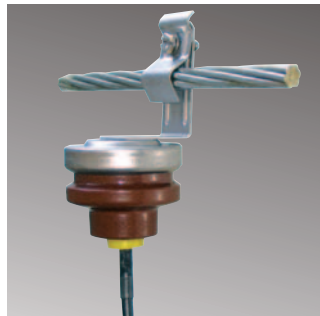


# Safety wherever needed

## Low Voltage Surge Arrestors



Uninsulated version



Isolated version



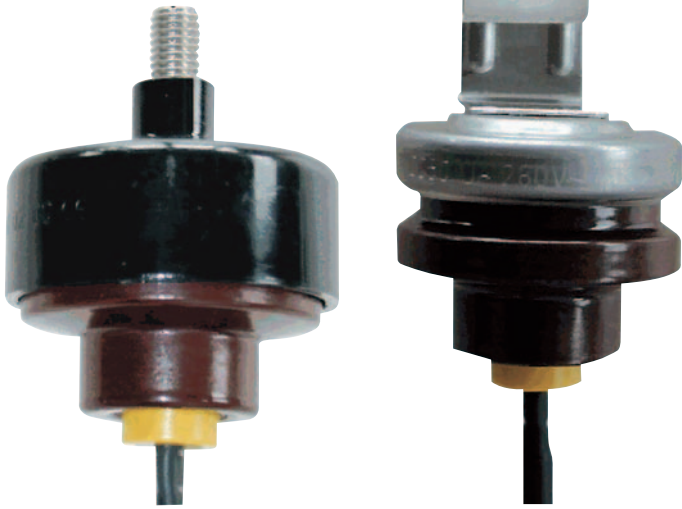
Rope-throwing-off-function



# Content

Low Voltage Surge Arresters **280**

Technical data **see page 281**



## System

The Low Voltage Surge Arresters are equipped with metal-oxide varistors in a robust and aging-resistant ceramic housing. The devices respond within nanoseconds and with low residual voltages. This ensures a high level of surge protection.

## Features

Surge arresters are available as insulated and non-insulated versions for various mounting types and terminals. Triggered surge arresters can easily be identified by the catch cable.

Rope-throwing-off-function



Insulated terminal



## Low Voltage Surge Arresters

For more information  
see page 281



69611.0040

### Low Voltage Surge Arrestors, without „Rope-throwing-off-function“

#### Properties:

- Without "Rope-throwing-off-function"

Description	Connection possibilities	Length	Order-No.	In kA	Uc V	PU	PG	Price €/pc.
Mounting angle with clamb	Counductor brunch with sleeve	650	<b>69611.0040</b>	5	280	6	NA 1	35,00
Mounting angle with clamb	CuAl-Sleeve	650	<b>69613.0040</b>	5	280	6	NA 1	39,00
Mounting angle with clamb	Counductor brunch with sleeve	650	<b>69811.0040</b>	10	280	6	NA 1	44,00
Mounting angle with clamb	Counductor brunch with sleeve	770	<b>69611.0050</b>	5	280	6	NA 1	35,00
Mounting angle with clamb	Cable lug	770	<b>69612.0050</b>	5	280	6	NA 1	37,00
Mounting angle with clamb	Counductor brunch with sleeve	770	<b>69811.0050</b>	10	280	6	NA 1	44,00
Mounting angle with clamb	Counductor brunch with sleeve	1000	<b>69611.0060</b>	5	280	6	NA 1	36,00
Mounting angle with clamb	Counductor brunch with sleeve	1000	<b>69811.0060</b>	10	280	6	NA 1	46,00
Screw bolt M8 x 25, uninsulated	Unprepared	550	<b>69624.0070</b>	5	280	6	NA 1	33,00
Screw bolt M8 x 25, uninsulated	Counductor brunch with sleeve	650	<b>69621.0040</b>	5	280	6	NA 1	34,00
Screw bolt M8 x 25, uninsulated	Counductor brunch with sleeve	650	<b>69821.0040</b>	10	280	6	NA 1	46,00
Screw bolt M8 x 25, insulated	Counductor brunch with sleeve	650	<b>69641.0040</b>	5	280	6	NA 1	35,00
Screw bolt M8 x 25, insulated	Counductor brunch with sleeve	770	<b>69641.0050</b>	5	280	6	NA 1	35,00
Screw bolt M8 x 25, insulated	Counductor brunch with sleeve	1000	<b>69641.0060</b>	5	280	6	NA 1	35,00
Screw bolt M8 x 25, insulated	Counductor brunch with sleeve	650	<b>69841.0040</b>	10	280	6	NA 1	44,00
Screw bolt M8 x 25, insulated	Counductor brunch with sleeve	650	<b>69941.0040</b>	10	500	6	NA 1	42,50
Screw bolt M8 x 25, insulated	Unprepared	770	<b>69624.5050</b>	5	280	6	netto	on demand
Screw bolt M8 x 25, insulated	Unprepared	770	<b>69644.9050</b>	5	280	6	netto	on demand
Screw bolt M8 x 25, insulated	Unprepared	1000	<b>69621.5160</b>	5	280	6	netto	on demand
Screw bolt M8 x 25, insulated	Unprepared	1000	<b>69721.5160</b>	5	500	6	netto	on demand
Screw bolt M8 x 25, insulated	Unprepared	1000	<b>69741.6160</b>	5	500	6	netto	on demand
Screw bolt M8 x 25, insulated	Unprepared	1000	<b>69741.7160</b>	5	500	6	netto	on demand
Screw bolt M8 x 25, insulated	Unprepared	1000	<b>69741.8160</b>	5	500	6	netto	on demand
Screw bolt M8 x 25, insulated	Unprepared	1000	<b>69744.9060</b>	5	500	6	netto	on demand
Screw bolt M8 x 30, insulated	Unprepared	1000	<b>69764.5160</b>	5	500	6	netto	on demand



69841.0150

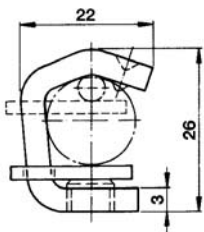
### Low Voltage Surge Arrestors, with „Rope-throwing-off-function“

#### Properties:

- With "Rope-throwing-off-function" - 10kA

Description	Connection possibilities	Length	Order-No.	In kA	Uc V	PU	PG	Price €/pc.
Screw bolt M8 x 25, insulated	Conductor brunch with sleeve	650	<b>69841.0150</b>	10	280	6		on demand

## Accessories NA



**Current cable fitting and  
prevailing accessories  
for overhead lines and  
conductor bars.**



69500.0010

### Accessories

Description	Order-No.	PU	PG	Price €/pc.
Universal clamb 10 - 120 mm	<b>69500.0010</b>	1	NA 1	6,00
Insulated terminal with M8 x 25 internal thread	<b>69501.0010</b>	1	NA 1	26,00
Insulated tap-off clamp 6 - 70 mm	<b>69502.0010</b>	1	NA 1	16,00
Insulated tap-off clamp 50 - 95 mm	<b>69503.0010</b>	1	NA 1	26,00
Insulated tap-off clamp 50 - 95 mm	<b>69504.0010</b>	1		on demand
Insulated tap-off clamp 50 - 95 mm	<b>69505.0010</b>	1		on demand

**Function mode**

- Protection of electrical equipment against overvoltage.
- Overvoltages may result from switching operations, earth faults and short circuits or atmospheric discharges.
- With overvoltage, the non-linear resistance lowers in such a way, that the overvoltage is restricted.
- Secondary currents are suppressed by the rapidly increasing resistance.
- The metal oxide varistor with a very high resistance at given operating voltage, responds quickly and does not require any discharging gap.

**Product description**

- Metal oxide varistor embedded in ceramic insulator.
- Threaded terminal end (screw bolts).
- Mounting angle with clamp, made of stainless steel.
- Current cable fittings and prevailing accessories for overhead lines and conductor bars.
- Insulated, the flexible connecting line (copper) 6 mm<sup>2</sup> can be chosen either with or without conductor bunch with sleeve.
- The signal colour “yellow” helps to clearly identify a released overvoltage arrester.
- The “rope-throwing-off-function” prevents – by means of a plastic rope being attached to the insulating cap and the connecting line – the uncontrolled line drop with released arrester.

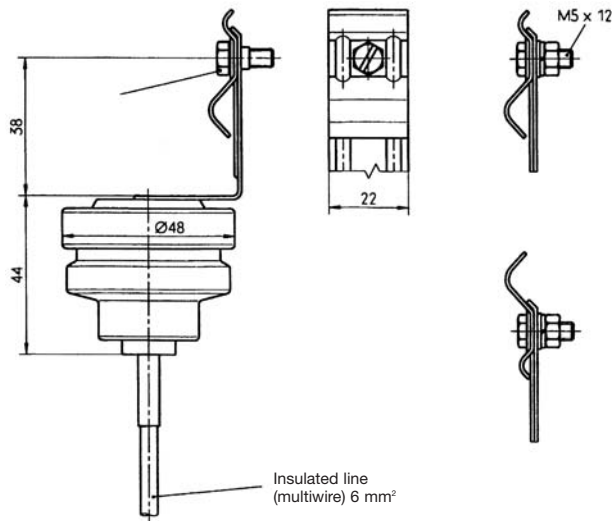
**Advantages**

- High protection is given to the electrical equipment in the nanosecond range.
- Due to higher current carrying capacity, the 10 kA-type reacts less sensitive and thus reduces service and maintenance costs.
- Compact, waterproof, weather-resisting.

**Technical data**

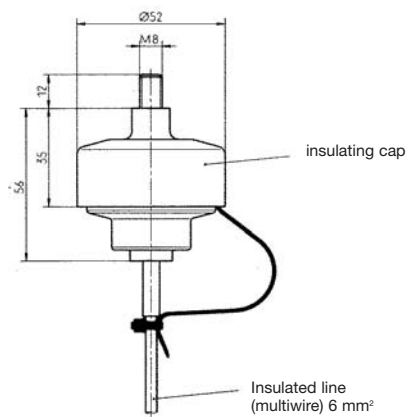
EFEN Type		ONA ZnO 5kA 280V	ONA ZnO 10kA 280V	ONA ZnO 5kA 500V	ONA ZnO 10kA 500V
Nominal discharge current	$I_N$ [kA]	5	10	5	10
Norms		IEC 61643-1 03/2005 EN 61643-11 12/2002 VDE 0675 Teil 6-11 12/2002			
Maximum continuous operating voltage		II/outdoor			
Maximum discharge current		yes	yes	yes	yes
Residual voltage without earth connection		yes	yes	yes	yes
Maximum continuous operating voltage	$U_c$ [V]	280	280	500	500
Maximum discharge current	$I_{MAX}$ [kA]	25	25	25	25
Residual voltage without earth connection	$U_{RES}$ [V]	851	987	1481	1642
Voltage protection level without earth connection	$U_P$ [kV]	0,9	1,0	1,5	1,8
Residual voltage with earth connection 1 m	$U_{RES}$ [V]	1187	1688	1863	2353
Voltage protection level with earth connection 1 m	$U_P$ [kV]	1,2	1,8	2,0	2,5
Standby power consumption	$P_c$ [mW]	56	56	106	106

**Mounting angle with clamp, made from stainless steel**

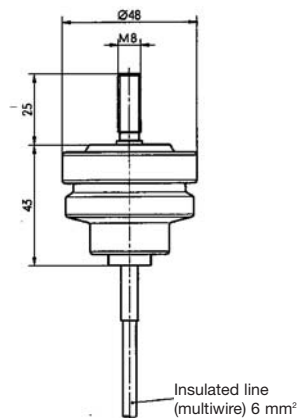


**Connection with screw bolt**

Insulated type with "rope-throwing-off-function"



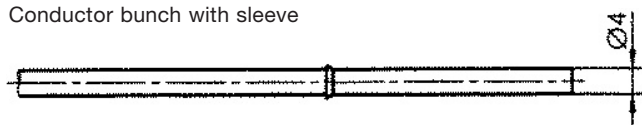
Uninsulated type



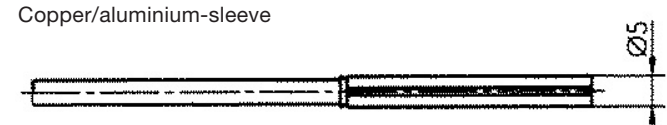
**Connection possibilities**

Insulated and flexible connection cable (copper), 6 mm², available either prepared or unprepared

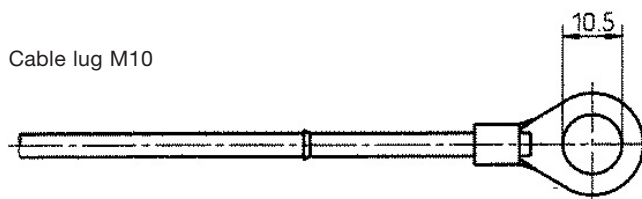
Conductor bunch with sleeve



Copper/aluminium-sleeve



Cable lug M10



Unprepared

