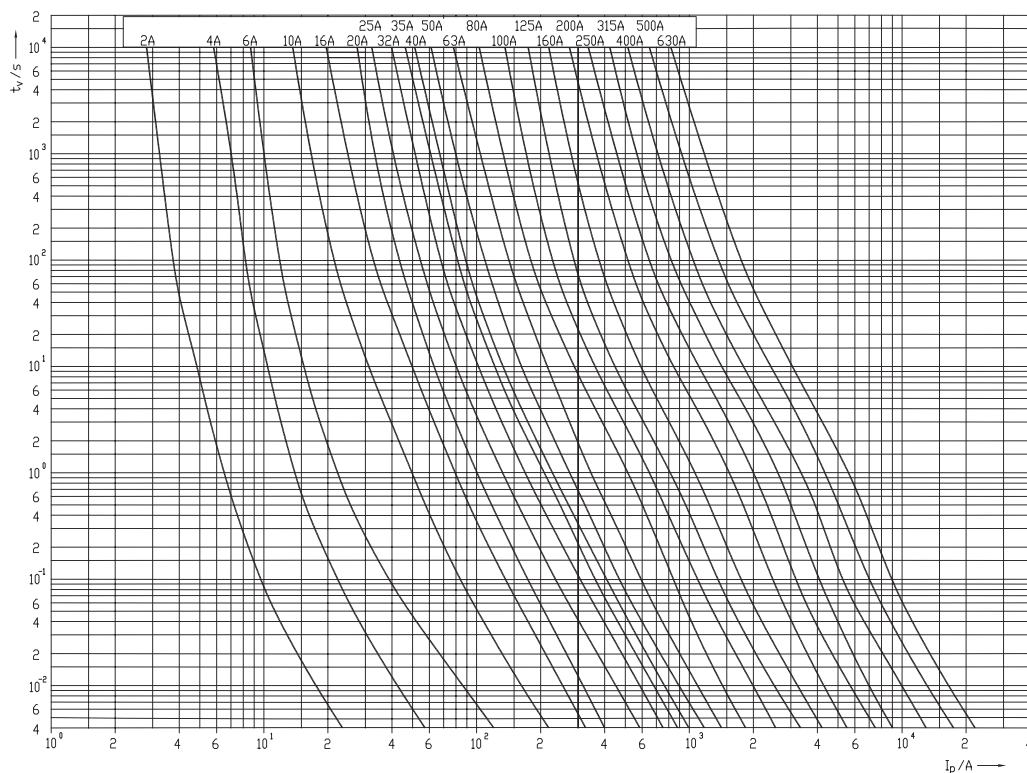
FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO gG - SERIE 1200V BLADE TYPE NH INDUSTRIAL FUSES - gG TYPE - SERIES 1200V

Dimensioni in mm - *Dimensions in mm*



size	A	B	C	E	G	P	R	M	O
1XL	194	24	40	46	61,5	20,5	13,7	50	52
2XL	209	30	48	54	71	27,3	16,2	59	61
3L	209	37	60	64	82	35,6	17	70	74

Caratteristiche d'intervento tempo-corrente - *Time-current characteristics*



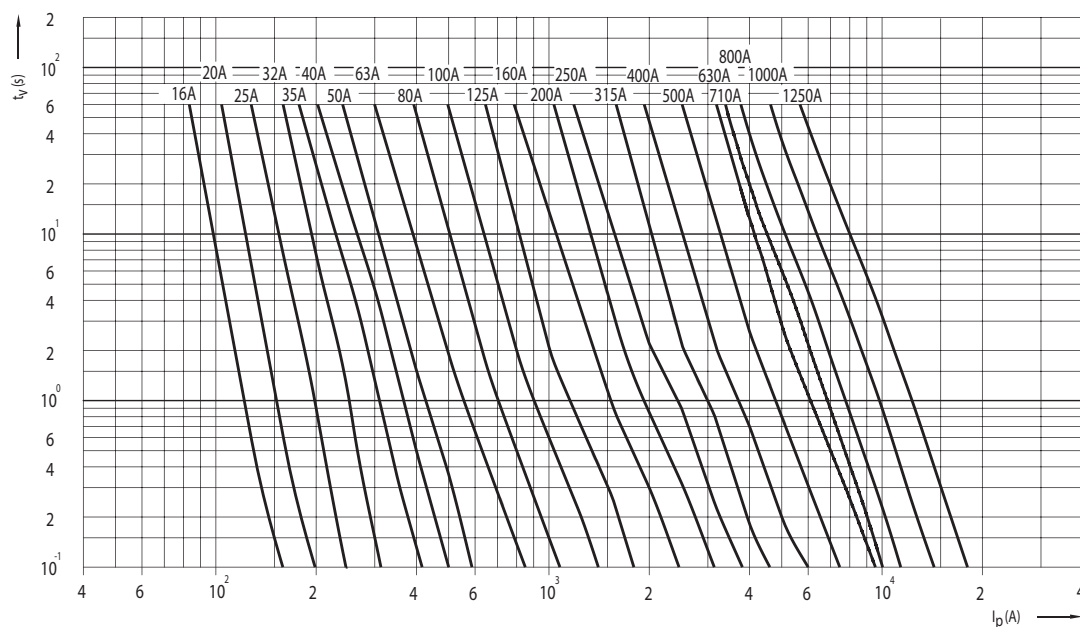
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO aM

DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH INDUSTRIAL FUSES - aM TYPE

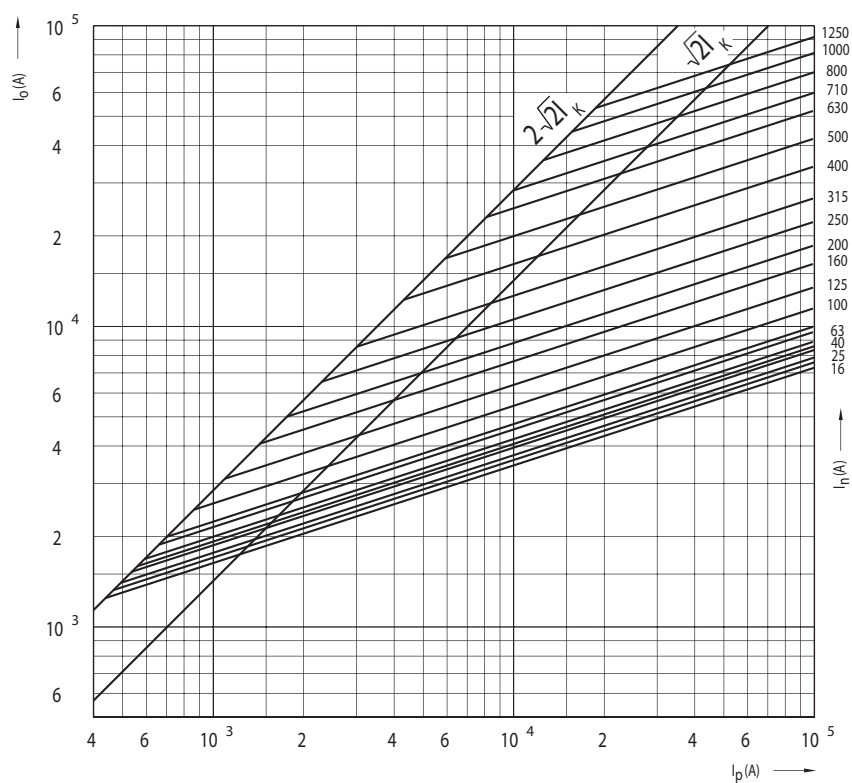
Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO aM BLADE TYPE NH INDUSTRIAL FUSES - aM TYPE

Caratteristiche d'intervento tempo-corrente - Time-current characteristics



Caratteristiche di limitazione - Cut-off characteristics



NH COLTELLO
NH BLADE

DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO aM

*DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH INDUSTRIAL FUSES - aM TYPE*

Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO aM BLADE TYPE NH INDUSTRIAL FUSES - aM TYPE

Tabella valori potenza dissipata - Power dissipation values table

I _n (A)	I _k (kA)	grandezza fusibile - fuse size					
		00 P _w (W)	0 P _w (W)	1 P _w (W)	2 P _w (W)	3 P _w (W)	4a P _w (W)
6	100	0,3	0,5	—	—	—	—
10	100	0,4	0,6	—	—	—	—
16	100	0,7	0,9	—	—	—	—
20	100	1,0	1,3	—	—	—	—
25	100	1,3	1,7	—	—	—	—
35	100	1,7	2,3	2,3	—	—	—
40	100	1,9	2,4	—	—	—	—
50	100	2,4	3,1	3,1	—	—	—
63	100	3,8	3,9	3,9	3,8	—	—
80	100	4,5	4,9	4,9	4,7	—	—
100	100	6,2	6,5	6,5	6,3	—	—
125	100	6,7	8,9	8,9	8,7	—	—
160	100	9,4	11,2	12,4	11,0	—	—
200	100	—	—	13,5	13,5	13,3	—
250	100	—	—	21,8	21,8	20,1	—
315	100	—	—	—	25,8	25,8	—
355	100	—	—	—	29,9	30,2	—
400	100	—	—	—	33,7	33,4	—
500	100	—	—	—	—	41,0	—
630	100	—	—	—	—	50,0	50,0
800	100	—	—	—	—	—	65,5
1000	100	—	—	—	—	—	81,5
1250	100	—	—	—	—	—	110
Valori max. secondo IEC 60269-1 Max. values according to IEC 60269-1		12W	25W	32W	45W	60W	110W

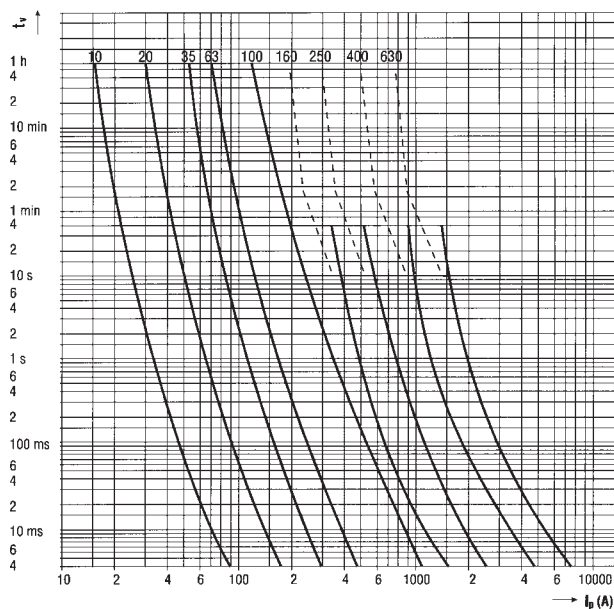
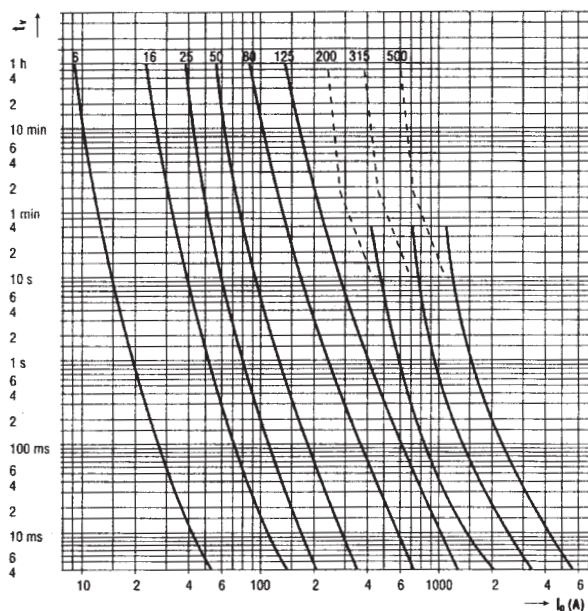
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

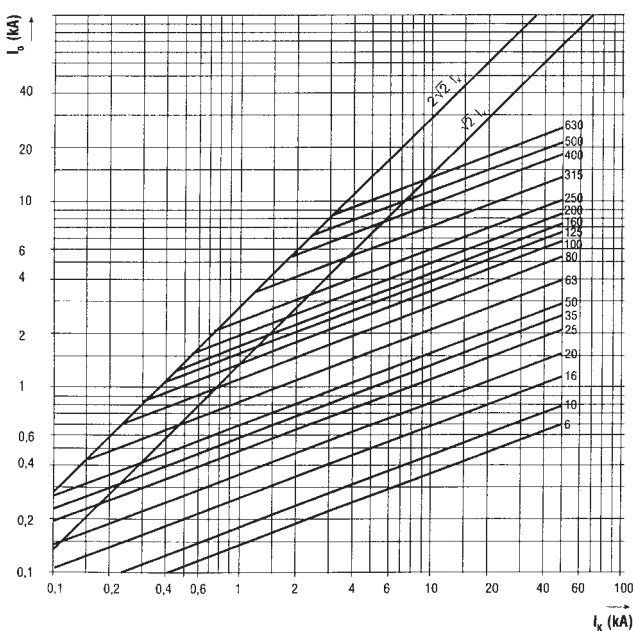
Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE HRC - TIPO gR/aR BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES HRC - gR/aR TYPE

Caratteristiche d'intervento tempo-corrente - Time-current characteristics



Caratteristiche di limitazione - Cut-off characteristics



NH COLTELLO
NH BLADE

DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE HRC - TIPO gR/aR BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES HRC - gR/aR TYPE

grandezza size	I_n (A) I_n (A)	I_k (kA) I_k (kA)	P_w (W) P_w (W)	I^2t di prearco (A ² s) prearcing I^2t (A ² s)	I^2t totale (A ² s) total I^2t (A ² s)
HRC 00 / HRC 00C	6	50	2,8	4	19
	10	50	3,3	13	62
	16	50	4,1	32	170
	20	50	5	60	290
	25	50	5,8	123	590
	35	50	8	242	1.160
	40	50	11	313	1.500
	50	50	16	490	2.370
	63	50	20	960	4.650
	80	50	25	1.100	5.350
	100	50	32	2.180	10.000
	125	50	40	4.450	21.300
	160	50	44	10.000	24.000
HRC 0	25	50	5,8	85	460
	35	50	8	190	1.000
	40	50	11	250	1.300
	50	50	16	290	1.500
	63	50	20	500	3.000
	80	50	25	1.000	5.300
	100	50	32	2.000	9.000
	125	50	40	3.100	16.000
	160	50	44	10.000	24.000
HRC 1	50	50	16	290	1.500
	63	50	20	500	3.000
	80	50	25	1.000	5.300
	100	50	32	2.000	9.000
	125	50	40	3.100	16.000
	160	50	44	10.000	24.000
	200	50	58	17.000	40.000
	250	50	63	29.000	65.000
HRC 2	80	50	25	1.000	5.300
	100	50	32	2.000	9.000
	125	50	40	3.100	16.000
	160	50	44	10.000	24.000
	200	50	58	17.000	40.000
	250	50	63	31.000	65.000
	315	50	95	48.000	175.000
	355	50	100	60.000	220.000
	400	50	105	85.000	270.000
HRC 3	250	50	63	31.000	60.000
	315	50	95	48.000	175.000
	355	50	100	60.000	300.000
	400	50	105	90.000	440.000
	500	50	130	160.000	660.000
	630	50	140	270.000	850.000

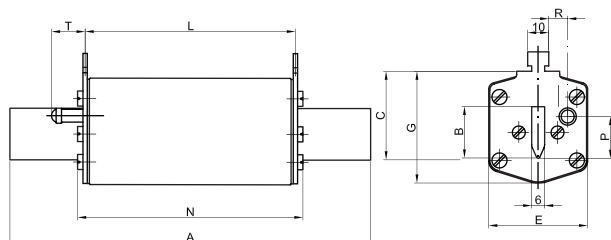
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

Dimensioni in mm e caratteristiche tecniche - Dimensions in mm and technical characteristics

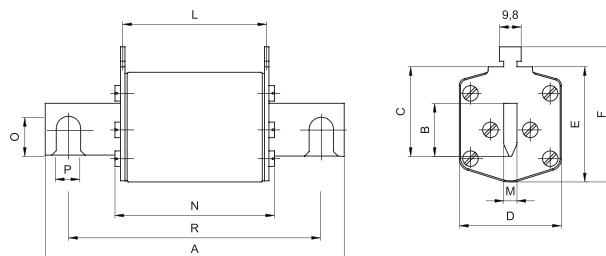
FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO gR BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - gR TYPE

Fusibili NH-00C, NH-1, NH-2, NH-3 - Fuses NH-00C, NH-1, NH-2, NH-3



size	A	B	C	E	G	S	L	N	P	R	T
00C	78	15	35	21	42	6	46	53	20,5	—	18
1	135	24	40	46	52	6	65	73	20,5	13,7	27,5
2	150	30	48	54	61	6	65	73	27,3	16,2	27,5
3	150	37	60	64	74	6	65	73	35,6	17	27,5

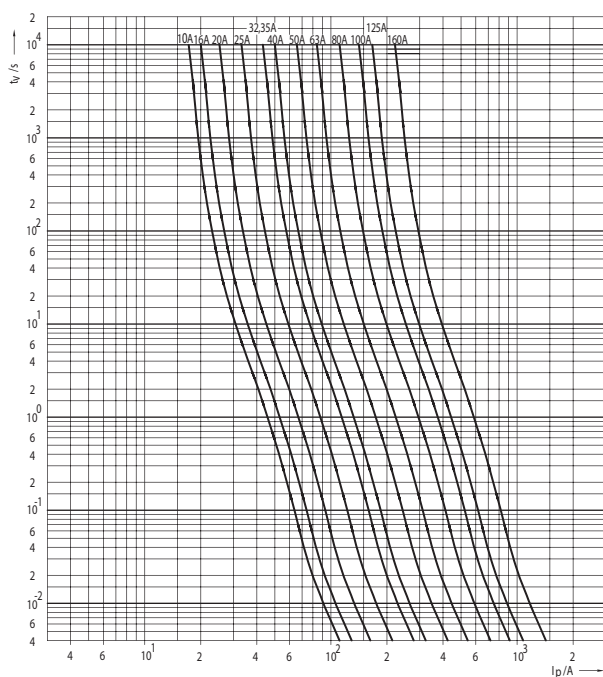
Fusibili NH-4, NH-4a - Fuses NH-4, NH-4a



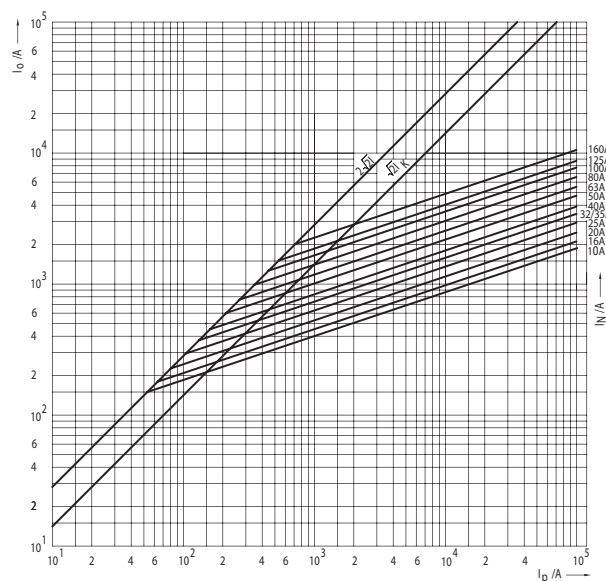
size	A	B	C	D	E	F	L	N	M	O	P	R
4	200	50	87	95	112	122	65	78	8	32	16	150
4a	200	50	85	95	112	122	87	97	6	—	—	—

NH COLTELLO
NH BLADE

Caratteristiche d'intervento tempo-corrente - Time-current characteristics Fusibili grandezza NH-00C, NH-00, NH-0 - Fuses size NH-00C, NH-00, NH-0



Caratteristiche di limitazione - Cut-off characteristics Fusibili grandezza NH-00C, NH-00, NH-0 - Fuses size NH-00C, NH-00, NH-0



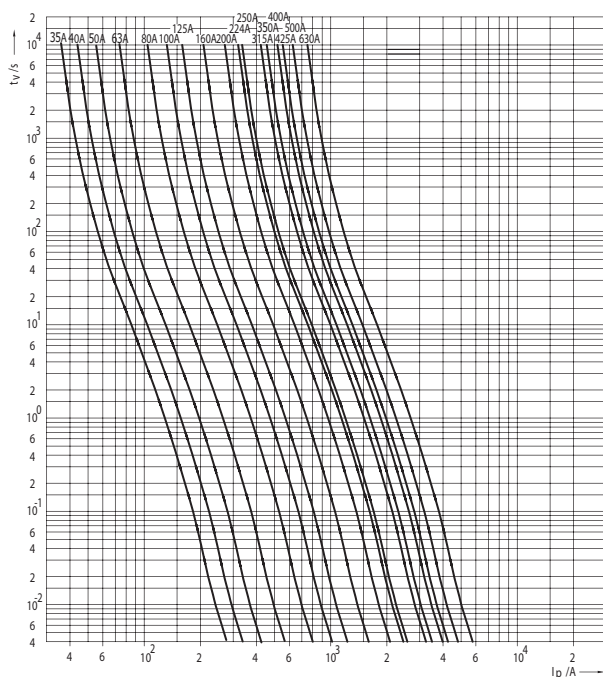
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

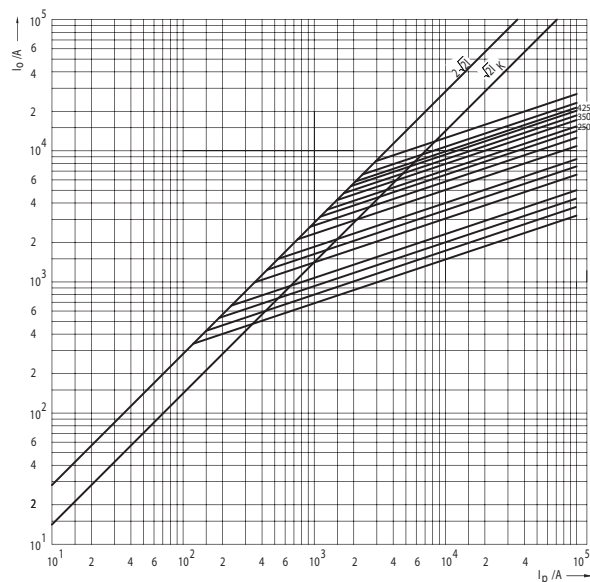
Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO gR BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - gR TYPE

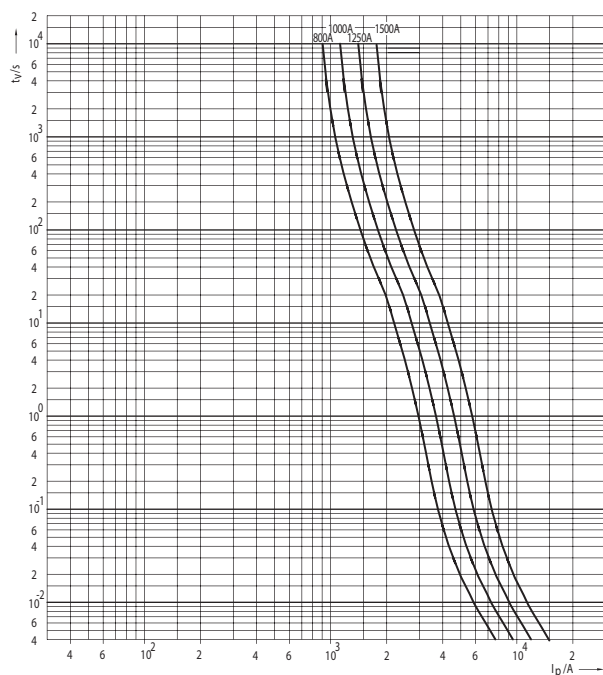
Caratteristiche d'intervento tempo-corrente - Time-current characteristics Fusibili grandezza NH-1, NH-2, NH-3 - Fuses size NH-1, NH-2, NH-3



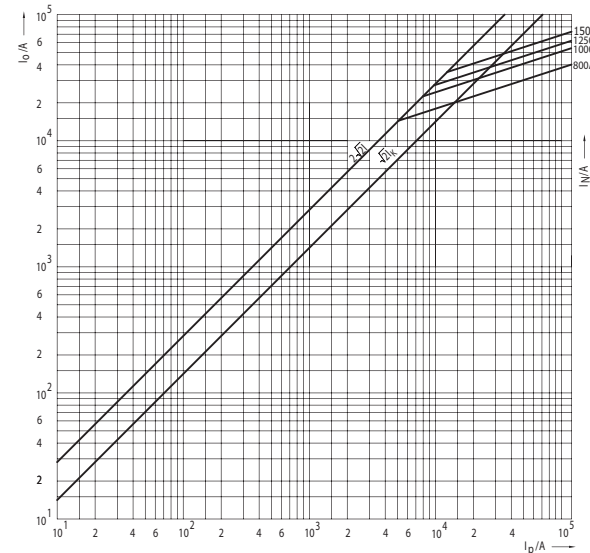
Caratteristiche di limitazione - Cut-off characteristics Fusibili grandezza NH-1, NH-2, NH-3 - Fuses size NH-1, NH-2, NH-3



Caratteristiche d'intervento tempo-corrente - Time-current characteristics Fusibili grandezza NH-4, NH-4a - Fuses size NH-4, NH-4a



Caratteristiche di limitazione - Cut-off characteristics Fusibili grandezza NH-4, NH-4a - Fuses size NH-4, NH-4a



DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

*DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES*

Caratteristiche tecniche - Technical characteristics

NH COLTELLO
NH BLADE

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO gR BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - gR TYPE

grandezza size	I_n (A) I_n (A)	I_k (kA) I_k (kA)	P_w (W) P_w (W)	I^t di prearco (A ² s) prearcing I^t (A ² s)	I^t totale (A ² s) total I^t (A ² s)
NH 00C	6	200	4,8	10	60
	10	200	6,5	20	100
	16	200	8	42	220
	20	200	9,5	63	320
	25	200	11,8	110	600
	32	200	12,5	180	920
	35	200	13,1	200	990
	40	200	14,1	250	1.400
	50	200	15,6	450	2.200
	63	200	17,8	700	3.600
	80	200	20,6	1.100	6.200
	100	200	23,7	2.000	10.000
	125	200	30	2.500	13.000
	160	200	36	4.400	23.000
NH 1	50	200	15,6	450	2.200
	63	200	17,8	700	3.600
	80	200	20,6	1.100	6.200
	100	200	23,7	2.000	10.000
	125	200	30	2.500	13.000
	160	200	36	4.400	23.000
	200	200	37	8.500	47.000
	250	200	48	15.000	70.000
NH 2	125	200	30	2.500	13.000
	160	200	36	4.400	23.000
	200	200	37	8.500	47.000
	250	200	48	15.000	70.000
	315	200	57	20.000	110.000
	355	200	67	28.000	150.000
	400	200	76	32.000	170.000
NH 3	250	200	48	15.000	70.000
	315	200	57	20.000	110.000
	355	200	67	28.000	150.000
	400	200	76	32.000	170.000
	500	200	102	44.000	240.000
	630	200	138	80.000	400.000
NH 4	800	200	164	100.000	620.000
	1000	200	188	210.000	1.150.000
	1250	200	246	320.000	2.000.000
NH 4a	800	200	164	100.000	620.000
	1000	200	188	210.000	1.150.000
	1250	200	246	320.000	2.000.000
	1500	200	310	450.000	3.800.000
	1600	200	330	700.000	4.500.000

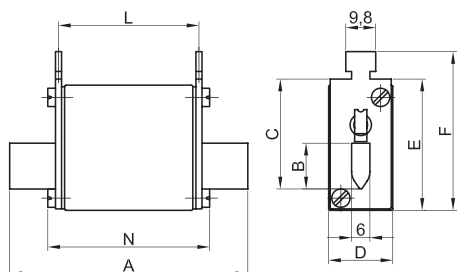
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

Dimensioni in mm e caratteristiche tecniche - Dimensions in mm and technical characteristics

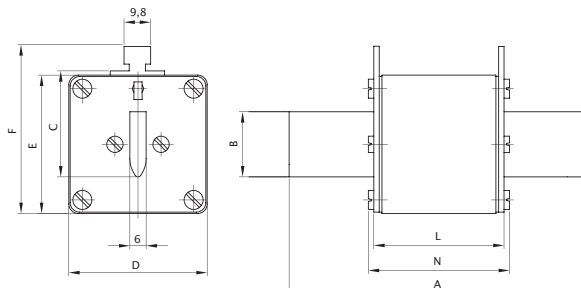
FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO aR 690V BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - aR TYPE 690V

Fusibili NH-00 - Fuses NH-00



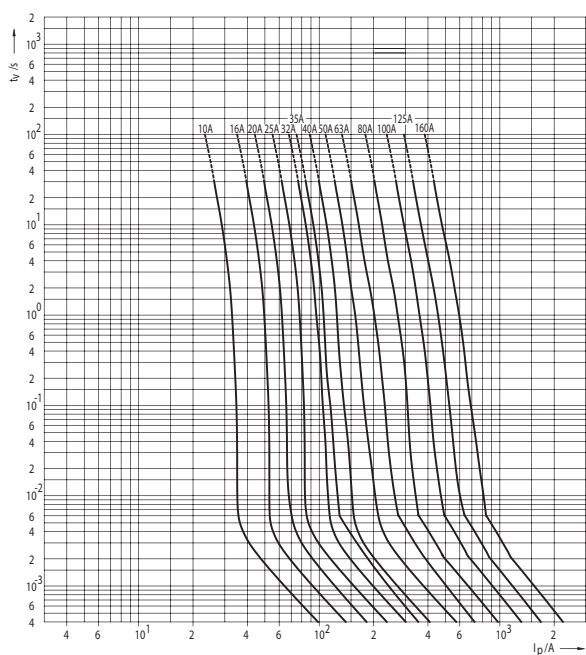
size	A	B	C	D	E	F	L	N
00	78	15	35	30	42	51	48	52

Fusibili NH-1, NH-2, NH-3 - Fuses NH-1, NH-2, NH-3

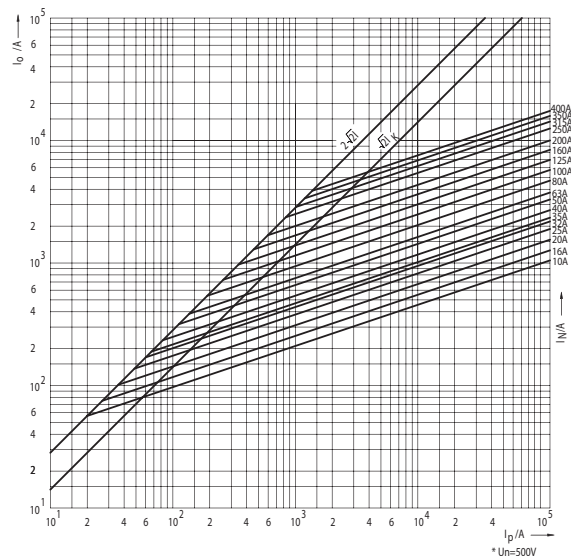


size	A	B	C	D	E	F	L	N
1	135	24	40	46	52	62	65	72
2	150	30	48	54	61	71	65	72
3	150	37	60	64	74	84	65	72

Caratteristiche d'intervento tempo-corrente - Fusibili aR - Grandezza 00 Time-current characteristics - aR fuses - Size 00



Caratteristiche di limitazione - Fusibili aR - Grandezza 00 Cut-off characteristics - aR fuses - Size 00



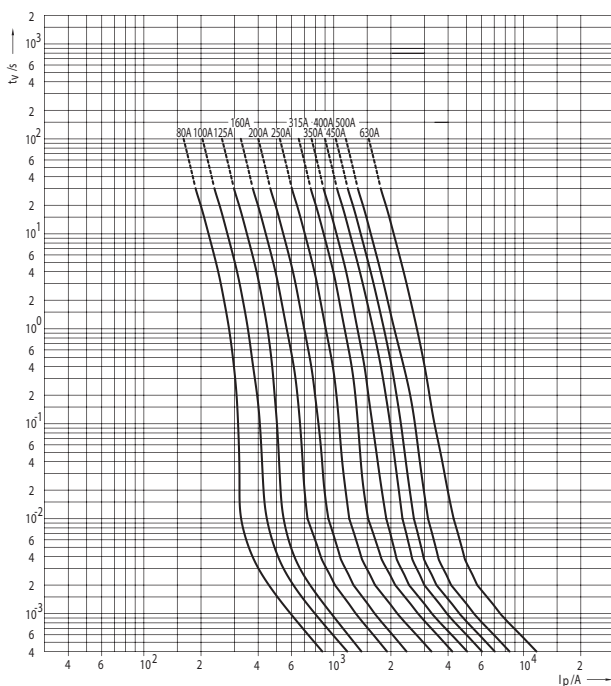
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

*DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES*

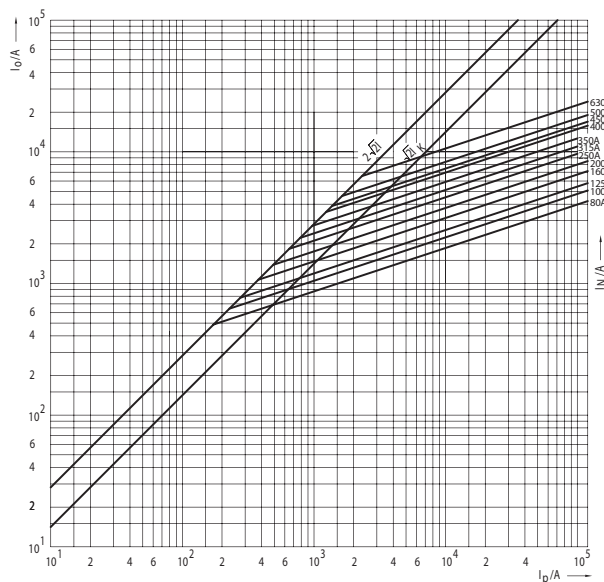
Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO aR 690V BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - aR TYPE 690V

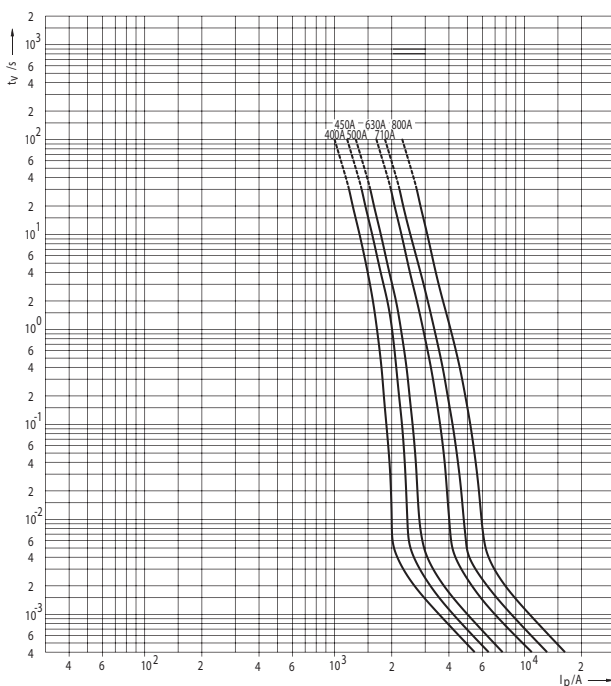
Caratteristiche d'intervento tempo-corrente - Fusibili aR - Grandezza 1 Time-current characteristics - aR fuses - Size 1



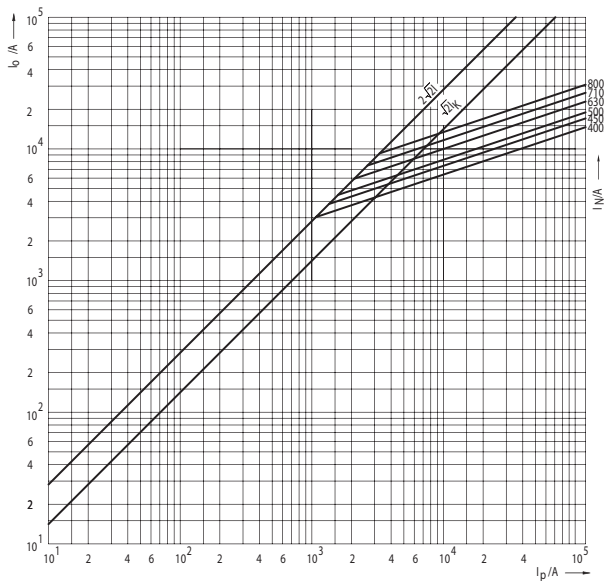
Caratteristiche di limitazione - Fusibili aR - Grandezza 1 Cut-off characteristics - aR fuses - Size 1



Caratteristiche d'intervento tempo-corrente - Fusibili aR - Grandezza 2 Time-current characteristics - aR fuses - Size 2



Caratteristiche di limitazione - Fusibili aR - Grandezza 2 Cut-off characteristics - aR fuses - Size 2



NH COLTELLO
NH BLADE

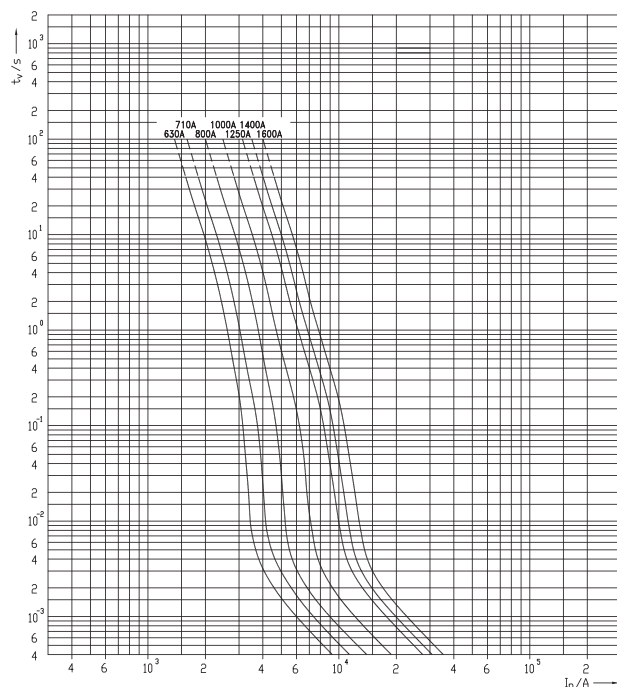
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

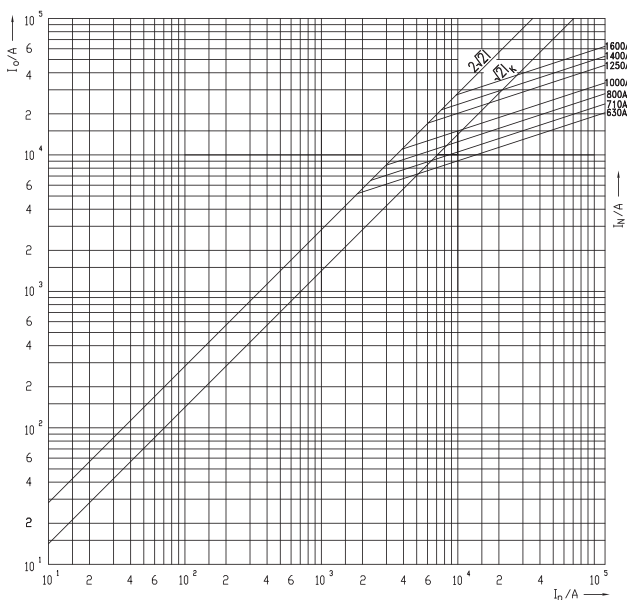
Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO aR 690V BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - aR TYPE 690V

Caratteristiche d'intervento tempo-corrente - Fusibili aR - Grandezza 3 Time-current characteristics - aR fuses - Size 3



Caratteristiche di limitazione - Fusibili aR - Grandezza 3 Cut-off characteristics - aR fuses - Size 3



Caratteristiche tecniche - Technical characteristics

grandezza size	I_n (A) I_n (A)	I_k (kA) I_k (kA)	P_w (W) P_w (W)	I^2t di prearco (A ² s) prearcing I^2t (A ² s)	I^2t totale (A ² s) total I^2t (A ² s)
NH 00C	10	200	3	10	23
	16	200	4	21	46
	20	200	5	32	95
	25	200	6	55	165
	32	200	7	90	290
	35	200	8	100	400
	40	200	9	125	640
	50	200	10	225	1.000
	63	200	12,3	350	1.800
	80	200	16,3	550	2.800
	100	200	20	1.000	4.600
	125	200	26,9	1.500	8.000
	160	200	31,6	2.400	16.500
	200	200	46	3.400	22.000
	250	200	49	4.100	44.000
NH 1 NH 2 NH 3	63	200	16	350	1.200
	80	200	21	550	1.800
	100	200	27	1.000	2.500
	125	200	32	1.500	4.600
	160	200	36	2.400	8.400
	200	200	46	3.400	14.000
	250	200	51	4.100	26.000
	315	200	66	7.000	42.000
	350	200	69	8.000	54.000
	400	200	80	10.000	98.000
	500	200	110	13.000	150.000
	550	200	115	15.000	200.000
	630	200	121	25.000	225.000
	710	200	130	35.000	320.000
	800	200	145	45.000	525.000
	900	200	160	60.000	900.000
	1000	200	170	80.000	1.000.000

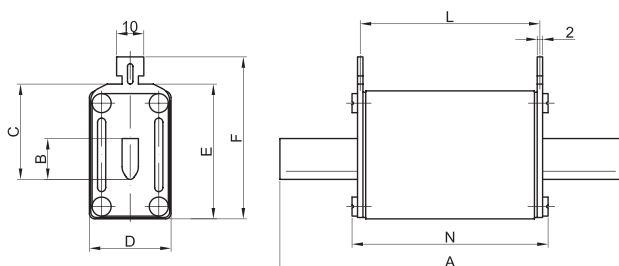
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

Dimensioni in mm e caratteristiche tecniche - Dimensions in mm and technical characteristics

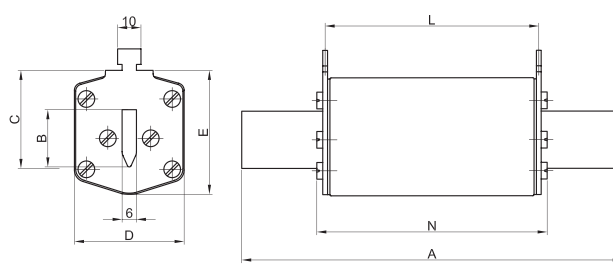
FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO aR 1000V / 1200V BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - aR TYPE 1000V / 1200V

Fusibili NH-0 - Fuses NH-0



size	A	B	C	D	E	F	L	N
0	125	15	35	30	50	59,5	66	72

Fusibili NH-1, NH-2, NH-3 - Fuses NH-1, NH-2, NH-3

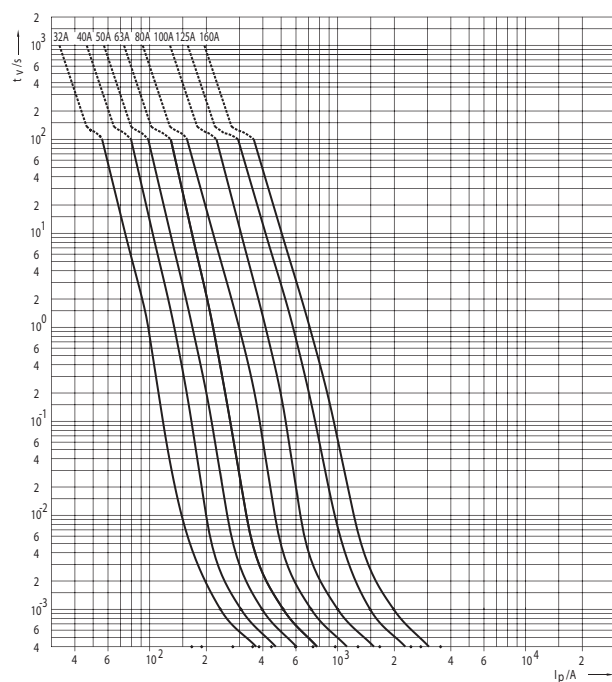


size	A	B	C	D	E	L	N
1	194	20 / 24 *	40	46	61,5	124	132
2	209	26 / 30 *	48	54	71	124	132
3	209	32 / 37 *	60	64	82	124	132

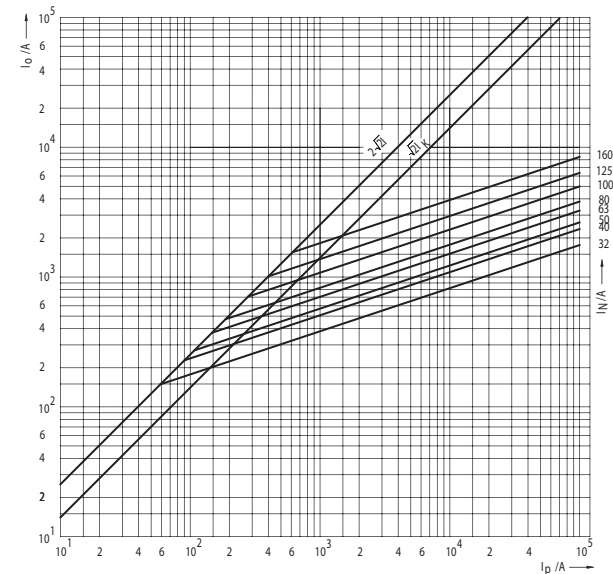
* L'altezza del coltello dipende dalla corrente nominale
* The height of the knife depends on current rating

NH COLTELLO
NH BLADE

Caratteristiche d'intervento tempo-corrente - Fusibili aR - Grandezza 0 Time-current characteristics - aR fuses - Size 0



Caratteristiche di limitazione - Fusibili aR - Grandezza 0 Cut-off characteristics - aR fuses - Size 0



DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

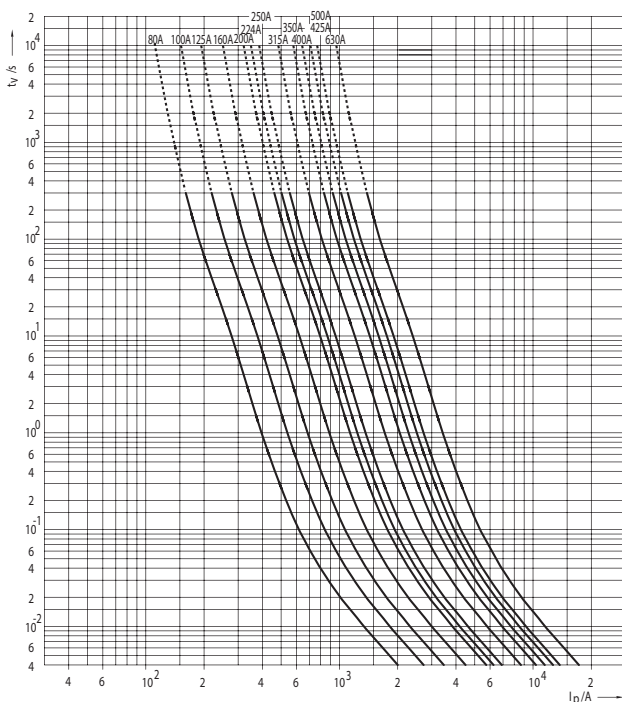
Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO aR 1000V / 1200V

BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - aR TYPE 1000V / 1200V

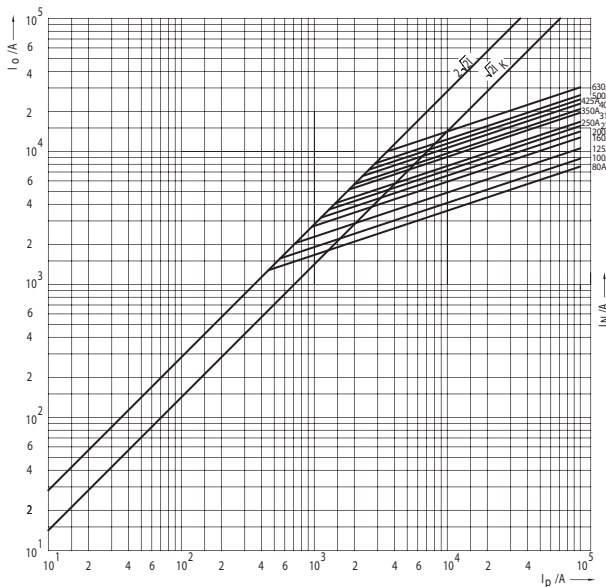
Caratteristiche d'intervento tempo-corrente - Fusibili aR - Grandezza 1/2/3

Time-current characteristics - aR fuses - Size 1/2/3



Caratteristiche di limitazione - Fusibili aR - Grandezza 1/2/3

Cut-off characteristics - aR fuses - Size 1/2/3



Caratteristiche tecniche - Technical characteristics

grandezza size	I_n (A) I_n (A)	V_n (V) V_n (V)	I_k (kA) I_k (kA)	P_w (W) P_w (W)	I^2t di prearco (A ² s) prearcing I^2t (A ² s)	I^2t totale (A ² s) total I^2t (A ² s)
NH 0	16	1000	200	8	20	210
	20	1000	200	9	25	260
	25	1000	200	11	40	350
	32	1000	200	12,5	51	480
	40	1000	200	14,4	90	840
	50	1000	200	19,3	140	1.300
	63	1000	200	22,3	250	2.300
	80	1000	200	28,8	420	3.900
	100	1000	200	31,5	860	8.000
	125	1000	200	34,3	1.970	18.000
NH 1	160	1000	200	40,5	3.800	35.000
	80	1200	200	35	1.600	8.000
	100	1200	200	46	2.500	12.500
	125	1200	200	55	4.200	20.000
	160	1200	200	67	7.000	32.000
	200	1200	200	84	11.000	50.000
NH 2	250	1200	200	104	17.000	80.000
	315	1200	200	125	25.000	120.000
	350	1200	200	141	32.000	160.000
NH 3	400	1200	200	159	42.000	200.000
	500	1200	200	185	77.000	320.000
	630	1200	200	198	110.000	500.000

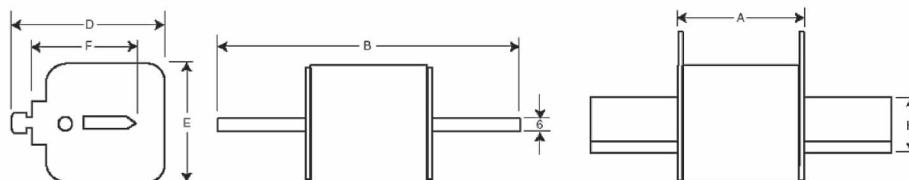
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH HIGH SPEED INDUSTRIAL FUSES

Dimensioni in mm e caratteristiche tecniche - Dimensions in mm and technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ULTRA - TIPO gR/aR BLADE TYPE NH HIGH SPEED INDUSTRIAL FUSES - SERIES ULTRA - gR/aR TYPE

Dimensioni in mm e caratteristiche tecniche - Dimensions in mm and technical specifications



grandezza - size	A	B	D	E	F	H
000	49,7	78,5	52	20,5	35	15
00	49,7	78,5	59	30	35	15
1	68	135	64	40	40	20
2	68	150	72	54	48	25
3	68	150	87	71	60	32

grandezza size	I_n (A) I_n (A)	V_n (V) V_n (V)	I_k (kA) I_k (kA)	I^2t prearco (A ² s) prearcing Pt (A ² s)	I^2t totale (A ² s) total Pt (A ² s)	P_w (W) P_w (W)
000	10	690	200	4	27	2,5
	16	690	200	7	51	4
	20	690	200	11,5	82,5	5
	25	690	200	19	140	6
	32	690	200	40	285	7
	40	690	200	65	490	8,5
	50	690	200	115	815	9,5
	63	690	200	215	1.550	11,5
	80	690	200	380	2.700	15
	100	690	200	695	4.950	16,5
	125	690	200	1.180	8.250	21,5
	160	690	200	2.300	16.500	25
00	200	690	200	4.350	31.000	29,5
	250	690	200	7.900	56.000	35,5
	315	690	200	12.000	84.500	45
	80	690	200	185	1.350	8,5
	100	690	200	360	2.600	10
	125	690	200	550	3.900	11
	160	690	200	1.150	8.250	12
	200	690	200	2.300	16.500	12,5
	250	690	200	4.350	31.000	16
	315	690	200	7.300	52.000	20
	350	690	200	10.000	73.000	21,5
	400	690	200	16.000	115.000	23
1	315	690	200	4.950	33.000	61
	350	690	200	7.000	46.500	64
	400	690	200	11.000	79.000	29
	450	690	200	16.000	115.000	32
	500	690	200	21.500	155.000	34
	550	690	200	29.000	215.000	36
	630	690	200	41.000	295.000	42
	700	690	200	60.500	430.000	43
	500	690	200	14.000	99.500	43
	550	690	200	19.500	140.000	44
	630	690	200	31.000	220.000	45
	700	690	200	45.000	320.000	46
2	800	690	200	69.500	490.000	48
	900	690	200	100.000	720.000	50
	1000	690	200	140.000	985.000	56
	1100	690	200	190.000	1.400.000	57
	1250	690	200	300.000	2.150.000	61
	1400	690	200	380.000	2.700.000	70
	1500	690	200	470.000	3.350.000	72
	1600	690	200	585.000	4.150.000	74
	500	690	200	14.000	99.500	43
	550	690	200	19.500	140.000	44
	630	690	200	31.000	220.000	45
	700	690	200	45.000	320.000	46
3	800	690	200	69.500	490.000	48
	900	690	200	100.000	720.000	50
	1000	690	200	140.000	985.000	56
	1100	690	200	190.000	1.400.000	57
	1250	690	200	300.000	2.150.000	61
	1400	690	200	380.000	2.700.000	70
	1500	690	200	470.000	3.350.000	72
	1600	690	200	585.000	4.150.000	74
	500	690	200	14.000	99.500	43
	550	690	200	19.500	140.000	44
	630	690	200	31.000	220.000	45
	700	690	200	45.000	320.000	46

NH COLTELLO
NH BLADE

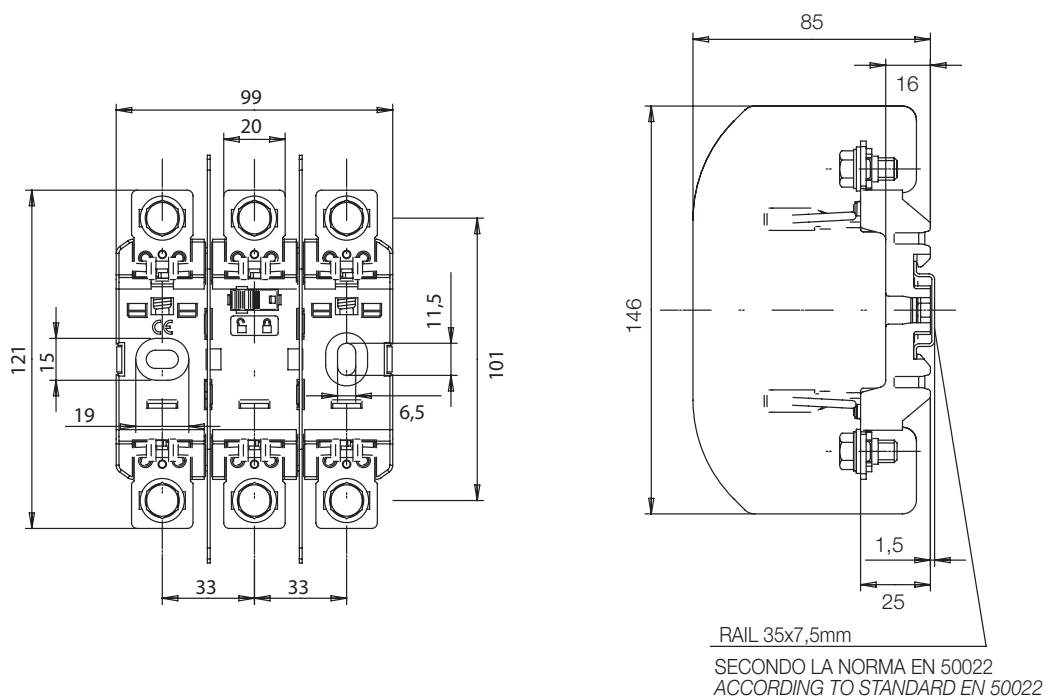
DIMENSIONI E CARATTERISTICHE PORTAFUSIBILI PER FUSIBILI NH - SERIE "NHU KOMBI"

*DIMENSIONS AND SPECIFICATIONS
FUSE BASES FOR NH FUSES - SERIES "NHU KOMBI"*

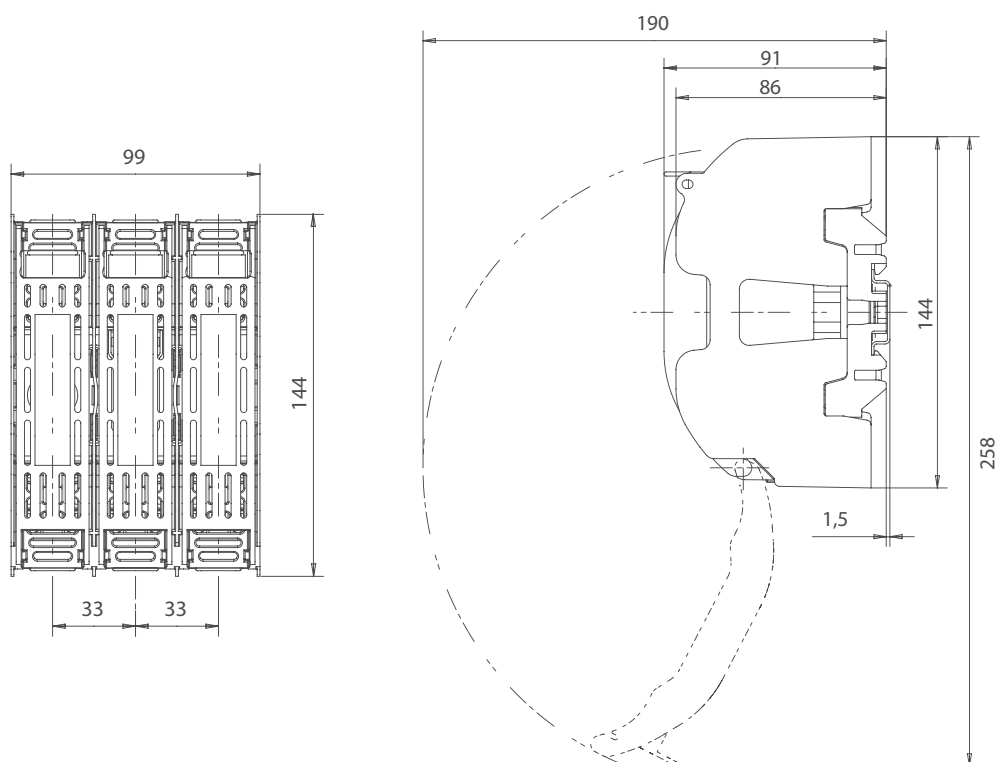
Dimensioni in mm - Dimensions in mm

PORTAFUSIBILI PER FUSIBILI NH - SERIE "NHU KOMBI" FUSE BASES FOR NH FUSES - SERIES "NHU KOMBI"

Versione standard - Standard version



Versione Kombi - Kombi version



DIMENSIONI E CARATTERISTICHE PORTAFUSIBILI PER FUSIBILI NH - SERIE "NHD" E "NHU"

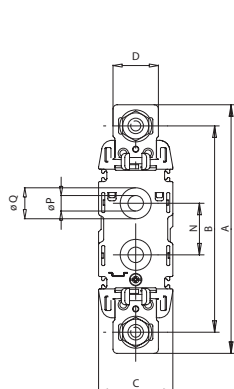
*DIMENSIONS AND SPECIFICATIONS
FUSE BASES FOR NH FUSES - SERIES "NHD" AND "NHU"*

Dimensioni in mm - Dimensions in mm

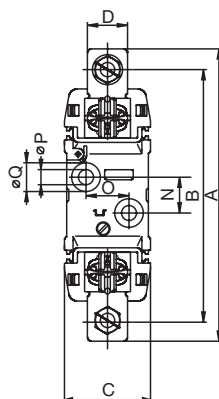
NH COLTELLO
NH BLADE

PORTAFUSIBILI PER FUSIBILI NH - SERIE "NHD" E "NHU" FUSE BASES FOR NH FUSES - SERIES "NHD" AND "NHU"

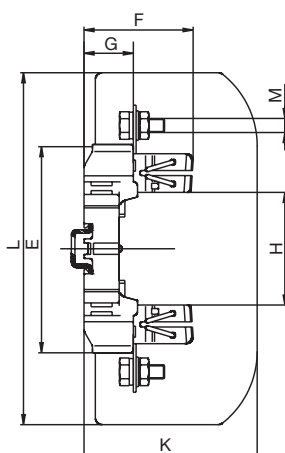
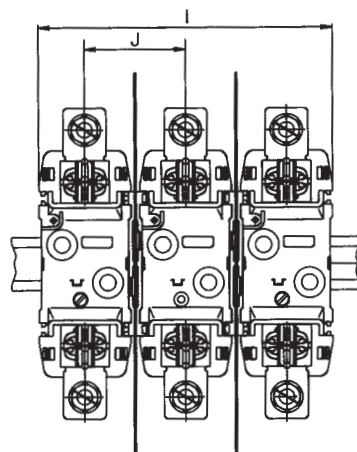
Basi per fusibili NH-00, NH-1, NH-2, NH-3 - Fuse bases for NH-00, NH-1, NH-2, NH-3



grandezza 00-0
size 00-0



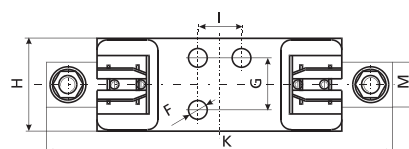
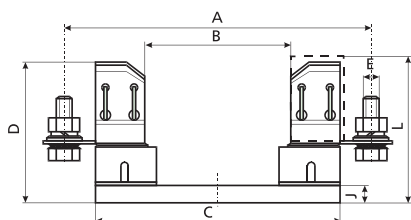
grandezza 1-2-3
size 1-2-3



grandezza - size

	NH-00	NH-0	NH-1	NH-2	NH-3
A	120	170	200	225	240
B	100	150	175	200	210
C	37	47	60	60	60
D	20	24	28	32	38
E	86	122	148	148	148
F	58	63	77,5	88	97
G	23	29	35	35	35
H	56,5	74	80	80	80
I	114	144	192	192	224
J	38,5	48,5	66	66	82
K	84,5	91,5	123	123	143
L	146	185	250	250	270
M	M8	M8	M10	M12	M12
N	25	25	25	25	25
O	0	0	30	30	30
P	7,5	7,5	10,5	10,5	10,5
Q	15	15	20,5	20,5	20,5

Basi per fusibili NH-1 1000V - Fuse bases for NH-1 1000V fuses



size	A	B	C	D	E	F	G	H	I	J	K	M
1	193	100	160	81	M10	10,5	30	55	25	10	220	26

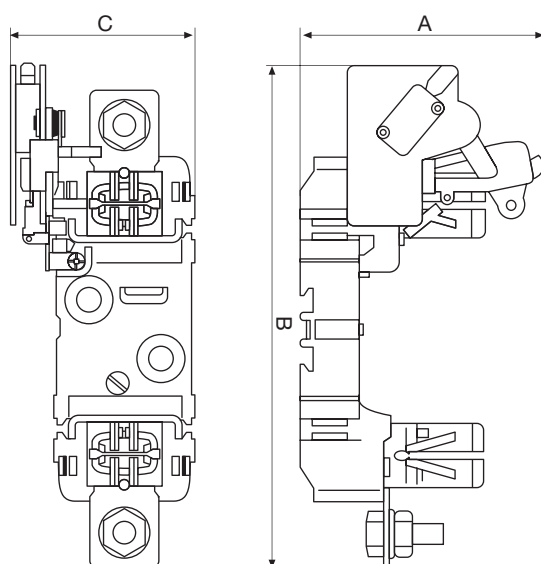
DIMENSIONI E CARATTERISTICHE PORTAFUSIBILI PER FUSIBILI NH - SERIE "NHU-MS" E "NHK"

*DIMENSIONS AND SPECIFICATIONS
FUSE BASES FOR NH FUSES - SERIES "NHU-MS" AND "NHK"*

Dimensioni in mm - Dimensions in mm

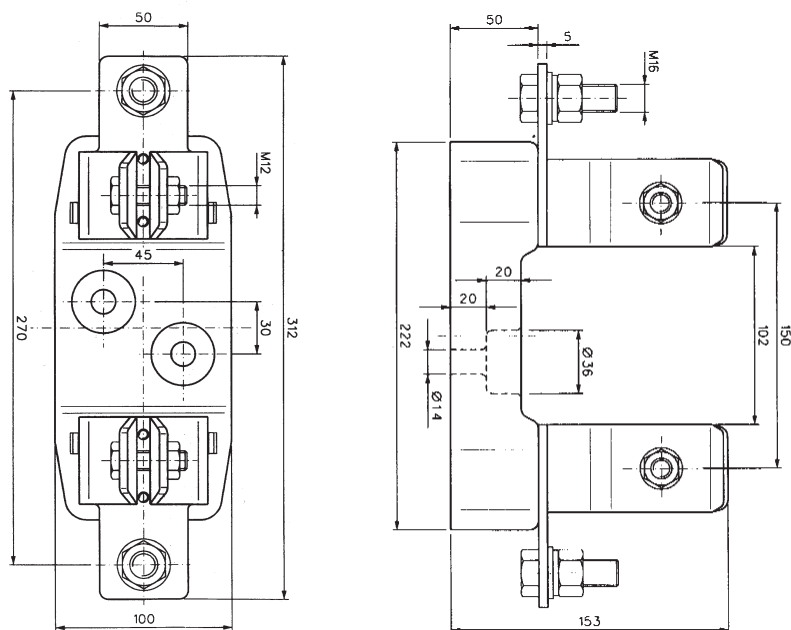
PORTAFUSIBILI PER FUSIBILI NH - SERIE "NHU-MS" E "NHK" FUSE BASES FOR NH FUSES - SERIES "NHU-MS" AND "NHK"

Portafusibile unipolare NHU-MS con micro per fusibili NH/CP - NHU-MS single pole fuse base with microswitch for use with NH/CP fuses



	grandezza - size			
	NH-0	NH-1	NH-2	NH-3
A	90	98	102	102
B	193	215	227	235
C	65,5	76	76	76

Portafusibile NHK-4S - NHK-4S fuse base



DIMENSIONI E CARATTERISTICHE PORTAFUSIBILI SEZIONABILI - SERIE "LTS"

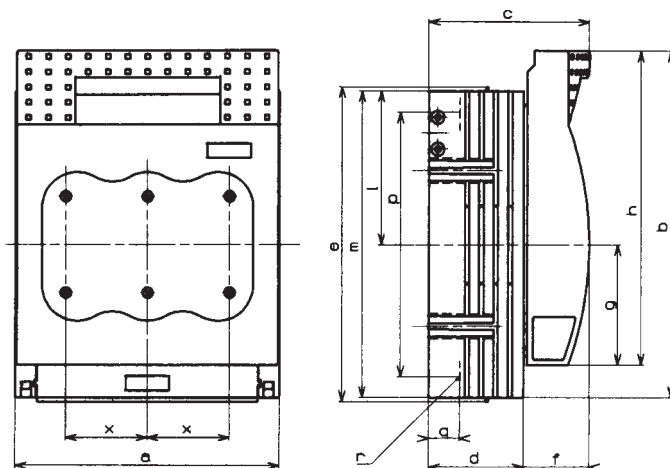
*DIMENSIONS AND SPECIFICATIONS
FUSE SWITCH DISCONNECTORS - SERIES "LTS"*

Caratteristiche tecniche e dimensioni in mm - *Technical characteristics and dimensions in mm*

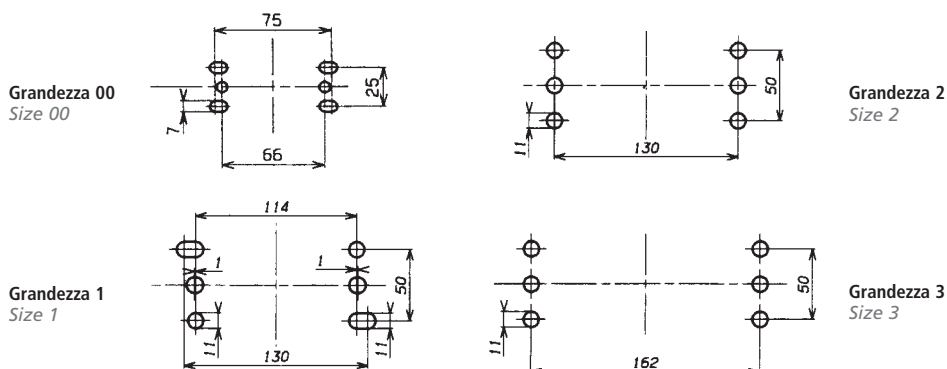
NH COITELLO
NH BLADE

PORTAFUSIBILI SEZIONABILI TRIPOLARI - SERIE "LTS" THREE-POLES FUSE SWITCH DISCONNECTORS - SERIES "LTS"

Dimensioni portafusibili sezionabili serie LTS - *Dimensions fuse switch disconnectors series LTS*



tipo - type	a	b	c	d	e	f	g	h	i	l	m	p	q	r	x
LTS-000	89	143	74,5	44	140	30,5	47	127,5	77,5	—	—	—	—	—	25,5
LTS-00	106	200	82,5	45	—	37	60	155	100	181	115	17	M8	—	33
LTS-1	184	243	111,5	66	220	45,5	84	220	107	214,5	185	21,5	M10	—	57
LTS-2	210	288	128	80	—	48	92	249	124	255	210	25	M10	—	65
LTS-3	256	300	142,5	94,5	—	48	98,5	259	127,5	267	210	30	M12	—	81



Caratteristiche tecniche portafusibili sezionabili serie LTS - *Technical characteristics fuse switch disconnectors series LTS*

	000	00	1	2	3
Tipo di corrente <i>Current type</i>	AC (50-60Hz)	AC (50-60Hz)	AC (50-60Hz)	AC (50-60Hz)	AC (50-60Hz)
Tensione nominale <i>Rated voltage</i>	690V AC / 440V DC	690V AC / 440V DC	690V AC / 440V DC	690V AC / 440V DC	690V AC / 440V DC
Tensione d'isolamento <i>Insulation voltage</i>	690V	800V	800V	800V	800V
Tensione di picco <i>Peak voltage</i>	6kV	6kV	6kV	6kV	6kV
Categorie d'applicazione <i>Utilization categories</i> (DC = L1 + L3 in serie)	AC-21B (690V) AC-22B (500V) DC-21B (440V / 80A) DC-21B (220V / 125A)	AC-22B (690V) AC-21B (690V) DC-21B (440V)	AC-21B (690V) AC-22B (400V) DC-22B (440V / 125A) DC-23B (440V)	AC-21B (690V) AC-22B (690V) DC-21B (440V)	AC-21B (690V) AC-22B (690V) DC-21B (440V)
Corrente di corto circuito <i>Short circuit current</i>	50kA (picco 105kA) 50kA (105 kA peak)	50kA (picco 105kA) 50kA (105 kA peak)	50kA (picco 105kA) 50kA (105 kA peak)	50kA (picco 105kA) 50kA (105 kA peak)	50kA (picco 105kA) 50kA (105 kA peak)
Max potenza dissipata fusibile <i>Max fuse power dissipation</i>	9W	12W	23W	34W	48W

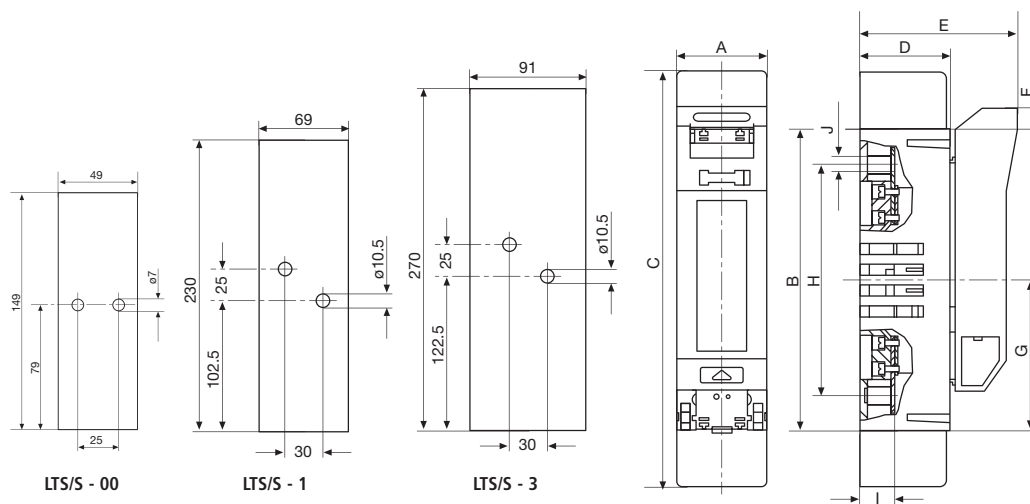
DIMENSIONI E CARATTERISTICHE PORTAFUSIBILI SEZIONABILI - SERIE "LTS/S"

DIMENSIONS AND SPECIFICATIONS FUSE SWITCH DISCONNECTORS - SERIES "LTS/S"

Caratteristiche tecniche e dimensioni in mm - Technical characteristics and dimensions in mm

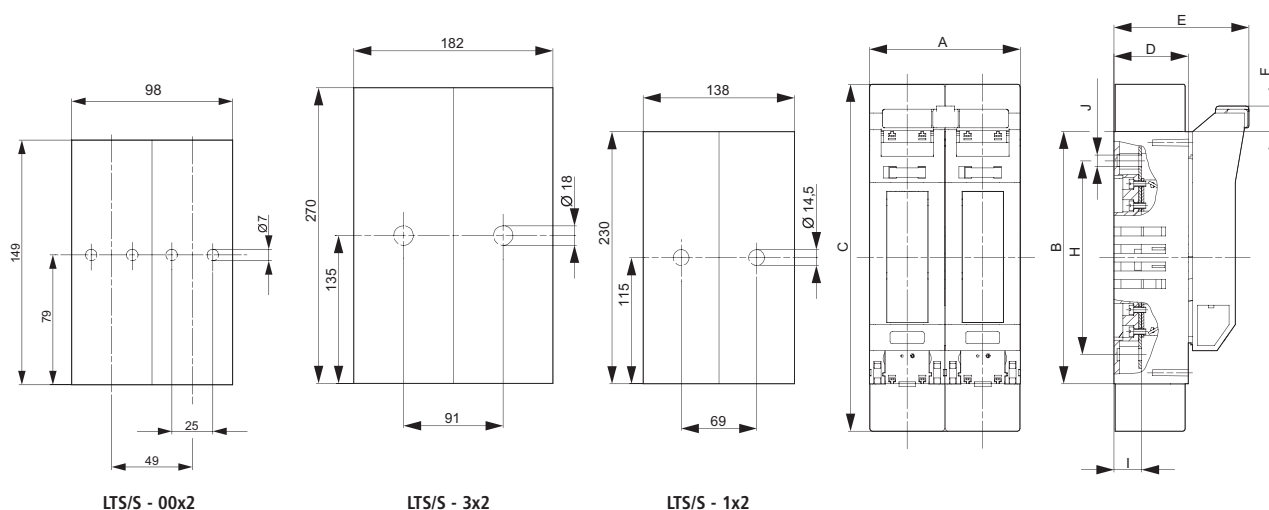
PORTAFUSIBILI SEZIONABILI - SERIE "LTS/S" FUSE SWITCH DISCONNECTORS - SERIES "LTS/S"

Portafusibili sezionabili unipolari LTS/S - LTS/S single pole fuse switch disconnectors



tipo - type	A	B	C	D	E	F	G	H	I	J
LTS/S - 00	49	149	200	45	86	20,5	—	120	17	9
LTS/S - 1	69	230	317	68	119	16,5	115	177	25	10,5
LTS/S - 3	91	270	430	96	147	9	135	220,5	30,5	10,5

Portafusibili sezionabili bipolari LTS/S - LTS/S two poles fuse switch disconnectors



tipo - type	A	B	C	D	E	F	H	I	J
LTS/S - 00x2	98	149	220	45	89	23	120	17	9
LTS/S - 1x2	138	230	317	68	123,5	23	177	25	10,5
LTS/S - 3x2	182	270	430	96	151,5	15,5	220,5	30,5	10,5

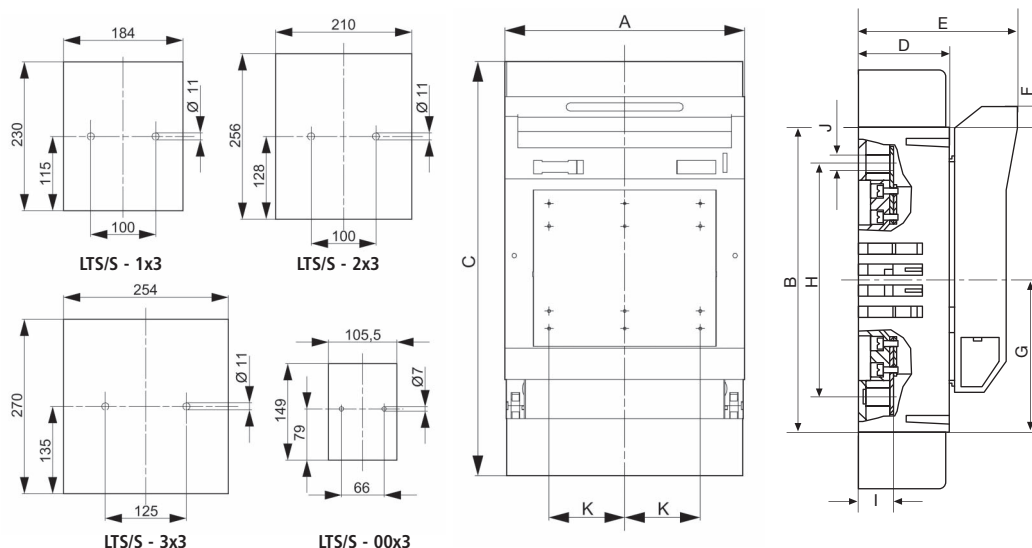
DIMENSIONI E CARATTERISTICHE PORTAFUSIBILI SEZIONABILI - SERIE "LTS/S"

*DIMENSIONS AND SPECIFICATIONS
FUSE SWITCH DISCONNECTORS - SERIES "LTS/S"*

Caratteristiche tecniche e dimensioni in mm - *Technical characteristics and dimensions in mm*

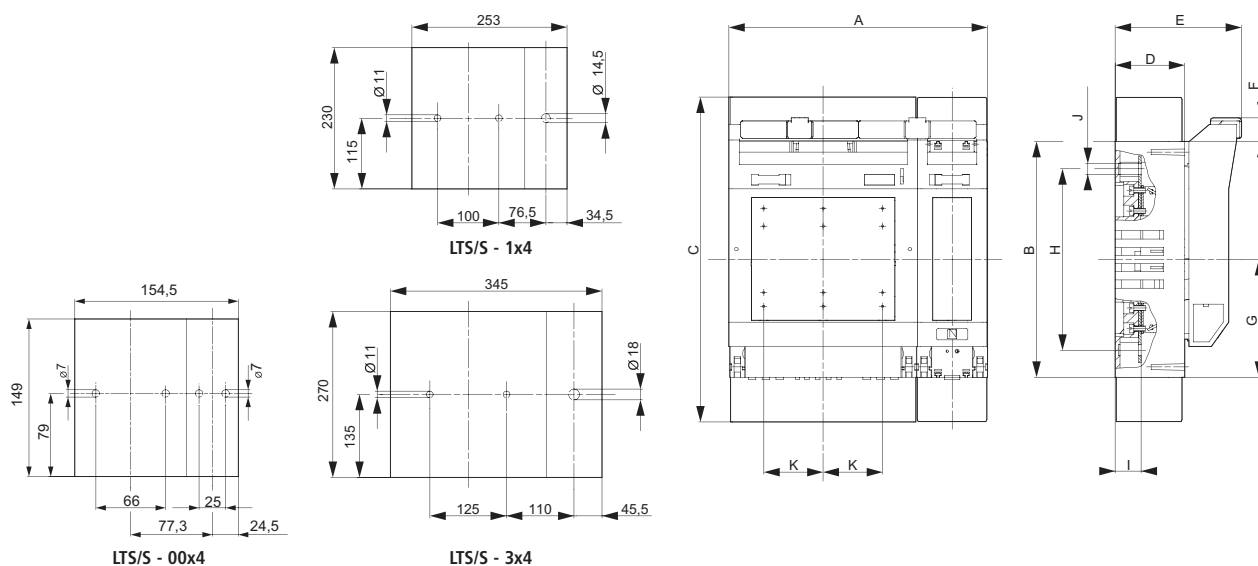
PORTAFUSIBILI SEZIONABILI - SERIE "LTS/S" FUSE SWITCH DISCONNECTORS - SERIES "LTS/S"

Portafusibili sezionabili tripolari LTS/S - *LTS/S three poles fuse switch disconnectors*



tipo - type	A	B	C	D	E	F	G	H	I	K	J
LTS/S - 00x3	105,5	149	220	45	86	20,5	74,5	120	17	33	9
LTS/S - 1x3	184	230	317	68	119	16,5	115	177	25	58	10,5
LTS/S - 2x3	210	256	397	81	133	16,5	128	205	25	66	10,5
LTS/S - 3x3	254	270	430	96	147	9	135	220,5	30,5	82	10,5

Portafusibili sezionabili quadripolari LTS/S - *LTS/S four poles fuse switch disconnectors*



tipo - type	A	B	C	D	E	F	G	H	I	K	J
LTS/S - 00x4	154,5	149	220	45	89	23	74,5	120	17	33	9
LTS/S - 1x4	253	230	317	68	123,5	23	115	177	25	58	10,5
LTS/S - 3x4	345	270	430	96	151,5	15,5	135	220,5	30,5	82	10,5

NH COLTELLO
NH BLADE

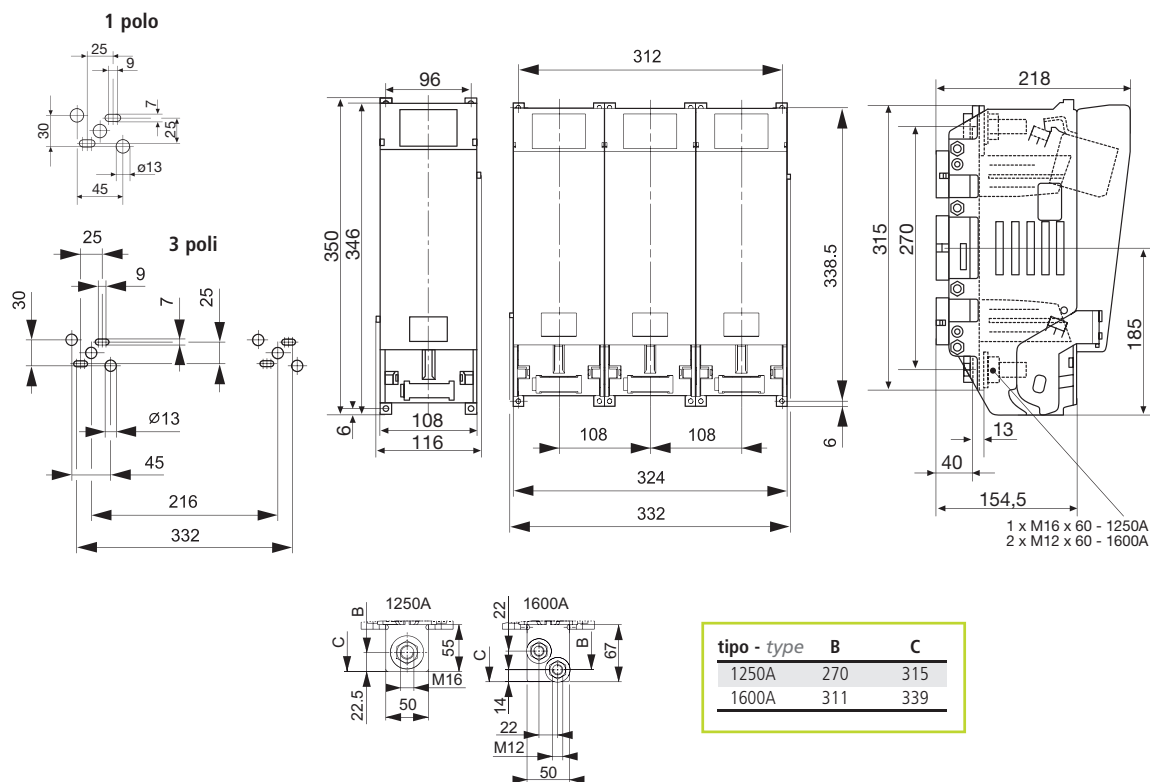
DIMENSIONI E CARATTERISTICHE PORTAFUSIBILI SEZIONABILI - SERIE "LTS/S"

DIMENSIONS AND SPECIFICATIONS FUSE SWITCH DISCONNECTORS - SERIES "LTS/S"

Caratteristiche tecniche e dimensioni in mm - Technical characteristics and dimensions in mm

PORTAFUSIBILI SEZIONABILI - SERIE "LTS/S" FUSE SWITCH DISCONNECTORS - SERIES "LTS/S"

Portafusibili sezionabili unipolari e tripolari LTS/S-4a - LTS/S-4a single pole and three poles fuse switch disconnectors



Caratteristiche tecniche portafusibili sezionabili serie LTS/S - Technical characteristics fuse switch disconnectors series LTS/S

	000	00	1	2	3	4a (1250A)	4a (1600A)
Corrente nominale Rated current	160A	160A	250A	400A	630A	1250A	1600A
Tensione nominale Rated voltage	690V AC / 220V DC	690V AC / 440V DC	690V AC / 440V DC	690V AC / 440V DC	690V AC / 440V DC	690V AC	690V AC
Tensione di picco Peak voltage	8kV	8kV	8kV	8kV	8kV	8kV	8kV
Categorie di utilizzo Utilization categories	AC-22B (400V/160A) AC-22B (500V/100A) AC-21B (690V/100A) DC-22B (220V/100A)	AC-22B (690V/100A) AC-22B (500V/160A) DC-21B (440V/100A) DC-22B (220V/160A)	AC-22B (690V/200A) AC-22B (500V/250A) DC-21B (440V/200A) DC-22B (220V/250A)	AC-22B (690V/315A) AC-22B (500V/400A) DC-21B (440V/315A) DC-22B (220V/400A)	AC-22B (690V/500A) AC-22B (500V/630A) DC-21B (440V/500A) DC-22B (220V/630A)	AC-21B (690V/1000A) AC-22B (500V/1250A)	AC-21B (690V/1000A) AC-22B (500V/1600A)
Potenza dissipata per polo Power dissipation x pole	7W	7W	13W	27W	52W	32W	52W
Max potenza dissipata fusibile Max fuse power dissipation	9W	12W	23W	34W	48W	110W	164W



NH a coltello NH blade type

Fusibili NH a coltello - tipo gG <i>NH blade type fuses - gG type</i>	90
Fusibili NH a coltello - tipo aM <i>NH blade type fuses - aM type</i>	94
Fusibili NH a coltello - tipo extrarapido gR/aR <i>NH blade type fuses - ultra-quick gR/aR type</i>	96
Basi portafusibili per fusibili NH a coltello <i>Fuse bases for NH blade type fuses</i>	100
Accessori per basi portafusibili <i>Accessories for fuse bases</i>	101
Portafusibili sezionabili per fusibili NH a coltello <i>Fuse switch disconnectors for NH blade type fuses</i>	102
Dimensioni e caratteristiche tecniche <i>Dimensions and technical specifications</i>	104

EXCLUSIVELY DISTRIBUTED BY:



L4 B3 MARVEX LEGACY HOMES
MARVEX DRIVE A.BONIFACIO, QUEZON CITY
PHONE NUMBERS: +632 3734453/3735336
EMAIL ADDRESS: montrelec@gmail.com
Website: www.montrelec.com.ph

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "NH"- "NH/I" - TIPO gG

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "NH"- "NH/I" - gG TYPE

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, VDE 0636, DIN 43620

I fusibili industriali NH di tipo gG sono normalmente utilizzati per la protezione di cavi, linee elettriche e apparecchiature contro i sovraccarichi ed i cortocircuiti. I fusibili NH Kombi sono dotati di un doppio dispositivo di segnalazione dell'intervento, uno dei quali è posto nella parte centrale del fusibile, mentre l'altro è posto nella parte superiore. Quest'ultimo dispositivo può essere associato ad un microinterruttore per ottenere una segnalazione a distanza dell'avvenuto intervento. I fusibili NH/I garantiscono una protezione aggiuntiva dai contatti accidentali perché sono realizzati ponendo delle placche plastiche isolanti nei pressi delle lame del fusibile.

The NH industrial fuses type gG are normally used to protect cables, electrical lines and equipments against overloads and short circuits. The NH Kombi fuses are equipped with two blown fuse indicators, one of which is placed in the central part of the fuse, while the other is placed in the upper part. The latter device may be associated with a microswitch to obtain a remote signaling of the fuse operation. The series NH/I fuses provide additional protection against accidental contacts because they are made by placing an insulating plastic plate in proximity of the blades of the fuse.



Fusibile NH-00C/I gG Kombi
con placche isolate
NH-00C/I gG Kombi fuse
with insulated gripping-lugs



Fusibile NH-00C gG Kombi
standard
NH-00C gG Kombi fuse
standard



Fusibile NH-1C gG Kombi
standard
NH-1C gG Kombi fuse
standard

FUSIBILI NH KOMBI E NH/I 500V - TIPO gG NH KOMBI AND NH/I 500V FUSES - gG TYPE

grandezza size	codice IW - IW code		I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
	NH standard ⁽¹⁾	NH/I con placche isolate ⁽¹⁾⁽⁴⁾ NH/I with insulated gripping-lugs ⁽¹⁾			
NH-00C	1500602	—	2A	500V	3-120
	1500604	—	4A	500V	3-120
	1500606	1500806	6A	500V	3-120
	1500610	1500810	10A	500V	3-120
	1500616	1500816	16A	500V	3-120
	1500620	1500820	20A	500V	3-120
	1500625	1500825	25A	500V	3-120
	1500632	—	32A	500V	3-120
	1500635	1500835	35A	500V	3-120
	1500640	1500840	40A	500V	3-120
	1500650	1500850	50A	500V	3-120
	1500663	1500863	63A	500V	3-120
	1500680	1500880	80A	500V	3-120
	1500690	1500900	100A	500V	3-120
NH-00	1500125	1500925	125A	500V	3-90
	1500160	1500960	160A	500V	3-90
NH-0	1505006	—	6A	500V	3-45
	1505010	—	10A	500V	3-45
	1505016	—	16A	500V	3-45
	1505020	—	20A	500V	3-45
	1505025	—	25A	500V	3-45
	1505036	—	35A	500V	3-45
	1505040	—	40A	500V	3-45
	1505050	—	50A	500V	3-45
	1505063	—	63A	500V	3-45
	1505080	—	80A	500V	3-45
	1505100	—	100A	500V	3-45
	1505125	—	125A	500V	3-45
	1505160	—	160A	500V	3-45
NH-1C	1510040	1510840 ⁽²⁾	40A	500V	3-45
	1510050	1510850 ⁽²⁾	50A	500V	3-45
	1510063	1510863 ⁽²⁾	63A	500V	3-45
	1510080	1510880 ⁽²⁾	80A	500V	3-45
	1510100	1510900 ⁽²⁾	100A	500V	3-45
	1510125	1510905 ⁽²⁾	125A	500V	3-45
NH-1	1510160	1510906 ⁽²⁾	160A	500V	3-45
	1510200	1510907	200A	500V	3-24
NH-2C	1510250	1510908	250A	500V	3-24
	1520080	—	80A	500V	3-15
NH-2	1520100	1520900 ⁽²⁾	100A	500V	3-15
	1520125	1520905 ⁽²⁾	125A	500V	3-15
	1520160	1520906 ⁽²⁾	160A	500V	3-15
	1520200	1520910 ⁽²⁾	200A	500V	3-15
	1520250	1520915 ⁽²⁾	250A	500V	3-15
NH-3C	1520315	1520920	315A	500V	3-15
	1520355	1520925	355A	500V	3-15
	1520400	1520930	400A	500V	3-15
NH-3	1530315	1530920 ⁽²⁾	315A	500V	3-12
	1530400	1530930 ⁽²⁾	400A	500V	3-12
	1530500	1530950	500A	500V	3-12
NH-3	1530630	1530963	630A	500V	3-12
	1563800 ⁽³⁾⁽⁵⁾	—	800A	500V	3-12

- (1) Esecuzione Kombi con doppio indicatore; nella versione standard l'indicatore superiore può azionare un microinterruttore codice IW 2699804.
(2) Esecuzione non compatta
(3) Esecuzione con solo indicatore superiore
(4) Il microinterruttore non è utilizzabile
(5) Portata non normalizzata

- (1) Kombi version with dual indicator; the upper indicator in standard version may operate a microswitch IW code 2699804.
(2) Non compact version
(3) Version with upper indicator only
(4) Microswitch not available
(5) Non standardized current

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "NH"- "NH/CP"- "NH/CP-S" - TIPO gG

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "NH"- "NH/CP"- "NH/CP-S" - gG TYPE

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, VDE 0636, DIN 43620

I fusibili industriali NH di tipo gG sono utilizzati per la protezione di cavi, linee elettriche e apparecchiature contro sovraccarichi e cortocircuiti. I fusibili delle serie NH/CP e NH/CP-S sono equipaggiati con un percussore, che fuoriesce all'atto della fusione del fusibile, e può essere utilizzato insieme a un microinterruttore per la segnalazione a distanza dell'avenuto intervento. In particolare i fusibili della serie NH/CP vanno utilizzati con apposite basi del tipo "aperto" con microinterruttore già montato a bordo, mentre i fusibili della serie NH/CP-S vanno utilizzati all'interno dei sezionatori della serie LTS/S, a cui va aggiunto il microinterruttore per la segnalazione a distanza dell'intervento.

The industrial NH fuses type gG are used to protect cables, electrical lines and equipment against overloads and short circuits. The fuses of the series NH/CP and NH/CP-S are equipped with a striker, which activates during the melting of the fuse, and can be used with a microswitch for remote signaling of the fuse operation. The fuses NH/CP must be used with appropriate bases of the classic "open" type, in which the microswitch is already mounted on board, while the fuses NH/CP-S must be used within the switch disconnectors of the LTS/S series, in which must be added a microswitch for remote signaling of the fuse operation.



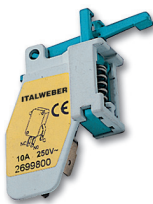
Fusibile NH-0 gG
standard 690V
Standard NH-0 gG
690V fuse



Fusibile NH-2 gG
standard 690V
Standard NH-2 gG
690V fuse



Fusibile NH-2/CP gG
con percussore
NH-2/CP gG fuse
with striker



Microinterruttore
1NA + 1NC
Microswitch
1NO + 1NC

FUSIBILI NH, NH/CP E NH/CP-S 690V - TIPO gG NH, NH/CP AND NH/CP-S 690V FUSES - gG TYPE

grandezza size	codice IW - IW code			I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
	NH ⁽¹⁾ standard	NH/CP ⁽²⁾ con percussore NH/CP ⁽²⁾ with striker	NH/CP-S ⁽³⁾ con percussore NH/CP-S ⁽³⁾ with striker			
NH-00C	1600506	—	1570006S	6A	690V	3
	1600510	—	1570010S	10A	690V	3
	1600516	—	1570016S	16A	690V	3
	1600520	—	1570020S	20A	690V	3
	1600525	—	1570025S	25A	690V	3
	1600532	—	1570032S	32A	690V	3
	1600535	—	1570035S	35A	690V	3
	1600540	—	1570040S	40A	690V	3
	1600550	—	—	50A	690V	3
	—	—	1570050S	50A	690V	3
NH-00	1600563	—	1570063S	63A	690V	3
	1600580	—	1570080S	80A	690V	3
	1600600	—	1570100S	100A	690V	3
	1600625	—	—	125A	690V	3
	1600660	—	—	160A	690V	3
	—	—	—	—	—	—
NH-0	1605006	—	—	6A	690V	3
	1605010	—	—	10A	690V	3
	1605016	—	—	16A	690V	3
	1605020	—	—	20A	690V	3
	1605025	—	—	25A	690V	3
	1605036	—	—	35A	690V	3
	1605040	—	—	40A	690V	3
	1605050	—	—	50A	690V	3
	1605063	—	—	63A	690V	3
	1605080	—	—	80A	690V	3
	1605100	—	—	100A	690V	3
	1605125	—	—	125A	690V	3
	—	—	—	—	—	—
NH-1	1610040	—	—	40A	690V	3
	1610050	—	1579050S	50A	690V	3
	1610063	—	1579063S	63A	690V	3
	1610080	1579080	1579080S	80A	690V	3
	1610100	1579100	1579100S	100A	690V	3
	1610125	1579125	1579125S	125A	690V	3
	1610160	1579160	1579160S	160A	690V	3
	1610200	1579200	1579200S	200A	690V	3
	1610250	1579250 ⁽⁴⁾	1579250S	250A	690V	3
	1620100	—	1572100S	100A	690V	3
NH-2	1620125	1572125	1572125S	125A	690V	3
	1620160	1572160	1572160S	160A	690V	3
	1620200	1572200	1572200S	200A	690V	3
	1620250	1572250	1572250S	250A	690V	3
	1620315	1572315	1572315S	315A	690V	3
	—	1572355 ⁽⁴⁾	—	355A	690V	3
	1620400	1572400 ⁽⁴⁾	1572400S	400A	690V	3
	1630315	1573315	1573315S	315A	690V	3
	—	1573355	—	355A	690V	3
	1630400	1573400	1573400S	400A	690V	3
NH-3	1630500	1573500	1573500S	500A	690V	3
	1630630	1573630 ⁽⁴⁾	1573630S	630A	690V	3
	—	—	—	—	—	—

- (1) Un dispositivo di segnalazione permette di azionare un microinterruttore (opzionale). Per ordinare codice IW 2699800 (grandezze 00-0-1-2-3), codice IW 2699802 (grandezza 2C-3C)
- (2) Da utilizzare con basi complete di microinterruttore - Vedere pag. 100
- (3) Da utilizzare con sezionatori LTS/S - Vedere pag. 103
- (4) Esecuzione a 500V

- (1) A blown fuse indicator device is used to activate a microswitch (optional). Order codes: IW code 2699800 (sizes 00-0-1-2-3), IW code 2699802 (sizes 2C-3C).
- (2) To be used with bases complete with microswitch - See page 100
- (3) To be used with disconnector LTS/S - See page 103
- (4) 500V version

NH COLTELLO
NH BLADE

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "NH-4"- "NH-4a"- "NH-1 1000V" - TIPO gG

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "NH-4"- "NH-4a"- "NH-1 1000V" - gG TYPE

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, VDE 0636, DIN 43620

I fusibili industriali NH di tipo gG sono utilizzati per la protezione di cavi, linee elettriche e apparecchiature contro i sovraccarichi ed i cortocircuiti. A differenza delle altre grandezze dei fusibili NH, i fusibili aventi grandezza NH-4 presentano le lame asolate, e vanno quindi fissati mediante bulloni, utilizzando le apposite basi aperte di grandezza NH-4. Invece, i fusibili della grandezza NH-4a, compresa la serie NH/CP-S dotata di percussore, vanno utilizzati all'interno degli appositi portafusibili sezionabili della serie LTS/S. I fusibili gG con tensione nominale di 1000V presentano una lunghezza particolare e vanno utilizzati solo con la relativa base portafusibili.

The industrial NH fuses type gG are normally used to protect cables, electrical lines and equipment against overloads and short circuits. Unlike other sizes of NH fuses, the fuses size NH-4 have the blades that present holes, and must therefore be fixed by means of bolts, using the appropriate classic base of size NH-4. Instead, the fuses of size NH-4a, including the series NH/CP-S equipped with a striker, must be used within the appropriate switch disconnectors of the LTS/S series. The gG fuses with rated voltage of 1000V have a particular length and must only be used with the corresponding PK/1000 fuse base.



Fusibile NH-4 gG
NH-4 gG fuse

FUSIBILI NH-4 500V - TIPO gG NH-4 500V FUSES - gG TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NH-4	1541630	630A	500V	1-12
	1541700	700A	500V	1-12
	1541800	800A	500V	1-12
	1541899	1000A	500V	1-12
	1541999	1250A	500V	1-12



Fusibile NH-4a gG 500V
NH-4a gG 500V fuse

FUSIBILI NH-4a 500V - TIPO gG NH-4a 500V FUSES - gG TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NH-4a	1542630	630A	500V	1
	1542700	700A	500V	1
	1542800	800A	500V	1
	1542900	900A	500V	1
	1542910	1000A	500V	1
	1542920	1250A	500V	1
	1542930	1600A	500V	1

Da utilizzare con portafusibili sezionabili tipo LTS/S NH-4a (vedi pag. 103)

To be used with fuseholder LTS/S, NH-4a (see pag. 103)



Fusibile NH-4a gG 690V
NH-4a gG 690V fuse

FUSIBILI NH-4a 690V - TIPO gG NH-4a 690V FUSES - gG TYPE

grandezza size	codice IW - IW code		I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
	NH standard	NH/CP-S con percussore NH/CP-S with striker			
NH-4a	1542630P	1574630S	630A	690V	1
	1542700P	-	700A	690V	1
	1542800P	1574800S	800A	690V	1
	1542900P	-	900A	690V	1
	1542910P	1574910S	1000A	690V	1
	1542920P	1574920S	1250A	690V	1

Da utilizzare con portafusibili sezionabili tipo LTS/S NH-4a (vedi pag. 103)

To be used with fuseholder LTS/S, NH-4a (see pag. 103)



Fusibile NH-1 1000V
NH-1 1000V fuse

FUSIBILI NH-1 1000V - TIPO gG NH-1 1000V FUSES - gG TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NH-1	1561310	10A	1000V	3
	1561316	16A	1000V	3
	1561325	25A	1000V	3
	1561335	35A	1000V	3
	1561350	50A	1000V	3
	1561363	63A	1000V	3
	1561380	80A	1000V	3
	1561400	100A	1000V	3
	1561425	125A	1000V	3
	1561460	160A	1000V	3
	1561500	200A	1000V	3

Fusibile da utilizzare con base PK-1/1000 (vedi pag. 100)

Fuses to be used with PK-1/1000 fusebase (see page 100)

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "NHL"- "NH 1200V" - TIPO gG

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "NHL"- "NH 1200V" - gG TYPE

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, VDE 0636, DIN 43620

I fusibili industriali NH di tipo gG sono normalmente utilizzati per la protezione di cavi, linee elettriche e apparecchiature contro i sovraccarichi ed i cortocircuiti. I fusibili della serie NHL sono speciali, in quanto presentano le lame asolate e sono quindi da fissare mediante bulloni. Il loro interasse di fissaggio è di 110 mm, e sono conformi alle tabelle Enel. I fusibili gG con tensione nominale di 1200V AC sono utilizzati per applicazioni speciali. Anche le loro dimensioni sono particolari, e pertanto essi vanno utilizzati in combinazione con le basi portafusibili presenti a pagina 249.

The industrial NH fuses type gG are normally used to protect cables, electrical lines and equipments against overloads and short circuits. The NHL series fuses are special, because the blades are slotted and they are therefore to be fixed by means of bolts. Their fixing center distance is 110 mm, and they are in accordance with the Enel specifications. The gG fuses with rated voltage of 1200V AC are used for special applications. Also their dimensions are special, and therefore they should be used in combination with the fuse bases present on page 249.



Fusibile NHL
NHL fuse

FUSIBILI NHL 500V - TIPO gG NHL 500V FUSES - gG TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NHL-1	1561025/L	25A	500V	3
	1561036/L	36A	500V	3
	1561040/L	40A	500V	3
	1561050/L	50A	500V	3
	1561063/L	63A	500V	3
	1561080/L	80A	500V	3
	1561100/L	100A	500V	3
	1561125/L	125A	500V	3
	1561160/L	160A	500V	3
	1561200/L	200A	500V	3
NHL-2	1561250/L	250A	500V	3
	1562100/L	100A	500V	3
	1562125/L	125A	500V	3
	1562160/L	160A	500V	3
	1562200/L	200A	500V	3
	1562250/L	250A	500V	3
	1562315/L	315A	500V	3
	1562355/L	355A	500V	3
	1562400/L	400A	500V	3



Fusibile NH 1200V
NH 1200V fuse

FUSIBILI NH 1200V - TIPO gG NH 1200V FUSES - gG TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NH-1XL	1634006	6A	1200V	1
	1634010	10A	1200V	1
	1634016	16A	1200V	1
	1634020	20A	1200V	1
	1634025	25A	1200V	1
	1634032	32A	1200V	1
	1634040	40A	1200V	1
	1634050	50A	1200V	1
	1634063	63A	1200V	1
	1634080	80A	1200V	1
	1634100	100A	1200V	1
	1634125	125A	1200V	1
	1634160	160A	1200V	1
NH-2XL	1634200	200A	1200V	1
	1634250	250A	1200V	1
	1634315	315A	1200V	1
NH-3L	1634355	355A	1200V	1
	1634400	400A	1200V	1
	1634500	500A	1200V	1
	1634630	630A	1200V	1

NH COLTELLO
NH BLADE

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "NH"- "NH/CP"- "NH/CP-S" - TIPO aM

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "NH"- "NH/CP"- "NH/CP-S" - aM TYPE

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, VDE 0636, DIN 43620

I fusibili NH aM sono utilizzati per proteggere motori, trasformatori e apparecchiature con spunto di corrente all'avvio. Essi proteggono solo dai cortocircuiti e vanno abbinati a dispositivi per la protezione dai sovraccarichi. I fusibili NH/CP e NH/CP-S dispongono di un percussore che fuoriesce all'atto della fusione del fusibile e può essere utilizzato con un microinterruttore per segnalare a distanza l'avvenuto intervento. I fusibili NH/CP vanno usati con basi aperte con microinterruttore già montato a bordo (vedi pag. 100), mentre i fusibili NH/CP-S vanno usati nei sezionatori LTS/S (vedi pag. 103), a cui va aggiunto il microinterruttore per la segnalazione a distanza dell'intervento.

The aM NH fuses are used for protecting motors, transformers and equipments with a current peak at startup. They are used for protection against short circuits and must be used with other devices for overload protection. The fuses NH/CP and NH/CP-S are equipped with a striker which comes out during the fuse operation, and can be used with a micro for remote signalization. The fuses NH/CP should be used with a base with a micro mounted on board (see page 100), while the fuses NH/CP-S must be used with switch disconnectors LTS/S (see page 103), to which must be added the micro for remote signalization.



Fusibile NH-00C aM
standard
NH-00C aM standard fuse



Fusibile NH-1C aM
standard
NH-1C aM
standard fuse



Fusibile NH-2/CP aM
con percussore
NH-2/CP aM fuse
with striker

FUSIBILI NH, NH/CP E NH/CP-S - TIPO aM NH, NH/CP AND NH/CP-S FUSES - aM TYPE

grandezza size	codice IW - IW code			I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
	NH ⁽¹⁾ standard NH ⁽¹⁾ standard	NH/CP con percussore NH/CP with striker	NH/CP-S ⁽³⁾ con percussore NH/CP-S ⁽³⁾ with striker			
NH-00C	1602006	—	1590006S	6A	690V	3-120
	1602010	—	1590010S	10A	690V	3-120
	1602016	—	1590016S	16A	690V	3-120
	1602020	—	1590020S	20A	690V	3-120
	1602025	—	1590025S	25A	690V	3-120
	1602035	—	1590035S	35A	690V	3-120
	1602040	—	1590040S	40A	690V	3-120
	1602050	—	1590050S	50A	690V	3-120
	1602063	—	1590063S	63A	690V	3-120
	1602080	—	1590080S ⁽²⁾	80A	500V	3-120
NH-00	1602100	—	1590100S ⁽²⁾	100A	500V	3-120
	1602125	—	—	125A	500V	3-60
NH-0	1602160	—	—	160A	500V	3-60
	1507006	—	—	6A	690V	3-36
	1507010	—	—	10A	690V	3-36
	1507016	—	—	16A	690V	3-36
	1507020	—	—	20A	690V	3-36
	1507025	—	—	25A	690V	3-36
	1507036	—	—	35A	690V	3-36
	1507050	—	—	50A	690V	3-36
	1507063	—	—	63A	690V	3-36
	1507080	—	—	80A	690V	3-36
NH-1C	1507100	—	—	100A	690V	3-36
	1507125	—	—	125A	690V	3-36
	1507160	—	—	160A	690V	3-36
	1612036	—	—	35A	690V	3-36
	1612050	—	—	50A	690V	3-36
	1612063	—	1591063S ⁽²⁾	63A	690V	3-36
NH-1	1612080	1591080 ⁽²⁾	1591080S ⁽²⁾	80A	690V	3-36
	1612100	1591100 ⁽²⁾	1591100S ⁽²⁾	100A	690V	3-36
	1612125	1591125 ⁽²⁾	1591125S ⁽²⁾	125A	690V	3-36
	1612160	1591160	1591160S	160A	690V	3-36
NH-2	1612200	1591200	1591200S	200A	690V	3-36
	1612250	1591250 ⁽³⁾	1591250S	250A	690V	3-36
NH-2C	1622063	—	—	63A	690V	3-30
	1622080	—	—	80A	690V	3-30
	1622100	—	—	100A	690V	3-30
	1622125	1592125 ⁽²⁾	—	125A	690V	3-30
	1622160	1592160 ⁽²⁾	1592160S ⁽²⁾	160A	690V	3-30
	1622200	1592200 ⁽²⁾	1592200S ⁽²⁾	200A	690V	3-30
NH-3	1622250	1592225 ⁽²⁾	1592250S ⁽²⁾	250A	690V	3-30
	1622315	1592315	1592315S	315A	690V	3-30
	1622355	1592355	1592355S	355A	690V	3-30
	1622400	1592400 ⁽³⁾	1592400S	400A	690V	3-30
NH-3C	1632200	—	—	200A	690V	3-24
	1632250	—	—	250A	690V	3-24
	1632315	—	—	315A	690V	3-24
	1632355	—	—	355A	690V	3-24
NH-3	1632400	1593400 ⁽²⁾	1593400S ⁽²⁾	400A	690V	3-24
	1632500 ⁽³⁾	1593500	1593500S	500A	690V	3-24
	1632630 ⁽³⁾	1593630 ⁽³⁾	1593630S	630A	690V	3-24

(1) Un dispositivo di segnalazione permette di azionare un microinterruttore (opzionale). Per ordinare codice IW 2699800 (grandezze 00-0-1-2), codice IW 2699802 (grandezze 2C-3C-3-4)

(2) Esecuzione non compatta

(3) Esecuzione a 500V

(1) A blown fuse indicator device is used to activate a microswitch (optional). Order codes: IW code 2699800 (sizes 00-0-1-2), IW code 2699802 (sizes 2C-3C-3-4).

(2) Non compact version

(3) 500V version

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "NH"- "NH/MK"- "NH-4a"- "NH-1 1000V" - TIPO aM

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "NH"- "NH/MK"- "NH-4a"- "NH-1 1000V" - aM TYPE

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, VDE 0636, DIN 43620

I fusibili NH di tipo aM sono utilizzati per la protezione di motori, trasformatori e apparecchiature con uno spunto di corrente all'avvio. Questi fusibili sono utilizzati per la protezione contro i cortocircuiti e vanno abbinati ad altri dispositivi per la protezione dai sovraccarichi. I fusibili NH-00 della serie standard presentano una tensione nominale di 690V per tutti i valori di corrente fino a 160A. I fusibili della grandezza NH-4a vanno utilizzati all'interno dei portafusibili sezionabili LTS/S (vedi pagina 103). I fusibili aM con tensione nominale di 1000V presentano una lunghezza particolare e vanno utilizzati con la relativa base portafusibili PK-1/1000 (vedi pagina 100).

The NH fuses type aM are used for protection of motors, transformers and all equipments that have a current peak at startup. These fuses are used for protection against short circuit and must be combined with other devices for overload protection. The fuses NH-00 standard series have a nominal voltage of 690V for all the values of rated current up to 160A. The fuses NH-4a must be used within the appropriate switch disconnectors of the series LTS/S (see page 103). The aM fuses with rated voltage of 1000V have a particular length and must only be used in combination with its base PK-1/1000 (see page 100).



Fusibile NH-00 aM standard
NH-00 aM standard fuse

FUSIBILI NH-00 690V - TIPO aM NH-00 690V FUSES - aM TYPE

grandezza size	codice IW - IW code		I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
	NH standard	NH/MK con placche isolate NH/MK with insulated gripping-lugs			
NH-00	1603006	—	6A	690V	3-120
	1603010	—	10A	690V	3-120
	1603016	1600816	16A	690V	3-120
	1603020	1600820	20A	690V	3-120
	1603025	1600825	25A	690V	3-120
	1603035	1600835	35A	690V	3-120
	1603040	1600840	40A	690V	3-120
	1603050	1600850	50A	690V	3-120
	1603063	1600863	63A	690V	3-120
	1603080	1600880	80A	690V	3-120
	1603100	1600900	100A	690V	3-120
	1603125	1600925 ⁽¹⁾	125A	690V	3-60
	1603160	1600960 ⁽¹⁾	160A	690V	3-60

1) Esecuzione a 500V

1) 500V version



Fusibile NH-4a aM 690V
NH-4a aM 690V fuse

FUSIBILI NH-4a 690V - TIPO aM NH-4a 690V FUSES - aM TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NH-4a	1631630	630A	690V	1
	1631700	700A	690V	1
	1631800	800A	690V	1
	1631900	900A	690V	1
	1631910	1000A	690V	1
	1631920	1250A	690V	1



Fusibile NH-1 aM 1000V
NH-1 aM 1000V fuse

FUSIBILI NH-1 1000V - TIPO aM NH-1 1000V FUSES - aM TYPE

grandezza size	codice IW IW code	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
NH-1	1633050	50A	1000V	1
	1633063	63A	1000V	1
	1633080	80A	1000V	1
	1633100	100A	1000V	1
	1633125	125A	1000V	1
	1633160	160A	1000V	1
	1633200	200A	1000V	1

NH COLTELLO
NH BLADE

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "HRC" - TIPO EXTRARAPIDO

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 SERIES "HRC" - ULTRA-QUICK TYPE

Norme - Standards CEI 32-1, CEI 32-7, IEC EN 60269-1, IEC EN 60269-4, VDE 0636, DIN 43620

Il corpo dei fusibili gR/aR è realizzato in steatite, ad alta resistenza termica e meccanica, e dispongono di una ampia camera per l'estinzione dell'arco elettrico. L'elemento fusibile interno è realizzato in rame argentato. Il fusibile è riempito con sabbia di quarzo. La caratteristica di intervento di tipo extrarapido rende questi fusibili indicati per la protezione di apparecchiature che contengono semiconduttori (inverter, UPS, soft starters, ecc). I fusibili aR proteggono le apparecchiature dai cortocircuiti, mentre i fusibili gR forniscono una protezione completa, dai cortocircuiti e dai sovraccarichi. Il potere di interruzione è di 50 kA.

The body of the fuses type gR/aR is made of steatite, with high thermal and mechanical resistance, and have a large chamber to extinguish the electric arc. The internal fuse element is made of silver-plated copper. The fuse is filled with quartz sand. The tripping characteristic of type ultra-quick makes these fuses ideal for protection of equipments containing semiconductors (inverters, UPS, soft starters, etc.). The aR fuses protect equipment from short circuits, while gR fuses provide complete protection against short circuits and overloads. The breaking capacity is 50 kA.



Fusibile
NH-00 HRC
NH-00 HRC fuse



Fusibile
NH-1 HRC
NH-1 HRC fuse



Microinterruttore
Microswitch

FUSIBILI NH EXTRARAPIDI SERIE HRC - TIPO gR/aR ULTRA-QUICK SERIES HRC NH FUSES - gR/aR TYPE

grandezza size	codice IW - IW code		I _n (A) I _n (A)	V _n (V) V _n (V)	caratteristica characteristic	conf. pack.
	tipo standard standard type	tipo compatto compact type				
NH-00/00C	1543006	1539006	6A	690V	gR	3
	1543010	1539010	10A	690V	gR	3
	1543016	1539016	16A	690V	gR	3
	1543020	1539020	20A	690V	gR	3
	1543025	1539025	25A	690V	gR	3
	—	1539032	32A	690V	gR	3
	1543035	1539035	35A	690V	gR	3
	1543040	1539040	40A	690V	gR	3
	1543050	1539050	50A	690V	gR	3
	1543063	1539063	63A	690V	gR	3
	1543080	1539080	80A	690V	gR	3
	1543100	1539100	100A	690V	gR	3
	1543125	1539125	125A	690V	gR	3
	1543160	1539160 ⁽¹⁾	160A	690V	aR	3
	1544025	—	25A	690V	gR	3
	1544035	—	35A	690V	gR	3
NH-0	1544040	—	40A	690V	gR	3
	1544050	—	50A	690V	gR	3
	1544063	—	63A	690V	gR	3
	1544080	—	80A	690V	gR	3
	1544100	—	100A	690V	gR	3
	1544125	—	125A	690V	gR	3
	1544160	—	160A	690V	aR	3
	1545050	—	50A	690V	gR	3
NH-1	1545063	—	63A	690V	gR	3
	1545080	—	80A	690V	gR	3
	1545100	—	100A	690V	gR	3
	1545125	—	125A	690V	gR	3
	1545160	—	160A	690V	aR	3
	1545200	—	200A	690V	aR	3
	1545250	—	250A	690V	aR	3
NH-2	1546080	—	80A	690V	gR	3
	1546100	—	100A	690V	gR	3
	1546125	—	125A	690V	gR	3
	1546160	—	160A	690V	aR	3
	1546200	—	200A	690V	aR	3
	1546250	—	250A	690V	aR	3
	1546315	—	315A	690V	aR	3
	1546355	—	355A	690V	aR	3
	1546400	—	400A	690V	aR	3
	1547250	—	250A	690V	aR	3
NH-3	1547315	—	315A	690V	aR	3
	1547355	—	355A	690V	aR	3
	1547400	—	400A	690V	aR	3
	1547500	—	500A	690V	aR	3
	1547630	—	630A	690V	aR	3

Un dispositivo di segnalazione sul corpo del fusibile permette di azionare un microinterruttore. Per ordinare codice IW 2699804.

(1) Caratteristica di intervento: gR

A blown fuse indicator on the fuse body is used to activate a microswitch. Order codes: IW code 2699804.

(1) Time-current characteristic: gR

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "ACR" - TIPO EXTRARAPIDO gR

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 SERIES "ACR" - ULTRA-QUICK TYPE gR

Norme - Standards CEI 32-1, CEI 32-7, IEC EN 60269-1, IEC EN 60269-4, VDE 0636, DIN 43620

I fusibili gR hanno una caratteristica di intervento extrarapida, un elevato potere di interruzione e bassi valori dell'energia specifica passante (I^2t). Sono indicati per la protezione di apparecchiature che contengono semiconduttori (inverter, UPS, soft starters, ecc.). I fusibili gR forniscono protezione completa delle apparecchiature sia dal cortocircuito che dal sovraccarico. I fusibili con percussore, che fuoriesce all'atto dell'intervento del fusibile, vanno utilizzati con i sezionatori LTS/S (vedi pag. 103), a cui va aggiunto il micro di segnalazione. Visti gli elevati valori di potenza dissipata da tali fusibili, occorre verificare la compatibilità del loro utilizzo all'interno dei sezionatori LTS/S.

The NH fuses type gR present an ultra-quick tripping characteristic, high values of breaking capacity and low values of the let-through energy (I^2t). They are suitable for protection of equipments containing semiconductors (inverters, UPS, soft starters, etc.). The fuses gR provide complete protection of the equipment, against short circuit and overload. The fuses with striker, that comes out at the fuse operation, should be used within the switch disconnectors LTS/S (see page 103) to which a micro must be added. Given the high values of power dissipation, it is necessary to check the compatibility of their use inside the disconnectors LTS/S.



Fusibile NH-00C gR
NH-00C gR fuse



Fusibile NH-1 gR
NH-1 gR fuse

FUSIBILI NH EXTRARAPIDI - TIPO gR ULTRA-QUICK NH FUSES - gR TYPE

grandezza size	codice IW - IW code		I_n (A) I_n (A)	V_n (V) V_n (V)	caratteristica characteristic	conf. pack.
	con indicatore visivo (1) with visual indicator (1)	con percussore with striker				
NH-00C	1539010G	—	10A	690V	gR	3
	1539016G	1539016T	16A	690V	gR	3
	1539020G	1539020T	20A	690V	gR	3
	1539025G	1539025T	25A	690V	gR	3
	1539032G	1539032T	32A	690V	gR	3
	1539035G	1539035T	35A	690V	gR	3
	1539040G	1539040T	40A	690V	gR	3
	1539050G	1539050T	50A	690V	gR	3
	1539063G	1539063T	63A	690V	gR	3
	1539080G	1539080T	80A	690V	gR	3
	1539100G	1539100T	100A	690V	gR	3
	1539125G	1539125T	125A	690V	gR	3
	1539160G	1539160T	160A	690V	gR	3
	1545050G	1545050T	50A	690V	gR	3
	1545063G	1545063T	63A	690V	gR	3
NH-1	1545080G	1545080T	80A	690V	gR	3
	1545100G	1545100T	100A	690V	gR	3
	1545125G	1545125T	125A	690V	gR	3
	1545160G	1545160T	160A	690V	gR	3
	1545200G	1545200T	200A	690V	gR	3
	1545250G	1545250T	250A	690V	gR	3
	1546125G	1546125T	125A	690V	gR	3
NH-2	1546160G	1546160T	160A	690V	gR	3
	1546200G	1546200T	200A	690V	gR	3
	1546250G	1546250T	250A	690V	gR	3
	1546315G	1546315T	315A	690V	gR	3
	1546350G	1546350T	350A	690V	gR	3
	1546400G	1546400T	400A	690V	gR	3
	1547250G	1547250T	250A	690V	gR	3
NH-3	1547315G	1547315T	315A	690V	gR	3
	1547350G	1547350T	350A	690V	gR	3
	1547400G	1547400T	400A	690V	gR	3
	1547500G	1547500T	500A	690V	gR	3
	1547630G	1547630T	630A	690V	gR	3
NH-4	1548800G	—	800A	500V	gR	1
	1548910G	—	1000A	500V	gR	1
	1548990G	—	1250A	500V	gR	1
NH-4a	1549800G	—	800A	500V	gR	1
	1549910G	—	1000A	500V	gR	1
	1549990G	—	1250A	500V	gR	1
	1549995G	—	1500A	500V	gR	1
	1549996G	—	1600A	500V	gR	1

(1) Un dispositivo di segnalazione sul corpo del fusibile permette di azionare un microinterruttore. Per ordinare codice IW 2699804

(1) A blown fuse indicator on the fuse body is used to activate a microswitch. Order codes: IW code 2699804

NH COLTELLO
NH BLADE

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "ACR" - TIPO EXTRARAPIDO aR

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 SERIES "ACR" - ULTRA-QUICK TYPE aR

Norme - Standards CEI 32-1, CEI 32-7, IEC EN 60269-1, IEC EN 60269-4, VDE 0636, DIN 43620

I fusibili aR presentano una caratteristica di intervento extrarapida, un elevato potere di interruzione e bassi valori dell'energia specifica passante (I^2t). Queste caratteristiche li rendono indicati per la protezione di apparecchiature che contengono semiconduttori (inverter, UPS, soft starters, ecc). I fusibili aR forniscono una protezione delle apparecchiature dal solo cortocircuito. Tali fusibili possono essere utilizzati con un apposito microinterruttore (codice 2699804) per la segnalazione a distanza dell'avvenuto intervento. I fusibili NH-0 a 1000V possono essere usati con la base PKO (vedi pag. 249), mentre i fusibili a 1200V vanno utilizzati con le basi PKUN (vedi pag. 249).

The NH fuses of the type aR present an ultra-quick tripping characteristic, high values of breaking capacity and low values of let-through energy (I^2t). These fuses are suitable for protection of equipments containing semiconductors (inverters, UPS, soft starters, etc.). The aR fuses provide protection of equipments from short circuits only. These fuses may be used with a micro (code 2699804) for remote signalization. The fuses NH-0 with rated voltage of 1000V can be used with the base PKO (see page 249), while the fuses with rated voltage of 1200V must be used with the bases of the series PKUN (see page 249).



Fusibile NH-00 aR
NH-00 aR fuse



Fusibile NH-3 aR 1200V
NH-3 aR 1200V fuse

FUSIBILI NH EXTRARAPIDI - TIPO aR ULTRA-QUICK NH FUSES - aR TYPE

grandezza size	codice IW - IW code		I_n (A) I_n (A)	caratteristica characteristic	conf. pack.
	con indicatore visivo with visual indicator	con indicatore visivo with visual indicator			
	690V	1000V / 1200V			
NH-00	1543010A	—	10A	aR	3
	1543016A	—	16A	aR	3
	1543020A	—	20A	aR	3
	1543025A	—	25A	aR	3
	1543032A	—	32A	aR	3
	1543035A	—	35A	aR	3
	1543040A	—	40A	aR	3
	1543050A	—	50A	aR	3
	1543063A	—	63A	aR	3
	1543080A	—	80A	aR	3
	1543100A	—	100A	aR	3
	1543125A	—	125A	aR	3
	1543160A	—	160A	aR	3
	1543200A	—	200A	aR	3
	1543250A	—	250A	aR	3
NH-0	—	1544016M ⁽¹⁾	16A	aR	3
	—	1544020M ⁽¹⁾	20A	aR	3
	—	1544025M ⁽¹⁾	25A	aR	3
	—	1544032M ⁽¹⁾	32A	aR	3
	—	1544040M ⁽¹⁾	40A	aR	3
	—	1544050M ⁽¹⁾	50A	aR	3
	—	1544063M ⁽¹⁾	63A	aR	3
	—	1544080M ⁽¹⁾	80A	aR	3
	—	1544100M ⁽¹⁾	100A	aR	3
	—	1544125M ⁽¹⁾	125A	aR	3
NH-1	—	1544160M ⁽¹⁾	160A	aR	3
	1545063A ⁽³⁾	—	63A	aR	3
	1545080A ⁽³⁾	1545080M ⁽²⁾	80A	aR	3
	1545100A ⁽³⁾	1545100M ⁽²⁾	100A	aR	3
	1545125A ⁽³⁾	1545125M ⁽²⁾	125A	aR	3
	1545160A ⁽³⁾	1545160M ⁽²⁾	160A	aR	3
	1545200A ⁽³⁾	1545200M ⁽²⁾	200A	aR	3
	1545250A ⁽³⁾	1545250M ⁽²⁾	250A	aR	3
	1545315A ⁽³⁾	—	315A	aR	3
	1545350A ⁽³⁾	—	350A	aR	3
NH-2	1545400A ⁽³⁾	—	400A	aR	3
	1546250A ⁽³⁾	—	250A	aR	3
	1546315A ⁽³⁾	1546315M ⁽²⁾	315A	aR	3
	1546350A ⁽³⁾	1546350M ⁽²⁾	350A	aR	3
	1546400A ⁽³⁾	1546400M ⁽²⁾	400A	aR	3
	1546450A ⁽³⁾	—	450A	aR	3
	1546500A ⁽³⁾	—	500A	aR	3
	1546550A ⁽³⁾	—	550A	aR	3
	1546630A ⁽³⁾	—	630A	aR	3
NH-3	1547400A ⁽³⁾	—	400A	aR	3
	1547450A ⁽³⁾	—	450A	aR	3
	1547500A ⁽³⁾	1547500M ⁽²⁾	500A	aR	3
	1547630A ⁽³⁾	1547630M ⁽²⁾	630A	aR	3
	1547710A ⁽³⁾	—	710A	aR	3
	1547800A ⁽³⁾	—	800A	aR	3
	1547900A ⁽³⁾	—	900A	aR	3
	1547999A ⁽³⁾	—	1000A	aR	3

(1) Fusibili tensione 1000V

(2) Fusibili tensione 1200V

(3) Solo indicazione visiva (utilizzo del micro non possibile)

(1) Fuses with rated voltage 1000V

(2) Fuses 1200V voltage

(3) Only visual indication (use of micro not possible)

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 SERIE "ULTRA" - TIPO EXTRARAPIDO

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 SERIES "ULTRA" - HIGH SPEED TYPE

Norme - Standards CEI 32-1, CEI 32-7, IEC EN 60269-1, IEC EN 60269-4, VDE 0636, DIN 43620

I fusibili extrarapidi della serie ULTRA presentano il corpo in steatite ad alta resistenza termica e meccanica. L'elemento fusibile è in rame argentato. L'elemento estinguente dell'arco è sabbia di quarzo. Questa serie si distingue per il bassissimo valore dell'energia specifica passante (I^2t), l'elevato potere d'interruzione e l'ampia gamma di correnti nominali. I fusibili aR forniscono una protezione delle apparecchiature dal solo cortocircuito. Tutti i fusibili sono omologati UR. Per alcune correnti nominali non esiste una base portafusibili appropriata. In questi casi si può valutare, in alternativa, l'utilizzo di fusibili extrarapidi per fissaggio a bullone (vedi sezione seguente del catalogo).

The high speed fuses of the ULTRA series have steatite body. The fuse element is made by silver plated copper. The extinguishing mean of the electric arc is the quartz sand. This series is distinguished by the very low value of let-through energy (I^2t), high breaking capacity values and the wide range of current ratings. The aR fuses provide protection of equipments from short circuits only. All these fuses are UR approved. For some nominal currents there is no appropriate fuse base. In these cases, it can be evaluated, as an alternative, the use of high speed fuses for screw fixing (see the following section of catalogue).



Fusibile
NH-000 ULTRA
NH-000 ULTRA fuse



Fusibile
NH-2 ULTRA
NH-2 ULTRA fuse



Microinterruttore
1NA + 1NC
Microswitch
1NO + 1NC

FUSIBILI NH EXTRARAPIDI SERIE ULTRA - TIPO gR/aR - CON OMOLOGAZIONE HIGH SPEED SERIES ULTRA NH FUSES - gR/aR TYPE - APPROVED

grandezza size	codice IW IW code	I_n (A) I_n (A)	V_n (V) V_n (V)	caratteristica characteristic	conf. pack.
NH-000	1754010	10A	690V	gR	1-10
	1754016	16A	690V	gR	1-10
	1754020	20A	690V	gR	1-10
	1754025	25A	690V	gR	1-10
	1754032	32A	690V	gR	1-10
	1754040	40A	690V	gR	1-10
	1754050	50A	690V	gR	1-10
	1754063	63A	690V	gR	1-10
	1754080	80A	690V	aR	1-10
	1754100	100A	690V	aR	1-10
	1754125	125A	690V	aR	1-10
	1754160	160A	690V	aR	1-10
	1754200	200A	690V	aR	1-10
	1754250	250A	690V	aR	1-10
NH-00	1754315	315A	690V	aR	1-10
NH-1	1759040	80A	690V	aR	1-6
	1759100	100A	690V	aR	1-6
	1759125	125A	690V	aR	1-6
	1759160	160A	690V	aR	1-6
	1759200	200A	690V	aR	1-6
	1759250	250A	690V	aR	1-6
	1759315	315A	690V	aR	1-6
	1759350	350A	690V	aR	1-6
	1759400	400A	690V	aR	1-6
NH-2	1768315	315A	690V	aR	1-3
	1768350	350A	690V	aR	1-3
	1768400	400A	690V	aR	1-3
	1768450	450A	690V	aR	1-3
	1768500	500A	690V	aR	1-3
	1768550	550A	690V	aR	1-3
	1768630	630A	690V	aR	1-3
	1768700	700A	690V	aR	1-3
NH-3	1769500	500A	690V	aR	1
	1769550	550A	690V	aR	1
	1769630	630A	690V	aR	1
	1769700	700A	690V	aR	1
	1769800	800A	690V	aR	1
	1769900	900A	690V	aR	1
	1769999	1000A	690V	aR	1
	1769950	1100A	690V	aR	1
	1769951	1250A	690V	aR	1
	1769952	1400A	690V	aR	1
	1769953	1500A	690V	aR	1
	1769954	1600A	690V	aR	1

Un dispositivo di segnalazione dell'avenuto intervento, posto nella parte superiore del fusibile, permette di azionare un microinterruttore. Per fusibili NH Gr. 000-1-3: micro tipo 170H0236 codice IW 1750008. Per fusibili NH Gr. 2: micro tipo 170H0235 codice IW 1750007.

A blown fuse indicator on the fuse body is used to activate a microswitch. For NH fuses size 000-1-3: microswitch type 170H0236, IW code 1750008. For NH fuses size 2: microswitch type 170H0235, IW code 1750007.

NH COLTELLO
NH BLADE

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 BASI PORTAFUSIBILI

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 FUSE BASES

Norme - Standards CEI 32-1, CEI 32-4, IEC EN 60269-1, IEC EN 60269-2, DIN 43620

Le basi portafusibili per fusibili NH, del tipo unipolare o tripolare, sono realizzate in materiale termoplastico autoestinguente UL-94 V0 mentre i contatti sono in rame argentato. Rondelle e bulloni sono in acciaio 8.8. Una ampia gamma di accessori permette di realizzare una efficace protezione contro i contatti accidentali (vedere pag. 101). Le basi portafusibili della serie NHD vanno montate a vite su piastra di fondo, mentre le basi della serie NHU possono essere montate sia a vite su piastra di fondo che su guida DIN. Le basi portafusibili NHU-MS sono corredate di microinterruttore e sono utilizzabili con gli appositi fusibili dotati di percussore della serie NH/CP.

The fuse bases for NH fuse, single-pole or three-poles versions, are made of self-extinguishing thermoplastic UL 94-V0 material. Washers and bolts are made of steel 8.8. A wide range of accessories allows to create an effective protection against accidental contacts (see page 101). The fuse bases of the NHD series must be mounted with screws on a mounting plate, while the fuse bases of the NHU series can be mounted either by screw on a mounting plate and on a DIN rail. The fuse bases NHU-MS are equipped with a microswitch and are usable with the appropriate fuses equipped with a striker of the series NH/CP.



Portafusibile unipolare
NHD-00
NHD-00 single pole
fuseholder



Portafusibile unipolare
con microinterruttore
NHU-3 DIN-MS
Single pole fuseholder
with microswitch
NHD-3 DIN-MS



Portafusibile tripolare
NHU-00 DINx3S
"Kombi"
NHU-00 DINx3S "Kombi"
three-poles fuseholder

PORTAFUSIBILI UNIPOLARI PER FUSIBILI NH A COLTELLO - FISSAGGIO A VITE O SU GUIDA DIN SINGLE POLE FUSE BASES FOR BLADE TYPE NH FUSES - FOR SCREW OR DIN RAIL MOUNTING

grandezza size	codice IW IW code	tipo type	fissaggio fixing	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
00	2541005	NHD-00	a vite - by screw	160A	690V	3
	2561005	NHD-00/IP20	a vite - by screw	160A	690V	3
	2502010	NHU-00 DIN-S	su guida DIN - on DIN rail	160A	690V	3
	2572010	NHU-00 DIN-S/IP20	su guida DIN - on DIN rail	160A	690V	3
0	2541010	NHD-0	a vite - by screw	160A	690V	3
	2561010	NHD-0/IP20	a vite - by screw	160A	690V	3
	2540010	NHU-0 DIN-S	su guida DIN - on DIN rail	160A	690V	3
	2570010	NHU-0 DIN-S/IP20	su guida DIN - on DIN rail	160A	690V	3
1	2550010	NHU-0 DIN-MS	su guida DIN, con micro - on DIN rail, with microswitch	160A	690V	1
	2541110	NHD-1	a vite - by screw	250A	690V	3
	2561110	NHD-1/IP20	a vite - by screw	250A	690V	3
	2540110	NHU-1 DIN-S	su guida DIN - on DIN rail	250A	690V	3
2	2570110	NHU-1 DIN-S/IP20	su guida DIN - on DIN rail	250A	690V	3
	2550110	NHU-1 DIN-MS	su guida DIN, con micro - on DIN rail, with microswitch	250A	690V	1
	2640015P	PK-1/1000	a vite - by screw	250A	1000V	3
	2541210	NHD-2	a vite - by screw	400A	690V	3
3	2561210	NHD-2/IP20	a vite - by screw	400A	690V	3
	2540210	NHU-2 DIN-S	su guida DIN - on DIN rail	400A	690V	3
	2570210	NHU-2 DIN-S/IP20	su guida DIN - on DIN rail	400A	690V	3
	2550210	NHU-2 DIN-MS	su guida DIN, con micro - on DIN rail, with microswitch	400A	690V	1
4	2541310	NHD-3	a vite - by screw	630A	690V	3
	2561310	NHD-3/IP20	a vite - by screw	630A	690V	3
	2540310	NHU-3 DIN-S	su guida DIN - on DIN rail	630A	690V	3
	2570310	NHU-3 DIN-S/IP20	su guida DIN - on DIN rail	630A	690V	3
5	2550310	NHU-3 DIN-MS	su guida DIN, con micro - on DIN rail, with microswitch	630A	690V	1
	2541415	NHK-4S	a vite - by screw	1250A	690V	1
	2541410	NHZ-4S	a vite - by screw	1250A	690V	1

PORTAFUSIBILI TRIPOLARI PER FUSIBILI NH A COLTELLO - FISSAGGIO A VITE O SU GUIDA DIN THREE POLES FUSE BASES FOR BLADE TYPE NH FUSES - FOR SCREW OR DIN RAIL MOUNTING

grandezza size	codice IW IW code	tipo type	descrizione description	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
00	2503210	NHU-00 DINx3S Kombi	bullone - bolt	160A	690V	1
	2503211	NHU-00 DINx3S Kombi	bullone/brida - bolt/clamp	160A	690V	1
	2503212	NHU-00 DINx3B Kombi	brida - clamp	160A	690V	1
	2573310	NHU-00 DINx3S/IP20 Kombi	bullone - bolt	160A	690V	1
0	2573311	NHU-00 DINx3S/IP20 Kombi	bullone/brida - bolt/clamp	160A	690V	1
	2573312	NHU-00 DINx3B/IP20 Kombi	brida - clamp	160A	690V	1
	2543010	NHD-0x3S	a vite - by screw	160A	690V	1
	2563010	NHD-0x3S/IP20	a vite - by screw	160A	690V	1
1	2503000	NHU-0 DINx3S	su guida DIN - on DIN rail	160A	690V	1
	2573000	NHU-0 DINx3S/IP20	su guida DIN - on DIN rail	160A	690V	1
	2543011	NHD-1x3S	a vite - by screw	250A	690V	1
	2563011	NHD-1x3S/IP20	a vite - by screw	250A	690V	1
2	2503011	NHU-1 DINx3S	su guida DIN - on DIN rail	250A	690V	1
	2573011	NHU-1 DINx3S/IP20	su guida DIN - on DIN rail	250A	690V	1
	2543012	NHD-2x3S	a vite - by screw	400A	690V	1
	2563012	NHD-2x3S/IP20	a vite - by screw	400A	690V	1
3	2503012	NHU-2 DINx3S	su guida DIN - on DIN rail	400A	690V	1
	2573012	NHU-2 DINx3S/IP20	su guida DIN - on DIN rail	400A	690V	1
	2543013	NHD-3x3S	a vite - by screw	630A	690V	1
	2563013	NHD-3x3S/IP20	a vite - by screw	630A	690V	1
4	2503013	NHU-3 DINx3S	su guida DIN - on DIN rail	630A	690V	1
	2573013	NHU-3 DINx3S/IP20	su guida DIN - on DIN rail	630A	690V	1

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 ACCESSORI

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 ACCESSORIES



Coltello NH CSK00
NH CSK00 solid link

COLTELLI NH SEZIONABILI NH SOLID LINKS

grandezza size	codice IW IW code	tipo type	agganci tags	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
00	2690200	CSK00	isolati - <i>insulated</i>	160A	690V	3
	2690100	CS00	in metallo - <i>metal</i>	160A	690V	3
0	2690210	CSK0	isolati - <i>insulated</i>	160A	690V	3
	2690110	CS0	in metallo - <i>metal</i>	160A	690V	3
1	2690211	CSK1	isolati - <i>insulated</i>	250A	690V	3
	2690111	CS1	in metallo - <i>metal</i>	250A	690V	3
2	2690212	CSK2	isolati - <i>insulated</i>	400A	690V	3
	2690112	CS2	in metallo - <i>metal</i>	400A	690V	3
3	2690213	CSK3	isolati - <i>insulated</i>	630A	690V	3
	2690113	CS3	in metallo - <i>metal</i>	630A	690V	3
4	2690114	CS4	in metallo - <i>metal</i>	1250A	690V	3
4a	2690115	CS4a	in metallo - <i>metal</i>	1250A	690V	3



Maniglia NHP00/3
Fuse handle NHP00/3

MANIGLIA DI ESTRAZIONE UNIVERSALE FUSIBILI NH UNIVERSAL FUSE HANDLE FOR NH FUSES

grandezza size	codice IW IW code	tipo type	protezione contro contatti accidentali protection against accidental contacts	conf. pack.
00-3	26903045	NHP00/3	no - <i>no</i>	1
	2690304	NHP00/3	no - <i>no</i>	5
	2690305	NHP00/5	si - <i>yes</i>	2



Accessorio T21
per composizione
portafusibili
T21 accessory for fuse bases
connection

ADATTATORI PER UNIONE PORTAFUSIBILI NHD E NHU ADAPTERS FOR NHD AND NHU FUSE BASES CONNECTION

grandezza size	codice IW IW code	tipo type	conf. pack.
00	2590402	T20	1 set
0	2590399	T21	1 set
1-2	2590400	T22	1 set
3	2590401	T23	1 set

I portafusibili serie NHD e NHU possono essere affiancati tra loro in esecuzioni a più poli. Questa componibilità è realizzata mediante gli adattatori T20, T21, T22 e T23. Forniti in confezione da 2 pz.

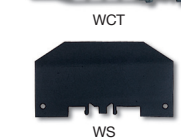
Fuse bases, series NHD and NHU, may be installed one beside the other when multi pole versions are required. This is possible using adapters T20, T21, T22 and T23. Supplied in 2 pcs package.



Calotta 00-WB con 00-WTC
00-WB cover with 00-WTC

COMPONENTI PER PROTEZIONE DA UTILIZZARSI CON I PORTAFUSIBILI TRIPOLARI NHU-00 "KOMBI" COMPONENTS FOR PROTECTION TO BE USED WITH THREE POLES NHU-00 "KOMBI" FUSE BASES

grandezza size	codice IW IW code	tipo type	descrizione description	conf. pack.
00	2590181	00-WB	calotta per base tripolare NHU-00 Kombi	1
	2590195	00-WCT	calotta trasparente per la protezione totale	3



Accessori per protezione
Accessories for protection

COMPONENTI PER PROTEZIONE PORTAFUSIBILI NHD E NHU COMPONENTS FOR NHD AND NHU FUSE BASES PROTECTION

grandezza size	codice IW IW code	tipo type	descrizione description	set (pz) set (pcs)	conf. pack.
00	2590180	00-WC	calotte di protezione per pinze	2	3 set
	2590195	00-WCT	calotta trasparente per protezione totale		3
	2590705	00-WS	separatori in tela bakelite	2	1 set
0	2590183	0-WC	calotte di protezione per pinze	2	3 set
	2590197	0-WCT	calotta trasparente per protezione totale		3
	2590707	0-WS	separatori in tela bakelite	2	1 set
1	2590185	1-WC	calotte di protezione per pinze	2	3 set
	2590200	1/2-WCT	calotta trasparente per protezione totale		3
	2590710	1/2-WS	separatori in tela bakelite	2	1 set
2	2590187	2-WC	calotte di protezione per pinze	2	3 set
	2590200	1/2-WCT	calotta trasparente per protezione totale		3
	2590710	1/2-WS	separatori in tela bakelite	2	1 set
3	2590190	3-WC	calotte di protezione per pinze	2	3 set
	2590205	3-WCT	calotta trasparente per protezione totale		3
	2590715	3-WS	separatori in tela bakelite	2	1 set
4	2590718	4-WS	separatori in tela bakelite	2	1 set

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 PORTAFUSIBILI SEZIONABILI SERIE "LTS"

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620 SERIES "LTS" FUSE SWITCH DISCONNECTORS

Norme - Standards IEC EN 60269-1, IEC EN 60947-3, DIN 43620

I portafusibili sezionabili della serie LTS sono realizzati in materiale termoplastico autoestinguente. Essi vengono normalmente montati su piastra di fondo ma, tramite un apposito kit, possono essere montati su guida DIN (solo grandezze 000-00-1-2). Il sezionamento, che può avvenire anche sotto carico, avviene tramite l'apertura della maniglia, nella quale sono inseriti i fusibili, che quindi rimangono all'interno della maniglia aperta. La maniglia contenente i fusibili può anche essere completamente tolta dalla base. Sono disponibili versioni con monitoraggio elettronico dell'intervento del fusibile e per fissaggio su sistema a sbarre con interasse 60 mm.

The fuse switch disconnectors of the LTS series are made of self-extinguishing thermoplastic material. They are usually mounted on a mounting plate, but using a special kit, they can be mounted on a DIN rail (only sizes 000-00-1-2). The disconnection, which can occur even under load, takes place through the opening of the handle, in which are inserted the fuses, which therefore remain inside it. The handle can also be completely removed from the base. Versions are available with an electronic monitoring that can give a remote signal of the fuse operation and for mounting on the standard 60 mm busbar system.



Portafusibile sezionabile
tripolare LTS
LTS three-poles
fuse switch disconnector

PORTAFUSIBILI TRIPOLARI SEZIONABILI SERIE "LTS" SERIES "LTS" THREE-POLES FUSE SWITCH DISCONNECTORS

grandezza size	codice IW IW code	tipo type	n. poli poles	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
senza monitoraggio fusibili - without fuse monitoring						
000	33217	LTS000	3P	100A	690V	1
00	33200	LTS00	3P	160A	690V	1
1	33201	LTS1	3P	250A	690V	1
2	33202	LTS2	3P	400A	690V	1
3	33203	LTS3	3P	630A	690V	1
con monitoraggio elettronico fusibili - with electronic fuse monitoring						
00	33329	LTS00MFE	3P	160A	500V	1
1	33330	LTS1MFE	3P	250A	690V	1
2	33331	LTS2MFE	3P	400A	690V	1
3	33332	LTS3MFE	3P	630A	690V	1

Il tipo LTS-MFE può essere utilizzato con fusibili NH senza percussore.

LTS-MFE fuse-disconnectors can be used with NH fuses without striker.



Microinterruttore
000-3HID
Microswitch
000-3HID

ACCESSORI PER PORTAFUSIBILI SEZIONABILI SERIE "LTS" ACCESSORIES FOR SERIES "LTS" FUSE SWITCH DISCONNECTORS

codice IW IW code	tipo type	descrizione description	conf. pack.
79811	00EA/LTS	calotte coprimorsetti per LTS00 (105 x 34 mm)	1
33142	1EA/LTS	calotte coprimorsetti per LTS1 (182,5 x 68 mm)	2
33143	2EA/LTS	calotte coprimorsetti per LTS2 (208,5 x 51,5 mm)	2
33144	3EA/LTS	calotte coprimorsetti per LTS3 (254 x 48 mm)	2
33247	000DIN	kit montaggio guida DIN per LTS000	1
33193	000DIN	kit montaggio guida DIN per LTS00	1
33158	12DIN	kit montaggio guida DIN per LTS1-2	1
33156	000-3HID	micro per LTS000-00-2-3 per controllo posizione coperchio del sezionatore	1
33917	1HID	micro per LTS1 per controllo posizione coperchio del sezionatore	1
33155	PROT1-2-3	profilo di protezione dai contatti accidentali	10
03849	PBTR00	piombatura coperchio per sigillo a filo	1
33157	PBTR1-2-3	piombatura coperchio per 3 lucchetti con gambo	10



Portafusibile sez. LTS
per sistema a sbarre 60 mm
LTS fuse switch disconnector
for 60 mm busbar system

PORTAFUSIBILI TRIPOLARI SEZIONABILI SERIE "LTS" PER SISTEMA A BARRE 60 mm SERIES "LTS" THREE-POLES FUSE SWITCH DISCONNECTORS FOR 60 mm BUSBAR SYSTEM

grandezza size	codice IW IW code	tipo type	n. poli poles	I _n (A) I _n (A)	V _n (V) V _n (V)	conf. pack.
000	33216	LTS000-CAV	3P	125A	690V	1
00	33198	LTS00-CAV	3P	160A	690V	1
1	33601	LTS1-CAV	3P	250A	690V	1
2	33602	LTS2-CAV	3P	400A	690V	1
3	33603	LTS3-CAV	3P	630A	690V	1

FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620 PORTAFUSIBILI SEZIONABILI SERIE "LTS/S"

BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620
SERIES "LTS/S" FUSE SWITCH DISCONNECTORS

Norme - Standards IEC EN 60269-1, IEC EN 60947-3, DIN 43620

I portafusibili sezionabili LTS/S sono realizzati in materiali autoestinguenti. Il sezionamento, che può avvenire anche sotto carico, avviene tramite l'apertura della maniglia, nella quale sono inseriti i fusibili, che quindi rimangono all'interno della maniglia aperta. La maniglia può essere completamente tolta dalla base. Sono disponibili in svariate versioni, da 1 a 4 poli e per fusibili aventi grandezze da NH-000 a NH-4a. Una vasta gamma di accessori è disponibile per monitorare l'intervento dei fusibili oppure lo stato della maniglia del sezionatore (aperto/chiuso). Gli accessori di copertura dei terminali consentono la massima protezione contro i contatti accidentali.

The fuse switch disconnectors LTS/S are made of high quality, self-extinguishing materials. The sectioning, which can occur even under load, takes place through the opening of the front handle, in which are inserted the fuses, which therefore remain inside it. The handle can also be completely removed from the base. They are available in several versions, from 1 to 4 poles and for fuses with sizes from NH-000 to NH-4a. A wide range of accessories is available to monitor the fuse operation or the status of the switch handle (open/closed). The covers for the terminals enable the maximum protection against accidental contacts.



Portafusibile sezionabile unipolare LTS/S
LTS/S single pole fuse switch disconnecter

PORTAFUSIBILI SEZIONABILI SERIE "LTS/S" SERIES "LTS/S" FUSE SWITCH DISCONNECTORS

grandezza size	codice IW IW code	tipo type	n. poli poles	I _n (A) / V _n (V) I _n (A) / V _n (V)	conf. pack.
000	3100198	LTS/S-000x3	3P	100A/690V	1
00	3100400	LTS/S-00	1P	160A/500V - 100A/690V	1
	3100300	LTS/S-00x2	2P	160A/500V - 100A/690V	1
	3100200	LTS/S-00x3	3P	160A/500V - 100A/690V	1
	3110250	LTS/S-00x4	4P	160A/500V - 100A/690V	1
1	3100401	LTS/S-1	1P	250A/500V - 200A/690V	1
	3100301	LTS/S-1x2	2P	250A/500V - 200A/690V	1
	3100201	LTS/S-1x3	3P	250A/500V - 200A/690V	1
	3110251	LTS/S-1x4	4P	250A/500V - 200A/690V	1
2	3100202	LTS/S-2x3	3P	400A/500V - 315A/690V	1
3	3100403	LTS/S-3	1P	630A/500V - 500A/690V	1
	3100302	LTS/S-3x2	2P	630A/500V - 500A/690V	1
	3100203	LTS/S-3x3	3P	630A/500V - 500A/690V	1
	3110252	LTS/S-3x4	4P	630A/500V - 500A/690V	1
4a	3100404	LTS/S-4a-1	1P	1250A/500V - 1000A/690V	1
4a	1811874	LTS/S-4a-1x3	3P	1250A/500V - 1000A/690V	1
	3100405	LTS/S-4a-2	1P	1600A/500V - 1000A/690V	1
4a	1811875	LTS/S-4a-2x3	3P	1600A/500V - 1000A/690V	1



Microinterruttore stato maniglia
Microswitch for handle indication

MICROINTERRUTTORI PER PORTAFUSIBILI SEZIONABILI SERIE "LTS/S" MICROSWITCHES FOR SERIES "LTS/S" FUSE SWITCH DISCONNECTORS

codice IW IW code	tipo type	per sezionatore for switch disconnecter	tipo microinterruttore microswitch type	conf. pack.
3100410	EV-LTL00-3	LTS/S 00 (1P / 3P)	stato maniglia - handle indication	1
3100411	EV-LTL1-2-3 / 1	LTS/S 1-2-3 (1P)	stato maniglia - handle indication	1
3100412	EV-LTL1-2-3 / 3	LTS/S 1-2-3 (3P)	stato maniglia - handle indication	1
3100409	EV-LTL4a	LTS/S 4a (1P / 3P)	stato maniglia e intervento fusibile handle indication and fuse operation	1
3100406	K-LTL00-1/H	LTS/S 00 (1P)	intervento fusibile - fuse operation	1
3100407	K-LTL1-1/H	LTS/S 1 (1P)	intervento fusibile - fuse operation	1
3100408	K-LTL3-1/H	LTS/S 3 (1P)	intervento fusibile - fuse operation	1
3100413	K-LTL00-3/H	LTS/S 00 (3P)	intervento fusibile - fuse operation	1
3100414	K-LTL1-3/H	LTS/S 1 (3P)	intervento fusibile - fuse operation	1
3100415	K-LTL2-3/H	LTS/S 2 (3P)	intervento fusibile - fuse operation	1
3100416	K-LTL3-3/H	LTS/S 3 (3P)	intervento fusibile - fuse operation	1



Calotta per sezionatori LTS/S
Cover for LTS/S disconnectors

ACCESSORI PER PORTAFUSIBILI SEZIONABILI SERIE "LTS/S" ACCESSORIES FOR SERIES "LTS/S" FUSE SWITCH DISCONNECTORS

codice IW IW code	tipo type	per sezionatore for switch disconnecter	descrizione description	conf. pack.
3100420	GOU-LTL00-3	LTS/S 00 (3P)	copertura inferiore e superiore - top and bottom cover	1
3100421	GO-LTL1-3	LTS/S 1 (3P)	copertura superiore - top cover	1
3100422	GO-LTL2-3	LTS/S 2 (3P)	copertura superiore - top cover	1
3100423	GO-LTL3-3	LTS/S 3 (3P)	copertura superiore - top cover	1
3100424	GU-LTL1-3	LTS/S 1 (3P)	copertura inferiore - bottom cover	1
3100425	GU-LTL2-3	LTS/S 2 (3P)	copertura inferiore - bottom cover	1
3100426	GU-LTL3-3	LTS/S 3 (3P)	copertura inferiore - bottom cover	1
3100427	GOU-LTL00-1	LTS/S 00 (1P)	copertura inferiore e superiore - top and bottom cover	1
3100428	GOU-LTL01-1	LTS/S 1 (1P)	copertura inferiore e superiore - top and bottom cover	1
3100429	GOU-LTL03-1	LTS/S 3 (1P)	copertura inferiore e superiore - top and bottom cover	1
3100430	Z-LTL00	LTS/S 00	aggancio guida DIN - Din rail fixing part	1

DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620

Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH A COLTELLO BLADE TYPE NH INDUSTRIAL FUSES

Il sistema di fusibili NH con caratteristiche di fusione gG, aM, gR/aR è suddiviso in 11 grandezze costruttive 00C, 00, 0, 1C, 1, 2C, 2, 3C, 3, 4, 4a con correnti nominali da 6A a 1600A.

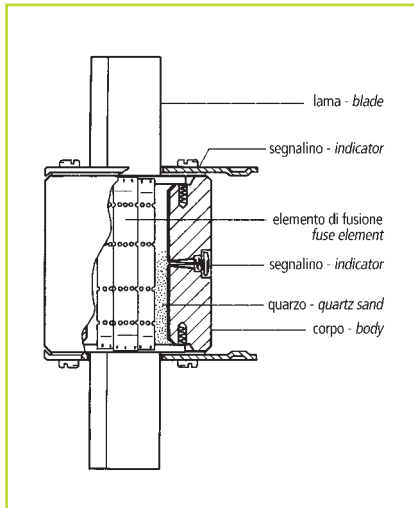
I livelli di tensione nominale delle cartucce sono:

- 500V, 690V, 1000V, 1200V per la serie con caratteristiche d'intervento gG;
- 500V, 690V, 1000V per la serie con caratteristiche d'intervento aM.
- 500V, 690V, 1000V, 1200V per la serie con caratteristiche d'intervento gR/aR.

Le cartucce gG sono indicate per protezione da sovraccarichi e corto circuiti relativi a tutti gli utilizzatori classici.

Le cartucce aM sono indicate per la protezione di motori e delle relative apparecchiature di manovra (sezionatori, contattori e relé termici) contro le sole correnti di cortocircuito o contro le sovracorrenti di valore elevato. Generalmente esse vanno abbinate a dispositivi di protezione contro i sovraccarichi (esempio relé termici).

Le cartucce gR/aR sono indicate per protezione di semiconduttori per applicazioni industriali ed elettronica di potenza quali diodi, triac, transistor, ecc.



The range of NH fuses with gG, aM, and gR/aR melting characteristics is divided in 11 sizes: 00C, 00, 0, 1C, 1, 2C, 2, 3C, 3, 4 and 4a, and is available with current ratings from 6A through 1600A.

Cartridge rated voltages are:

- 500V, 690V, 1000V, 1200V for gG time/current characteristic fuses;
- 500V, 690V, 1000V for aM time/current characteristic fuses.
- 500V, 690V, 1000V, 1200V for gR/aR time/current characteristic fuses.

gG cartridge fuses are ideal for protecting traditional systems against overloads and short circuits.

aM cartridge fuses are ideal for protecting motors and operating equipments (disconnectors, contactors and thermal relays) against short circuit currents or very large overloads. They are usually installed in combination with another overload protection devices (e.g. thermal relays).

gR/aR cartridge fuses are ideal for protecting semiconductors in industrial and electronic power applications such as diodes, triacs, transistors, etc.

Caratteristiche costruttive

I fusibili NH hanno il corpo in steatite ad alta resistenza termica e meccanica con ampia camera per l'estinzione dell'arco. Gli elementi fusibili di rame o rame argentato, sono saldati alle lame di contatto, che vengono inserite nel corpo fusibile chiuso con guarnizioni speciali e placche di aggancio, il tutto è riempito completamente con sabbia di quarzo. Le cartucce NH sono dotate di un dispositivo di segnalazione, situato nella parte superiore o sul corpo del fusibile, che fuoriesce dalla sua sede dopo l'intervento. Questa segnalazione può essere utilizzata, per alcune serie di fusibili NH, come segnalazione a distanza dell'avvenuto intervento mediante relativo microinterruttore.

Potere di interruzione e temperature di esercizio

I fusibili NH si contraddistinguono per il loro elevato potere di interruzione (fino a 120 kA). Le condizioni di prova e le caratteristiche del circuito per le verifiche, quali tensione, fattore di potenza, ecc. sono riportate nelle norme CEI 32-1 (armonizzate con le norme internazionali IEC 60269-1). Per ottenere un potere di interruzione elevato e costante, dalla più piccola corrente di sovraccarico alla più elevata corrente di cortocircuito, occorre curare diversi particolari nella progettazione e nella produzione delle serie di fusibili. Ad esempio sono di notevole importanza la scelta degli elementi di fusione, il loro posizionamento nel corpo del fusibile, la resistenza della steatite alle sovrappressioni e variazioni di temperatura innescate da un cortocircuito, la purezza chimica e la grandezza dei granuli della sabbia di quarzo.

I fusibili NH sono stati studiati per funzionare correttamente con valori di temperatura ambiente compresa tra -15°C e +50°C. Per eventuali temperature ambiente superiori ai +50°C è preferibile ridurre la corrente nominale del 5% ogni 10°C.

Construction specifications

NH fuses feature a steatite body having a high thermal and mechanical resistance and a large arc extinguishing chamber. Copper or silver plated copper fuse elements are welded on the contact blades which are installed in the fuse body with special seals and attachment plates. Quartz sand is used to fill the entire system. NH cartridge fuses are equipped with a blown fuse indicator installed on the upper part of the fuse body which comes out of its housing after the fuse has blown. For some series of NH fuses this indicator may be used as a remote blown fuse indicator using the corresponding microswitch.

Breaking capacity and working temperatures

NH fuses are characterised by a high breaking capacity (up to 120 kA). Test conditions and circuit test features such as voltage, power factor, etc. are described in standards CEI 32-1 (harmonised with IEC 60269-1 international standards). In order to keep the breaking capacity high and constant from the smallest overload current to the highest short circuit current, several different details have to be considered when designing and manufacturing fuse series.

For instance, the selection of fuse elements, their position in the fuse body, the steatite resistance to overpressures and temperature variations originated by a short circuit, the chemical pureness and grain size of quartz sand are all essential factors.

NH fuses were designed to operate correctly at ambient temperatures from -15°C through +50°C.

When ambient temperature exceeds +50°C it is common use to reduce the current rating by 5% every 10°C.

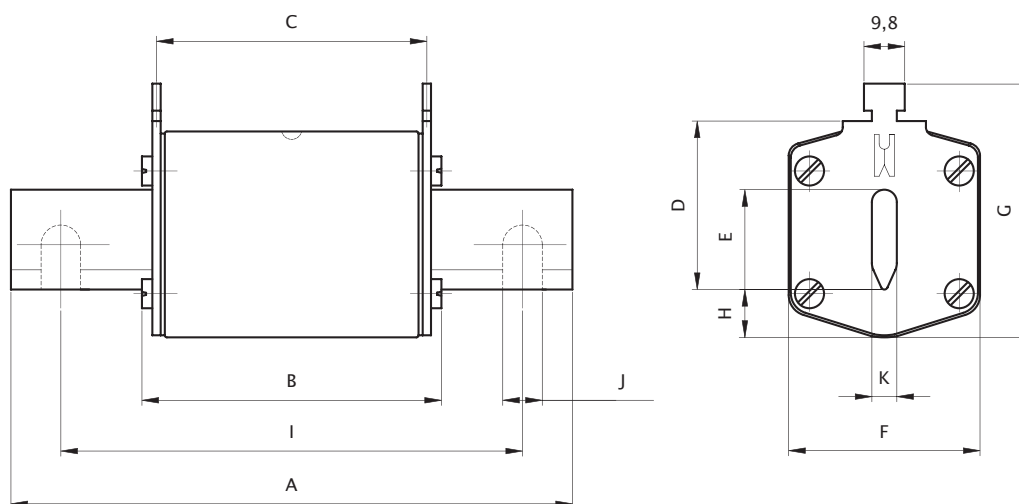
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - DIN 43620

*DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH INDUSTRIAL FUSES - DIN 43620*

Dimensioni in mm - Dimensions in mm

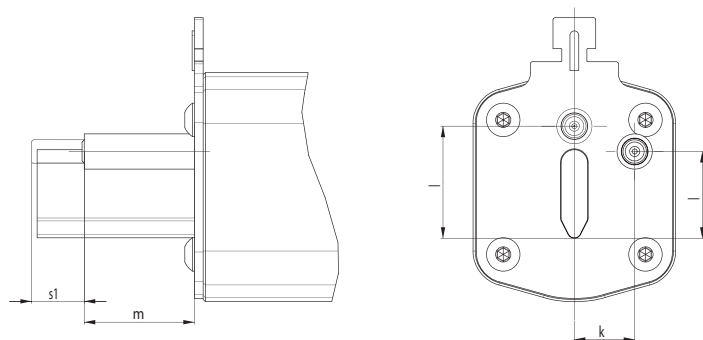
FUSIBILI INDUSTRIALI NH A COLTELLO BLADE TYPE NH INDUSTRIAL FUSES

Fusibili gr. NH 00-0-1-2-3-4-4a - Fuses size NH 00-0-1-2-3-4-4a



tipo type	A	B	C	D	E	F	G	H	I	J	K
NH-00C	79	53	47	35	15	21	52	7,5	—	—	6
NH-00	79	53	47	35	15	28	56	12	—	—	6
NH-0	125	68	65	35	15	28	56	12	—	—	6
NH-1C	135	68	65	40	15	28	61	12	—	—	6
NH-1	135	72	65	40	20	46	65	14	—	—	6
NH-2C	150	72	65	48	20	46	73	14	—	—	6
NH-2	150	72	65	48	26	54	73	14	—	—	6
NH-3C	150	72	65	60	26	54	84	14	—	—	6
NH-3	150	72	65	60	33	65	84	14	—	—	6
NH-4	200	75	66	87	50	100	121	24	150	16	8
NH-4a	200	99	87	85	50	95	121	27	—	—	6
NH-1 1000V~	155	90	87	40	20	45	59	9	—	—	6

Fusibili gr. NH 00-1-2-3-4a con percussore - Fuses size NH 00-1-2-3-4a with striker



tipo type	K	L	M	S1
NH-00C	—	20,7	16,7	7,5
NH-00	—	20,7	16,7	7,5
NH-1	13,7	19,7	25	12
NH-2	16,2	27,4	25	12
NH-3	17	35,6	25	12
NH-4a	24	49	25	12

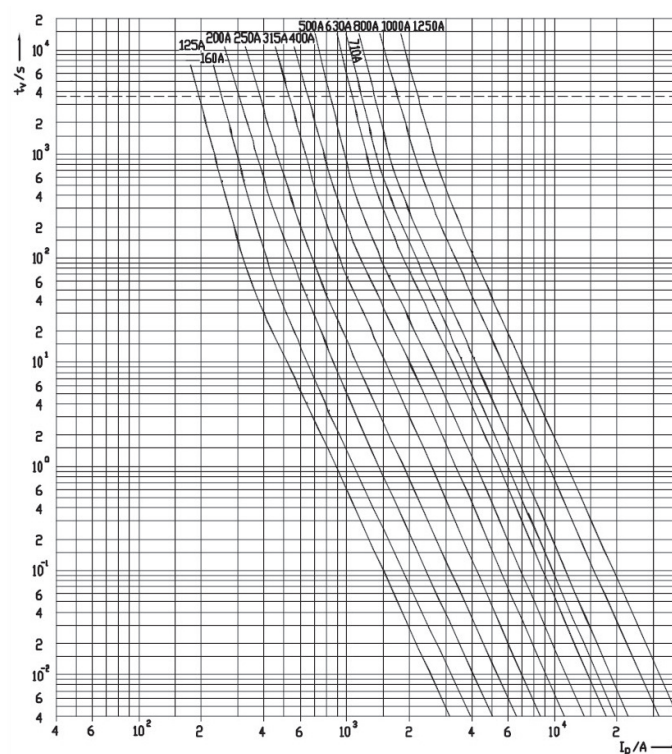
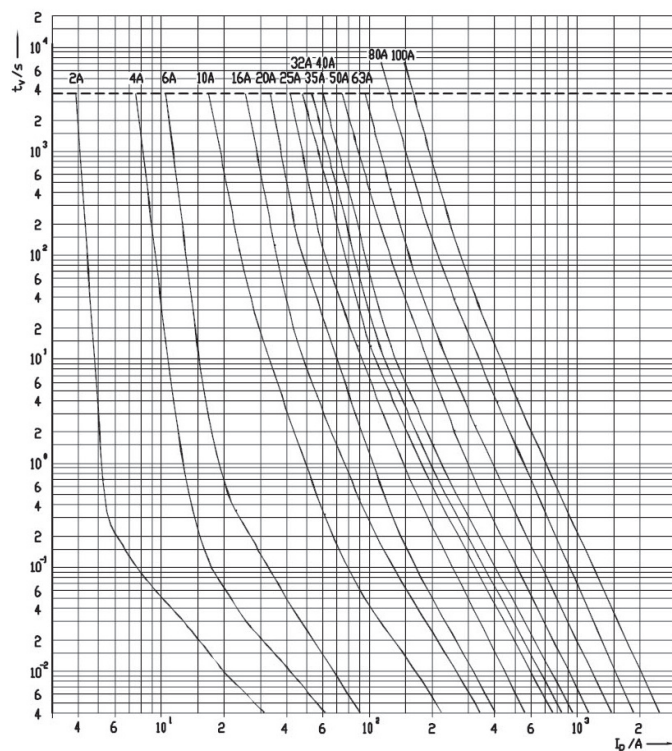
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO gG

DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH INDUSTRIAL FUSES - gG TYPE

Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO gG BLADE TYPE NH INDUSTRIAL FUSES - gG TYPE

Caratteristiche d'intervento tempo-corrente - Time-current characteristics



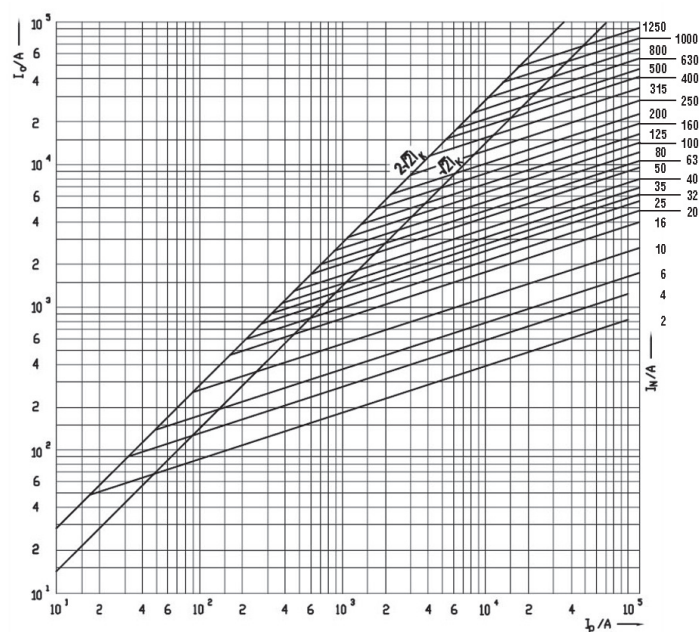
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO gG

DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH INDUSTRIAL FUSES - gG TYPE

Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO gG BLADE TYPE NH INDUSTRIAL FUSES - gG TYPE

Caratteristiche di limitazione - Cut-off characteristics



Caratteristiche tecniche - Technical characteristics

I _n (A)	I _k (kA)		I ² t prearco (A ² s) prearcing I ² t (A ² s)	I ² t totale (A ² s) total I ² t (A ² s)		potenza dissipata (grandezza fusibile) P _w (W) power dissipation (fuse size) P _w (W)					
	500V	690V		500V	690V	00	0	1	2	3	4
6	120	100	40	84	90	2,3	1,6	—	—	—	—
10	120	100	240	702	816	1,5	1,2	—	—	—	—
16	120	100	550	1.610	1.870	2,7	1,9	—	—	—	—
20	120	100	870	2.550	2.960	2,8	2,1	—	—	—	—
25	120	100	1.500	3.350	3.700	2,9	2,8	—	—	—	—
32	120	100	2.500	6.750	7.440	3,1	3,1	—	—	—	—
35	120	100	3.300	7.380	8.140	3,3	3,3	—	—	—	—
40	120	100	4.600	8.440	9.300	3,8	3,8	3,8	—	—	—
50	120	100	6.000	13.400	14.800	4,8	5,6	5,8	—	—	—
63	120	100	9.600	21.500	23.700	6,1	6,9	6,1	—	—	—
80	120	100	19.200	43.500	51.600	5,4	6,7	6,9	—	—	—
100	120	100	31.500	71.400	84.600	7,1	8,1	8,8	8,5	—	—
125	120	100	42.000	95.200	112.800	9,7	10,8	10,9	10,7	—	—
160	120	100	78.000	176.900	209.500	11,0	12,3	13,3	13,3	—	—
200	120	100	145.000	329.000	389.000	—	—	16,6	16,6	—	—
250	120	100	250.000	567.000	671.000	—	—	21,8	21,8	17,9	—
315	120	100	310.000	971.000	1.230.000	—	—	—	24,1	22,6	—
400	120	100	580.000	1.816.000	2.301.000	—	—	—	30,7	25,3	—
500	120	100	1.450.000	3.446.000	3.956.000	—	—	—	—	35,1	—
630	120	100	2.610.000	6.202.000	7.121.000	—	—	—	—	40,2	49,88
800	100	100	3.913.746	19.860.799	26.613.470	—	—	—	—	—	63,99
1000	100	100	7.109.709	36.079.122	48.346.024	—	—	—	—	—	75,43
1250	100	100	14.065.272	71.376.009	95.643.852	—	—	—	—	—	88,92
Valori max. secondo IEC 60269-1 Max. values according to IEC 60269-1						12W	25W	32W	45W	60W	90W

NH COLTELLO
NH BLADE

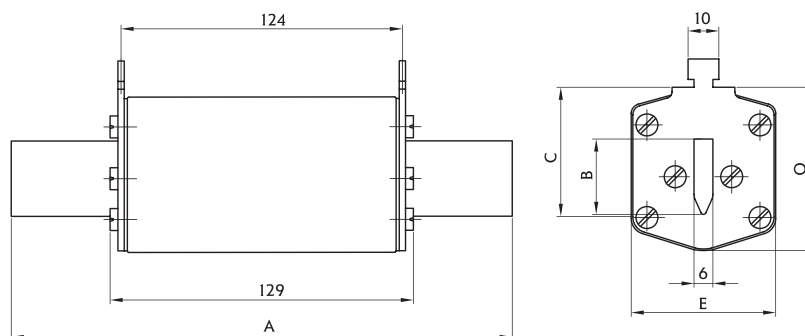
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO gG

*DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH INDUSTRIAL FUSES - gG TYPE*

Dimensioni in mm e caratteristiche tecniche - *Dimensions in mm and technical characteristics*

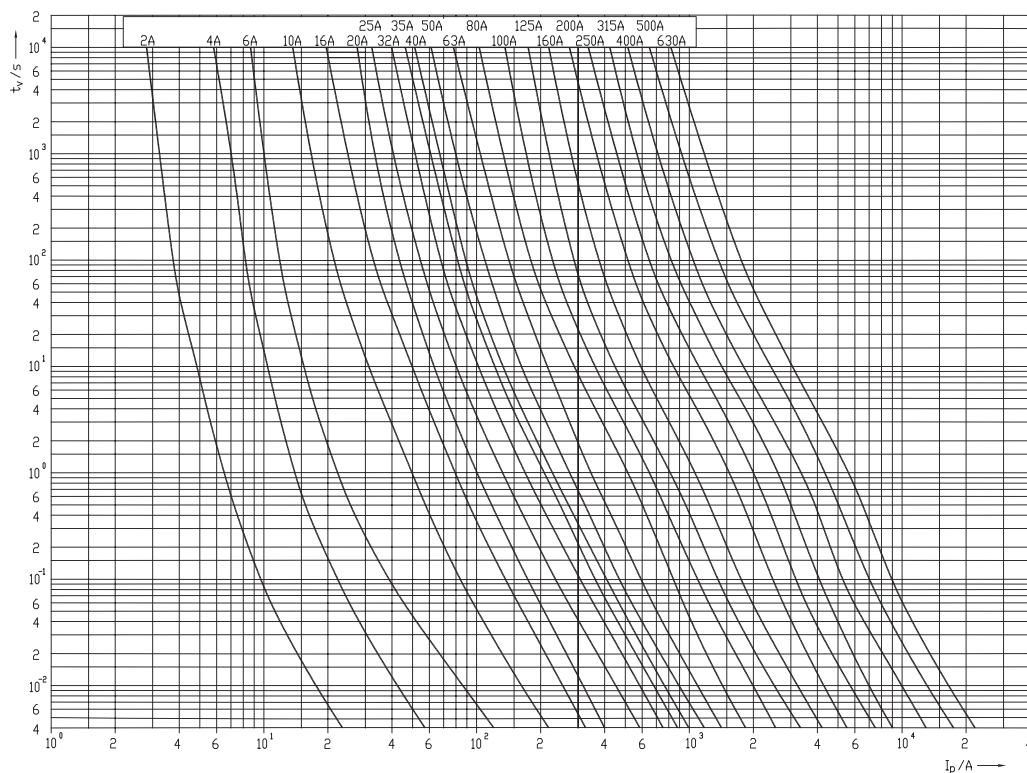
FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO gG - SERIE 1200V BLADE TYPE NH INDUSTRIAL FUSES - gG TYPE - SERIES 1200V

Dimensioni in mm - *Dimensions in mm*



size	A	B	C	E	G	P	R	M	O
1XL	194	24	40	46	61,5	20,5	13,7	50	52
2XL	209	30	48	54	71	27,3	16,2	59	61
3L	209	37	60	64	82	35,6	17	70	74

Caratteristiche d'intervento tempo-corrente - *Time-current characteristics*



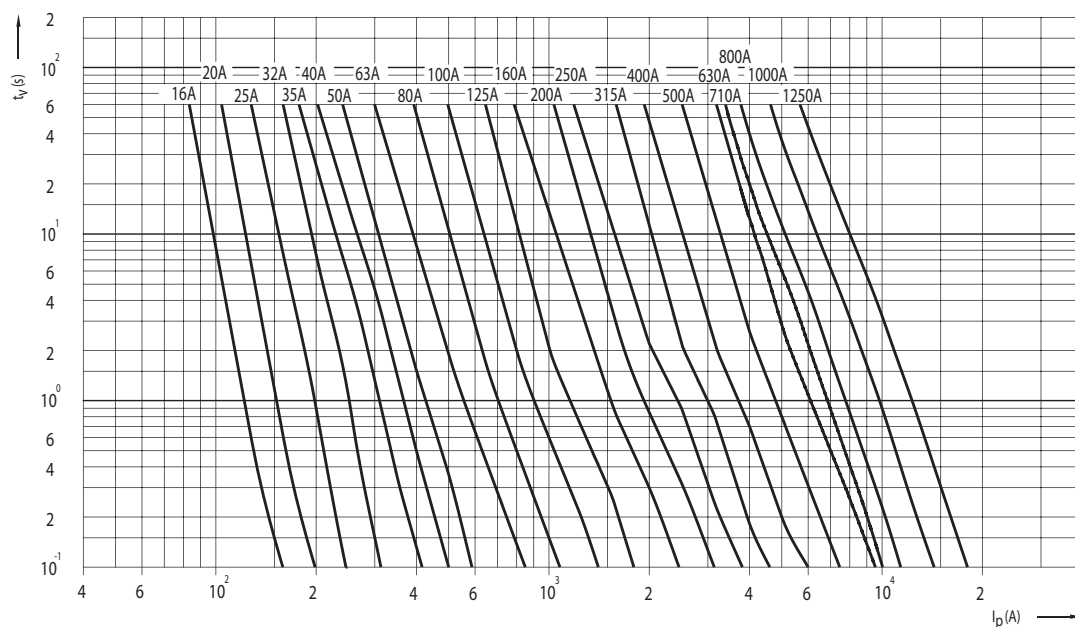
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO aM

*DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH INDUSTRIAL FUSES - aM TYPE*

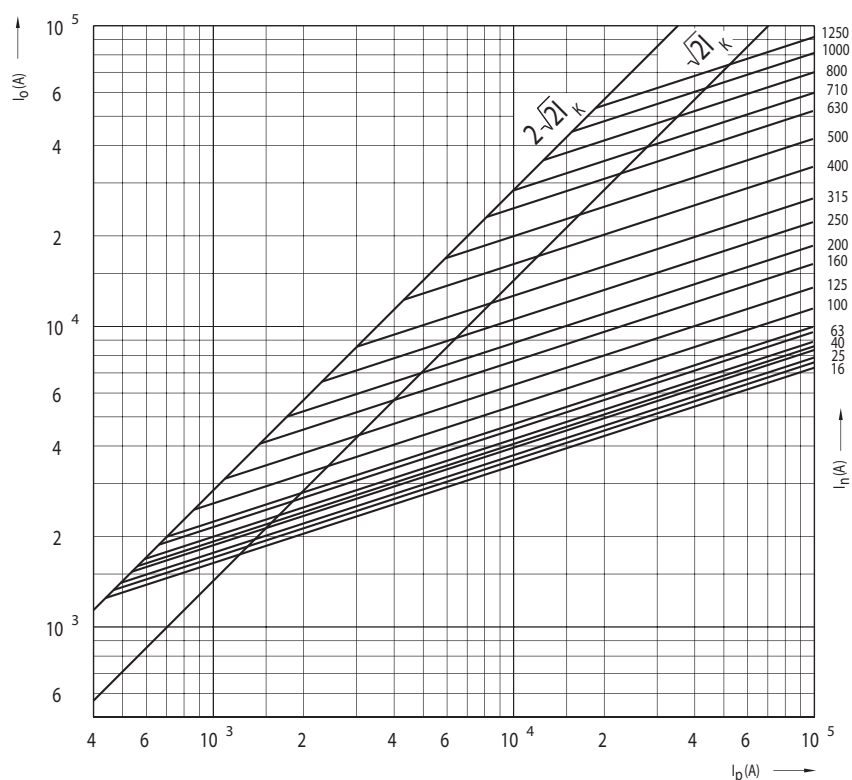
Caratteristiche tecniche - *Technical characteristics*

FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO aM BLADE TYPE NH INDUSTRIAL FUSES - aM TYPE

Caratteristiche d'intervento tempo-corrente - *Time-current characteristics*



Caratteristiche di limitazione - *Cut-off characteristics*



NH COLTELLO
NH BLADE

DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO aM

*DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH INDUSTRIAL FUSES - aM TYPE*

Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH A COLTELLO - TIPO aM BLADE TYPE NH INDUSTRIAL FUSES - aM TYPE

Tabella valori potenza dissipata - Power dissipation values table

I _n (A)	I _k (kA)	grandezza fusibile - fuse size					
		00 P _w (W)	0 P _w (W)	1 P _w (W)	2 P _w (W)	3 P _w (W)	4a P _w (W)
6	100	0,3	0,5	—	—	—	—
10	100	0,4	0,6	—	—	—	—
16	100	0,7	0,9	—	—	—	—
20	100	1,0	1,3	—	—	—	—
25	100	1,3	1,7	—	—	—	—
35	100	1,7	2,3	2,3	—	—	—
40	100	1,9	2,4	—	—	—	—
50	100	2,4	3,1	3,1	—	—	—
63	100	3,8	3,9	3,9	3,8	—	—
80	100	4,5	4,9	4,9	4,7	—	—
100	100	6,2	6,5	6,5	6,3	—	—
125	100	6,7	8,9	8,9	8,7	—	—
160	100	9,4	11,2	12,4	11,0	—	—
200	100	—	—	13,5	13,5	13,3	—
250	100	—	—	21,8	21,8	20,1	—
315	100	—	—	—	25,8	25,8	—
355	100	—	—	—	29,9	30,2	—
400	100	—	—	—	33,7	33,4	—
500	100	—	—	—	—	41,0	—
630	100	—	—	—	—	50,0	50,0
800	100	—	—	—	—	—	65,5
1000	100	—	—	—	—	—	81,5
1250	100	—	—	—	—	—	110
Valori max. secondo IEC 60269-1 Max. values according to IEC 60269-1		12W	25W	32W	45W	60W	110W

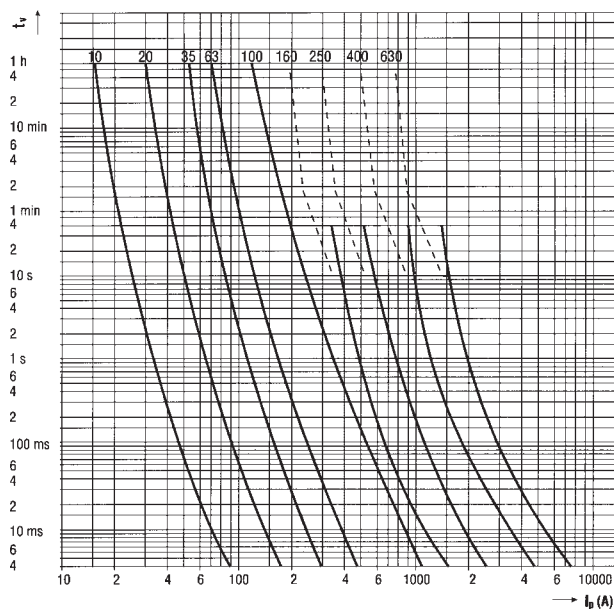
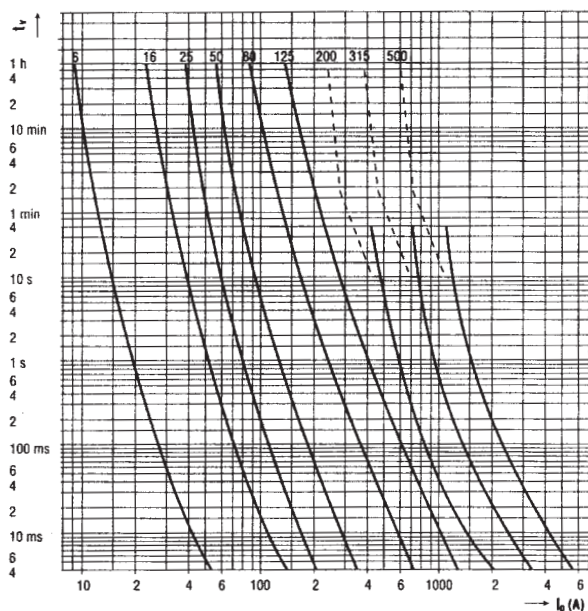
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

*DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES*

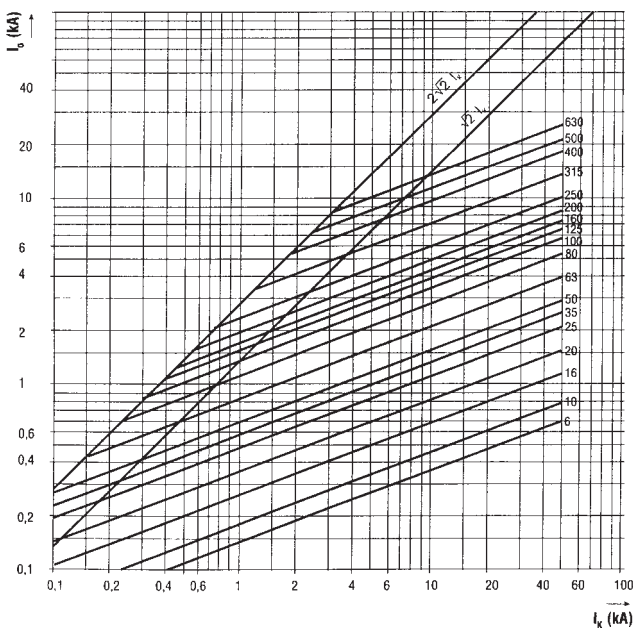
Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE HRC - TIPO gR/aR BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES HRC - gR/aR TYPE

Caratteristiche d'intervento tempo-corrente - Time-current characteristics



Caratteristiche di limitazione - Cut-off characteristics



NH COLTELLO
NH BLADE

DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

*DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES*

Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE HRC - TIPO gR/aR BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES HRC - gR/aR TYPE

grandezza size	I_n (A) I_n (A)	I_k (kA) I_k (kA)	P_w (W) P_w (W)	I^2t di prearco (A ² s) prearcing I^2t (A ² s)	I^2t totale (A ² s) total I^2t (A ² s)
HRC 00 / HRC 00C	6	50	2,8	4	19
	10	50	3,3	13	62
	16	50	4,1	32	170
	20	50	5	60	290
	25	50	5,8	123	590
	35	50	8	242	1.160
	40	50	11	313	1.500
	50	50	16	490	2.370
	63	50	20	960	4.650
	80	50	25	1.100	5.350
	100	50	32	2.180	10.000
	125	50	40	4.450	21.300
	160	50	44	10.000	24.000
HRC 0	25	50	5,8	85	460
	35	50	8	190	1.000
	40	50	11	250	1.300
	50	50	16	290	1.500
	63	50	20	500	3.000
	80	50	25	1.000	5.300
	100	50	32	2.000	9.000
	125	50	40	3.100	16.000
	160	50	44	10.000	24.000
HRC 1	50	50	16	290	1.500
	63	50	20	500	3.000
	80	50	25	1.000	5.300
	100	50	32	2.000	9.000
	125	50	40	3.100	16.000
	160	50	44	10.000	24.000
	200	50	58	17.000	40.000
	250	50	63	29.000	65.000
HRC 2	80	50	25	1.000	5.300
	100	50	32	2.000	9.000
	125	50	40	3.100	16.000
	160	50	44	10.000	24.000
	200	50	58	17.000	40.000
	250	50	63	31.000	65.000
	315	50	95	48.000	175.000
	355	50	100	60.000	220.000
	400	50	105	85.000	270.000
HRC 3	250	50	63	31.000	60.000
	315	50	95	48.000	175.000
	355	50	100	60.000	300.000
	400	50	105	90.000	440.000
	500	50	130	160.000	660.000
	630	50	140	270.000	850.000

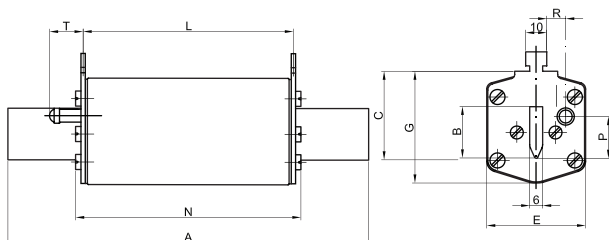
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

Dimensioni in mm e caratteristiche tecniche - Dimensions in mm and technical characteristics

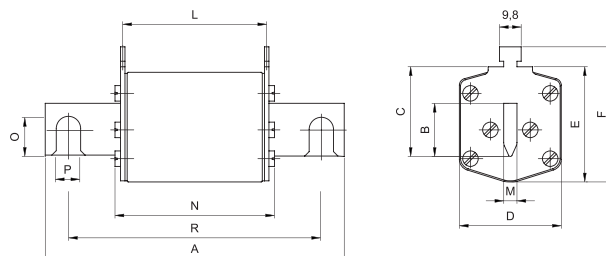
FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO gR BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - gR TYPE

Fusibili NH-00C, NH-1, NH-2, NH-3 - Fuses NH-00C, NH-1, NH-2, NH-3



size	A	B	C	E	G	S	L	N	P	R	T
00C	78	15	35	21	42	6	46	53	20,5	—	18
1	135	24	40	46	52	6	65	73	20,5	13,7	27,5
2	150	30	48	54	61	6	65	73	27,3	16,2	27,5
3	150	37	60	64	74	6	65	73	35,6	17	27,5

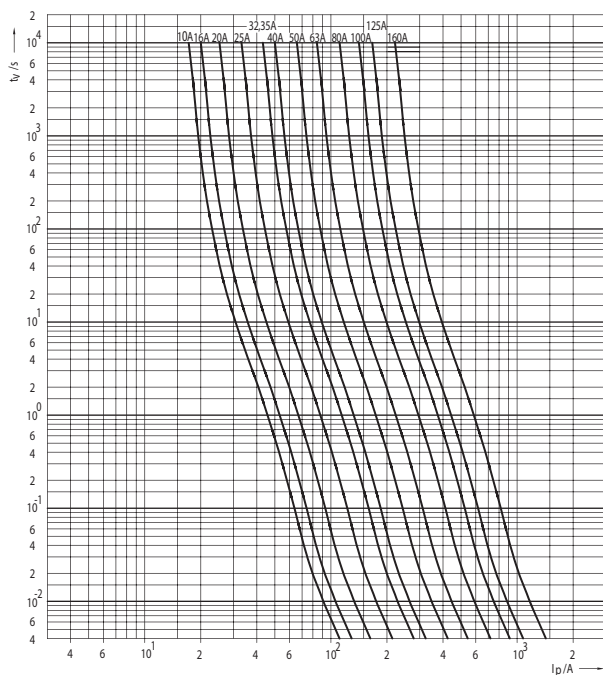
Fusibili NH-4, NH-4a - Fuses NH-4, NH-4a



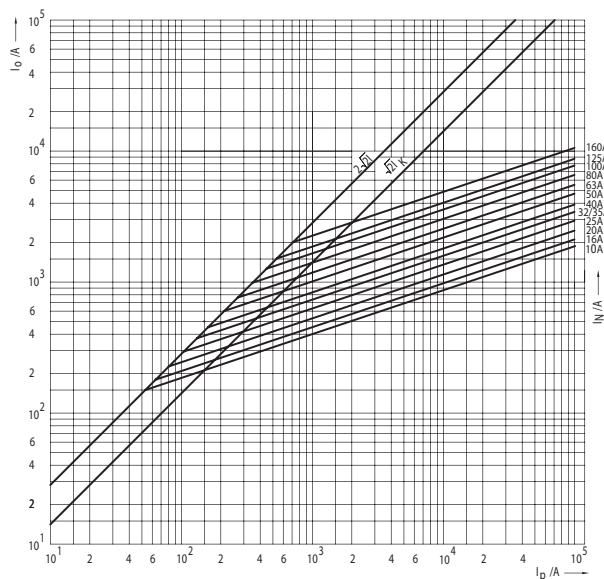
size	A	B	C	D	E	F	L	N	M	O	P	R
4	200	50	87	95	112	122	65	78	8	32	16	150
4a	200	50	85	95	112	122	87	97	6	—	—	—

NH COLTELLO
NH BLADE

Caratteristiche d'intervento tempo-corrente - Time-current characteristics Fusibili grandezza NH-00C, NH-00, NH-0 - Fuses size NH-00C, NH-00, NH-0



Caratteristiche di limitazione - Cut-off characteristics Fusibili grandezza NH-00C, NH-00, NH-0 - Fuses size NH-00C, NH-00, NH-0



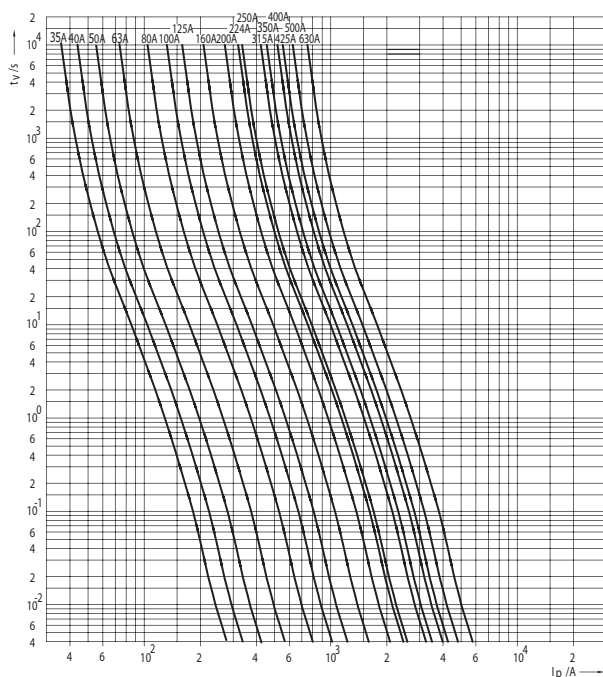
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

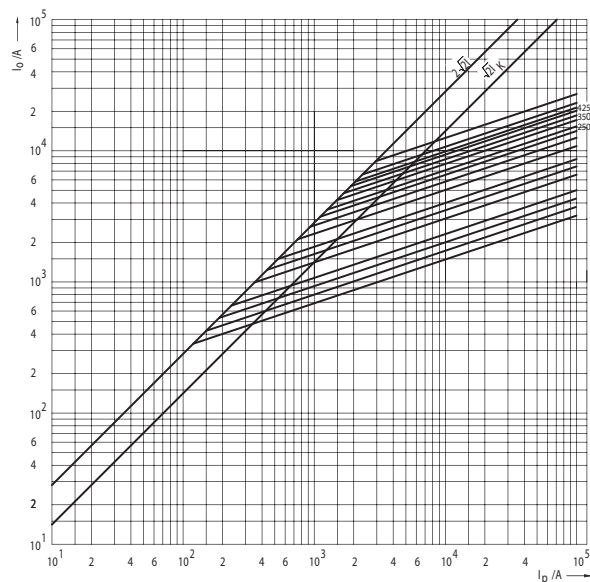
Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO gR BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - gR TYPE

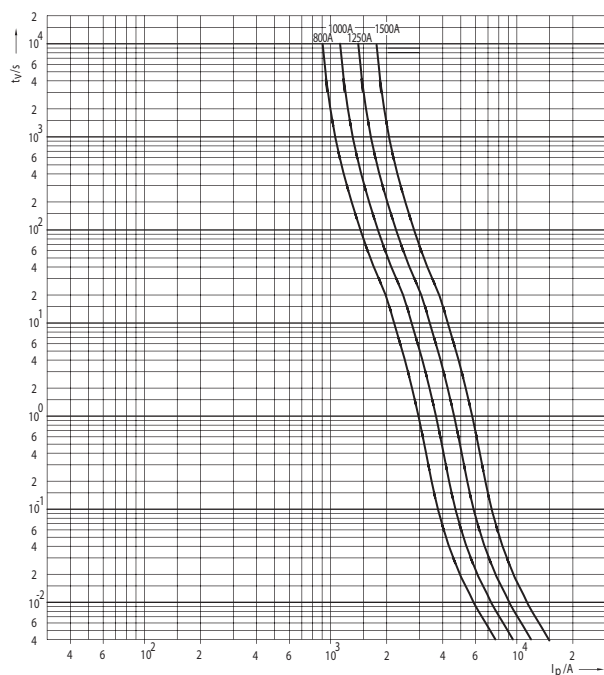
Caratteristiche d'intervento tempo-corrente - Time-current characteristics Fusibili grandezza NH-1, NH-2, NH-3 - Fuses size NH-1, NH-2, NH-3



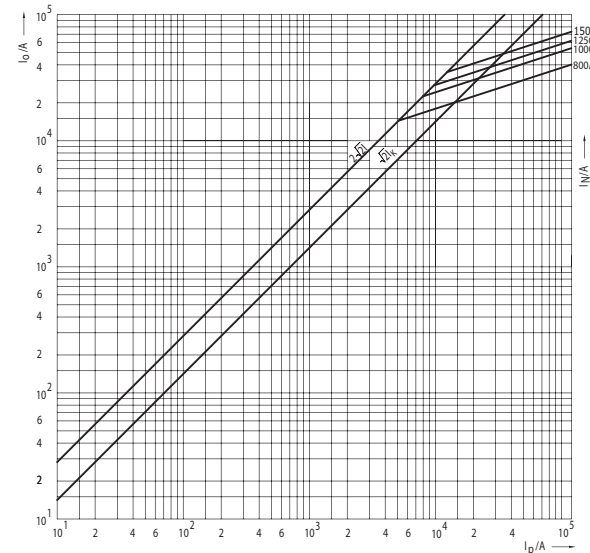
Caratteristiche di limitazione - Cut-off characteristics Fusibili grandezza NH-1, NH-2, NH-3 - Fuses size NH-1, NH-2, NH-3



Caratteristiche d'intervento tempo-corrente - Time-current characteristics Fusibili grandezza NH-4, NH-4a - Fuses size NH-4, NH-4a



Caratteristiche di limitazione - Cut-off characteristics Fusibili grandezza NH-4, NH-4a - Fuses size NH-4, NH-4a



DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

*DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES*

Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO gR BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - gR TYPE

grandezza size	I_n (A) I_n (A)	I_k (kA) I_k (kA)	P_w (W) P_w (W)	I^t di prearco (A ² s) prearcing I^t (A ² s)	I^t totale (A ² s) total I^t (A ² s)
NH 00C	6	200	4,8	10	60
	10	200	6,5	20	100
	16	200	8	42	220
	20	200	9,5	63	320
	25	200	11,8	110	600
	32	200	12,5	180	920
	35	200	13,1	200	990
	40	200	14,1	250	1.400
	50	200	15,6	450	2.200
	63	200	17,8	700	3.600
	80	200	20,6	1.100	6.200
	100	200	23,7	2.000	10.000
	125	200	30	2.500	13.000
	160	200	36	4.400	23.000
NH 1	50	200	15,6	450	2.200
	63	200	17,8	700	3.600
	80	200	20,6	1.100	6.200
	100	200	23,7	2.000	10.000
	125	200	30	2.500	13.000
	160	200	36	4.400	23.000
	200	200	37	8.500	47.000
	250	200	48	15.000	70.000
NH 2	125	200	30	2.500	13.000
	160	200	36	4.400	23.000
	200	200	37	8.500	47.000
	250	200	48	15.000	70.000
	315	200	57	20.000	110.000
	355	200	67	28.000	150.000
	400	200	76	32.000	170.000
NH 3	250	200	48	15.000	70.000
	315	200	57	20.000	110.000
	355	200	67	28.000	150.000
	400	200	76	32.000	170.000
	500	200	102	44.000	240.000
	630	200	138	80.000	400.000
NH 4	800	200	164	100.000	620.000
	1000	200	188	210.000	1.150.000
	1250	200	246	320.000	2.000.000
NH 4a	800	200	164	100.000	620.000
	1000	200	188	210.000	1.150.000
	1250	200	246	320.000	2.000.000
	1500	200	310	450.000	3.800.000
	1600	200	330	700.000	4.500.000

NH COLTELLO
NH BLADE

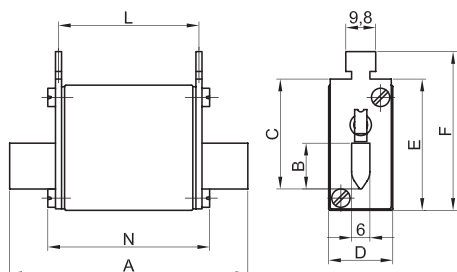
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

Dimensioni in mm e caratteristiche tecniche - Dimensions in mm and technical characteristics

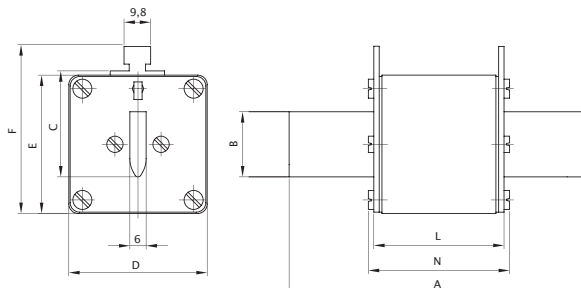
FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO aR 690V BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - aR TYPE 690V

Fusibili NH-00 - Fuses NH-00



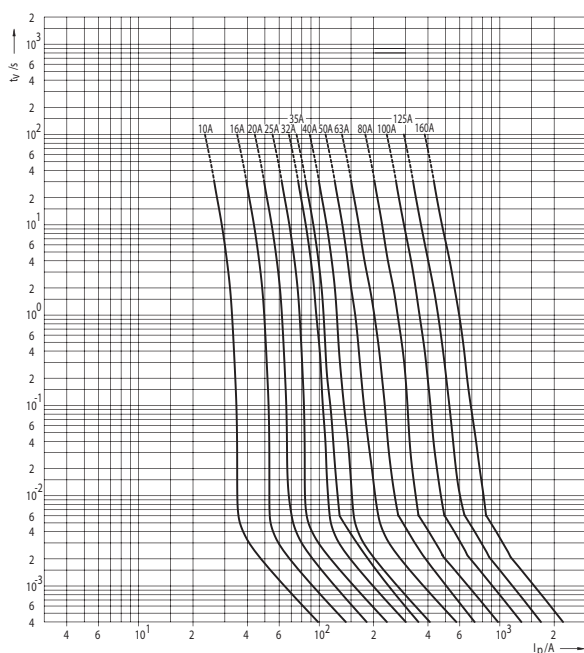
size	A	B	C	D	E	F	L	N
00	78	15	35	30	42	51	48	52

Fusibili NH-1, NH-2, NH-3 - Fuses NH-1, NH-2, NH-3

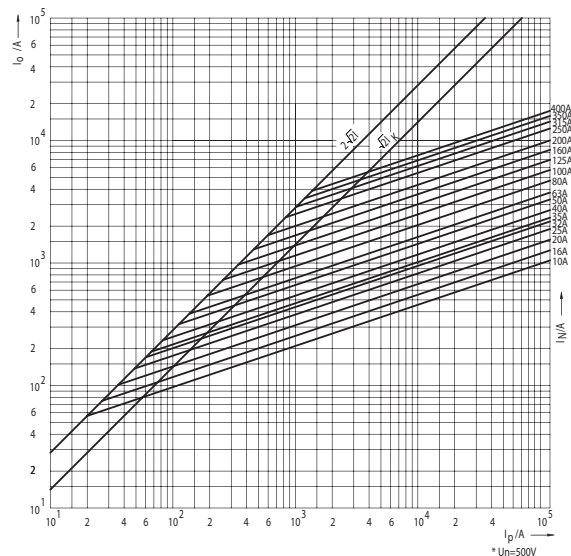


size	A	B	C	D	E	F	L	N
1	135	24	40	46	52	62	65	72
2	150	30	48	54	61	71	65	72
3	150	37	60	64	74	84	65	72

Caratteristiche d'intervento tempo-corrente - Fusibili aR - Grandezza 00 Time-current characteristics - aR fuses - Size 00



Caratteristiche di limitazione - Fusibili aR - Grandezza 00 Cut-off characteristics - aR fuses - Size 00



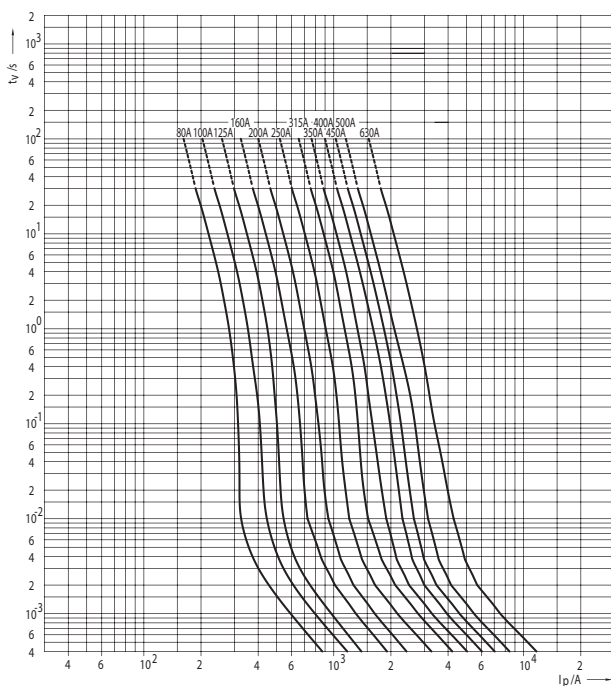
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

*DIMENSIONS AND SPECIFICATIONS
BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES*

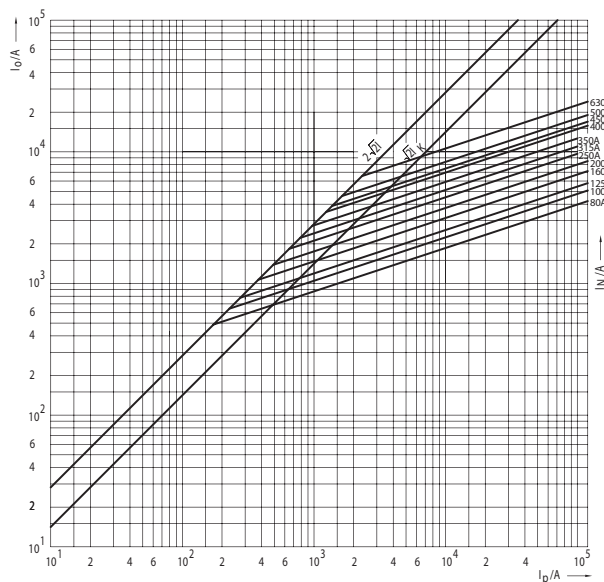
Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO aR 690V BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - aR TYPE 690V

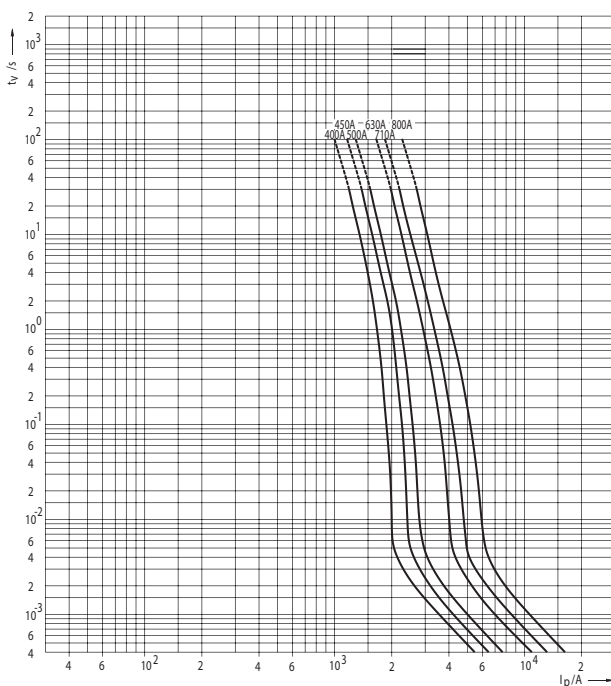
Caratteristiche d'intervento tempo-corrente - Fusibili aR - Grandezza 1 Time-current characteristics - aR fuses - Size 1



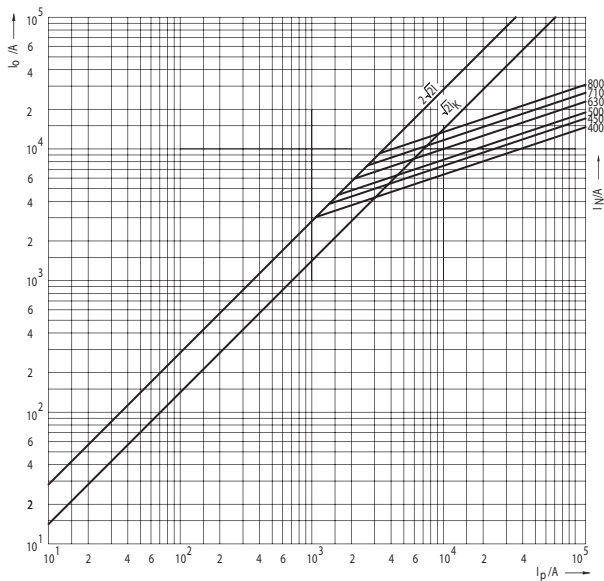
Caratteristiche di limitazione - Fusibili aR - Grandezza 1 Cut-off characteristics - aR fuses - Size 1



Caratteristiche d'intervento tempo-corrente - Fusibili aR - Grandezza 2 Time-current characteristics - aR fuses - Size 2



Caratteristiche di limitazione - Fusibili aR - Grandezza 2 Cut-off characteristics - aR fuses - Size 2



NH COLTELLO
NH BLADE

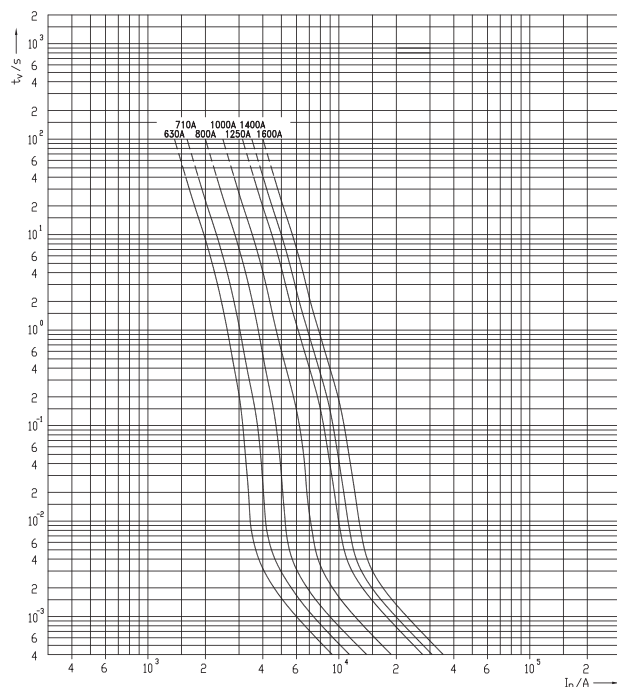
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

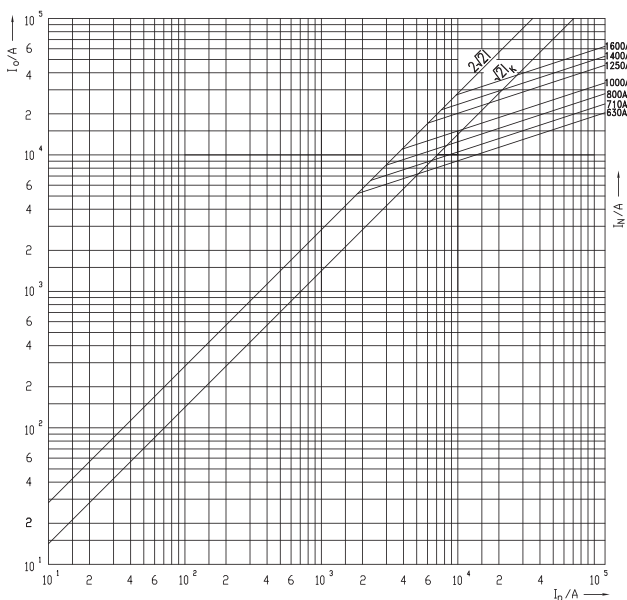
Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO aR 690V BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - aR TYPE 690V

Caratteristiche d'intervento tempo-corrente - Fusibili aR - Grandezza 3 Time-current characteristics - aR fuses - Size 3



Caratteristiche di limitazione - Fusibili aR - Grandezza 3 Cut-off characteristics - aR fuses - Size 3



Caratteristiche tecniche - Technical characteristics

grandezza size	I_n (A) I_n (A)	I_k (kA) I_k (kA)	P_w (W) P_w (W)	I^2t di prearco (A ² s) prearcing I^2t (A ² s)	I^2t totale (A ² s) total I^2t (A ² s)
NH 00C	10	200	3	10	23
	16	200	4	21	46
	20	200	5	32	95
	25	200	6	55	165
	32	200	7	90	290
	35	200	8	100	400
	40	200	9	125	640
	50	200	10	225	1.000
	63	200	12,3	350	1.800
	80	200	16,3	550	2.800
	100	200	20	1.000	4.600
	125	200	26,9	1.500	8.000
	160	200	31,6	2.400	16.500
	200	200	46	3.400	22.000
	250	200	49	4.100	44.000
NH 1 NH 2 NH 3	63	200	16	350	1.200
	80	200	21	550	1.800
	100	200	27	1.000	2.500
	125	200	32	1.500	4.600
	160	200	36	2.400	8.400
	200	200	46	3.400	14.000
	250	200	51	4.100	26.000
	315	200	66	7.000	42.000
	350	200	69	8.000	54.000
	400	200	80	10.000	98.000
	500	200	110	13.000	150.000
	550	200	115	15.000	200.000
	630	200	121	25.000	225.000
	710	200	130	35.000	320.000
	800	200	145	45.000	525.000
	900	200	160	60.000	900.000
	1000	200	170	80.000	1.000.000

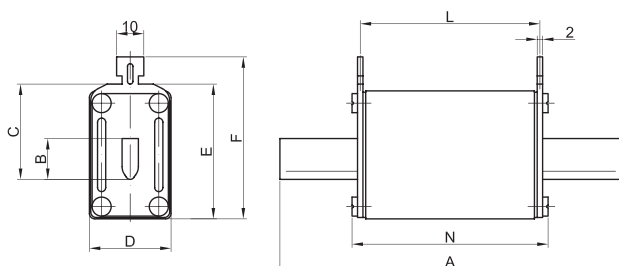
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

Dimensioni in mm e caratteristiche tecniche - Dimensions in mm and technical characteristics

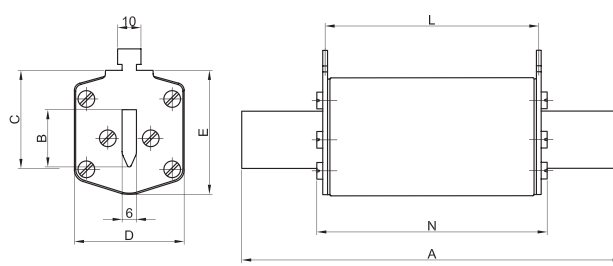
FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO aR 1000V / 1200V BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - aR TYPE 1000V / 1200V

Fusibili NH-0 - Fuses NH-0



size	A	B	C	D	E	F	L	N
0	125	15	35	30	50	59,5	66	72

Fusibili NH-1, NH-2, NH-3 - Fuses NH-1, NH-2, NH-3

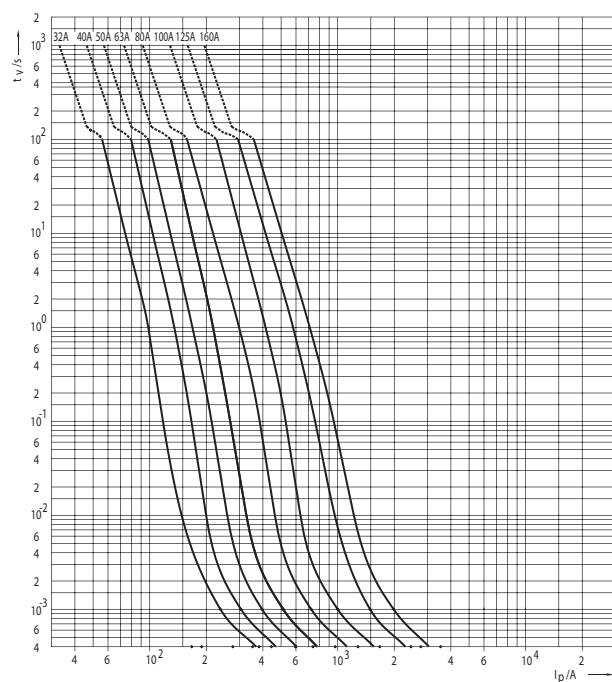


size	A	B	C	D	E	L	N
1	194	20 / 24 *	40	46	61,5	124	132
2	209	26 / 30 *	48	54	71	124	132
3	209	32 / 37 *	60	64	82	124	132

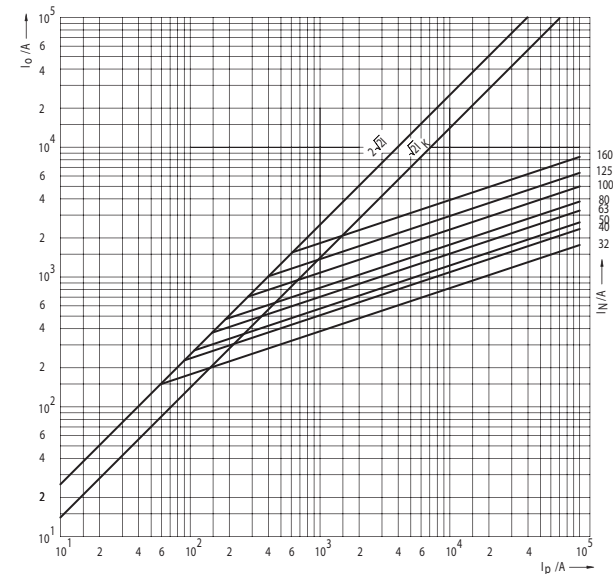
* L'altezza del coltello dipende dalla corrente nominale
* The height of the knife depends on current rating

NH COLTELLO
NH BLADE

Caratteristiche d'intervento tempo-corrente - Fusibili aR - Grandezza 0 Time-current characteristics - aR fuses - Size 0



Caratteristiche di limitazione - Fusibili aR - Grandezza 0 Cut-off characteristics - aR fuses - Size 0



DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES

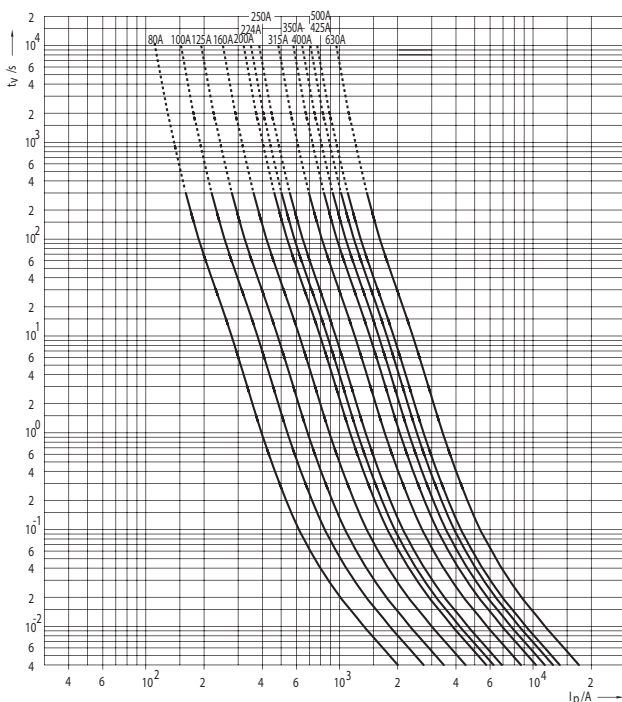
Caratteristiche tecniche - Technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ACR - TIPO aR 1000V / 1200V

BLADE TYPE NH ULTRA-QUICK INDUSTRIAL FUSES - SERIES ACR - aR TYPE 1000V / 1200V

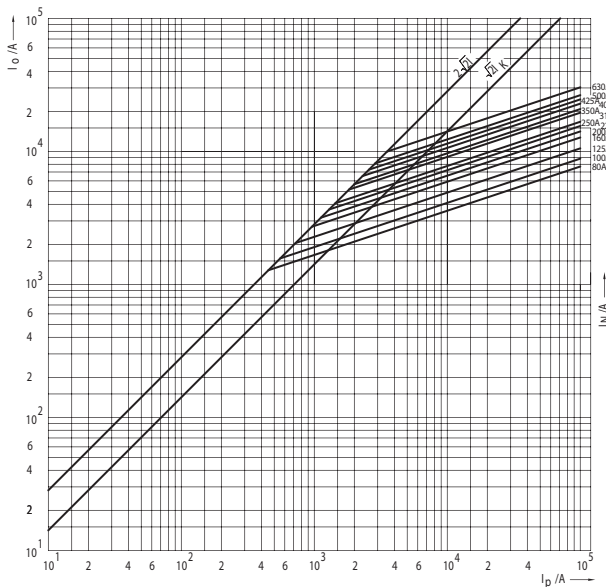
Caratteristiche d'intervento tempo-corrente - Fusibili aR - Grandezza 1/2/3

Time-current characteristics - aR fuses - Size 1/2/3



Caratteristiche di limitazione - Fusibili aR - Grandezza 1/2/3

Cut-off characteristics - aR fuses - Size 1/2/3



Caratteristiche tecniche - Technical characteristics

grandezza size	I_n (A) I_n (A)	V_n (V) V_n (V)	I_k (kA) I_k (kA)	P_w (W) P_w (W)	I^2t di prearco (A ² s) prearcing I^2t (A ² s)	I^2t totale (A ² s) total I^2t (A ² s)
NH 0	16	1000	200	8	20	210
	20	1000	200	9	25	260
	25	1000	200	11	40	350
	32	1000	200	12,5	51	480
	40	1000	200	14,4	90	840
	50	1000	200	19,3	140	1.300
	63	1000	200	22,3	250	2.300
	80	1000	200	28,8	420	3.900
	100	1000	200	31,5	860	8.000
	125	1000	200	34,3	1.970	18.000
NH 1	160	1000	200	40,5	3.800	35.000
	80	1200	200	35	1.600	8.000
	100	1200	200	46	2.500	12.500
	125	1200	200	55	4.200	20.000
	160	1200	200	67	7.000	32.000
	200	1200	200	84	11.000	50.000
NH 2	250	1200	200	104	17.000	80.000
	315	1200	200	125	25.000	120.000
	350	1200	200	141	32.000	160.000
NH 3	400	1200	200	159	42.000	200.000
	500	1200	200	185	77.000	320.000
	630	1200	200	198	110.000	500.000

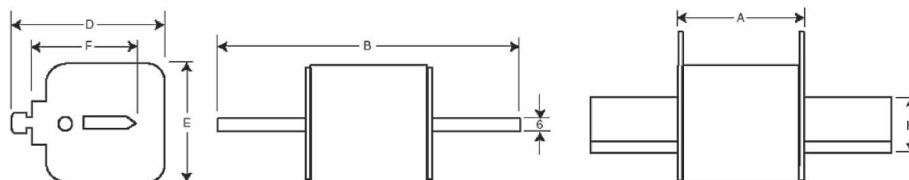
DIMENSIONI E CARATTERISTICHE FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO

DIMENSIONS AND SPECIFICATIONS BLADE TYPE NH HIGH SPEED INDUSTRIAL FUSES

Dimensioni in mm e caratteristiche tecniche - Dimensions in mm and technical characteristics

FUSIBILI INDUSTRIALI NH EXTRARAPIDI A COLTELLO - SERIE ULTRA - TIPO gR/aR BLADE TYPE NH HIGH SPEED INDUSTRIAL FUSES - SERIES ULTRA - gR/aR TYPE

Dimensioni in mm e caratteristiche tecniche - Dimensions in mm and technical specifications



grandezza - size	A	B	D	E	F	H
000	49,7	78,5	52	20,5	35	15
00	49,7	78,5	59	30	35	15
1	68	135	64	40	40	20
2	68	150	72	54	48	25
3	68	150	87	71	60	32

grandezza size	I_n (A) I_n (A)	V_n (V) V_n (V)	I_k (kA) I_k (kA)	I^2t prearco (A ² s) prearcing Pt (A ² s)	I^2t totale (A ² s) total Pt (A ² s)	P_w (W) P_w (W)
000	10	690	200	4	27	2,5
	16	690	200	7	51	4
	20	690	200	11,5	82,5	5
	25	690	200	19	140	6
	32	690	200	40	285	7
	40	690	200	65	490	8,5
	50	690	200	115	815	9,5
	63	690	200	215	1.550	11,5
	80	690	200	380	2.700	15
	100	690	200	695	4.950	16,5
	125	690	200	1.180	8.250	21,5
	160	690	200	2.300	16.500	25
00	200	690	200	4.350	31.000	29,5
	250	690	200	7.900	56.000	35,5
	315	690	200	12.000	84.500	45
	80	690	200	185	1.350	8,5
	100	690	200	360	2.600	10
	125	690	200	550	3.900	11
	160	690	200	1.150	8.250	12
	200	690	200	2.300	16.500	12,5
	250	690	200	4.350	31.000	16
	315	690	200	7.300	52.000	20
	350	690	200	10.000	73.000	21,5
	400	690	200	16.000	115.000	23
1	315	690	200	4.950	33.000	61
	350	690	200	7.000	46.500	64
	400	690	200	11.000	79.000	29
	450	690	200	16.000	115.000	32
	500	690	200	21.500	155.000	34
	550	690	200	29.000	215.000	36
	630	690	200	41.000	295.000	42
	700	690	200	60.500	430.000	43
	500	690	200	14.000	99.500	43
	550	690	200	19.500	140.000	44
	630	690	200	31.000	220.000	45
	700	690	200	45.000	320.000	46
2	800	690	200	69.500	490.000	48
	900	690	200	100.000	720.000	50
	1000	690	200	140.000	985.000	56
	1100	690	200	190.000	1.400.000	57
	1250	690	200	300.000	2.150.000	61
	1400	690	200	380.000	2.700.000	70
	1500	690	200	470.000	3.350.000	72
	1600	690	200	585.000	4.150.000	74
	500	690	200	14.000	99.500	43
	550	690	200	19.500	140.000	44
	630	690	200	31.000	220.000	45
	700	690	200	45.000	320.000	46
3	800	690	200	69.500	490.000	48
	900	690	200	100.000	720.000	50
	1000	690	200	140.000	985.000	56
	1100	690	200	190.000	1.400.000	57
	1250	690	200	300.000	2.150.000	61
	1400	690	200	380.000	2.700.000	70
	1500	690	200	470.000	3.350.000	72
	1600	690	200	585.000	4.150.000	74
	500	690	200	14.000	99.500	43
	550	690	200	19.500	140.000	44
	630	690	200	31.000	220.000	45
	700	690	200	45.000	320.000	46

NH COLTELLO
NH BLADE

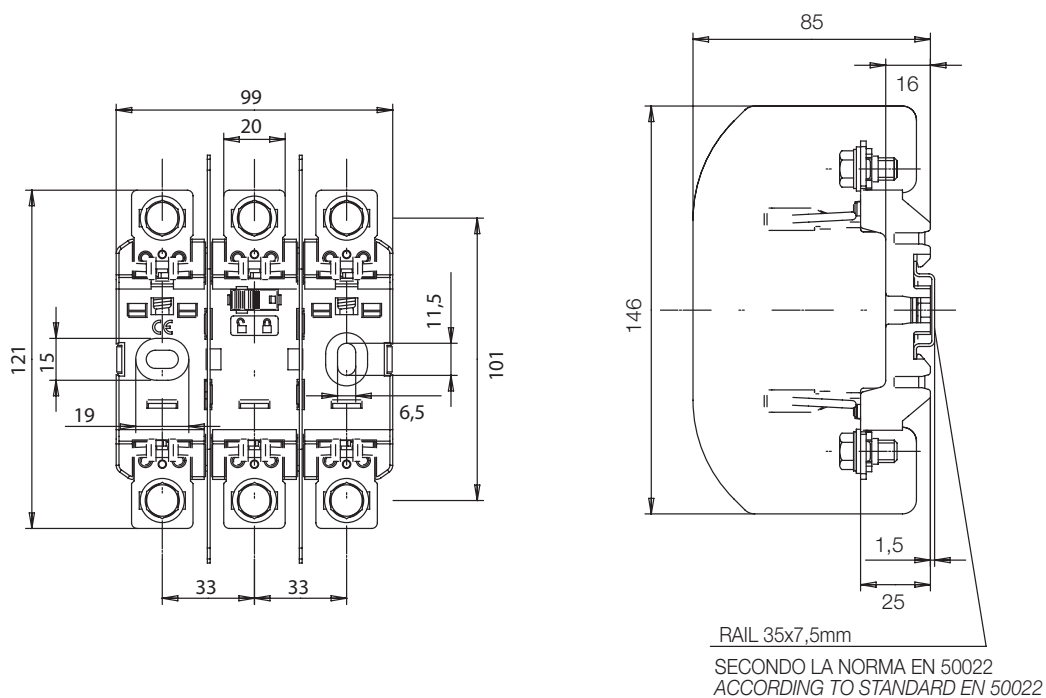
DIMENSIONI E CARATTERISTICHE PORTAFUSIBILI PER FUSIBILI NH - SERIE "NHU KOMBI"

*DIMENSIONS AND SPECIFICATIONS
FUSE BASES FOR NH FUSES - SERIES "NHU KOMBI"*

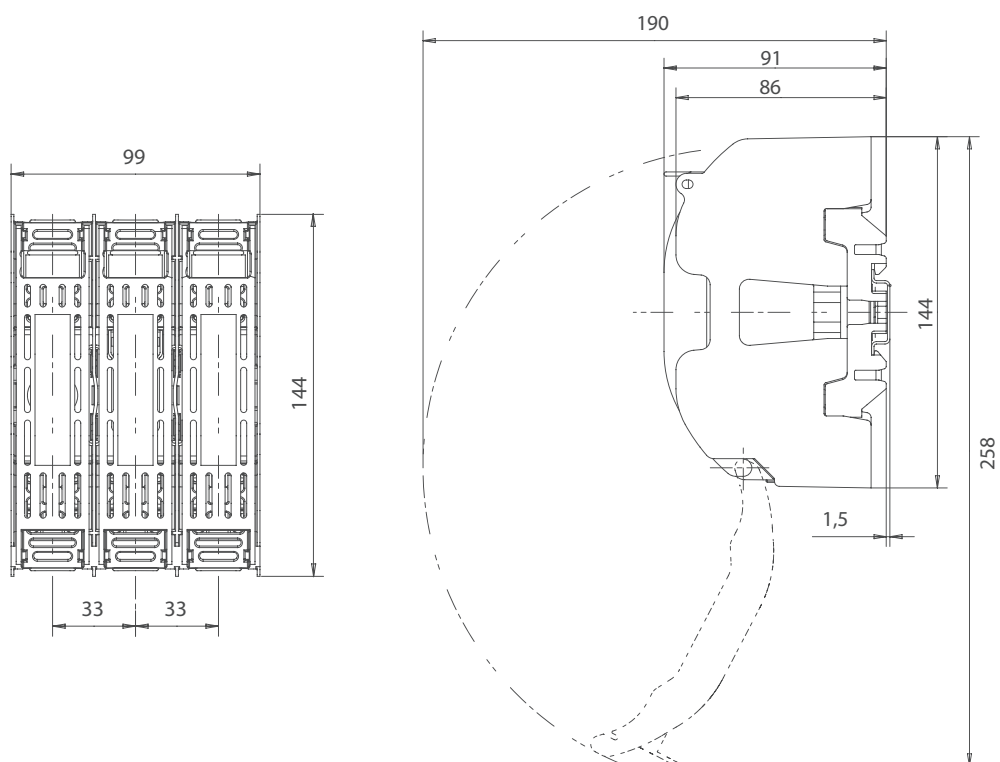
Dimensioni in mm - Dimensions in mm

PORTAFUSIBILI PER FUSIBILI NH - SERIE "NHU KOMBI" FUSE BASES FOR NH FUSES - SERIES "NHU KOMBI"

Versione standard - Standard version



Versione Kombi - Kombi version



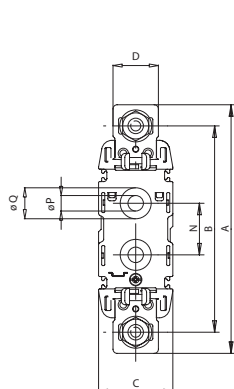
DIMENSIONI E CARATTERISTICHE PORTAFUSIBILI PER FUSIBILI NH - SERIE "NHD" E "NHU"

*DIMENSIONS AND SPECIFICATIONS
FUSE BASES FOR NH FUSES - SERIES "NHD" AND "NHU"*

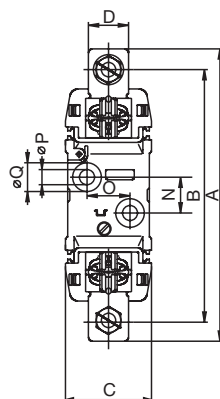
Dimensioni in mm - Dimensions in mm

PORTAFUSIBILI PER FUSIBILI NH - SERIE "NHD" E "NHU" FUSE BASES FOR NH FUSES - SERIES "NHD" AND "NHU"

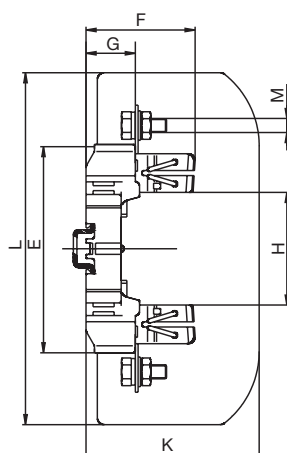
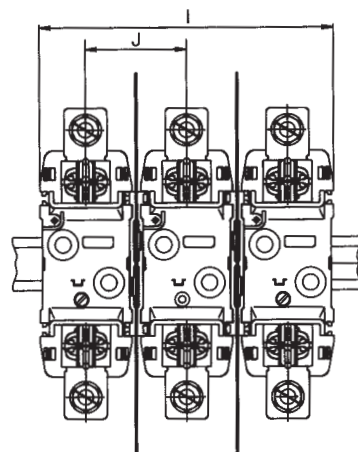
Basi per fusibili NH-00, NH-1, NH-2, NH-3 - Fuse bases for NH-00, NH-1, NH-2, NH-3



grandezza 00-0
size 00-0



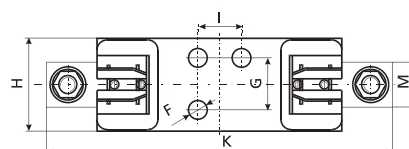
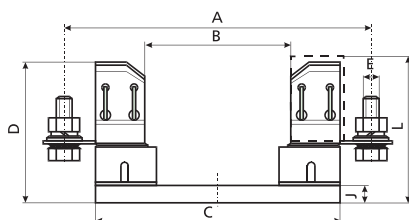
grandezza 1-2-3
size 1-2-3



grandezza - size

	NH-00	NH-0	NH-1	NH-2	NH-3
A	120	170	200	225	240
B	100	150	175	200	210
C	37	47	60	60	60
D	20	24	28	32	38
E	86	122	148	148	148
F	58	63	77,5	88	97
G	23	29	35	35	35
H	56,5	74	80	80	80
I	114	144	192	192	224
J	38,5	48,5	66	66	82
K	84,5	91,5	123	123	143
L	146	185	250	250	270
M	M8	M8	M10	M12	M12
N	25	25	25	25	25
O	0	0	30	30	30
P	7,5	7,5	10,5	10,5	10,5
Q	15	15	20,5	20,5	20,5

Basi per fusibili NH-1 1000V - Fuse bases for NH-1 1000V fuses



size	A	B	C	D	E	F	G	H	I	J	K	M
1	193	100	160	81	M10	10,5	30	55	25	10	220	26

NH COLTELLO
NH BLADE

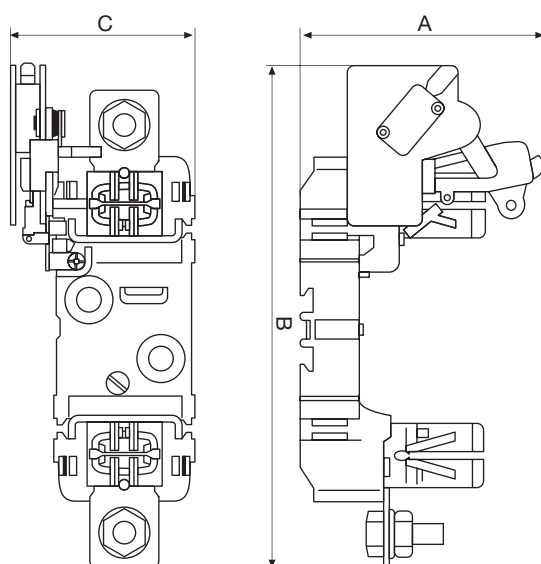
DIMENSIONI E CARATTERISTICHE PORTAFUSIBILI PER FUSIBILI NH - SERIE "NHU-MS" E "NHK"

*DIMENSIONS AND SPECIFICATIONS
FUSE BASES FOR NH FUSES - SERIES "NHU-MS" AND "NHK"*

Dimensioni in mm - Dimensions in mm

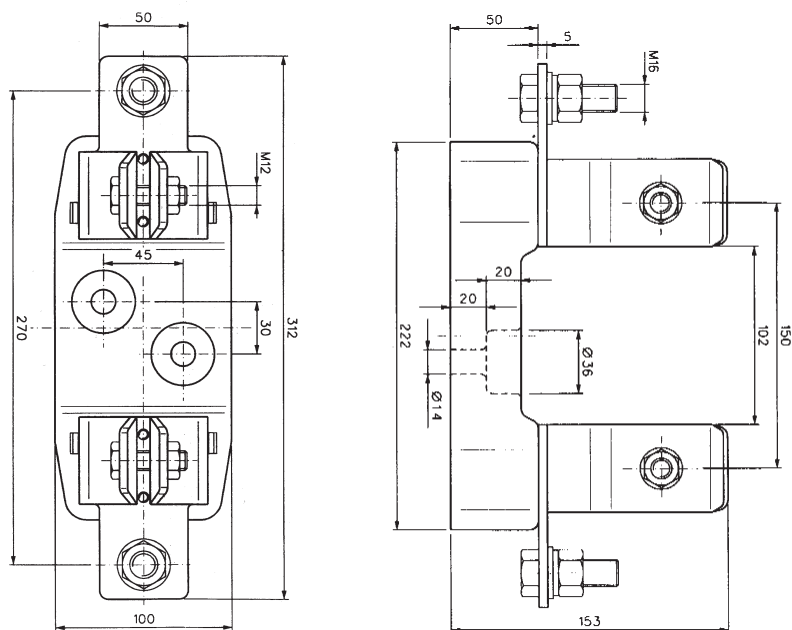
PORTAFUSIBILI PER FUSIBILI NH - SERIE "NHU-MS" E "NHK" FUSE BASES FOR NH FUSES - SERIES "NHU-MS" AND "NHK"

Portafusibile unipolare NHU-MS con micro per fusibili NH/CP - NHU-MS single pole fuse base with microswitch for use with NH/CP fuses



	grandezza - size			
	NH-0	NH-1	NH-2	NH-3
A	90	98	102	102
B	193	215	227	235
C	65,5	76	76	76

Portafusibile NHK-4S - NHK-4S fuse base



DIMENSIONI E CARATTERISTICHE PORTAFUSIBILI SEZIONABILI - SERIE "LTS"

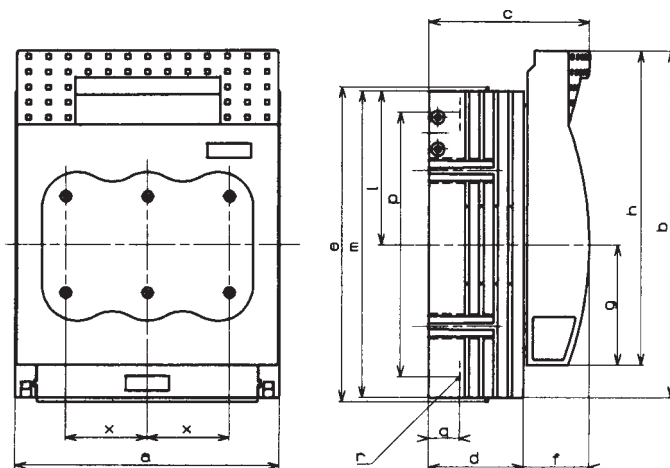
*DIMENSIONS AND SPECIFICATIONS
FUSE SWITCH DISCONNECTORS - SERIES "LTS"*

Caratteristiche tecniche e dimensioni in mm - *Technical characteristics and dimensions in mm*

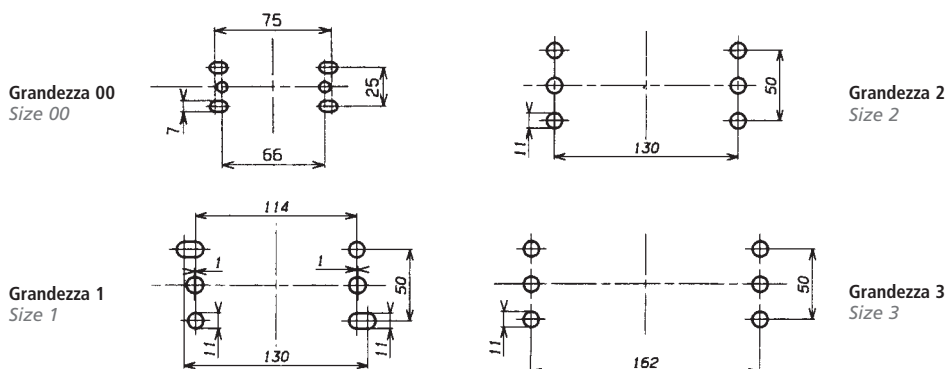
NH COITELLO
NH BLADE

PORTAFUSIBILI SEZIONABILI TRIPOLARI - SERIE "LTS" THREE-POLES FUSE SWITCH DISCONNECTORS - SERIES "LTS"

Dimensioni portafusibili sezionabili serie LTS - *Dimensions fuse switch disconnectors series LTS*



tipo - type	a	b	c	d	e	f	g	h	l	m	p	q	r	x
LTS-000	89	143	74,5	44	140	30,5	47	127,5	77,5	—	—	—	—	25,5
LTS-00	106	200	82,5	45	—	37	60	155	100	181	115	17	M8	33
LTS-1	184	243	111,5	66	220	45,5	84	220	107	214,5	185	21,5	M10	57
LTS-2	210	288	128	80	—	48	92	249	124	255	210	25	M10	65
LTS-3	256	300	142,5	94,5	—	48	98,5	259	127,5	267	210	30	M12	81



Caratteristiche tecniche portafusibili sezionabili serie LTS - *Technical characteristics fuse switch disconnectors series LTS*

	000	00	1	2	3
Tipo di corrente <i>Current type</i>	AC (50-60Hz)	AC (50-60Hz)	AC (50-60Hz)	AC (50-60Hz)	AC (50-60Hz)
Tensione nominale <i>Rated voltage</i>	690V AC / 440V DC	690V AC / 440V DC	690V AC / 440V DC	690V AC / 440V DC	690V AC / 440V DC
Tensione d'isolamento <i>Insulation voltage</i>	690V	800V	800V	800V	800V
Tensione di picco <i>Peak voltage</i>	6kV	6kV	6kV	6kV	6kV
Categorie d'applicazione <i>Utilization categories</i> (DC = L1 + L3 in serie)	AC-21B (690V) AC-22B (500V) DC-21B (440V / 80A) DC-21B (220V / 125A)	AC-22B (690V) AC-21B (690V) DC-21B (440V)	AC-21B (690V) AC-22B (400V) DC-22B (440V / 125A) DC-23B (440V)	AC-21B (690V) AC-22B (690V) DC-21B (440V)	AC-21B (690V) AC-22B (690V) DC-21B (440V)
Corrente di corto circuito <i>Short circuit current</i>	50kA (picco 105kA) 50kA (105 kA peak)	50kA (picco 105kA) 50kA (105 kA peak)	50kA (picco 105kA) 50kA (105 kA peak)	50kA (picco 105kA) 50kA (105 kA peak)	50kA (picco 105kA) 50kA (105 kA peak)
Max potenza dissipata fusibile <i>Max fuse power dissipation</i>	9W	12W	23W	34W	48W

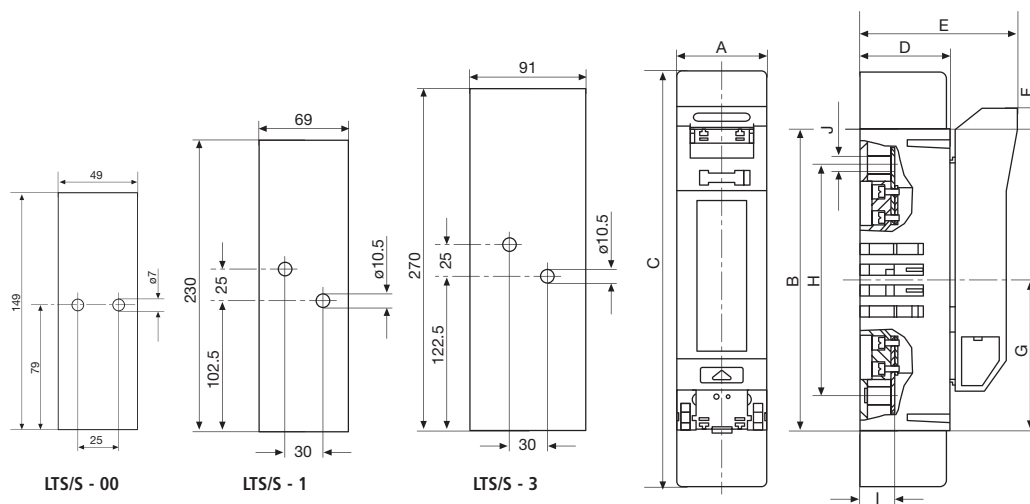
DIMENSIONI E CARATTERISTICHE PORTAFUSIBILI SEZIONABILI - SERIE "LTS/S"

DIMENSIONS AND SPECIFICATIONS FUSE SWITCH DISCONNECTORS - SERIES "LTS/S"

Caratteristiche tecniche e dimensioni in mm - Technical characteristics and dimensions in mm

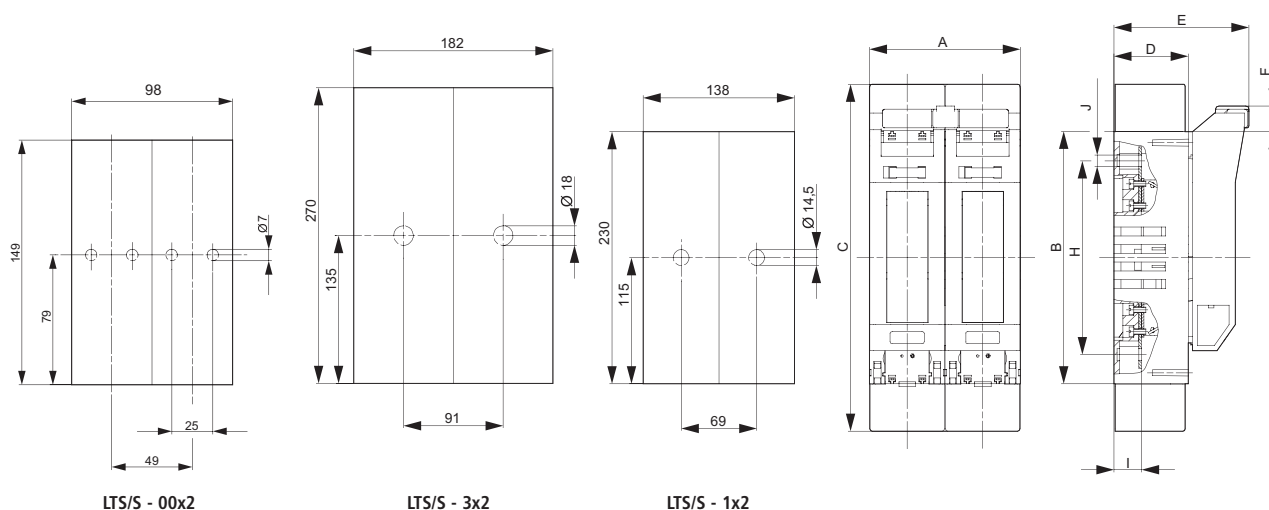
PORTAFUSIBILI SEZIONABILI - SERIE "LTS/S" FUSE SWITCH DISCONNECTORS - SERIES "LTS/S"

Portafusibili sezionabili unipolari LTS/S - LTS/S single pole fuse switch disconnectors



tipo - type	A	B	C	D	E	F	G	H	I	J
LTS/S - 00	49	149	200	45	86	20,5	—	120	17	9
LTS/S - 1	69	230	317	68	119	16,5	115	177	25	10,5
LTS/S - 3	91	270	430	96	147	9	135	220,5	30,5	10,5

Portafusibili sezionabili bipolari LTS/S - LTS/S two poles fuse switch disconnectors



tipo - type	A	B	C	D	E	F	H	I	J
LTS/S - 00x2	98	149	220	45	89	23	120	17	9
LTS/S - 1x2	138	230	317	68	123,5	23	177	25	10,5
LTS/S - 3x2	182	270	430	96	151,5	15,5	220,5	30,5	10,5

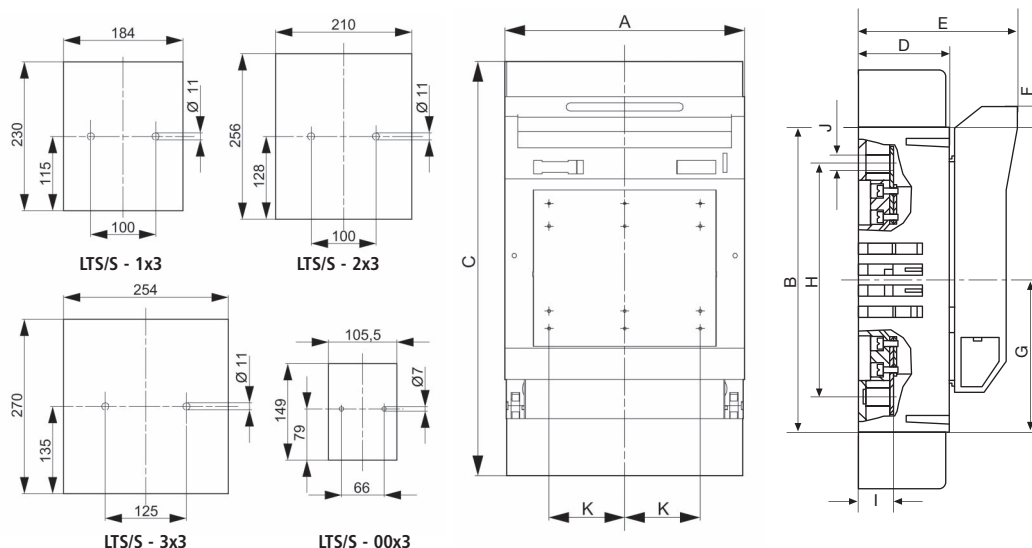
DIMENSIONI E CARATTERISTICHE PORTAFUSIBILI SEZIONABILI - SERIE "LTS/S"

*DIMENSIONS AND SPECIFICATIONS
FUSE SWITCH DISCONNECTORS - SERIES "LTS/S"*

Caratteristiche tecniche e dimensioni in mm - Technical characteristics and dimensions in mm

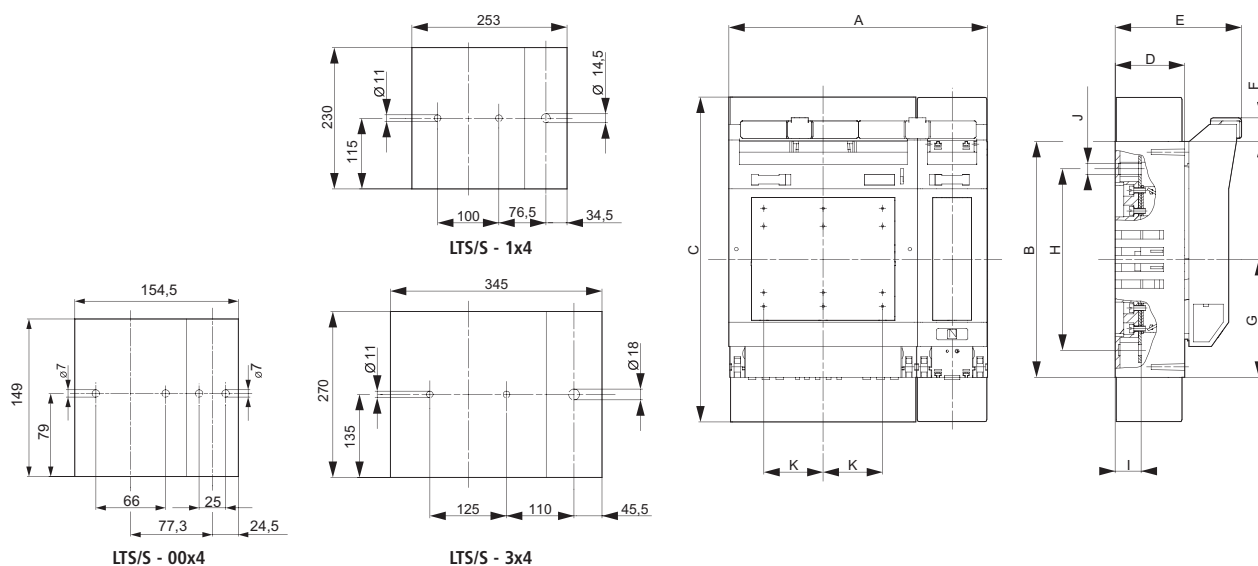
PORTAFUSIBILI SEZIONABILI - SERIE "LTS/S" FUSE SWITCH DISCONNECTORS - SERIES "LTS/S"

Portafusibili sezionabili tripolari LTS/S - LTS/S three poles fuse switch disconnectors



tipo - type	A	B	C	D	E	F	G	H	I	K	J
LTS/S - 00x3	105,5	149	220	45	86	20,5	74,5	120	17	33	9
LTS/S - 1x3	184	230	317	68	119	16,5	115	177	25	58	10,5
LTS/S - 2x3	210	256	397	81	133	16,5	128	205	25	66	10,5
LTS/S - 3x3	254	270	430	96	147	9	135	220,5	30,5	82	10,5

Portafusibili sezionabili quadripolari LTS/S - LTS/S four poles fuse switch disconnectors

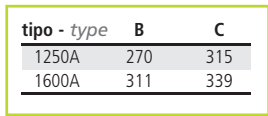


tipo - type	A	B	C	D	E	F	G	H	I	K	J
LTS/S - 00x4	154,5	149	220	45	89	23	74,5	120	17	33	9
LTS/S - 1x4	253	230	317	68	123,5	23	115	177	25	58	10,5
LTS/S - 3x4	345	270	430	96	151,5	15,5	135	220,5	30,5	82	10,5

DIMENSIONS AND SPECIFICATIONS

PORTAFUSIBILI SEZIONABILI - SERIE "LTS/S"
FUSE SWITCH DISCONNECTORS - SERIES "LTS/S"

Portafusibili sezionabili unipolari e tripolari LTS/S-4a - LTS/S-4a single pole and three poles fuse switch disconnectors



Caratteristiche tecniche portafusibili sezionabili serie LTS/S - Technical characteristics fuse switch disconnectors series LTS/S

	000	00	1	2	3	4a (1250A)	4a (1600A)
Corrente nominale <i>Rated current</i>	160A	160A	250A	400A	630A	1250A	1600A
Tensione nominale <i>Rated voltage</i>	690V AC / 220V DC	690V AC / 440V DC	690V AC / 440V DC	690V AC / 440V DC	690V AC / 440V DC	690V AC	690V AC
Tensione di picco <i>Peak voltage</i>	8kV	8kV	8kV	8kV	8kV	8kV	8kV
Categorie di utilizzo <i>Utilization categories</i>	AC-22B (400V/160A) AC-22B (500V/100A) AC-21B (690V/100A) DC-22B (220V/100A)	AC-22B (690V/100A) AC-22B (500V/160A) DC-21B (440V/100A) DC-22B (220V/160A)	AC-22B (690V/200A) AC-22B (500V/250A) DC-21B (440V/200A) DC-22B (220V/250A)	AC-22B (690V/315A) AC-22B (500V/400A) DC-21B (440V/315A) DC-22B (220V/400A)	AC-22B (690V/500A) AC-22B (500V/630A) DC-21B (440V/500A) DC-22B (220V/630A)	AC-21B (690V/1000A) AC-22B (500V/1250A)	AC-21B (690V/1000A) AC-22B (500V/1600A)
Potenza dissipata per polo <i>Power dissipation x pole</i>	7W	7W	13W	27W	52W	32W	52W
Max potenza dissipata fusibile <i>Max fuse power dissipation</i>	9W	12W	23W	34W	48W	110W	164W

inter- teknik	RUTİN TEST RAPORU ROUTINE TEST REPORT	Tarih / Date : 09.04.2020 Sayfa / Page : 1 / 2
--------------------------	---	---

Müşteri / Customer : MONTRELEC INCORPORATED
Sipariş / P.O. No. : FO219-INT-647
Sipariş Tarihi / P.O. Date : 30.10.19 (Inter-Teknik Reference No: S000006342)

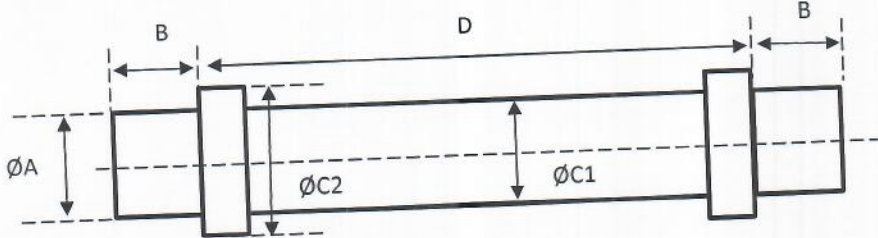
Sipariş Detayları / Purchase Order Details :

No.	Müşteri Kodu / Customer Item Nr.	Üretici Kodu / Manuf. Item Nr.	Tip / Type	Gerilim / Voltage-Un (kV)	Akım / Current- In (A)	Miktar (Ad.) / Quantity (pcs)
1		S4T5200.08	H221B/TRM Un:36kV In:200A D=537 mm F=80N	36	200	64
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

Test Numuneleri / Test Samples:	Numune Alma Prosedürü / Sampling Procedure				
Sip.Mlz. Miktarı / P.O. Item Quantity :	1-100	101-500	501-1000	1001-3000	>3000
Numune Miktarı / Sample Quantity :	9	12	18	24	32

Müşteri / Customer : MONTRELEC INCORPORATED
Sipariş / P.O. No. : FO219-INT-647
Sipariş Tarihi / P.O. Date : 30.10.19 (Inter-Teknik Reference No: S000006342)

Ürün Detayları / Product Details: H221B/TRM Un:36kV In:200A D=537 mm F=80N



BOYUT KONTROL RAPORU / DIMENSIONAL CONTROL REPORT (STANDARD: DIN / IEC 60282-1)

Samp. No.	ØA (45 ± 1 mm)	B (33 +2, -0 mm)	ØC2 (50mm min.)	ØC1 (C1+C2: 88mm max.)	D (537 +0,-1mm)	SONUÇ / RESULT
1	45,2	33,8	86,4	85,3	536,4	OK
2	45,2	33,5	86,2	85,5	536,7	OK
3	45,5	33,7	86,5	85,7	536,9	OK
4	45,1	33,4	86,1	85,8	536,4	OK
5	45,4	33,6	86,2	85,5	536,7	OK
6	45,2	33,3	86,3	85,4	536,5	OK
7	45,5	33,5	86,0	85,7	536,8	OK
8	45,3	33,8	86,4	85,3	536,6	OK
9	45,4	33,4	86,4	85,6	536,5	OK
10						
11						
12						



Yukarıda bahsi geçen numune ürünler görsel incelemeden geçmiş olup herhangi bir hata gözlemlenmemiştir. Test Sonuçları UYGUN dur.

DİRENÇ ÖLÇÜM RAPORU / RESISTANCE MEASUREMENT REPORT

Samp. No.	Beklenen Ölçüm Değeri / Required	Ölçülen Değer / Measured Value mΩ	Ortam Sıcaklığı / Ambient	SONUÇ / RESULT
1	10,8 ± 10%	11,2	17	OK
2	10,8 ± 10%	11,3	17	OK
3	10,8 ± 10%	11,1	17	OK
4	10,8 ± 10%	11,1	17	OK
5	10,8 ± 10%	11,2	17	OK
6	10,8 ± 10%	11,3	17	OK
7	10,8 ± 10%	11,3	17	OK
8	10,8 ± 10%	11,1	17	OK
9	10,8 ± 10%	11,2	17	OK
10				
11				
12				

Testi Yapan / Tested by : ERDİ AKARSU

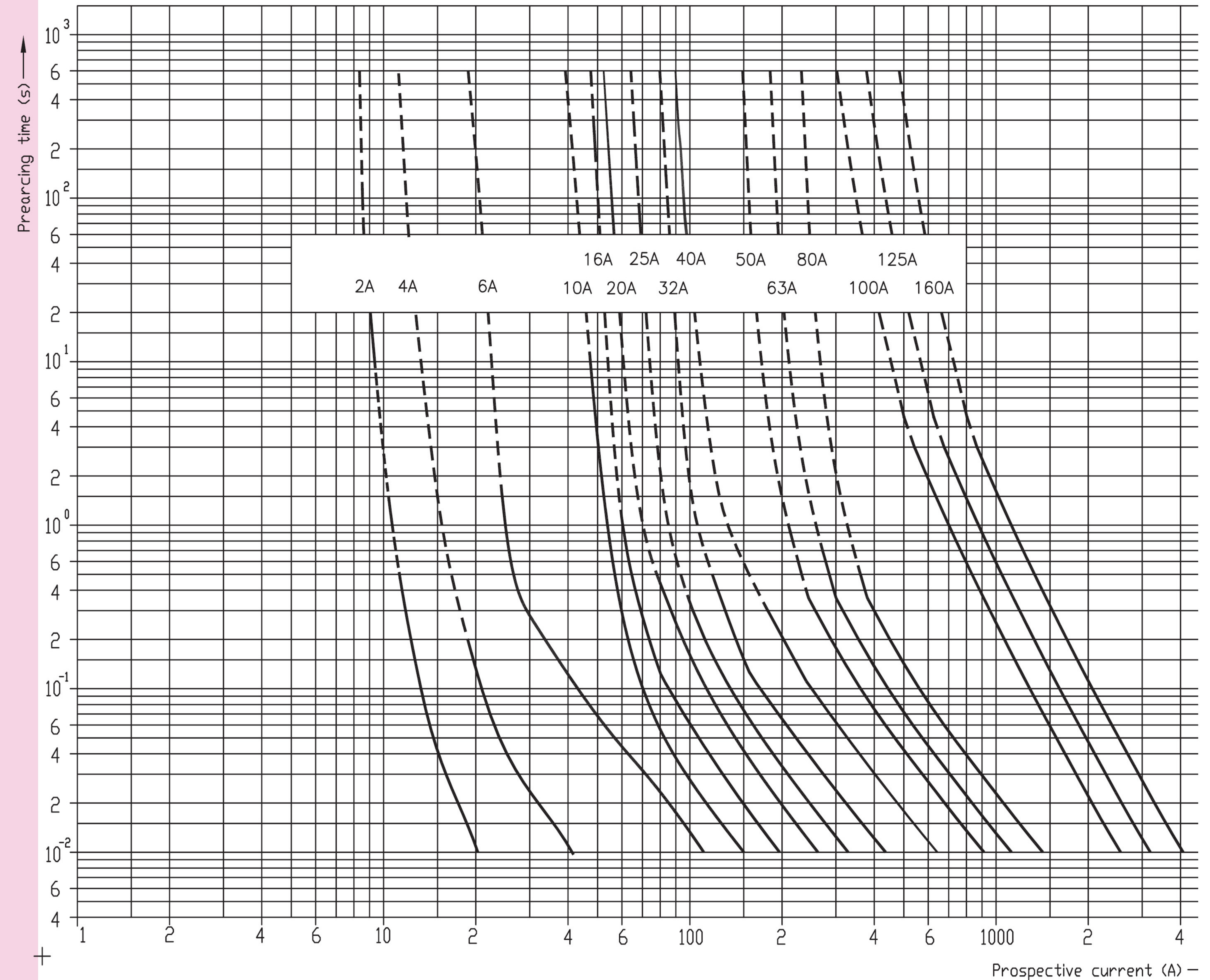
Test Tarihi / Test Date : 09.04.2020

Onaylayan / Approved by :

Tarih / Date : 09.04.2020

İHSAN DÜZGÜN

ITALWEBER SPA - Via E. Fermi, 40/42 - 20090 ASSAGO (MI) - ITALY



FUSIBILI E BASI MEDIA TENSIONE SERIE "FMT"

MEDIUM VOLTAGE FUSES AND FUSE BASES, SERIES "FMT"

EXCLUSIVELY DISTRIBUTED BY:



L4 B3 Marvex Legacy Homes, Marvex
Drive cor. A. Bonifacio, Quezon City
Phone Nos: +63 2 3734453 | 3735336
Email: info@montrelec.com.ph
Website: www.montrelec.com.ph

Descrizione

I fusibili FMT, adatti all'installazione sia all'interno che all'esterno, sono indicati per la protezione di trasformatori MT/BT e motori MT. Sono tutti corredati di percussore che fuoriesce a seguito di intervento del fusibile e, nella versione 80N e 120N, anche al seguito di riscaldamento anomalo del fusibile stesso. Il percussore dei fusibili FMT 80N e 120N fuoriesce anche al seguito di riscaldamento anomalo del fusibile stesso.

Description

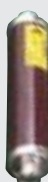
FMT fuses are suitable for indoor and outdoor applications and are ideal to protect MV/LV transformers and MV motors. They are all equipped with a striker which comes out when the fuse opens and, for the 80N and 120N versions, also when the fuse heats excessively. The striker in 80N and 120N FMT fuses comes out even when the fuse heats excessively.

Norme - Standards

CEI 32-3
IEC EN 60282-1
VDE 0670 parte 4
DIN 43625



Fusibile FMT 7,2kV
FMT 7,2kV fuse



Fusibile FMT 17,5kV
FMT 17,5kV fuse



Fusibile FMT 36kV
FMT 36kV fuse

FUSIBILI FMT PER MEDIA TENSIONE CON PERCUSSORE 50N MEDIUM VOLTAGE FMT FUSES WITH 50N STRIKER

codice IW - IW code					I _n (A) I _n (A)	conf. pack.
FMT 7,2kV	FMT 12kV	FMT 17,5kV	FMT 24kV	FMT 36kV		
1904002	1900002	1901002	1902002	1903002	2A	3
1904004	1900004	1901004	1902004	1903004	4A	3
1904006	1900006	1901006	1902006	1903006	6A	3
1904010	1900010	1901010	1902010	1903010	10A	3
1904016	1900016	1901016	1902016	1903016	16A	3
1904020	1900020	1901020	1902020	1903020	20A	3
1904025	1900025	1901025	1902025	1903025	25A	3
1904032	1900032	1901032	1902032	1903030	32A	3
1904040	1900040	1901040	1902040	1903040	40A	3
1904050	1900050	1901050	1902050	1903050	50A	3
1904063	1900063	1901063	1902063	1903063	63A	3
1904080	1900080	1901080	1902080	1903080	80A	3
1904100	1900100	1901100	1902100	1903100	100A	3
1904125	1900125	1901125	1902125	—	125A	3
1904160	1900160	1901160	1902160	—	160A	3
—	1900200	1901200	1902200	—	200A	3

FUSIBILI FMT PER MEDIA TENSIONE CON PERCUSSORE 80N MEDIUM VOLTAGE FMT FUSES WITH 80N STRIKER

codice IW - IW code					I _n (A) I _n (A)	conf. pack.
FMT 7,2kV	FMT 12kV	FMT 17,5kV	FMT 24kV	FMT 36kV		
1904006S	1900006S	1901006S	1902006S	1903006S	6A	3
1904010S	1900010S	1901010S	1902010S	1903010S	10A	3
1904016S	1900016S	1901016S	1902016S	1903016S	16A	3
1904020S	1900020S	1901020S	1902020S	1903020S	20A	3
1904025S	1900025S	1901025S	1902025S	1903025S	25A	3
1904032S	1900032S	1901032S	1902032S	1903030S	32A	3
1904040S	1900040S	1901040S	1902040S	1903040S	40A	3
1904050S	1900050S	1901050S	1902050S	1903050S	50A	3
1904063S	1900063S	1901063S	1902063S	1903063S	63A	3
1904080S	1900080S	1901080S	1902080S	—	80A	3
1904100S	1900100S	1901100S	1902100S	—	100A	3
1904125S	1900125S	1901125S	1902125S	—	125A	3
1904160S	1900160S	—	—	—	160A	3

FUSIBILI FMT PER MEDIA TENSIONE CON PERCUSSORE 120N MEDIUM VOLTAGE FMT FUSES WITH 120N STRIKER

codice IW - IW code					I _n (A) I _n (A)	conf. pack.
FMT 7,2kV	FMT 12kV	FMT 17,5kV	FMT 24kV	FMT 36kV		
1904006T	1900006T	1901006T	1902006T	1903006T	6A	3
1904010T	1900010T	1901010T	1902010T	1903010T	10A	3
1904016T	1900016T	1901016T	1902016T	1903016T	16A	3
1904020T	1900020T	1901020T	1902020T	1903020T	20A	3
1904025T	1900025T	1901025T	1902025T	1903025T	25A	3
1904032T	1900032T	1901032T	1902032T	1903030T	32A	3
1904040T	1900040T	1901040T	1902040T	1903040T	40A	3
1904050T	1900050T	1901050T	1902050T	1903050T	50A	3
1904063T	1900063T	1901063T	1902063T	1903063T	63A	3
1904080T	1900080T	1901080T	1902080T	—	80A	3
1904100T	1900100T	1901100T	1902100T	—	100A	3
1904125T	1900125T	1901125T	1902125T	—	125A	3
1904160T	1900160T	—	—	—	160A	3

FUSIBILI E BASI MEDIA TENSIONE ACCESSORI

MEDIUM VOLTAGE FUSES AND FUSE BASES ACCESSORIES



Base per fusibile FMT
uso interno
FMT fuse base
for indoor applications

BASI PER FUSIBILI FMT PER USO INTERNO O ESTERNO

FUSE BASES FOR FMT FUSES - FOR INDOOR OR OUTDOOR APPLICATIONS

codice IW IW code	tipo standard standard type	codice IW IW code	tipo con micro type with microswitch	V _n (kV) V _n (kV)	conf. pack.
uso interno - indoor use					
1905005	BPIMT5	—	—	7,2	1
1905010	BPIMT10	1905011	BPIMT10 aux	12	1
1905015	BPIMT15	1905016	BPIMT15 aux	17,5	1
1905020	BPIMT20	1905021	BPIMT20 aux	24	1
1905030	BPIMT30	1905031	BPIMT30 aux	36	1
uso esterno - outdoor use					
1906010	BPFMT10	—	—	12	1
1906015	BPFMT15	—	—	17,5	1
1906020	BPFMT20	—	—	24	1
1906030	BPFMT30	—	—	36	1

Le basi portafusibili per interno hanno un basamento in lamiera zincata e isolatori in resina epossidica mentre quelle per esterno hanno un basamento in acciaio zincato e isolatori in porcellana.

The indoor fuse bases have a galvanised steel base and resin insulators; outdoor bases have a galvanized steel base and porcelain insulators.

PINZE CONTATTI

CONTACT PLIERS

codice IW IW code	tipo type	descrizione description	conf. pack.
1905050	PZ-MT/PAL	con paletta with blade	6
1905060	PZ-MT	senza paletta without blade	6



Tappeto isolante
Insulating carpet

TAPPETI ISOLANTI INSULATING CARPETS

codice IW IW code	tipo type	tensione di prova (max kV) test voltage (max kV)	tensione di utilizzo (max kV) operating voltage (max kV)	spessore (mm) thickness (mm)	conf. metri pack. metres
1910030	WI3/100	30	26,5	3	10
1910032	WI4,5/100	40	36	4,5	10
1910035	WI6/100	40	36	6	10

Il tappeto è confezionato in rotoli da 10 metri (larghezza 1 metro). Su richiesta è possibile fornire spezzoni pretagliati larghezza 1 metro e lunghezza in multipli di 1 metro fino a 10 metri. Colore grigio, superficie antiscivolo. Con marchiatura di collaudo. Conformi alla norma CEI-IEC 1111 e CEI-ENV 61111.

The carpet is packed in 10 m rolls (1m wide). On request pre-cut pieces may be supplied, 1 m wide and length equal to a multiple of 1 m up to 10 m. Grey and slip-proof surface. Complete with testing mark stamped on the carpet. In compliance to CEI-IEC 1111 and CEI-ENV 61111.



Pedana isolante
Insulating platform

PEDANA ISOLANTE INSULATING PLATFORM

codice IW IW code	tipo type	tensione d'isolamento (kV) insulation voltage (kV)	conf. pack.
1910040	WI30	30	1

Per uso interno, realizzata in vetroresina antiscivolo. Quattro appositi piedini (h = 260 mm) in materiale isolante sono avvitati con una inclinazione tale da rendere la pedana sicura e irribaltabile. Dimensioni: 500x500x4 mm. Conforme alla norma NBN 761.01 (Belgio). Collaudo ENEL.

For indoor use. Made of slip-proof fibreglass. Four legs (h = 260 mm) made with insulating material have been bolted so as to make the platform safe and tilt-proof. Dimensions: 500x500x4 mm. In compliance with standard NBN 761.01 (Belgium) - ENEL tested

VERIFICATORE PNEUMATICO PNEUMATIC TESTER

codice IW IW code	tipo type	conf. pack.
1910025	VPG90	1

Verificatore pneumatico per il controllo, mediante gonfiaggio, di eventuali fori sui guanti isolanti. Idoneo per il controllo periodico come previsto dalla norma europea CEI EN 60903

The pneumatic tester is used to check any holes in the insulating gloves by inflation. It is suitable for periodic checks as described in European standard CEI EN 60903



Verificatore pneumatico
Pneumatic tester

FUSIBILI E BASI MEDIA TENSIONE ACCESSORI

MEDIUM VOLTAGE FUSES AND FUSE BASES ACCESSORIES



Custodia per guanti
Box for insulating gloves



Guanti dielettrici
in lattice
Latex insulating gloves



Telo isolante
Insulating cover



Kit cartelli segnalatori
Warning signs kit

CUSTODIA PER GUANTI BOX FOR INSULATING GLOVES

codice IW IW code	tipo type	descrizione description	conf. pack.
1910020	CUST/GI	in materiale plastico isolante in plastic insulating material	1

GUANTI DIELETRICI IN LATTICE LATEX INSULATING GLOVES

codice IW IW code	tipo type	tensione di prova (max kV) test voltage (max kV)	tensione di utilizzo (max kV) operating voltage (max kV)	classe class	conf. paio pack. pair
1910001	GI2,5	2,5	0,5	00	1
1910002	GI5	5	1	0	1
1910003	GI10	10	7,5	1	1
1910000	GI20	20	17	2	1
1910010	GI30	30	26,5	3	1

Lunghezza: 36 cm - Conformi alla norma europea CEI EN 60903 e alla tabella di unificazione ENEL EA 0065 - Versione standard taglia 10 (altre taglie su richiesta) - Prima di ogni utilizzo gonfiare i guanti con il verificatore pneumatico per individuare eventuali perdite e praticare ispezione visiva della loro superficie.

Length: 36 cm - In compliance with European standard CEI EN 60903 and the ENEL EA 0065 table - Standard size: 10 (other sizes on request) - Inflate the gloves using the VPG 90 pneumatic tester in order to identify any holes and perform a visual test on the glove surface before using them.

TELO ISOLANTE INSULATING COVER

codice IW IW code	tipo type	tensione di prova (max kV) test voltage (max kV)	tensione di utilizzo (max kV) operating voltage (max kV)	conf. pack.
1910038	ISOL/R	5	1	1

Telo isolante per la protezione provvisoria da contatti accidentali. Rotolo, altezza 1,4 m - Lunghezza 55 m - Accessori a corredo: PI96 (pinza isolante a molla) e GA/S (gancio in materiale plastico a S). Flessibilissimo, trasparente, spessore 0,3 mm, resistente agli olii, agli acidi, autoestinguente.

Insulating cover for temporary protection against accidental contacts. In rolls: 1,4 m high and 55 m long - Supplied accessories: PI96 (insulating spring pliers) and GA/S (S-shaped plastic hook). Highly flexible, transparent, 0,3 mm thick, oil and acid resistant, self-extinguishing cover.

KIT CARTELLI SEGNALATORI IN ALLUMINIO PER CABINE MT (DLGS 626/94) SUBSTATION WARNING SIGNS KIT IN ALUMINIUM (ITALIAN LEGISLATIVE DECREE DLGS. 626/94)

codice IW IW code	tipo type	descrizione del contenuto description of what is contained	conf. pack.
1911456	LCO KIT01	cabina elettrica electrical station	1
		dispensore di terra earth plate	1
		soccorsi d'urgenza emergency aids	1
		estintore extinguisher	1
		pericolo tensione - divieto d'accesso high voltage danger - do not entry	1
		segnalazione tensione voltage sign	1
		non effettuare manovre - lavori in corso do not operate - work in progress	1

FUSIBILI E BASI MEDIA TENSIONE ACCESSORI

MEDIUM VOLTAGE FUSES AND FUSE BASES ACCESSORIES



Dispositivo messa a terra
e corto circuito

*Earthing and short circuit
device*



Rivelatori elettronici unipolari
di presenza/assenza tensione

*Single pole electronic
voltage/no voltage detectors*



Fioretti isolanti
per fusibili M.T.

*Insulating plier devices
for MV fuses*



Fioretti isolanti
per manovra sezionatori

*Insulating plier devices
for switch-disconnectors*

DISPOSITIVO MESSA A TERRA E CORTO CIRCUITO EARTHING AND SHORT CIRCUIT DEVICE

codice IW IW code	tipo type	sez. cavi corto circuito (mm ²) short circuit cable sect. (mm ²)	conf. pack.
1910105	MT/BM	25	1
1910110 ⁽¹⁾	MT/BM-50	50	1
1910115 ⁽¹⁾	MT/BM-95	95	1

Dispositivo di messa a terra e cortocircuito per cabine e installazioni elettriche MT. Fornito con pinze di contatto universali.

(1) Modelli con certificazione di conformità alla norma CEI EN 61230.

Earthing and short circuit device for MV stations and electric installations. Supplied with universal contact pliers.

(1) Models with certificate of conformity to CEI EN 61230 standard.

RIVELATORI ELETTRONICI UNIPOLARI DI PRESENZA/ASSENZA TENSIONE SINGLE POLE ELECTRONIC VOLTAGE/NO VOLTAGE DETECTORS

codice IW IW code	tipo type	campo di misura (kV) voltage range (kV)	conf. pack.
1910080	RMT 1133	3-36	1
1910081 ⁽¹⁾	RMT 1030	3-52	1
1910082 ⁽¹⁾	RMT 3090	10-400	1

Segnale sonoro e luminoso (RMT 1133 solo segnale luminoso), dispositivo di autocontrollo incorporato. Per utilizzo interno o esterno. Da utilizzare con fioretto apposito.

(1) Modelli con certificato di conformità alla norma CEI IEC 61243-1.

With sound and light signal (RMT 1133 only light signal), with built-in self-check device. For indoor and outdoor use. To be used with corresponding plier device.

(1) Models with certificate of conformity to standard CEI IEC 61243-1.

FIORETTI ISOLANTI PER RIVELATORI DI TENSIONE INSULATING PLIER DEVICES FOR VOLTAGE DETECTORS

codice IW IW code	tipo type	lunghezza (m) length (m)	conf. pack.
1910051	FRTT 1,5	1,5	1
1910061	FRTT 2	2	1

FIORETTI ISOLANTI PER FUSIBILI M.T. INSULATING PLIER DEVICES FOR MV FUSES

codice IW IW code	tipo type	lunghezza (m) length (m)	conf. pack.
1910100	EF 30	1,5	1

Per l'estrazione e l'innesto di fusibili MT fino a 30kV. Completo di morsa in vetroresina e dispositivo dinamometrico che limita la coppia di serraggio e garantisce la presa senza danneggiare il fusibile. Conforme ai capitolati ENEL.

For pulling out and plugging in MV fuses up to 30kV. Complete with fibreglass vice and a dynamometric device which limits the tightening torque and makes sure that the fuse is secured in its position without damaging it. In compliance with ENEL specifications.

FIORETTI ISOLANTI PER MANOVRA SEZIONATORI INSULATING PLIER DEVICES FOR SWITCH-DISCONNECTORS

codice IW IW code	tipo type	lunghezza (m) length (m)	conf. pack.
1910050	FRT 1,5	1,5	1
1910060	FRT 2	2	1
1910070	FRT 2,5	2,5	1
1910075	FRT 3/2	3 (2 pz/pcs)	1 set

Fioretti isolanti in tubo di vetroresina per la manovra dei sezionatori. Completati di paramano, ganci in metallo e raccordi rapidi di giunzione per i modelli a più elementi. Collaudo ENEL - Certificato dell'EN Galileo Ferraris di Torino - Certificato di conformità alla norma NBN 761.03 (Belgio).

Fibreglass insulating plier devices for switch-disconnector. Complete with hand protector, metal hooks and quick connectors for multi element models. ENEL testing - Certificate awarded by the IEN "Galileo Ferraris" of Tourin - Certificate of Conformity to standard NBN 761.03 (Belgium).

DIMENSIONI E CARATTERISTICHE FUSIBILI SERIE "FMT"

DIMENSIONS AND SPECIFICATIONS SERIES "FMT" FUSES

FUSIBILI SERIE "FMT" SERIES "FMT" FUSES

Caratteristiche tecniche - Technical specifications

I fusibili per media tensione della serie FMT sono del tipo "combinato" ad alto potere d'interruzione e limitatori di corrente. La polvere di quarzo contenuta, serve per ottenere una rapida estinzione dell'arco, limitando l'ampiezza del corto-circuito, evitando così tutti gli effetti dinamici che si verificherebbero nel caso non ci fosse una protezione idonea. Nella parte superiore il fusibile è dotato di un percussore la cui corsa e l'energia liberata permettono di sganciare le apparecchiature collegate al fusibile. Il percussore assolve anche la funzione di indicatore di avvenuta fusione.

Scelta del fusibile

Scelta della tensione nominale U_n

La tensione nominale del fusibile deve essere uguale o superiore a quella di linea.

Scelta della corrente nominale I_n

Per ottenere una migliore limitazione di corrente, e quindi una migliore protezione, la corrente nominale deve essere scelta il più vicino possibile alla corrente nominale dell'apparecchiatura da proteggere, tenendo conto delle seguenti limitazioni:

- correnti relative al carico massimo
- selettività verso altri fusibili
- condizioni di raffreddamento difficoltose
- correnti di spunto di motori o trasformatori

Dati di targa

I simboli utilizzati sulla targa hanno il seguente significato:

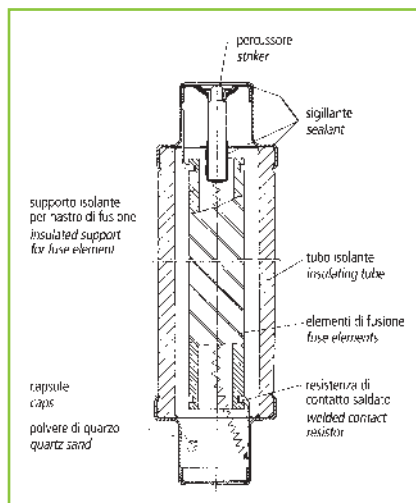
I_n = corrente termica nominale del fusibile

U_n = tensione nominale

I_{min} = corrente minima di interruzione

I_k = potere di interruzione del fusibile

Una freccia indica inoltre la direzione di uscita del percussore e dell'indicatore di fusione.



The medium voltage fuses FMT series belong to the backup class, they have a high breaking capacity and are current-limiting. The quartz sand contained in these fuses enables quick extinction of the arc and reduces short circuits, preventing the dynamic effects that would take place if suitable protection was not guaranteed. The upper part of the fuse features a striker whose travel and power enable the equipments connected to the fuse to be released. The striker is also used to indicate that melting has taken place.

Selecting the fuse

Selection of rated voltage U_n

The fuse rated voltage must be equal to or higher than the line voltage.

Selection of current rating I_n

For better current limiting and consequently higher protection the current rating must be as equal as possible to the current rating of the equipment to be protected. When selecting the current rating, consider the following:

- maximum load currents;
- selectivity towards other fuses;
- difficult cooling conditions;
- inrush current of motors or transformers.

Identification plate data

The symbols used on the identification plate have the following meaning:

I_n = thermal current rating of the fuse

U_n = rated voltage

I_{min} = minimum breaking current

I_k = breaking capacity of the fuse

An arrow indicates the output direction of the striker and blown fuse indicator.

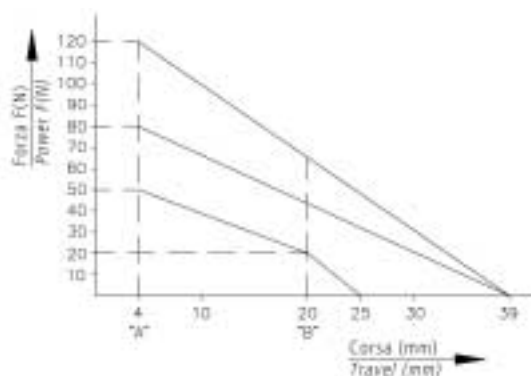


Diagramma forza-corsa del percussore - Striker power-travel diagram

DIMENSIONI E CARATTERISTICHE FUSIBILI SERIE "FMT"

DIMENSIONS AND SPECIFICATIONS SERIES "FMT" FUSES

FUSIBILI SERIE "FMT" SERIES "FMT" FUSES

Dimensioni d'ingombro in mm - Dimensions in mm

Serie "FMT" 7,2 kV - Series "FMT" 7,2 kV

I_n (A) I_n (A)	L L	Ø Ø	peso (Kg) weight (Kg)
2A	192	53	1,1
4A	192	53	1,1
6A	192	53	1,1
10A	192	53	1,1
16A	192	53	1,1
20A	192	53	1,1
25A	192	53	1,1
32A	192	53	1,1
40A	192	53	1,1
50A	192	68	1,7
63A	192	68	1,7
80A	192	68	1,7
100A	192	85	2,7
125A	192	85	2,7
160A	192	85	2,7

Serie "FMT" 12 kV - Series "FMT" 12 kV

I_n (A) I_n (A)	L L	Ø Ø	peso (Kg) weight (Kg)
2A	292	53	1,6
4A	292	53	1,6
6A	292	53	1,6
10A	292	53	1,6
16A	292	53	1,6
20A	292	53	1,6
25A	292	53	1,6
32A	292	53	1,6
40A	292	53	1,6
50A	292	68	2,8
63A	292	68	2,8
80A	292	68	2,8
100A	292	85	4,0
125A	292	85	4,0
160A	292	85	4,0
200A	292	75	3,0

Serie "FMT" 17,5 kV - Series "FMT" 17,5 kV

I_n (A) I_n (A)	L L	Ø Ø	peso (Kg) weight (Kg)
2A	367	53	1,9
4A	367	53	1,9
6A	367	53	1,9
10A	367	53	1,9
16A	367	53	1,9
20A	367	53	1,9
25A	367	53	1,9
32A	367	53	1,9
40A	367	53	1,9
50A	367	68	3,1
63A	367	68	3,1
80A	367	68	3,1
100A	367	85	4,6
125A	367	85	4,6
160A	367	75	3,6
200A	367	75	3,6

Serie "FMT" 24 kV - Series "FMT" 24 kV

I_n (A) I_n (A)	L L	Ø Ø	peso (Kg) weight (Kg)
2A	442	53	2,3
4A	442	53	2,3
6A	442	53	2,3
10A	442	53	2,3
16A	442	53	2,3
20A	442	53	2,3
25A	442	53	2,3
32A	442	53	2,3
40A	442	53	2,3
50A	442	68	3,9
63A	442	68	3,9
80A	442	68	3,9
100A	442	85	5,8
125A	442	85	5,8
160A	442	75	4,5
200A	442	75	4,5

Serie "FMT" 36 kV - Series "FMT" 36 kV

I_n (A) I_n (A)	L L	Ø Ø	peso (Kg) weight (Kg)
2A	537	53	2,8
4A	537	53	2,8
6A	537	53	2,8
10A	537	53	2,8
16A	537	53	2,8
20A	537	53	2,8
25A	537	68	4,7
32A	537	68	4,7
40A	537	68	4,7
50A	537	85	7,0
63A	537	85	7,0
80A	537	75	5,1
100A	537	75	5,1



DIMENSIONI E CARATTERISTICHE FUSIBILI SERIE "FMT"

DIMENSIONS AND SPECIFICATIONS SERIES "FMT" FUSES

FUSIBILI SERIE "FMT" SERIES "FMT" FUSES

Caratteristiche tecniche - Technical specifications

V _n (kV)	I _n (A)	I _k (kA)	I _{min} (A)	V _n (kV)	I _n (A)	I _k (kA)	I _{min} (A)	V _n (kV)	I _n (A)	I _k (kA)	I _{min} (A)
7,2	6	50	25	12	6	50	25	17,5	6	50	25
	10	50	46		10	50	46		10	50	46
	16	50	60		16	50	60		16	50	60
	20	50	80		20	50	80		20	50	80
	25	50	105		25	50	105		25	50	105
	32	50	130		32	50	130		32	50	130
	40	50	178		40	50	178		40	50	178
	50	50	220		50	50	220		50	50	220
	63	50	270		63	50	270		63	50	270
	80	50	360		80	50	360		80	50	360
	100	50	540		100	50	540		100	50	540
	125	50	610		125	50	610		125	50	610
	160	50	810		160	50	810		160	25	640
					200	31,5	840		200	25	840

V _n (kV)	I _n (A)	I _k (kA)	I _{min} (A)	V _n (kV)	I _n (A)	I _k (kA)	I _{min} (A)
24	6	50	25	36	6	40	25
	10	50	46		10	40	46
	16	50	60		16	40	60
	20	50	80		20	40	80
	25	50	105		25	40	105
	32	50	130		32	40	130
	40	50	178		40	40	178
	50	50	220		50	40	220
	63	50	270		63	40	279
	80	50	360		80	25	330
	100	50	540		100	25	400
	125	50	610				
	160	25	640				
	200	25	840				

Tabella per la protezione dei trasformatori - Transformers protection table

Potenza nominale trasf. (kVA) <i>Transf. rated power (kVA)</i>	6/7,2 kV			
	Corr. nominale trasformatore (A) <i>Transformer rated current (A)</i>		Corr. nominale fusibile (A) <i>Fuse rated current (A)</i>	
	6 kV	7,2 kV	I _{min} (A)	I _{max} (A)
50	4,8	4,1	10	16
75	7,2	6,2	16	20
100	9,6	8,2	25	32
125	12,1	10,3	32	40
160	15,4	13,2	40	50
200	19,2	16,4	40	50
250	24,1	20,6	50	63
315	30,3	26,0	50	63
400	38,5	33,0	63	80
500	48,1	41,2	80	100
630	60,6	51,9	100	125
800	76,9	66,0	100	125
1000	96,2	82,5	125	160

Potenza nominale trasf. (kVA) <i>Transf. rated power (kVA)</i>	10/12 kV			
	Corr. nominale trasformatore (A) <i>Transformer rated current (A)</i>		Corr. nominale fusibile (A) <i>Fuse rated current (A)</i>	
	10 kV	12 kV	I _{min} (A)	I _{max} (A)
50	2,9	2,4	6	10
75	4,3	3,6	10	16
100	5,8	4,8	10	16
125	7,2	6,0	16	20
160	9,2	7,7	20	25
200	11,5	9,6	25	32
250	14,4	12,0	32	40
315	18,2	15,2	40	50
400	23,0	19,2	50	63
500	28,8	24,0	50	63
630	36,4	30,3	63	80
800	46,2	38,5	80	100
1000	57,7	48,1	100	125

Potenza nominale trasf. (kVA) <i>Transf. rated power (kVA)</i>	20/24 kV			
	Corr. nominale trasformatore (A) <i>Transformer rated current (A)</i>		Corr. nominale fusibile (A) <i>Fuse rated current (A)</i>	
	20 kV	24 kV	I _{min} (A)	I _{max} (A)
50	1,5	1,2	4	6
75	2,2	1,8	4	6
100	2,9	2,4	6	10
125	3,6	3,0	6	10
160	4,6	3,8	10	16
200	5,8	4,8	10	16
250	7,2	6,0	16	20
315	9,1	7,6	20	25
400	11,5	9,6	25	32
500	14,4	12,0	32	40
630	18,1	15,2	40	50
800	23,1	19,2	50	63
1000	28,8	24,1	50	63

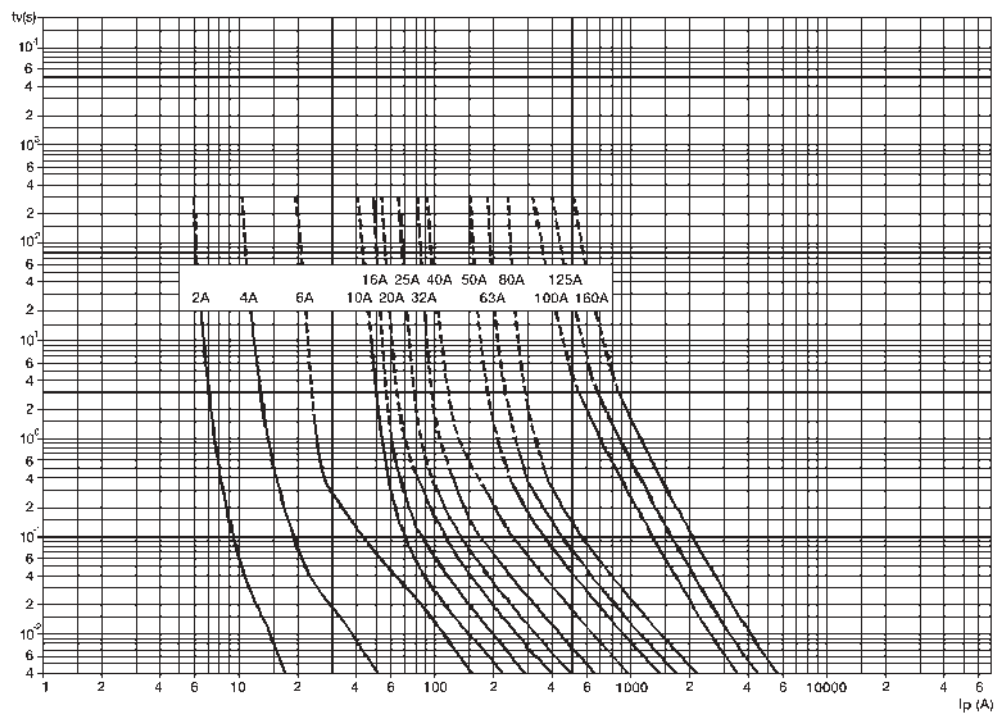
Potenza nominale trasf. (kVA) <i>Transf. rated power (kVA)</i>	30/36 kV			
	Corr. nominale trasformatore (A) <i>Transformer rated current (A)</i>		Corr. nominale fusibile (A) <i>Fuse rated current (A)</i>	
	30 kV	36 kV	I _{min} (A)	I _{max} (A)
50	0,96	0,8	2	4
75	1,4	1,2	4	6
100	1,9	1,6	6	10
125	2,4	2,0	6	10
160	3,1	2,6	6	10
200	3,8	3,2	10	16
250	4,8	4,0	10	16
315	6,1	5,1	16	20
400	7,7	6,4	20	25
500	9,6	8,0	20	25
630	12,1	10,1	25	32
800	15,4	12,8	40	50
1000	19,2	16,0	50	63

DIMENSIONI E CARATTERISTICHE FUSIBILI SERIE "FMT"

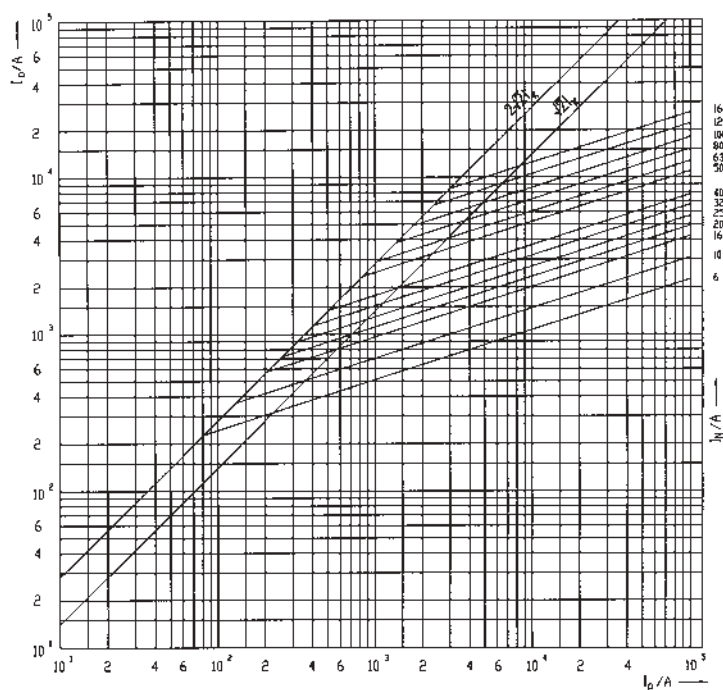
DIMENSIONS AND SPECIFICATIONS SERIES "FMT" FUSES

FUSIBILI SERIE "FMT" SERIES "FMT" FUSES

Caratteristiche tecniche - Technical specifications



Caratteristiche d'intervento tempo-corrente
Time-current characteristics



Caratteristiche di limitazione
Cut-off characteristics

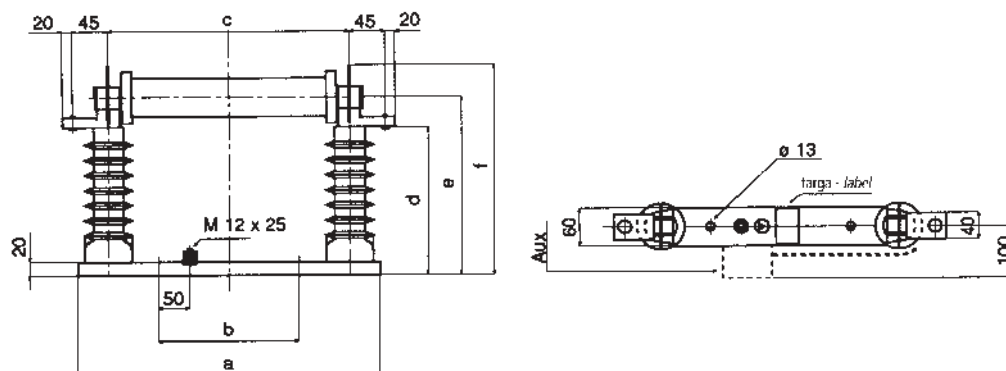
DIMENSIONI E CARATTERISTICHE BASI PORTAFUSIBILI SERIE "FMT"

DIMENSIONS AND SPECIFICATIONS SERIES "FMT" FUSE BASES

BASI PORTAFUSIBILI SERIE "FMT" FUSE BASES SERIES "FMT"

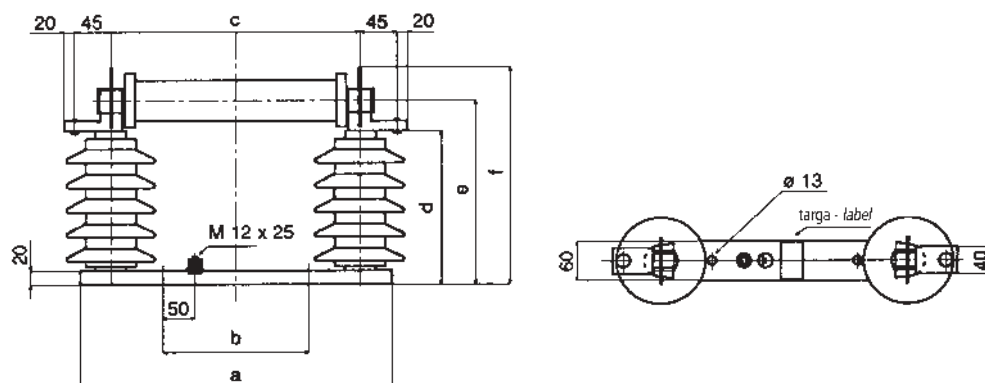
Dimensioni d'ingombro in mm - Dimensions in mm

Base per interno - Base for indoor use



V_n (kV) V_n (kV)	dimensioni - dimensions					
	a	b	c	d	e	f
12	405	205	325	152	195	250
17,5	480	280	400	197	240	295
24	555	335	475	252	295	350
36	650	450	570	332	375	430

Base per esterno - Base for outdoor use



V_n (kV) V_n (kV)	dimensioni - dimensions					
	a	b	c	d	e	f
12	405	205	325	179	224	277
17,5	480	280	400	227	270	325
24	555	335	475	252	295	350
36	650	450	570	337	380	435

MEDIA TENSIONE
MEDIUM VOLTAGE



İTER-TEKNİK

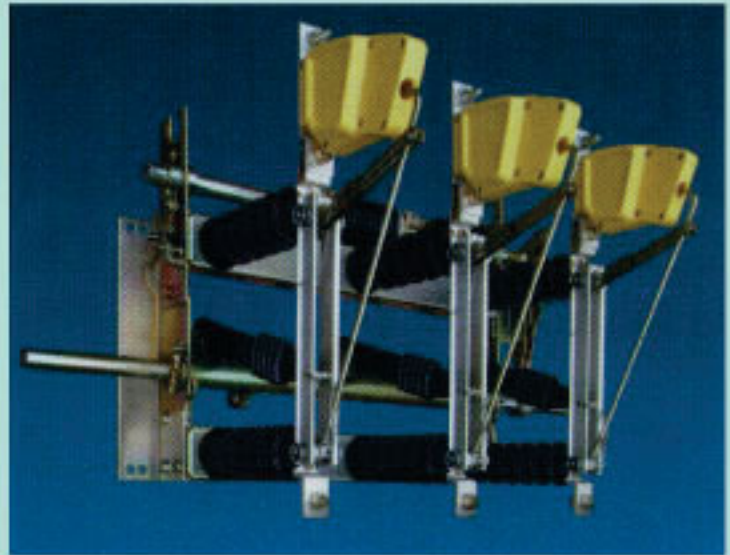
ELEKTRİK TURİZM TİCARET ve SAN. LTD. ŞTİ.

INDOOR LOADBREAK SWITCH (TYPE H 22)

• THREE - POLE

• RATED VOLTAGE 12kV, 24kV, 36kV

• RATED CURRENT 630 A AND 1250 A



EXCLUSIVELY DISTRIBUTED BY:



L4 B3 MARVEX LEGACY HOMES
MARVEX DRIVE A. BONIFACIO, QUEZON CITY
PHONE NUMBERS: +632 3734453/3735336

EMAIL ADDRESS: montrelec@gmail.com

Website: www.montrelec.com.ph

INDOOR LOADBREAK SWITCH (TYPE H 22)

- ✓ INDOOR LOADBREAK SWITCH (TYPE H 22)
- ✓ TECHNICAL DATA
- ✓ TYPE H 22 EK
- ✓ TYPE H 22 EA
- ✓ TYPE H 22 SEA
- ✓ INDOOR LOADBREAK SWITCHES H 22 EK- 630 A
- ✓ INDOOR LOADBREAK SWITCHES H 22 EA- 630 A
- ✓ INDOOR LOADBREAK SWITCHES H 22 SEA- 630 A

INDOOR LOADBREAK SWITCH (TYPE H 22)

Load break switches have been developed to fill the big gap between disconnectors and circuit-breakers in medium voltage switching installations. They have a big range of usage due to their simple and economic construction as they can break and make under load (depending on their type they have a rated breaking power of 6- 25 MVA). The misuse of disconnectors in places where loadbreak switches can be used will lead to 3-5 times more unnecessary expenses.

The loadbreak switches we have started producing in 1970 with the technical helps of the company FRITZ DRIESCHER/ Germany are distinguished by simple design, absolute reliability in operation and easy actuation.

They master the daily loads exerted under normal switching duty for interrupting ring feeders, disconnecting network transformers and such with very high operating frequencies and a minimum amount of maintenance, at the same time having excellent breaking capacities and functions. Owing these characteristics they are much demanded in Germany and in our country.



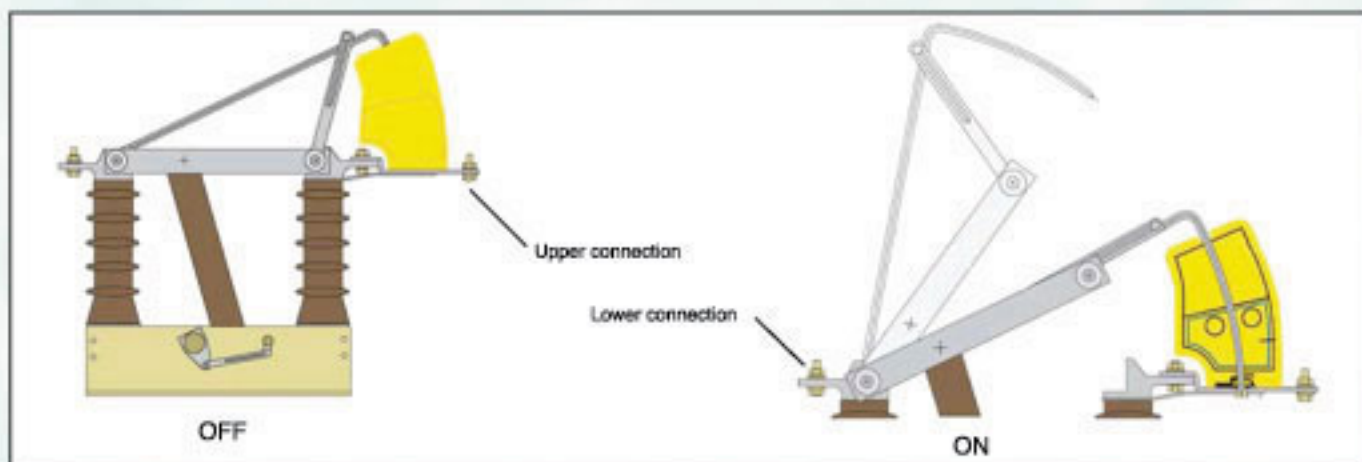
They are produced for indoor and outdoor use. Their quick breaking and making capacities are activated by spring action. The breaking and making speed depends on the movement of the operator and therefore the breaking speed is approximately 0.1 seconds. During making, first the main contacts, and then the auxiliary quick breaking contacts are activated. During breaking, first the main contacts, and then the quick breaking contact pins which take on the load for a very short time, break the circuit. Special hard metal pieces, which are resistant to high temperatures are added on the tips of the quick breaking contact pins. The arcs that arise between this metal tip and the stationary contact during breaking is extinguished within the arc extinguishing units. The arc extinguishing time is approximately 20-45 milliseconds. At low currents the arc is extinguished by deionising action due to the cooling effect of the walls.

Arc extinction is achieved in the higher current range by the arc extinguishing gases produced in the pressure chamber flowing out into the expansion chamber. Due to this rational combination of several extinguishing principles the entire current range of the load-break switch is effectively covered in all cases.

Since neither an arc extinguishing liquid nor compressed air are required, the arcing chambers are maintenance free.

Operation is manual, but if necessary it could be by electromotor command.

Mounting is generally vertical, but if desired, it could be mounted horizontally (picture 2) or to the ceiling. In this case, a note must be given during ordering so that the adjustments will be made accordingly. Also it must be realized that horizontal mounting decreases the breaking capacity by 20%.



Picture 2

Technical Data

DIN VDE 0670 part 301 / IEC 60265-1								
Rated voltage	Ur	kV	12		24		36	
Rated frequency	fr	Hz	50		50		50	
Rated-current	Ir	A	630	1250	630	1250	630	1250
Rated-peak withstand current	Ip	kA	50	75	50	75	32	75
Rated-short-time current	Ik	kA	20	30	20	30	12.5	30
Rated-making current	Ima	kA	50	40	35	30	20	20
Rated-breaking current	I1	A	630	1250	630	1250	400	1000
Rated-loop breaking current	I2a	A	630	1250	630	1250	630	1250
Rated-transformer off-load breaking current	I3	A	120	120	50		40	
Rated-cable charging breaking current	I4a	A	90	90	35		20	

1) These values also apply to earthing switches

Insulation levels to VDE 0670, part 1000 / IEC 60694					
Rated voltage	Ur	kV	12	23	36
Rated-impulse withstand voltage 1,2/50	Uw				
Phase - Earth		kV	75	125	170
Phase - Phase		kV	75	125	170
Open Gap		kV	85	145	195

1) TYPE H 22 EK

To assure greater application fields, there are 3 types to suit all demands:

Has one switch spring. It is not switch locked, therefore is not suitable for automatic breaking. Function is manual.

Application: Where automatic breaking is not necessary, this type can be used for breaking-making under load, load switching and ring circuits with great ease and safety, while being attentive to the values given in table 1. In such establishments protection from short circuits and default is obtained generally by the main circuit breakers in the switch installations. If, due to the formation of the establishment, protection from short circuits is necessary where the load-break switches are, then fuses can be mounted on top or below the switch

As an example: If we think of a H22 EK switch in a 36 kV. system where
 $I_r=630$ Amps. Rated breaking current $I_1(20 \text{ breakings})=400$ Amps (20,5 MVA)
Load-breaking current $I_1(200 \text{ breakings})= 40$ Amps (2000 kVA)

Therefore, according to the choice of the establishment this switch can be used for switching between 20500 kVA and 2000 kVA, safely.

After the maximum number of breakings is reached, it is advisable to change the arc units and contacts. Under capacitive load, in a capacitor establishment, breaking current is 20 Amps, that is in 36 kV systems it is 1000 kVAR.

2) TYPE H 22 EA

Quick making-quick breaking (with automatic breaking)

It is operated by two switch springs, one making and one breaking. The switch is locked, therefore it is possible to obtain automatic breaking. Breaking can be manual if the operator so desires, or automatic by the addition of a relay or by fuse alert. The addition of a release coil is also possible.



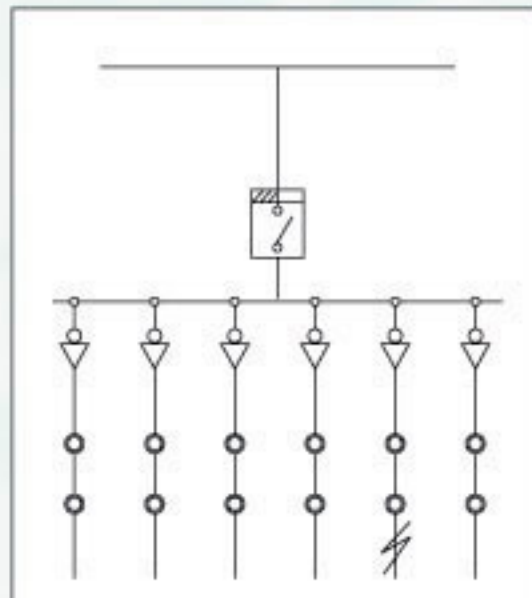
H 22 EA (Picture 3)

Making is only possible manually by the command of the operator.

Application: Can be used everywhere that the H22 EK (explained in item 1 above) is used, if remote breaking by the use of a magnet or if automatic breaking by the use of a relay is needed.

Example of application in star-distribution systems:

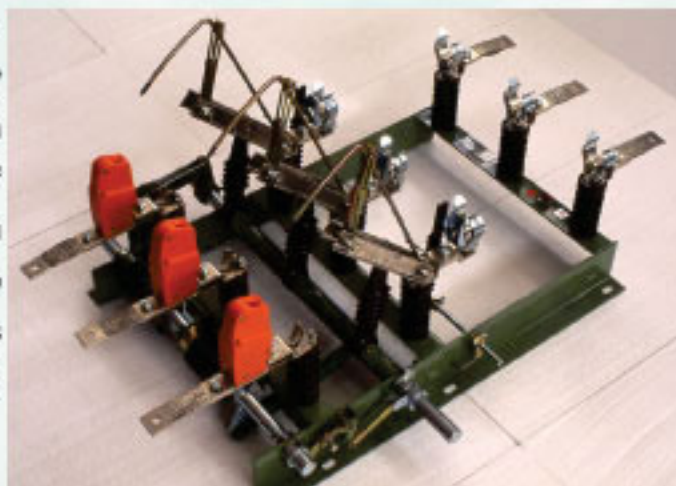
Most of the short circuit faults (approximately 70%) occurring at the distribution branches are short term and temporary. If at the beginning of the distribution branch a load-break switch is used, because it acts as a fuse, in less than 10 milliseconds, in all short circuit cases, even if temporary, it will lead to the breaking of the switch and the circuit. This situation will lead to costly and uneconomic results in large establishments. It is also possible to separate the branch where permanent faulty short circuit occurs, by using not fuses but a special relay in H22EA load-break switches which are suitable for automatic breaking (Picture 4).



Picture 4

3) TYPE H 22 SEA (Picture 5)

It is the same as type H22 EA (explained in item 2 above) with the addition of fuses from below. The fuses should be the mechanical type, namely H220/ACT or H221/ACT with striker pin. This pin has a striking force of 80-100 Newton. In case of default, when one of its fuses blow, the striker pin activates the mechanism of the switch leading to automatic breaking. As the breaking activity takes place after the blowing of the fuse, while breaking, the switch will be under normal load.

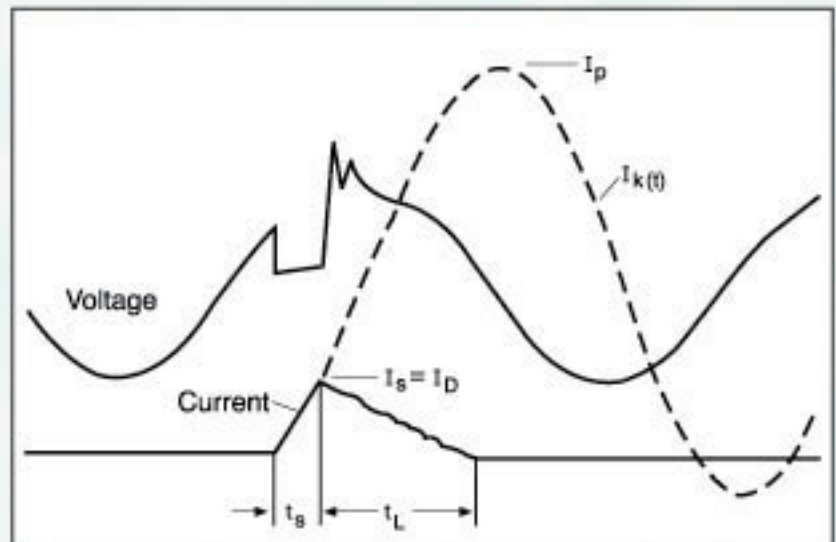


H 22 SEA (Picture 5)

Application:

In general, they are used for the protection of transformers. The most effective and economic protection of the transformer from OVERLOAD is from the secondary side (low voltage). Whereas, protection against FAULT currents and SHORT CIRCUITS are obtained by the primary side (high voltage), for which the best equipment are the current limiting fuses. After one of the fuses blow, the H22 SEA load-break switch automatically breaks the circuit in 3 phases, preventing the establishment to act on one or two phases. It is possible to have automatic breaking by the addition of a releasing magnet to the switch, or by the impulse (alert) coming from the Buscholz relay or from the thermometer on the transformer.

I_S	Melting current
I_D	Cut-off current
$I_{k(t)}$	Prospective short-circuit current (fuse replaced by metallic link)
I_p	Impulse short-circuit current
t_s	Pre-arcing time
t_L	Arcing time



Picture 6

As the automatic breaking of the switch will be active in times of default, it should be understood that it will only be if one of the fuses are blown and thus breaking activity will naturally be under normal load. For this reason, in transformer applications, the fuses short circuit breaking capacities will let us identify the distribution net where the load-break switches with fuses will be used. As an example, in a line where the short circuit load is 800 MVA, the fuses of the load-break switch to be used in front of the distribution transformer should have a breaking capacity of at least 800 MVA. The breaking capacity of the load-break switch which is lower (likely 10 MVA) has nothing to do with the short circuit load of the line, and is only related to the normal load of the circuit it will break.

Only as a very small possibility, if the operator manually brings the switch to the breaking position, it could be that a fault circuit arises which is too small to blow the fuse but still big enough than the power of the switch. Even though this is a very small possibility, it is still possible to prevent the condition with fuses in this way:

The total breaking period of the switch is 100 milliseconds. In case a fuse which can break a circuit equal to the maximum breaking capacity of the switch in 100 milliseconds is used, then, when the switch breaks, it will never be loaded more than its' capacity.

Example:

A load-break switch H22 SEA 30/36 Kv, 630 A.

a) Rated breaking current $I_1 = 400$ A (TABLE 1)

b) The fuse which can break this 400 A circuit in 100 milliseconds is

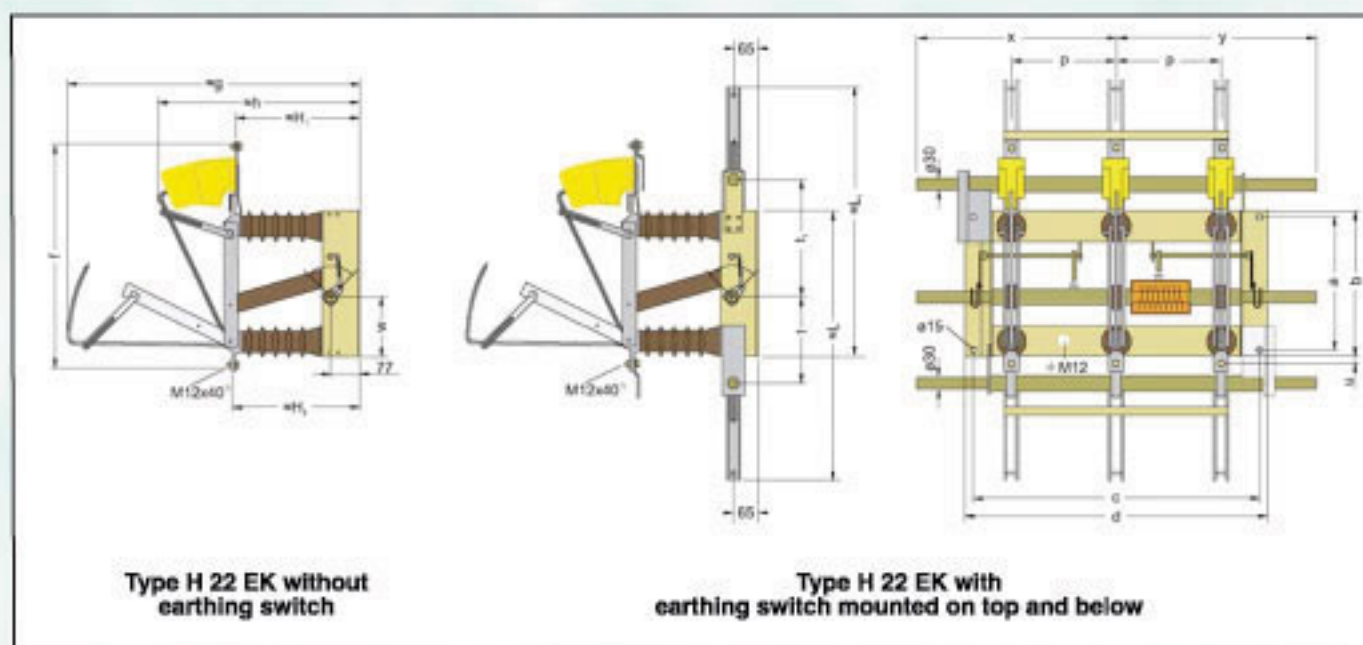
$I_r = 50$ A. (refer to the time-current characteristics in our fuse catalogue)

c) The transformer where a $I_r = 50$ A. fuse can be used is a 1250 kVA

(refer to our fuse catalogue)

This means that in 36 kV installations, for transformers up to 1250 kVA, this load-break switch can be used safely.

THREE POLE-LOAD BREAK EARTHING SWITCH H22 EK - H22 EKY QUICK MAKING-QUICK BREAKING (no automatic breaking capability)



Picture 7

Ur kV	Ir A	L	L ₁	a	b	c	d	e	f	g	h	H ₁	H ₂	p	t	t ₁	w	x/y	H22 EK	H22 EKY	
																				Without mechanical interlocking	With mechanical interlocking
12	400	566	593	280	310	600	640	250	468	596	408	245	235	210	195	310	115	425	32kg	42 kg	45 kg
	630								483	604											
17.5	400	681	718	350	380	710	750	300	545	730	498	298	310	275	225	340	155	550	45kg	58 kg	61,5 kg
	630								565	740											
36	400	926	971	450	500	1000	1040	400	645	964	632	433	445	400	255	420	195	800	73kg	89 kg	93 kg
	630								665	974											

The following can be acquired upon demand:

- For the 12kV series, phase intervals of $p=155\text{mm}$
- Greater phase intervals
- Phase interval plates

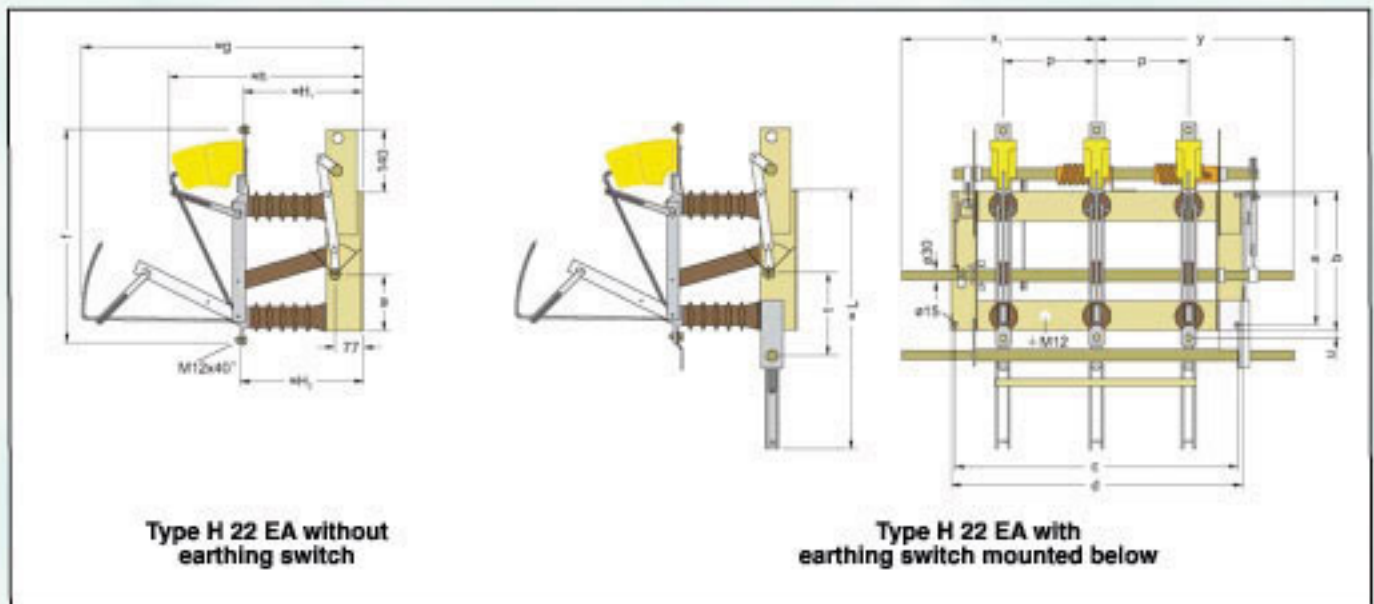
Manual activation:

- by the use of type T/T activation mechanism
- by the use of type D-Z activation mechanism
- by an isolated switch rod and 320 mm toothed activating lever.

Can be supplied with an auxiliary switch.

The weights given are for switches earthed from above or under.

THREE POLE LOAD-BREAK EARTHING SWITCH H22 EA- H22 EAY QUICK MAKING-QUICK BREAKING (with automatic breaking capability)



Picture 8

VDE-Class	Rated Current	a	b1	c	d	e	f	g	h	H ₁	H ₂	p	t	r	w	x/y	H22 EA	H22 EKY Weight Approx	
																		Without mechanical interlocking	With mechanical interlocking
12	400	280	450	600	640	250	468	596	408	245	255	210	195	155	115	425	43 kg	53 kg	56 kg
	630						483	604											
17.5	400	350	520	710	750	300	545	730	498	298	310	275	225	155	155	550	57 kg	68 kg	72 kg
	630						565	740											
36	400	450	640	1000	1040	400	645	964	632	433	445	400	255	165	195	800	90 kg	105 kg	109 kg
	630							665	974										

The following can be acquired upon demand:

- For the 12 kV series, phase intervals of $p=155$ mm
- Greater phase intervals
- Phase interval plates

Manual activation:

- by the use of type T/T activation mechanism
- by the use of type D-Z activation mechanism
- by an isolated switch rod and 320 mm toothed activating lever.

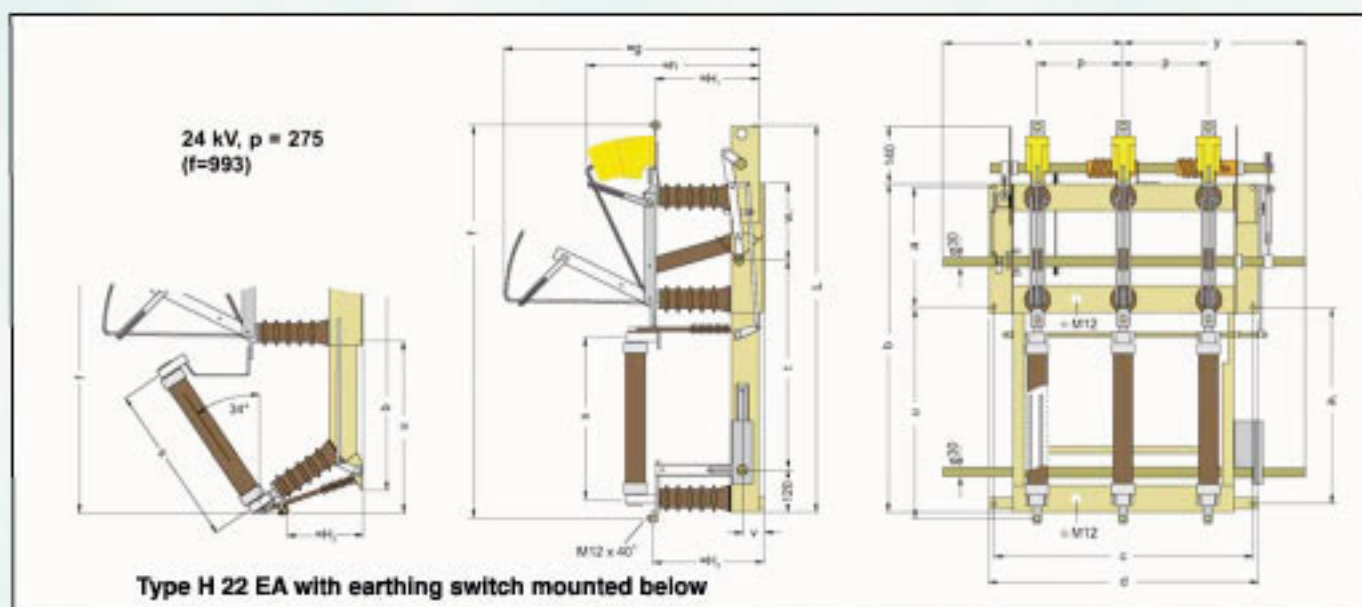
If demanded, the H22 EA load-break switch can be supplied with:

1) Auxiliary switch

2) Release coil

- 110 v. or 220 v. alternating current
- 24, 60, 110, or 220 v. direct current

THREE POLE, INDOOR, LOAD-BREAK SWITCH H22 SEA
QUICK MAKING- QUICK BREAKING (with automatic breaking capability)
with mechanical breaking from below/striker pin fuse



Picture 9

Upon demand, H22 SEA load-break switches can be equipped with the following:

- 1 . Earthing switch from below or top (with/without quick making with/without mechanical interlocking)
- 2 . Position auxiliary switch
- 3 . Release coil
 - 110 v or 220 v alternating current
 - 24, 60, 110 OR 220 v direct current

Manual activation:

- by the use of type T/T activation mechanism
- by the use of type D-Z activation mechanism
- by an isolated switch rod.

VDE-Class	Rated current	a1	a	b1	c	d	e	f	~g	~h	~H1	~H2	p	r	s	w1	x/y	Weight Approx
12	400	420	280	870	600	640	250	920	596	408	245	-	210	155	325	195	425	53kg
17,5	400	540	350	1100	710	750	300	1130	730	498	298	310	275	155	475	225	550	74kg
36	400	660	450	1300	1000	1040	400	1340	964	632	433	440	400	165	570	305	800	114kg

For the 12 kV series, phase interval $p=155$ mm. can be obtained upon demand.



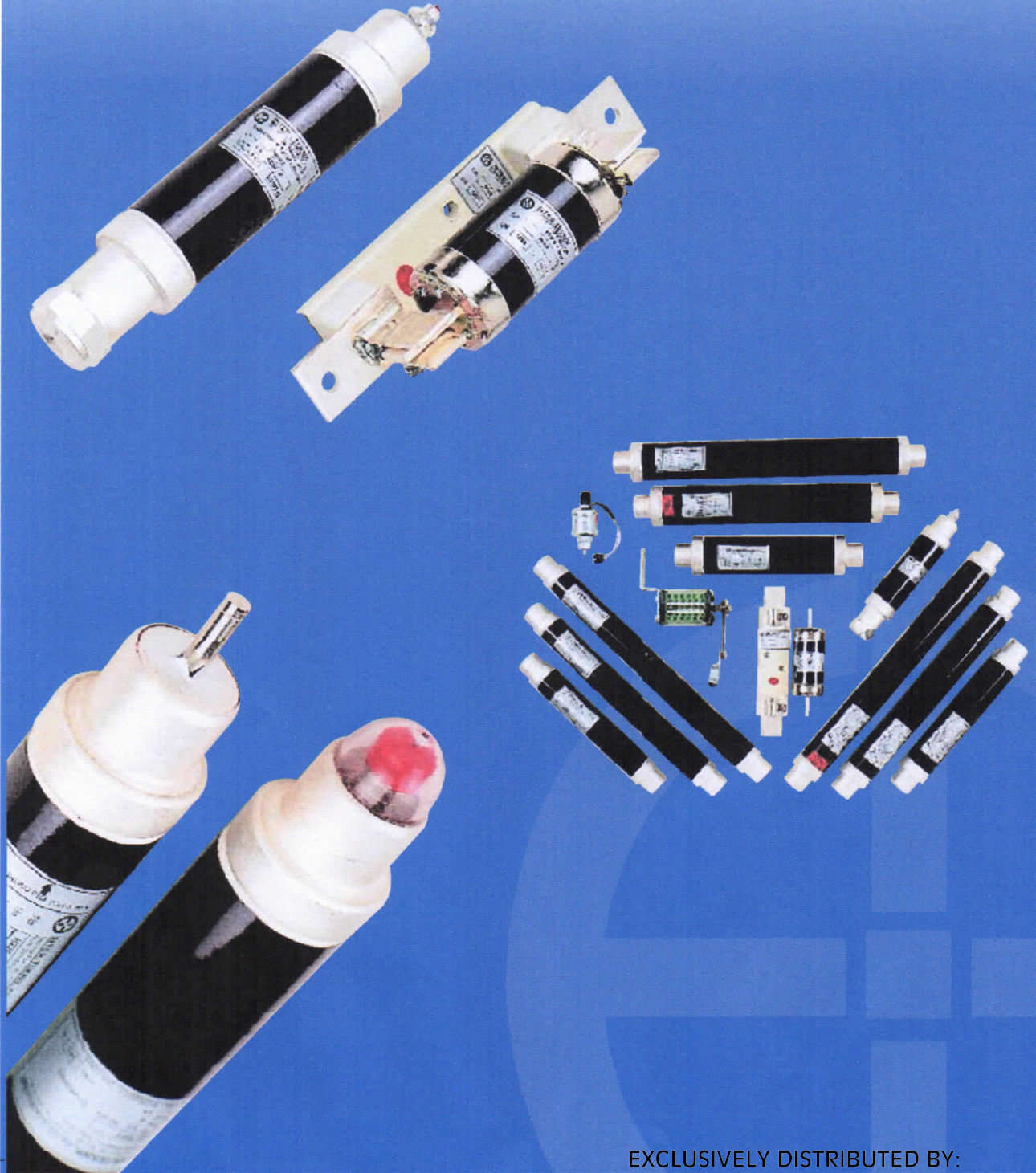


İTER-TEKNİK

ELEKTRİK TİCARET ve SAN. LTD. ŞTİ.

MEDIUM VOLTAGE FUSES

• CURRENT LIMITING TYPE • HIGH BREAKING CAPACITY • BACK-UP CLASS



EXCLUSIVELY DISTRIBUTED BY:



L4 B3 MARVEX LEGACY HOMES
MARVEX DRIVE A.BONIFACIO, QUEZON CITY
PHONE NUMBERS: +632 3734453/3735336
EMAIL ADDRESS: montrelec@gmail.com
Website: www.montrelec.com.ph

MEDIUM VOLTAGE FUSES

- ✓ CURRENT LIMITING TYPE
- ✓ HIGH BREAKING CAPACITY
- ✓ BACK-UP CLASS

THE IMPORTANCE FOR THE INSTALLMENT SPECIFICATIONS, AND SELECTIONS

Standards : TS EN 60282-1, VDE 0670/4, DIN 43625

INTER - TEKNİK fuse links are automatic, selectively acting medium voltage switching devices which will protect your transformers, cables, condensers and installations safely from the thermal and dynamic effects of short circuits within the voltage range of 6-36 kV.

Our experience from 1969 to date, together with extreme care in production, conscious quality control and emphasis on continuous development is the basis of the superior quality of INTER TEKNİK fuses.

Although there are various types of m.v. fuses, the more reliable and economic CURRENT LIMITING TYPES are mostly preferred in many countries as well as ours. This type works quietly in a completely closed environment. While it functions, no flame or gas overflows outside the system. Therefore no filter, flame cell or special ventilation system is necessary.

The types of fuses with high breaking capacity are used for the short circuit protection of m.v. installations. When they are placed in front of transformers, capacitors, motors, cable outlets or voltage transformers, they protect against the heat or other bad effects of shortcircuit by quick circuit breaking capabilities.

Fuses are the most effective and economic ways of protection against short circuits in mv installations.

Fuses are not suitable devices for protection against overload. They work safely only over the I_{min} value. Namely it does not operate safely within the range of I_n (rated current value) and I_{min} value, and in some cases the fuses may be damaged. Depending on the quality of the melting line used and the construction of the fuse, I_{min} shows changes.

Naturally the expansion of the safe operating area for a fuse is a great advantage. For this reason I_{min} should be as small as possible.

If loading between I_n rated current and I_{min} is a must and cannot be prevented, then it is recommended to use load break switches with thermal protective fuses. In that case, before the extreme heat produced in the fuse reaches the tolerance level of the electro porcelain tube of the fuse, the thermic system works to loosen the striker pin which in turn switches off the loadbreak switch in three phases, thus minimizing the risk area.



WE HOLD THE RIGHT TO AMMEND THE DATA GIVEN IN THIS BROCHURE AT ANY TIME, WITHOUT NOTIFICATION

CONSTRUCTION

The principle component of the fuse link insert is a starshaped rod. The pure silver wire or band is wound around the starshaped rod, thus forming completely similar small cells all along the body. The lengths and cross section of the silver in each cell is completely the same. Many partial arcs form all along the melting line and the thermal heat is evenly distributed in the fuse body thus attaining a higher breaking capacity. The tubes are definitely durable to extreme heat, non inflammable and insulated. More over, especially the outdoor type fuses are durable to atmospheric changes, corrosion, salts, acids and alkali gases. They do not absorb water or moisture. In case the fuse is blown, the body provides insulation. Therefore it must provide the needed insulation level rain or shine. To attain these properties, the ideal material to be used is ELECTRO PORCELAIN.

To be durable enough to resist the high pressure and heat that will form, the porcelain tubes should be, at the least, conforming with the C120 – C130 IEC 672 standards. Metal caps on both ends are made of electrolytic copper of 1 - 1.2 mm. thickness and are nickel or silver plated (4-6 microns) against oxidation. The caps are tightly pressed onto the porcelain tubes using silicone seal. Metal pieces in the inner body are manufactured from electrolytic copper. Depending on the In value, they are either silver coated or copper striped of oil. To obtain perfect current conductivity and fuse characteristics the silver wires and bands are welded onto the metal body by point-welding source. The inner body and outer body are also attached by point welding source.

The mechanic strength and water insulation of our fuses are attained by mounting the metal and optical glass caps on both sides , sealing with high heat resistant silicone and special pressing methods.



TYPES

The sizes of all our fuse types conform with TS EN 60282-1, DIN43625, and are suitable for indoor and outdoor use.

OPTICAL INDICATOR (TYPE :...../OPT) _____

The fuses with optical indicators, types H220 and H221, have a mechanism showing that the fuse is blown. When the fuse is blown, a small red cap falls into the transparent capsule at the end of the tube.

FUSE WITH OPTICAL INDICATOR

STRIKER PIN (TYPE :...../ACT) _____

TS EN 60282-1, Table XII - (Medium)

When a fuse is blown a pin is strongly pushed out. Hence, you can see the blown fuse and also automatically initiate another system (e.g. : a switch, notification of an alarm system).

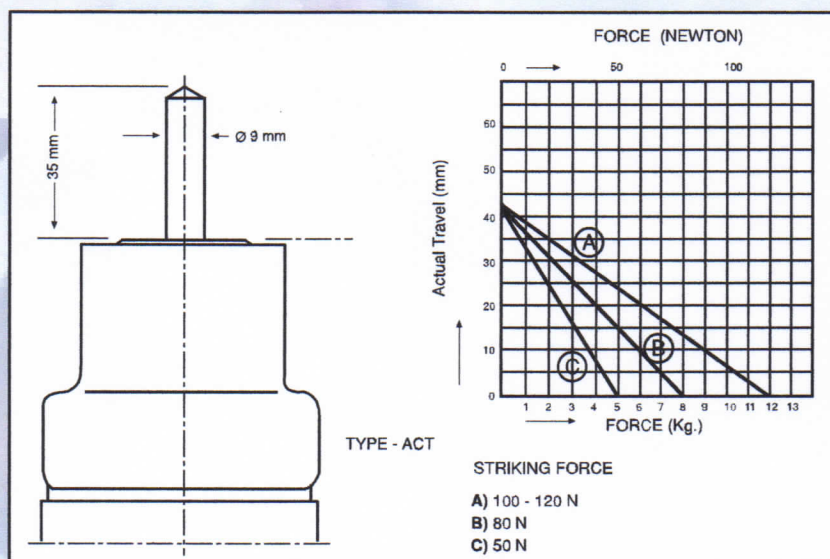
STRIKER PIN FORCE

There are three options:

- A) 100-120 N
- B) 80 N
- C) 50 N

The preference should be stated while ordering. If it's necessary to open a switch mechanically, then the choices A or B are advisable.

FUSE WITH STRIKER PIN



TERMAL PROTECTION (current limiting type, back-up class)

The operation of medium voltage fuses with thermal protection is determined by minimum breaking current (I_{min}). These fuses only work safely over the I_{min} value. Namely, between the values I_n (rated current) and I_{min} a safe operation cannot be guaranteed.

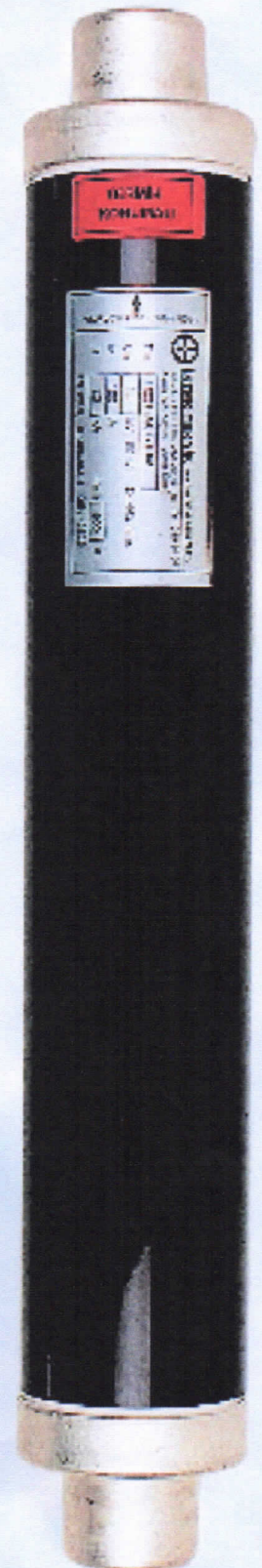
The over loading of fuses in between these values may cause explosion and big damage.

The melting element of the fuse will melt in just one or a few small pieces and the arc produced here will continue to travel within the circuit, leading to extreme thermal forces.

In order to eliminate this problem, our fuses type H220 ACT and type H221 ACT, have a thermal protection system. In this special design, the fuses have a striker device inside the fuse link which is released before the temperature reaches a value endangering the thermal strength of the porcelain tube, and initiates opening of all poles by the help of a switch - disconnecter.

Fuses with the thermal protection system should be used in combination with a switch. When used in combination with automatic breaking switch or especially with SF6 gas insulated "Ring main unit" pannels, fuses with thermal protection system should be preferred.

Please do not hesitate to contact us for more information on thermal protection.



SHORT CIRCUIT CURRENT LIMITATIONS

Our medium-voltage high-breaking-capacity fuse links open the circuit during the current rise in the first loop of short-circuit current. They are thus current-limiting.

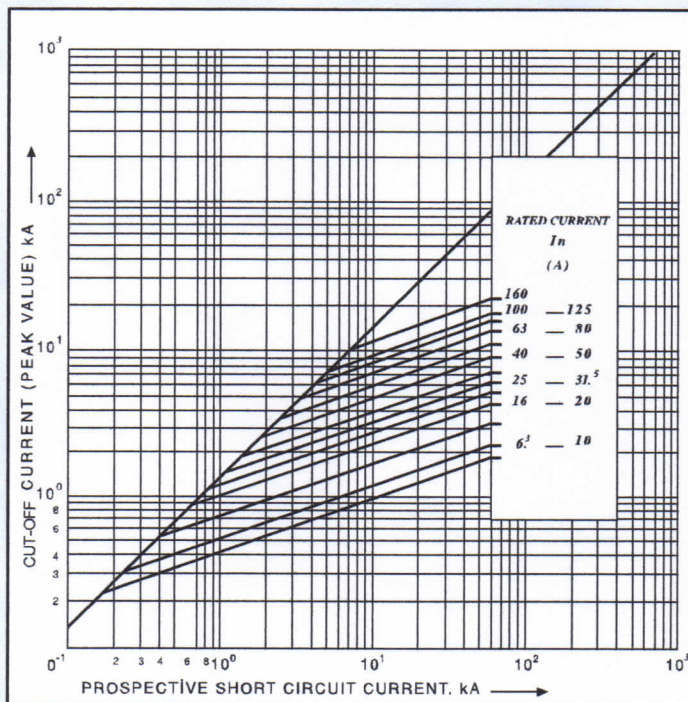
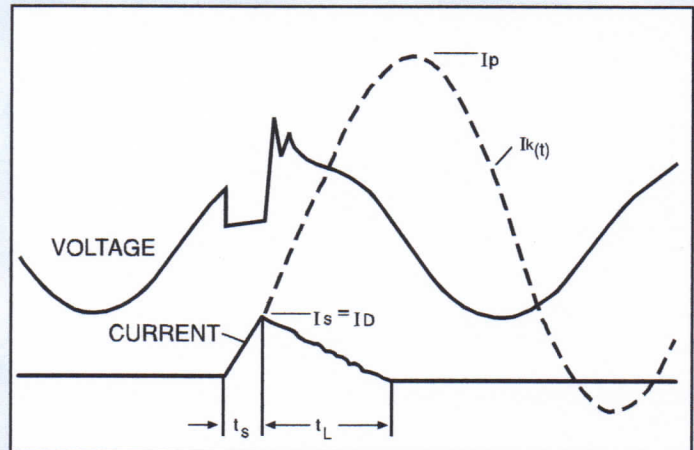
The figure below shows the progress of a short-circuit operation. Without a fuse in the circuit, the short-circuit current would rise as the prospective current I_k shown as a broken line.

However, the current-limiting action of the fuse-link permits the melting current I_s to rise only to the cut-off value I_D (full line). The current decreases during the arcing time t_L with increasing arc length and is finally broken in the area of a voltage zero passage.

The current-limiting action of the fuse-links relieves the apparatus and parts of the system of thermal and dynamic stresses. It is clear that the application of current-limiting fuse-links is particularly advantageous in older installations which have not been designed for the increasing short-circuit levels of the system.

The value of the cut-off current is influenced by the design of the fuse-link. It further depends on the rated current and the instant on the voltage wave at which the short-circuit occurs.

- I_S Melting current
- I_D Cut-off current
- $I_k(t)$ Prospective short-circuit current (fuse replaced by metallic link)
- I_p Impulse short-circuit current
- T_s Pre-arcing time
- T_L Arcing time



The cut-off current of our m.v. h.b.c. fuse links, which can be taken from the diagram, are a function of the prospective short-circuit current (r.m.s. value of the symmetrical component) and of the rated current.

The prospective short-circuit current is expressed by the r.m.s. value of the symmetrical component of the current which would flow at the location of installation if the fuse were replaced by a solid link.

The cut-off currents determined from the diagram are the maximum values which might occur for a given r.m.s. value of the symmetrical component of the prospective short-circuit current with any degree of asymmetry and the highest rate of current rise. Actual values are thus, as a rule, less than the values determined here.

RATED BREAKING CURRENT CAPACITY

The rated breaking current capacity depends on the inner structure of the fuse. The special construction of the fuse link insert ensures that short pre-arcing and arcing times are obtained on operation and that multiple partial arcs are formed. Accordingly the amount of heat generated in the fuse link is relatively small and uniformly divided over the whole length of the fuse elements. These factors provide the increase in the rated current breaking capacity of a fuse. (Please check the rated breaking current values of INTER-TEKNIK fuses on the back cover)

DANGEROUS EXTREME VOLTAGES

When the short circuit current is broken, the voltage will jump. Not to let any damage happen to devices in the installation due to this voltage jump, peak value is limited as $2 \cdot U_n \cdot \sqrt{2}$ in the TS and VDE norms. The advantage of using these fuses to protect your transformers, cable outlets and voltage transformers is obvious.

MINIMUM OPERATING VOLTAGE

- In cases where higher breaking capacity is needed
or

- when an installation with low operating voltage is going to be renewed to a higher operating voltage unit (e.g.: because the voltage will be 30 kV, the old installation with an operating voltage of 10 kV will be renewed as 30 kV series) a higher U_n valued fuse might be used. If the operating voltage is small in regard to the U_n value of the fuse, the voltage jump while the circuit breaks may be extremely high (depending on the construction of the fuse). In INTER-TEKNIK fuses the ratio allowable is 1/2, meaning that in an operating voltage of 10 kV, a fuse with $U_n = 20$ kV can be safely used.

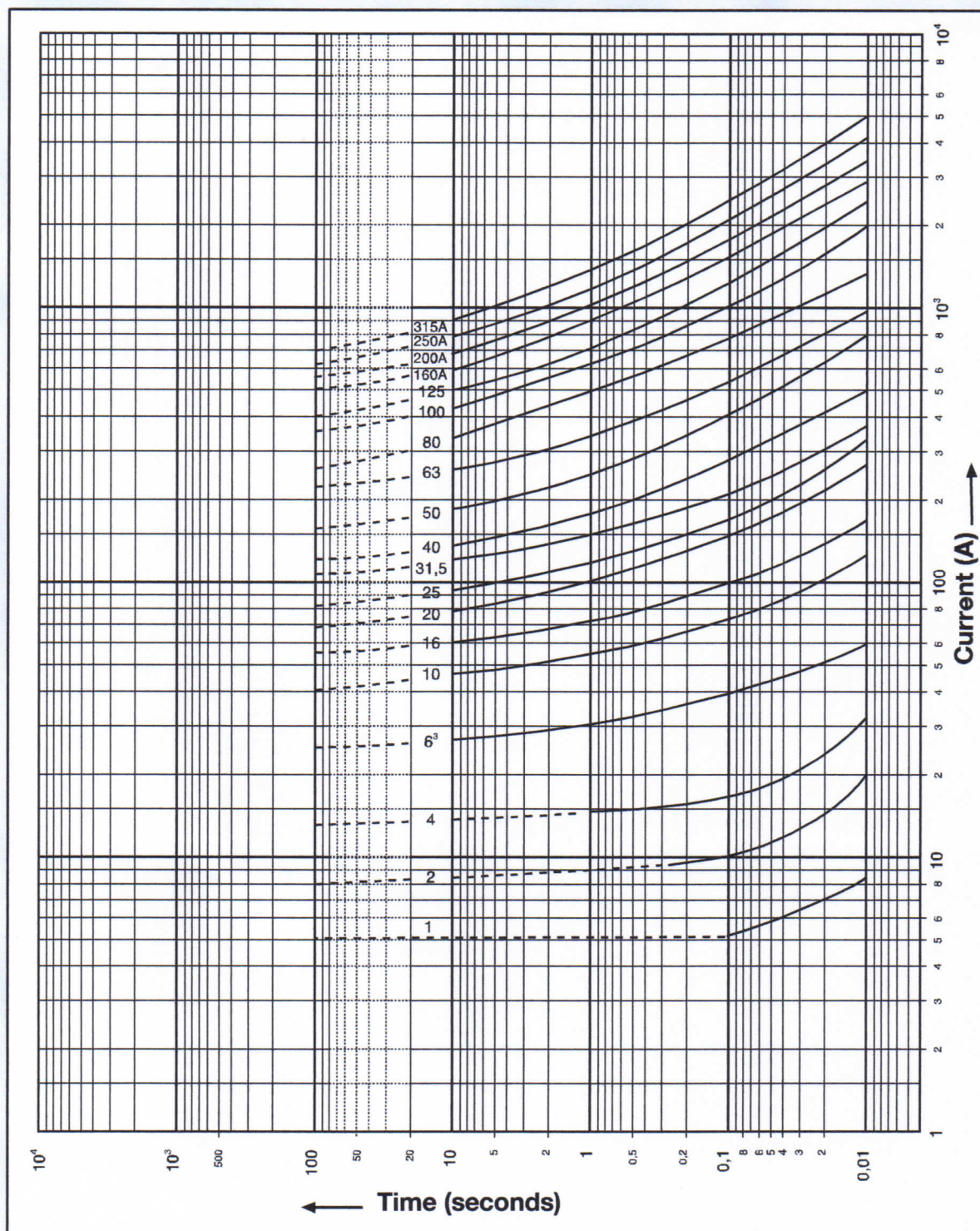
For this reason, keeping in mind that the breaking capacity should be suitable to the operating voltage, while giving your orders you should also state the D dimension of the fuse you have selected. Example: In an installation where operational voltage is 10 kV, a fuse of D=442mm can be used (equivalent to a fuse $U_n=24$ kV)

POWER DISSIPATION

The heat produced in the fuse should be released to the atmosphere. In indoor areas and insulated panels, heat is a vital factor effecting the nominal values of the devices.

Approximate power dissipation of the fuse may be calculated as $(R \cdot I^2 \cdot K)$; the fuses inner resistance (R value at temperature 20 °C) increases due to heating. The K factor indicating this increase is about 1,4-2 at the I_n value. For current values lower than I_n , this factor takes a value of 1,1 - 1,4.

TIME CURRENT CHARACTERISTICS OF THE MEDIUM VOLTAGE HIGH BREAKING CAPACITY FUSES



SELECTIONS

RATED VOLTAGE

Must be properly selected in accordance with the operational voltage.

RATED BREAKING CURRENT

Proper fuse selection according to the short circuit load of the network is important. In some special occasions, if necessary, a fuse of a higher voltage group may be selected or two fuses may be connected in serial, thus obtaining a higher rated breaking current capacity.

RATED CURRENT

This value denotes the naming of the fuse. Essentially the selection of the fuse according to the purpose and the place of use is very important. Heat is one of the most important factors. For example in the protection of a transformer, if a fuse of $I_n = 6 \text{ A}$ is suitable outdoors, when the same transformer is used in a completely closed indoor area, then a fuse $I_n = 10 \text{ A}$ may be necessary. In extreme cases where higher current values are necessary, two fuses with the same value connected parallel can be used. But as the two fuses standing side by side will give heat to each other, a specific tolerance level should be set.

DERATING FACTOR

The rated current is the current which a fuse link can carry continuously without altering the time/current characteristic curve. At higher ambient temperatures as well as higher power losses generated by fuses of very high rated currents, it is necessary to pay special attention to derating factors.

Depending on usage conditions and due to the overheating of the fuse body, it is advisable to reevaluate the choice of fuse rating and use a fuse with a greater I_n value.

In fuses that operate with melting fuse elements, the heat of the fuse body is the main factor that effects the functioning of the fuse. As it functions, the heat produced in the fuse should be transferred to the atmosphere in an effective way. If the body of a fuse which is used in a closed environment gets excessively hot, then a fuse of higher value should be used. For example, under normal conditions a fuse $I_n=40 \text{ A}$ might be suitable for the protection of a transformer, but if because of environmental factors the fuse heats excessively, then a fuse of $I_n= 50$ or 63 A should be used.

As the plants of our day are huge and growing in size, they require fuses with very high I_n values for their protection. Meanwhile, as the I_n value of fuses increase, due to the physical limitations of material and production methods, it becomes very difficult to keep the heat of the fuse at normal temperatures. Therefore, especially under these circumstances special attention should be given to the DERATING FACTOR.

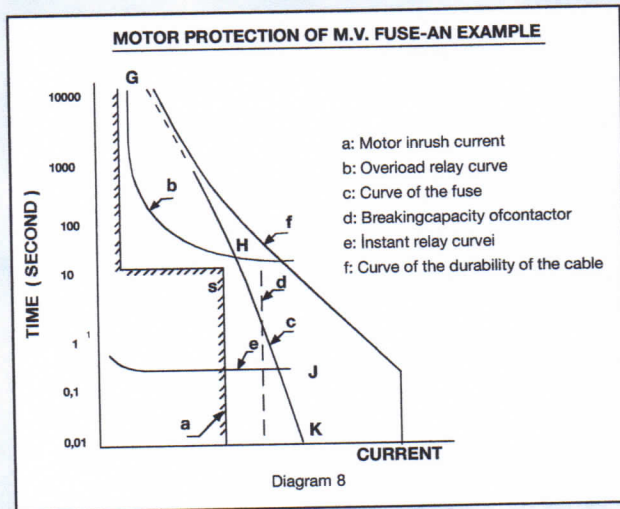
Due to their high starting currents, in the protection of electrical appliances such as motors, transformers or capacitors, fuses with high I_n values should be selected. In other words, under normal operating conditions the current passing through the fuse will be approximately half, under 25% overload it will be about 75% of the I_n value of the fuse. Generally the nominal current of the fuse should be 2 or 3 times larger than that of the normal circuit current. It is important to keep this fact in mind.

This means the fuses will warm less. As you evaluate, special attention should be given to this issue. For this reason, on the labels of these fuses both current values are indicated. For example "250 RC 160" means:

- the nominal current of the fuse $I_n=250 \text{ A}$. (the starting current is taken into consideration)
- the current value of the continuous current passing through the circuit RC (rated current) is 160 A .

MOTOR PROTECTION IEC 60644

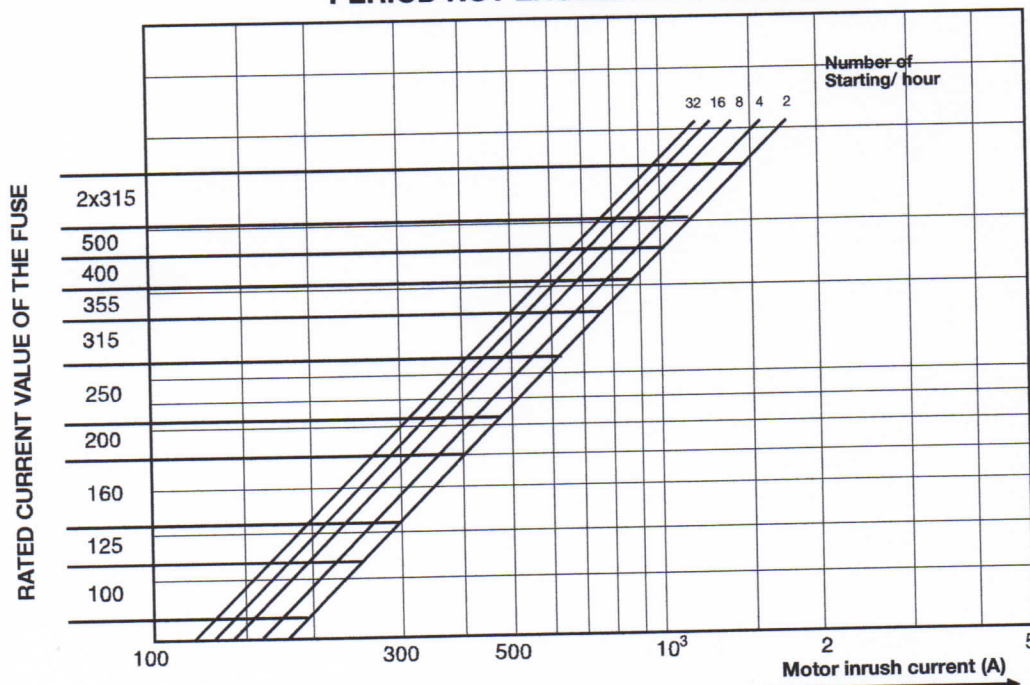
The first and important criteria in fuse selection is the value and the duration of the INRUSH current of the motor. The fuse should stand this inrush current. In selecting the fuse from the time-current curves, the tolerance on current rates given in the standards should not be neglected ($\pm 20\%$ on current value). The second criteria is the frequency of starting the motor which can lead to the aging of the fuse, which in turn might result in changes in the characteristics of the fuse. Depending on the frequency of the period of starting, the I_n value of the fuse may be uprated. In selecting your fuse, please keep in mind the following: Usually fuse +switch combinations are used for motor protection. If one of the fuses blow due to a fault, the striker pin initiates the switch to break the current in three phases



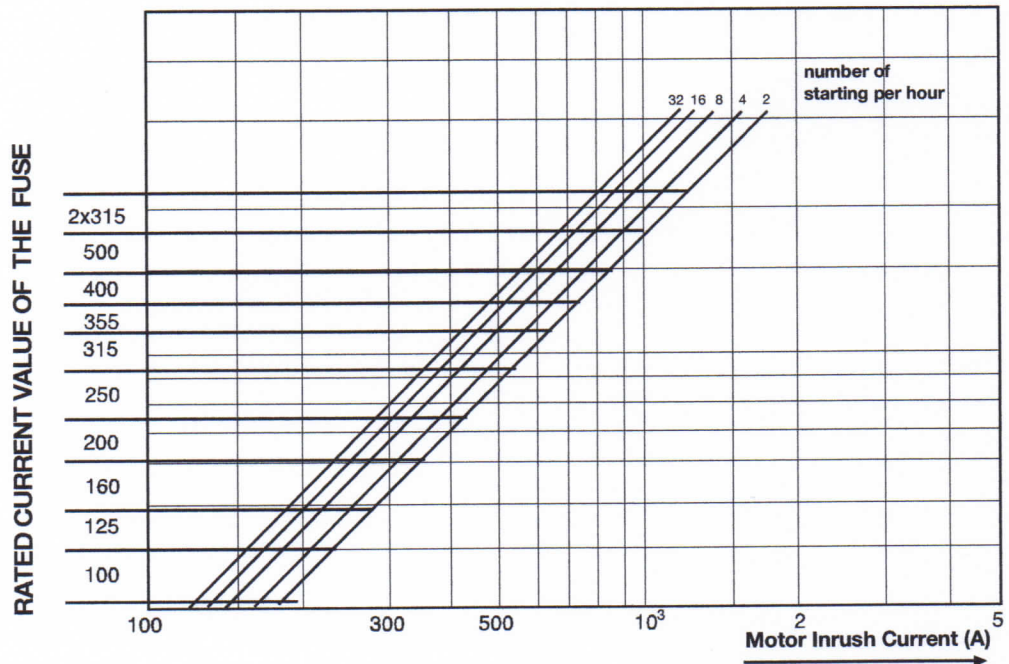
- The breaking capacity of the fuse should be greater than the short circuit load of the establishment.
- The I_n value of the fuse should be greater than the nominal power and overload value of the motor. Derating should be done according to the medium in which the fuse will be used, meaning the I_n value of the fuse should be increased accordingly.
- The I_n value should be decided upon with an acceptable margin so that the fuse does not blow during starting current period.
- Depending on the number of starting/shutting of the motor, there will be material fatigue. I_n value should be increased accordingly.
- The minimum breaking current (I_{min}) value of the fuse should be smaller than the value of point H (see diagram 8).

For the coordination between the fuse and the protection relay of the switch, and for all the above listed issues please use the diagrams.

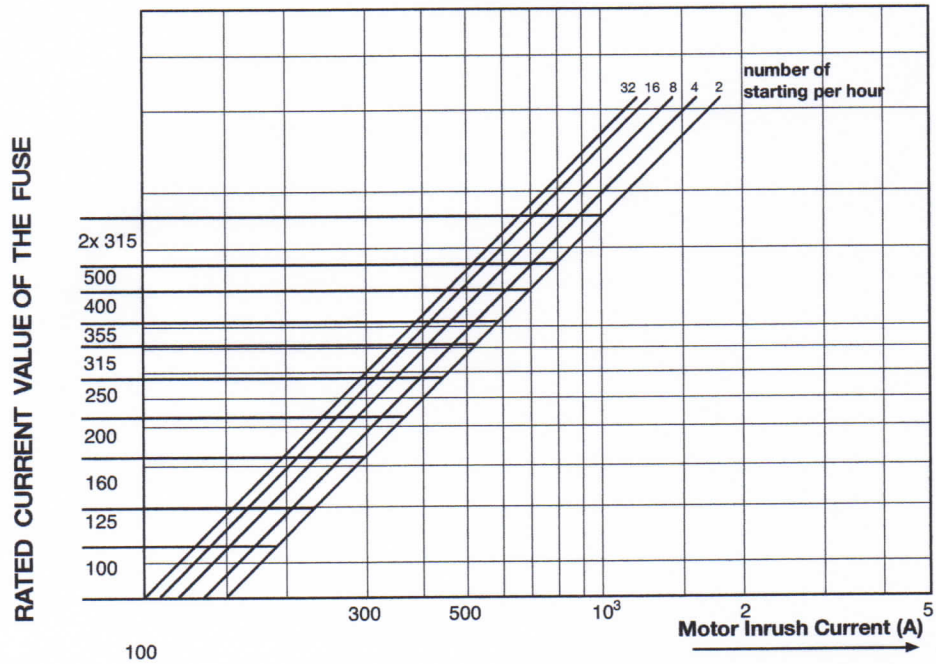
M.V. FUSE PROTECTION FOR MOTORS WITH INRUSH PERIOD NOT EXCEEDING 6 SECONDS



MV FUSE PROTECTION FOR MOTORS WITH INRUSH PERIOD NOT EXCEEDING 15 SECONDS



MV FUSE PROTECTION FOR MOTORS WITH INRUSH PERIOD NOT EXCEEDING 30 SECONDS



FUSE PROTECTION OF TRANSFORMERS IEC 60787

All tests and practices show that, when chosen correctly, current limiting m.v.fuses effectively protect transformers by breaking fault currents.

Various criteria have to be observed in selecting m.v.h.b.c. fuse-links for the short circuit protection of transformers. Here are some of them:

- 1- The rated current of the m.v.h.b.c. fuse-link must not be less than a certain value so as to protect operation of the fuse-link from the transformer inrush current on switching on.
- 2- The rated current of the fuse-link must be low enough so that the value of the current which might happen during a short-circuit on the low voltage side of the transformer will not be less than the I_{min} value of the fuse. This means that the fuse will perform its breaking safely.
- 3- The rated current of the medium-voltage fuse link must be sufficiently high to permit the overloading of the transformer and assure selectivity between the fuses on the low voltage side.
- 4- The rated current of the m.v.h.b.c. fuse-link must be as low as possible so that the fuse can break the current quickly when a fault occurs in the transformer coils and assure the selectivity between the fuse and relay at the start of the mv supply feeder.

Taking the above mentioned points into account, selecting the m.v.h.b.c. fuse links in accordance with the tables below is recommended.

M.V. and L.V. FUSE SELECTING TABLES FOR THE PROTECTION OF DISTRIBUTION TRANSFORMERS

Rated Voltage $U_{1N} = 6/7,2 \text{ kV}$ $U_{2N} = 400\text{V}$						
Trans. Rated Power (kVA)	Transformer Rated Current		M.V. Fuse Rated Current		L.V. Fuse Rated Current	
	prim. (A)	sec. (A)	min. (A)	max. (A)	min. (A)	max. (A)
25	2,4	36	6,3	6,3	31,5	40
50	4,8	72	10	16	63	80
75	7,2	108	16	25	100	125
100	9,6	144	20	31,5	125	160
125	12,0	180	25	40	160	200
160	15,4	231	31,5	50	200	250
200	19,2	290	40	63	250	315
250	24,0	360	50	80	315	400
315	30,3	455	63	100	400	500
400	38,5	576	80	125	500	630
500	48,1	720	100	160	630	720
630	60,6	910	125	200	800	900
800	77,0	1160	160	200	1000	1200
1000	96,2	1440	200	200	1200	-

Rated Voltage $U_{1N} = 10/12 \text{ kV}$ $U_{2N} = 400\text{V}$						
Trans. Rated Power (kVA)	Transformer Rated Current		M.V. Fuse Rated Current		L.V. Fuse Rated Current	
	prim. (A)	sec. (A)	min. (A)	max. (A)	min. (A)	max. (A)
25	1,45	36	4	6,3	31,5	40
50	2,9	72	6,3	16	63	80
75	4,3	108	10	16	100	125
100	5,8	144	16	25	125	160
125	7,2	180	16	25	160	200
160	9,2	231	20	31,5	200	250
200	11,5	290	25	31,5	250	315
250	14,4	360	31,5	50	315	400
315	18,2	455	40	63	400	500
400	23,1	576	50	80	500	630
500	28,9	720	63	100	630	720
630	36,4	910	80	125	800	900
800	46,2	1160	100	125	1000	1200
1000	57,7	1440	125	160	1200	-

Trans. Rated Power (kVA)	Rated Voltage $U_{1N} = 15/17,5 \text{ kV}$ $U_{2N} = 400\text{V}$						Rated Voltage $U_{1N} = 20/24 \text{ kV}$ $U_{2N} = 400\text{V}$						Rated Voltage $U_{1N} = 30/36 \text{ kV}$ $U_{2N} = 400\text{V}$					
	Transformer Rated Current		M.V. Fuse Rated Current		L.V. Fuse Rated Current		Transformer Rated Current		M.V. Fuse Rated Current		L.V. Fuse Rated Current		Transformer Rated Current		M.V. Fuse Rated Current		L.V. Fuse Rated Current	
	prim. (A)	sec. (A)	min. (A)	max. (A)	min. (A)	max. (A)	prim. (A)	sec. (A)	min. (A)	max. (A)	min. (A)	max. (A)	prim. (A)	sec. (A)	min. (A)	max. (A)	min. (A)	max. (A)
25	0,95	36	4	6,3	31,5	40	0,7	36	4	6,3	31,5	40	0,5	36	2	6,3	31,5	40
50	1,9	72	6,3	10	63	80	1,4	72	6,3	6,3	63	80	1,0	72	4	6,3	63	80
75	3	108	10	10	100	125	2,2	108	6,3	6,3	100	125	1,5	108	6,3	6,3	100	125
100	4	144	10	16	125	160	2,9	144	10	10	125	160	1,9	144	6,3	6,3	125	160
125	4,8	180	16	20	160	200	3,6	180	10	16	160	200	2,4	180	6,3	10	160	200
160	6,1	231	16	25	200	250	4,6	231	16	20	200	250	3,1	231	10	16	200	250
200	7,7	290	20	25	250	315	5,8	290	16	20	250	315	3,8	290	10	16	250	315
250	9,6	360	25	31,5	315	400	7,2	360	20	25	315	400	4,8	360	16	20	315	400
315	12,1	455	25	31,5	400	500	9,1	455	20	25	400	500	6,1	455	16	25	400	500
400	15,3	576	25	40	500	630	11,5	576	25	40	500	630	7,7	576	16	25	500	630
500	19,7	720	31,5	50	630	720	14,4	720	31,5	50	630	720	9,6	720	25	31,5	630	720
630	24,9	910	40	63	800	900	18,2	910	40	63	800	900	12,1	910	31,5	40	800	900
800	30,8	1160	63	80	1000	1200	23,1	1160	50	63	1000	1200	15,4	1160	40	50	1000	1200
1000	38,6	1440	80	100	1200	-	28,9	1440	63	80	1200	-	19,2	1440	40	50	1200	-
1250	48,1	1800	100	100	-	-	36,1	1800	80	80	-	-	24	1800	50	63	-	-
1600	61,6	2304	125	125	-	-	46,2	2304	100	100	-	-	30,7	2304	63	80	-	-
2000	77,0	2880	160	160	-	-	57,8	2880	125	125	-	-	38,5	2880	2 x 50	-	-	-

FUSE PROTECTION OF CONDENSERS

The existence of numerous types of electrical facilities and unknown circuit parameters usually complicates fuse selection. When selecting, keep in mind the following criteria:

- The I_n value of the fuse should be high enough to withstand the continuous maximum load current and the allowable harmonic content.
- The I_n value of the fuse should be able to tolerate the inrush value of the condenser bank.
- Voltage increases caused by temporary situations should not be neglected and for security purposes, a higher current class fuse should be selected.
- As for practical information, the I_n value of the fuse should not be lower than 1.6-2 times that of the condenser's full load current value.

WIRE AND LINE PROTECTION

It should not be forgotten that wires and lines will be exposed to overloading from time to time. This situation may cause overloads between the I_n value and I_{min} value of the fuse, eventually causing extreme heating and damage. For this reason the fuse should be selected according to the maximum load that the cable or line can carry.

OTHER POINTS

- It is not correct to use a fuse that has been dropped or exposed to any sort of impact without testing it.
- In a three - phase installation, unless you are definitely sure that only the blown fuse was exposed to a faulty current, all three must be replaced, because the fuses that are not blown also might have reached a point very close to functioning and their characteristics might have changed.
- As a precaution, the blown fuse should be changed 5 - 10 minutes after it has blown.

VOLTAGE TRANSFORMER PROTECTION

Because of the low capacity of voltage transformers, m.v. fuses cannot protect the voltage transformer from their own default currents effectively. More often, they are used to separate the defected voltage transformer from the system. The principle in choosing the fuse is to use a fuse big enough to endure the inrush voltage of the transformer. This means that the fuse should be at the most $I_n = 1-2$ A. The very thin melting line used in the fuses with small I_n values may lead to a "corona" effect. Therefore, the fuse should definitely be used as far away from earthed metal parts as possible.

THINGS TO INDICATE WHILE ORDERING

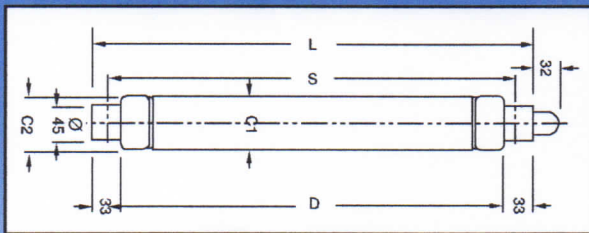
Type	: H220 - H221
Indicator	: OPT (Optical) or ACT (striker pin)
If ACT, the force of the striker pin:	F= 50 N ; F= 80 N ; F= 120 N
Thermal protection	: TRM
Rated voltage (U_n) kV	: from the table
Length (D) mm	: from the table
Rated current (I_n) A	: from the table

Example ① H220/ACT	F = 80 N	② H221/OPT	
$U_n = 36$ kv	D = 537 mm	$U_n = 12$ kv	D = 442 mm
$I_n = 40$ A	$I_t = 31.5$ kA	$I_n = 160$ A	$I_t = 31.5$ kA

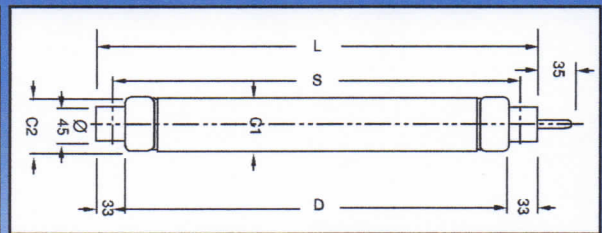
M.V. - H.R.C. FUSES

Un kV	TYPE	In Amp.	I ₃ Amp.	I ₁ kA	D mm	S mm	L mm	C ₂ Cap diameter mm.	C ₁ Cap diameter mm.	Weight Kg
36 KV	H220	1	6	31,5	537	570	603	55	53	2,8
		2	12	31,5						
		4	4 x In	31,5						
		6,3	"	31,5						
		10	"	31,5						
		16	"	31,5						
		20	"	31,5						
		25	"	31,5						
		31,5	"	31,5						
		40	"	31,5						
		50	"	25				61	58	3,5
		63	"	25				78	74	5,5
	H221	80	"	25				86	84	7
		100	"	25						
		*125	"	25						
		*160	"	20						
		*200	"	20						
		*250	"	16						
		*315	"	16						
24 KV	H220	1	6	31,5	442	475	508	55	53	2,3
		2	12	31,5						
		4	4 x In	31,5						
		6,3	"	31,5						
		10	"	31,5						
		16	"	31,5						
		20	"	31,5						
		25	"	31,5						
		31,5	"	31,5						
		40	"	31,5						
		50	"	25				61	58	2,9
		63	"	25				78	74	4,6
	H221	80	"	25				86	84	6
		100	"	25						
		*125	"	25						
		*160	"	25						
		*200	"	25						
		*250	"	20						
		*315	"	20						
17,5 KV	H220	1	6	31,5	367	400	433	55	53	1,9
		2	12	31,5						
		4	4 x In	31,5						
		6,3	"	31,5						
		10	"	31,5						
		16	"	31,5						
		20	"	31,5						
		25	"	31,5						
		31,5	"	31,5						
		40	"	31,5						
		50	"	25				61	58	2,45
		63	"	25				78	74	4
	H221	80	"	25				86	84	5
		100	"	25						
		*125	"	25						
		*160	"	25						
		*200	"	25						
		*250	"	20						
		*315	"	20						
12 KV	H220	1	6	40	292	325	358	55	53	1,6
		2	12	40						
		4	4 x In	40						
		6,3	"	40						
		10	"	40						
		16	"	40						
		20	"	40						
		25	"	40						
		31,5	"	40						
		40	"	40						
		50	"	40						
		63	"	40				61	58	2,0
	H221	80	"	40				86	84	4,2
		100	"	31,5						
		*125	"	31,5						
		*160	"	31,5						
		*200	"	31,5						
		*250	"	25						
		*315	"	25						
7,2 KV	H220	1	6	40	192	225	258	55	53	1,15
		2	12	40						
		4	4 x In	40						
		6,3	"	40						
		10	"	40						
		16	"	40						
		20	"	40						
		25	"	40						
		31,5	"	40						
		40	"	40						
		50	"	40						
		63	"	40				61	58	1,15
	H221	80	"	40				86	84	3,9
		100	"	31,5						
		*125	"	31,5						
		*160	"	31,5						
		*200	"	31,5						
		*250	"	25						
		*315	"	25						

NOTE: 1) Please don't forget to take the derating factor (*) into consideration You can find more information on the subject inside the catalogue
2) Please contact us if your demands for In values are higher than those in the above table.



Type:/ OPT



Type:/ ACT



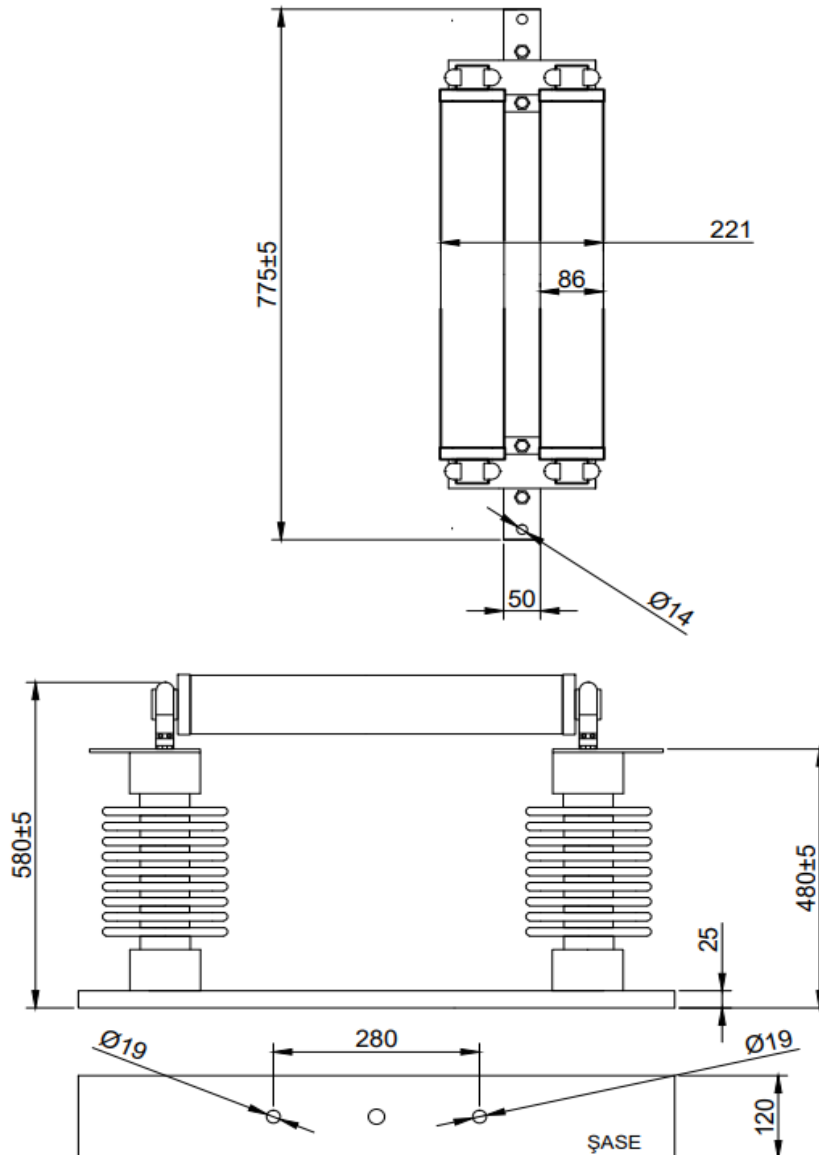
INTER-TEKNIK
ELEKTRİK TİCARET ve SAN. LTD. ŞTİ.

ISO 9001
BUREAU VERITAS
Certification



2011 JUNE

	1 Pole Double Fuse Base
Rated Voltage	36kV
Rated Current	400A (200A per fuse)
Application	Outdoor
Creepage Distance	31mm/kV
Baseplate	50µm hot dipped galvanized steel
Clips & Contacts & Bars	Stainless steel and/or nickel+chrome coated copper
Fuse Tripping Indication	Without fuse tripping indication
Hookstick	Without hookstick operation for fuse replacement

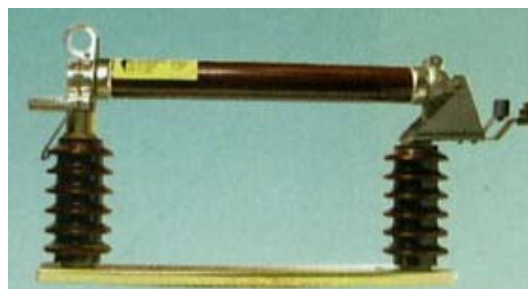




OUTDOOR FUSE BASES FOR MEDIUM VOLTAGE FUSES

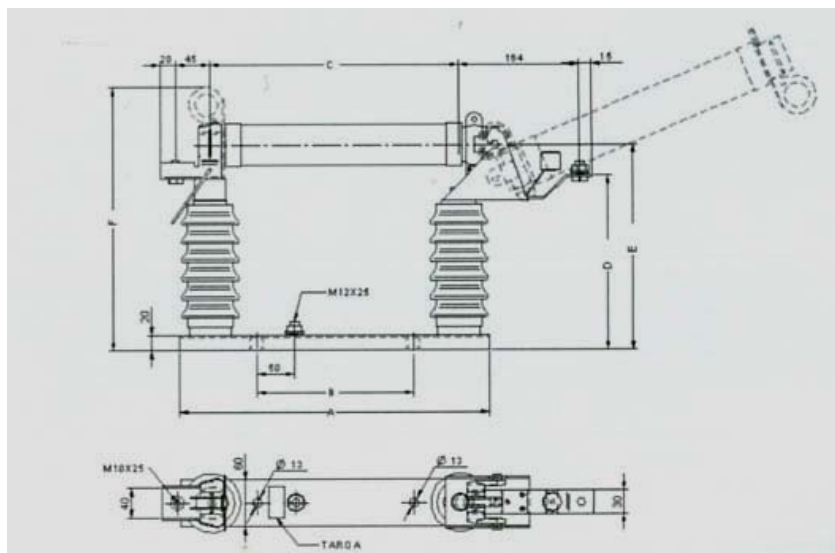
Technical characteristics:

- Code: IW 1906030F;
- Outdoor fuse base with removable hook stick;
- Outdoor fuse base;
- Rated voltage: 36 kV;
- Maximum amperage of fuse clips: 200 A;
- Material of the base: galvanized steel;
- Material of the insulators: porcelain;
- Basic Impulse Level (BIL rating): 170 kV;
- Insulators flexion rupturing strength: 400 Kg;
- Creepage distance: 670 mm;
- Reference standard: IEC EN 60282-1, DIN 43625



Drawing (all dimensions are in mm)

A	B	C	D	E	F
650	450	550	354	397	452

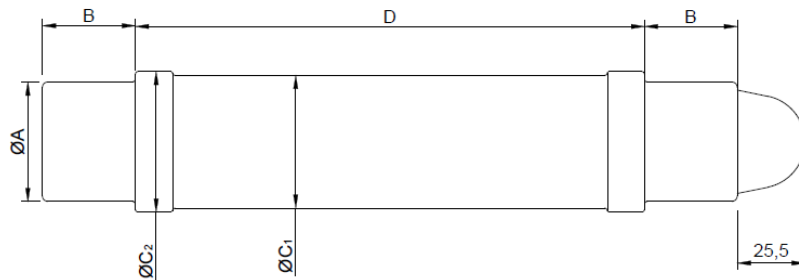


Technical responsible

Date: 25.09.2006

Pressino Selmoirphi

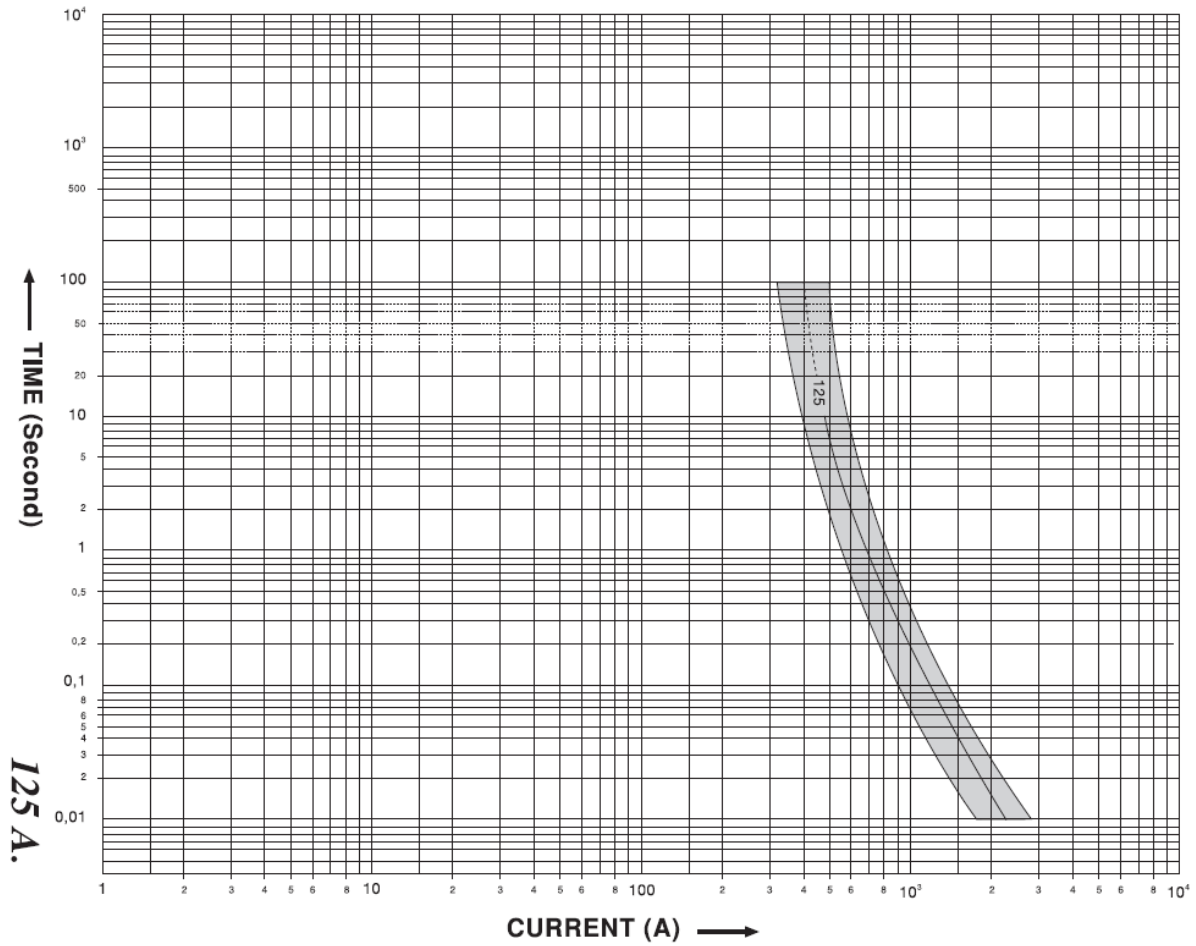
	With Optical Indicator
Item Code	S403125
Description	$U_n=17,5\text{kV}$, $I_n=125$, $I_{RC}=100\text{A}$, $D=367\text{mm}$
Application	Indoor & Outdoor
Standards	IEC 60282-1, DIN 43625, VDE0670-4



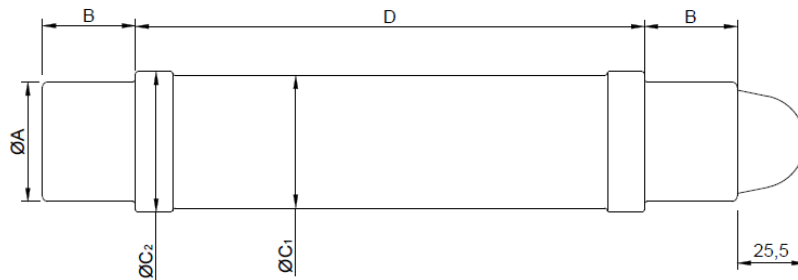
MECHANICAL CHARACTERISTICS					
$\varnothing A$ (± 1)	B (+2, -0)	D (+0, -1)	$\varnothing C_1$ (± 2)	$\varnothing C_2$ (± 2)	Weight
mm	mm	mm	mm	mm	kg
45	33	367	86	86	5

ELECTRICAL CHARACTERISTICS						
Rated Voltage (U_n)	Rated Current (I_n)	Rated Breaking Current (I_1)	Rated Frequency (f)	Minimum Breaking Current (I_3)	Cold Resistance (R) ($\pm 10\%$) (20°C)	Power Loss
kV	A	kA	Hz	A	m Ω	W
17,5	100 _{RC100}	63	50	500	7,3	110

Time-Current Curve



	With Optical Indicator
Item Code	S4O3160
Description	$U_n=17,5\text{kV}$, $I_n=160$, $I_{RC}=112\text{A}$, $D=367\text{mm}$
Application	Indoor & Outdoor
Standards	IEC 60282-1, DIN 43625, VDE0670-4



MECHANICAL CHARACTERISTICS					
$\varnothing A$ (± 1)	B (+2, -0)	D (+0, -1)	$\varnothing C_1$ (± 2)	$\varnothing C_2$ (± 2)	Weight
mm	mm	mm	mm	mm	kg
45	33	367	86	86	5

ELECTRICAL CHARACTERISTICS						
Rated Voltage (U_n)	Rated Current (I_n)	Rated Breaking Current (I_1)	Rated Frequency (f)	Minimum Breaking Current (I_3)	Cold Resistance (R) ($\pm 10\%$) (20°C)	Power Loss
kV	A	kA	Hz	A	m Ω	W
17,5	160 _{RC112}	63	50	640	5,75	112

Time-Current Curve

