

# Technical data sheet

## LightningController Compact - MCF100

Art.-Nr. 5096987



Combination arrester, lightning current and surge arrester, type 1+2

- Protection level  $\leq 1.5$  kV
- For lightning protection equipotential bonding to VDE 0185-305 (IEC 62305)
- Lightning current arresting capacity up to 100 kA (10/350), 3+NPE
- Line following current quenching 50 kA Ipeak, arrester backup fuse to 315 A gL/gG
- Fulfills the requirements of VDE-AR-N 4100 for use in pre-meter area
- Encapsulated, non-extinguishing spark gap arrester for use in distributor housings

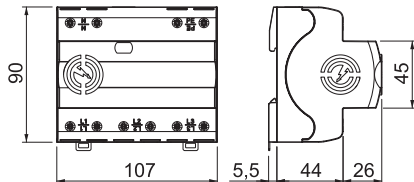
Application: Industrial systems and buildings with external lightning protection of the highest class I to IV.



Additional product text 1

Compact protection device

### Dimensions



Length	90,00 mm
Width	107,00 mm
Height	70,00 mm

### Master data

Item no.	5096987
Type	MCF100-3+NPE+FS
Description 1	LightningController Compact
Description 2	3-pole with NPE + RS
Dimension	255V
Smallest sales unit	1,00 Piece
Weight	93,50 kg/100 pc.

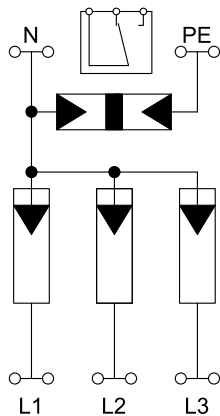
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SPD to EN 61643-11	Type 1+2
SPD to IEC 61643-11	Class I+II
SPD to UL 1449	Type 4
Nominal voltage AC (50/60 Hz)	230,00 V
Maximum continuous voltage AC	255,00 V
Maximum continuous voltage (L-N)	255,00 V
Maximum continuous voltage (N-PE)	255,00 V
Nominal frequency	50,00 Hz
Nominal discharge current (8/20 µs)	35,00 kA
Nominal discharge current (8/20 µs) [L-N]	35,00 kA
Nominal discharge current (8/20 µs) [N-PE]	100,00 kA
Maximum discharge current (8/20 µs)	50,00 kA
Maximum discharge current (8/20 µs) [L-N]	50,00 kA
Maximum discharge current (8/20 µs) [N-PE]	100,00 kA
Lightning surge current (10/350 µs)	25,00 kA
Lightning surge current (10/350 µs) [N/PE]	25,00 kA
Lightning surge current (10/350 µs) [L-N/PE]	100,00 kA
Lightning surge current (10/350)	100,00 kA
Arrestor surge current (8/20 µs) [total]	100,00 kA
Combined voltage protection level [L-PE]	2,50 kV
Protection level	1,50 kV
Protection level [L-N]	1,50 kV
Protection level [N-PE]	1,50 kV
Follow current quenching capacity (eff) [N-PE]	50,00 kA
Response time	<100 ns
Response time [L-N]	<100 ns
Response time [N-PE]	<100 ns
Max. mains-side overcurrent protection	315 A
Short-circuit withstand for max. mains-side overcurrent protection	50 kA eff
TOV voltage [L-N] - fail safe mode - 120 min.	442,00 V
TOV voltage [L-N] - withstand mode - 5 s	440,00 V
TOV voltage [N-PE] - withstand mode - 200 ms	1.200,00 V
Operating temperature range	-40+80 °C
Humidity	5,00 - 95,00 %
Function/defect display	Optical
Ports	One-Port SPD
Pole version	3+N/PE
Pole number	4,00
Connection cross-section (min.)	1,50 mm <sup>2</sup>
Connection cross-section (max.)	35,00 mm <sup>2</sup>
Connection cross-section (min.)	16,00 AWG

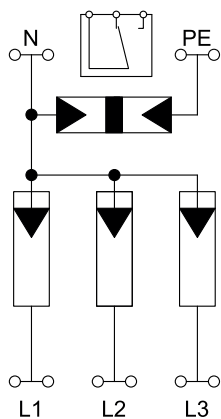
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Connection cross-section (max.)	2,00 AWG
Torque	5,00 Nm
Torque	44,00 Lbs
Mounting type	Hat rail 35 mm
Housing material	PA UL 94 V-0
Installation location	Interior
Protection rating	IP20
Installation dimensions (LxWxH)	90x107x70 mm
Minimum distance	0,00 mm
Approvals	VDE VDE UL UL
FM contacts	Changeover
Switching power AC	250V/ 1,5A
Switching power DC	250V/ 0,1A
Connection cross-section, FM terminals	0,5-1,5 mm <sup>2</sup>
Connection cross-section, FM terminals	28-16 AWG
Torque for FM terminal	0,20 Nm
Torque for FM terminal	1,70 Lbs
Protective conductor current	< 5 µA
Size	6 part units
Remote signalling	<input checked="" type="checkbox"/>
Max. cable cross-section flexible (fine-wire)	25,00 mm <sup>2</sup>
Max. cable cross-section rigid (single wire/multi-wire)	35,00 mm <sup>2</sup>
Conductor cross-section, flexible (fine-wire)	1,50 - 25,00 mm <sup>2</sup>
Conductor cross-section, flexible (fine-wire)	16,00 - 3,00 AWG
Conductor cross-section, rigid (single wire/multi-wire)	16,00 - 2,00 AWG
Conductor cross-section, rigid (single wire/multi-wire)	1,50 - 35,00 mm <sup>2</sup>
Signalling on device	Visual