Technical data sheet

LightningController - MCF100-NAR-TT+FS

Item number: 5096988

Combination arrester, type 1+2, for mounting on 40 mm busbars, for TN-S and TT systems

• Protection level ≤1.5 kV to protect the terminals
• Lightning protection equipotential bonding according to VDE 0185-305 (IEC 62305)
• Lightning current arresting capacity up to 100 kA (10/350) 3+NPE
• Fulfils the requirements of VDE 0100-534 (IEC 60364-5-53)
• Line follow current quenching up to 50 kA and max. backup fuse up to 315 A gL/gG
• Spark gaps for use in the pre-meter area according to VDE-AR-N 4100
• With potential-free changeover contact for remote signalling

Application: Building with lightning protection or outside cable infeed.

RoHS conform | 230/400 V System | Type 1+2 | LPZ 0→2 | FS | HALOGEN FREE

Master data

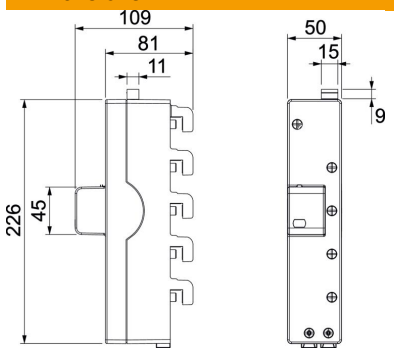
Item number	5096988
Type	MCF100-NAR-TT+FS
Description 1	LightningController Rail
Description 2	3-pole with NPE + RS
Manufacturer	OBO
Dimension	255V
Smallest sales unit	1
Unit of quantity	Piece
Weight	107.6 kg
Weight unit	kg/100 pc.
CO2 Footprint (GWP) Cradle-to-Gate	6,402 kg CO2e / 1 Piece

Technical data sheet

LightningController - MCF100-NAR-TT+FS

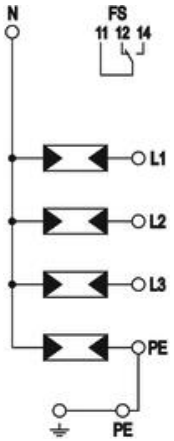
Item number: 5096988

Dimensions



Length	226 mm
Width	50 mm
Height	109 mm

Technical data



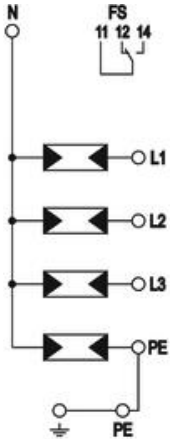
Arrester surge current (8/20 µs) [total]	100 kA
Connection cross-section (min.)	10 mm²
Connection cross-section, FM terminals, max.	16 AWG
Connection cross-section, FM terminals, max.	1.5 mm²
Connection cross-section, FM terminals, min.	28 AWG
Connection cross-section, FM terminals, min.	0.5 mm²
Response time	<100 ns
Response time [L-N]	<100 ns
Response time [N-PE]	<100 ns
Version for	3+NPE
Pole version	3+N/PE
Structural width in division units (division unit, 17.5 mm)	Miscellaneous
Operating temperature, max.	80 °C
Operating temperature, min.	-40 °C
Lightning surge current (10/350 µs)	25 kA
Lightning surge current (10/350 µs) [L-N/PE]	25 kA
Lightning surge current (10/350 µs) [N/PE]	100 kA
Lightning surge current (10/350)	100 kA
Torque	35 Lbs
Torque	3.5 Nm
Torque for FM terminal	1.7 Lbs
Torque for FM terminal	0.2 Nm
Installation location	Interior
Remote signalling	yes
FM contacts	Changeover
Follow current quenching capacity (eff) [N-PE]	0.1 kA
Function/defect display	Visual
Housing material surge protection components	PA UL 94 V-0

Technical data sheet

LightningController - MCF100-NAR-TT+FS

Item number: 5096988

Technical data



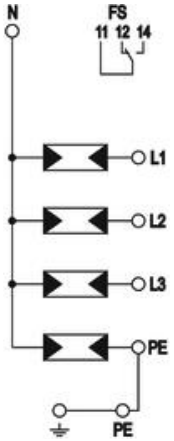
Combined voltage protection level [L-PE]	2.5 kV
Maximum continuous voltage (L-N)	255 V
Maximum continuous voltage (N-PE)	255 V
Maximum continuous voltage AC	255 V
Short-circuit resistance for max. mains-side overcurrent protection	50 kA eff
Conductor cross-section, flexible (fine-wire), max.	35 mm²
Conductor cross-section, flexible (fine-wire), max.	2 AWG
Conductor cross-section, flexible (fine-wire), min.	7 AWG
Conductor cross-section, flexible (fine-wire), min.	10 mm²
Conductor cross-section, rigid (single-wire/multiwire), max.	2 AWG
Conductor cross-section, rigid (single-wire/multiwire), max.	35 mm²
Conductor cross-section, rigid (single-wire/multiwire), min.	7 AWG
Conductor cross-section, rigid (single-wire/multiwire), min.	10 mm²
Humidity, min.	5 %
Humidity, max.	95 %
Max. mains-side overcurrent protection	315 A
Maximum back-up fuse	315 A
Maximum discharge current (8/20 µs)	50 kA
Maximum discharge current (8/20 µs) [L-N]	50 kA
Maximum discharge current (8/20 µs) [N-PE]	100 kA
Minimum distance	0 mm
Installation type	Bus bar 40 mm
Nominal discharge current (8/20 µs)	25 kA
Nominal discharge current (8/20 µs) [L-N]	25 kA
Nominal discharge current (8/20 µs) [L-PE]	25 kA
Nominal discharge current (8/20 µs) [N-PE]	100 kA
Nominal frequency	50 Hz
Nominal voltage AC (50/60 Hz)	230 V
Network form	TN-S, TT
TN network form	yes
TN-C-S network form	yes
TN-S network form	yes
TT network form	yes
Ports	One-Port SPD
ROHS-conformant	Exempt
Switching power AC	250 V/ 2 A
Switching power DC	250 V/ 0,1 A

Technical data sheet

LightningController - MCF100-NAR-TT+FS

Item number: 5096988

Technical data



Protection rating	IP20
Protective conductor current	< 5 µA
Protection level	≤1,5 kV
Protection level [L-N]	≤1,5
Protection level [N-PE]	1.5 kV
Signalling on device	Visual
SPD to EN 61643-11	Type 1+2
SPD to IEC 61643-11	Class I+II
Permitted temperature range, max.	80 °C
Permitted temperature range, min.	-40 °C
TOV voltage [L-N] – fail safe mode – 120 min.	442 V
TOV voltage [L-N] – withstand mode – 5 s	440 V
TOV voltage [N-PE] – withstand mode – 200 ms	1200 V
Approvals	VDE