



# MCF lightning arrester

Spark gap technology for 400/690 V network systems



Building Connections



Highest system availability under the toughest conditions.

MCF lightning arrestors protect machines and systems with Multi-carbon-filled Technology



02 TBS Broschüre MCF Blitzstromableiter / 02-11/10-2018





### Protection for 400/690 V power supplies

OBO created the lightning arrestors MCF 35 (type 1) especially for the protection of 400/690 V networks. The protection device, tested according to IEC 61643-11 and certified according to UL 1449, can be installed simply and quickly and is also suitable for use in climatic and mechanically challenging ambient conditions on account of its robust aluminium housing.

### Additional areas of application

- Wind power
- Production
- Industry
- Refineries, oil and gas industry
- Energy stations

# The benefit of the MCF lightning arrester

The integrated AC Stop System prevents the possible release of back-up fuses in the case of an error and ensures high availability of the plant. The benefits of the spark gap arrester, which is based on a new graphite technology, are not only the high follow current quenching capacity of 50 kA<sub>eff</sub>, but also a visual status display, as well as the connection of remote signalling to a potential-free changeover contact.



## Function display

- Visual status display
- With remote signalling, potential-free changeover contact



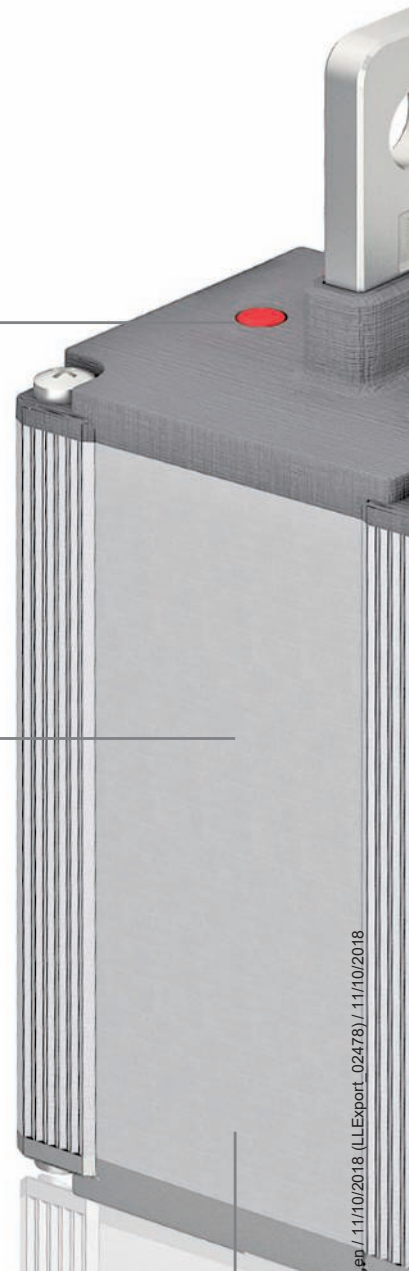
## High availability

The integrated AC Stop System prevents the triggering of back-up fuses in the case of an error



## Graphite technology

High current quenching capacity of 50 kA<sub>eff</sub>







## Universal

Use in various power systems, TN, TT and IT systems (with and without neutral conductors)



## Tested

- Lightning arrester type 1 according to IEC 61643-11
- UL certification according to UL1449 (E327489)
- BAM (German Institute for Material Research and Testing)



## Easy to mount

Simple mounting in the switchgear cabinet thanks to prefabricated mounting plates



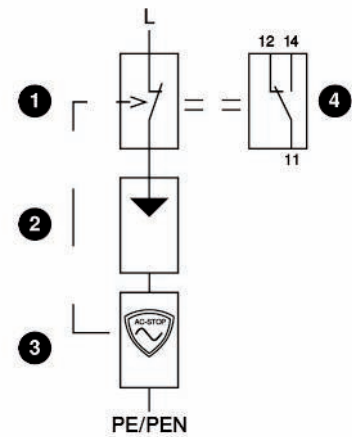
## Robust

Suitable for use in climatic and mechanically challenging ambient conditions on account of its robust aluminium housing

# Technical information

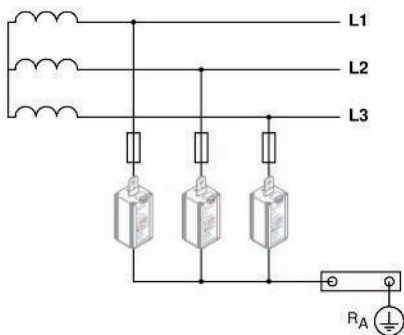


Nominal voltage $U_N$	400 V / 50-60 Hz
Maximum continuous voltage AC $U_C$	440 V
Lightning current $I_{imp}$ (10/350 $\mu$ s)	35 kA
Nominal discharge current $I_n$ (8/20 $\mu$ s)	35 kA
Follow current quenching capacity $I_{fi}$	50 kA <sub>eff</sub>
Protection level $U_p$	$\leq 2,5$ kV
TOV resistancet	760 V (5s)
Max.Max. back-up fuse according to IEC	400 A gL/ gG
Short-circuit resistance $I_{EFF}$	50 kA
Humidity	5% ... 95%
Visual display and remote signalling	YES, potential-free changeover contact
Approval	UL1449 (E327489)
Tested to EN 61643-11	Typ 1

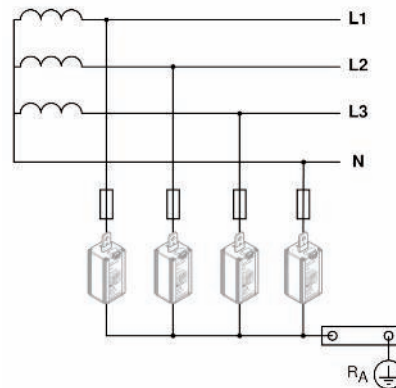


1. Quick trigger unit
2. Spark gap
3. Attenuator
4. Remote signalling

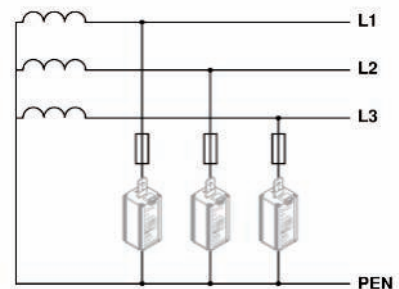
## IT system



## T system with neutral conductor



## TN-C system



## Lightning arrester MCF 35, 400/690 V, 1-pole with IR

Type	Highest continuous voltage		Pack. pcs	Weight		Item No.
	V	Version		kg/100 pcs.	pcs.	
<b>MCF 35-1+FS-440</b>	440	1-pole	1	98.000		<b>5096974</b>

**AIG** Cast aluminium



## Lightning arrester MCF 35, 400/690 V, 3-pole with IR

Type	Highest continuous voltage		Pack. pcs	Weight		Item No.
	V	Version		kg/100 pcs.	pcs.	
<b>MCF 35-P3+FS-440</b>	440	3-pole	1	400.000		<b>5096976</b>

**AIG** Cast aluminium



## Mounting plate, 1-pole

Type	Version		Pack. pcs	Weight		Item No.
				kg/100 pcs.	pcs.	
<b>MCF-MS-P1</b>	1-pole		1	19.600		<b>5096992</b>

**V2A** Stainless steel, grade 304



## Mounting plate, 1-pole, M10

Type	Version		Pack. pcs	Weight		Item No.
				kg/100 pcs.	pcs.	
<b>MCF-MS-M10</b>	1-pole		1	14.200		<b>5096990</b>

**V2A** Stainless steel, grade 304



## Mounting plate, 3-pole

Type	Version		Pack. pcs	Weight		Item No.
				kg/100 pcs.	pcs.	
<b>MCF-MS-P3</b>	3-pole		1	99.800		<b>5096994</b>

**V2A** Stainless steel, grade 304



OBO Bettermann Holding GmbH & Co. KG  
P.O. Box 1120  
58694 Menden  
GERMANY

Customer Service  
Tel.: +49 (0)2373 89-1700  
Fax: +49 (0)2373 89-1238  
[export@obo.de](mailto:export@obo.de)

[www.obo-bettermann.com](http://www.obo-bettermann.com)

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