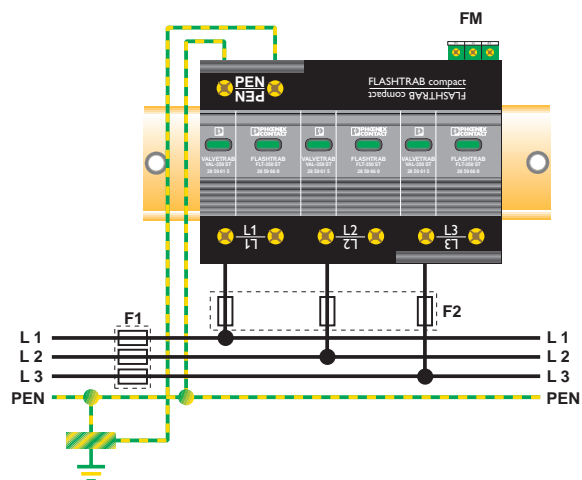
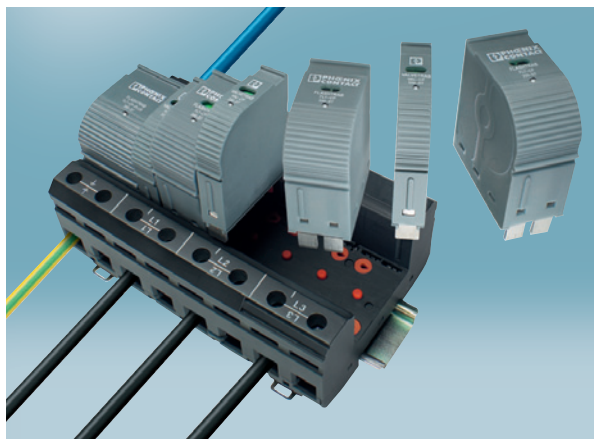


Surge Protection Devices for Power Supply in TN-C Systems

FLASHTRAB compact

The surge protection combination consists of lightning current arresters that are all encapsulated and pluggable (Type 1, Class I) and fully fledged, pluggable surge arresters (Type 2, Class II). A worldwide first is the pluggable N-PE total current spark gap. Pluggability allows insulation measurements in the system, for example, without tampering with the installation – just pull out the plug! A further advantage is the specific, cost-effective replacement option for every connector in the most unlikely event of overload due to extreme lightning. For lightnings of up to 200.000 A, FLASHTRAB compact offers reliable system protection – thus meeting highest requirements acc. to lightning protection class I. Every plugged arrester independently provides full performance. The symmetrical construction allows the plugs to be snapped onto the base element in both directions. Regardless of whether the connection cables are led in from above or below, FLASHTRAB compact can be adapted to any control cabinet thanks to the variable installation direction.

The status displays are all mechanical, allowing the surge protection to be checked on site with a quick look, without the need for electrical power. The status of all the plugs can be signaled remotely via one common floating PDT contact without needing additional space.



Branch wiring of FLT-CP-3C-350 in a TN-C system



Note

Products bearing this stamp (plug elements) can all be tested with the CHECKMASTER.

FLT-CP-3C-350

Arrester combination for 4-conductor networks in a TN-C system



Technical Data

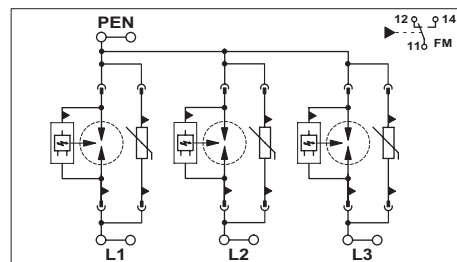
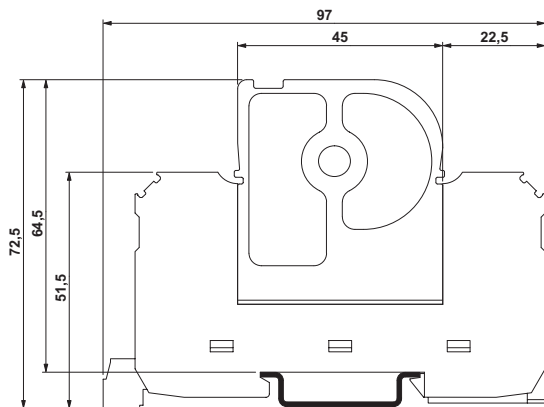
FLASHTRAB compact, for 3-phase power supply systems	L1, L2, L3, PEN
Replacement connector,	Lightning current arrester L-N Surge voltage arrester

Type	Order No.	Pcs. Pkt.
FLT-CP-3C-350	28 59 72 5	1
FLT-CP-350-ST	28 59 66 0	10
VAL-CP-350-ST	28 59 60 2	10

Technical Data

IEC category/VDE requirement class/EN type	I + II/ B + C/ $T1 + T2$
Lightning protection class:	I
Nominal voltage U_N :	230 / 400 V AC ... 240 / 415 V AC
Arrester rated voltage U_C :	350 V AC
Lightning test current I_{imp} (10/350) μ s	75 kA
Peak value	37.5 As / 1.4 MJ/ Ω
Charge/specific energy	75 kA
Nominal discharge surge current i_{sn} (8/20) μ s:	≤ 1 kV
Residual voltage at 5 kA:	L-N ≤ 1.5 kV
Protection level U_p :	L-N ≤ 25 ns
Response time t_a :	L-N 25 kA / 264 V
Follow current quenching capacity I_{F1} :	315 A
Backup fuse ¹⁾ max. in acc. with IEC:	25 kA _{eff}
Short circuit resistance with max. backup fuse I_p :	-40°C ... +80°C
Temperature range:	IP20
Degree of protection in acc. with IEC 60529/EN 60529:	90 mm (6 TE)
Total width:	PBT
Insulation housing:	V0
Inflammability class:	M5 / 4.5 Nm
Thread/torque	M2 / 0.25 Nm
	$\frac{K_{EMA}}$ applied for
Approvals:	DIN EN 61643-11:2002-07/IEC 61643-1:1998-02
Test standards:	floating
Remote indication contact:	PDT
	Max. operating voltage
	250 AC / 125 V DC
	Max. operating current AC (Ω /Ind.)
	1 A / 1 A
	Max. operating current DC (Ω /Ind.)
	0.2 A / 300 mA

¹⁾ 315 A gL/gG tested acc. to IEC, recommended fuse 160 A gL/gG for branch wiring
125 A gL/gG for (V) through wiring



FLT-CP-2C-350

Arrester combination for 3-conductor networks in a TN-C system



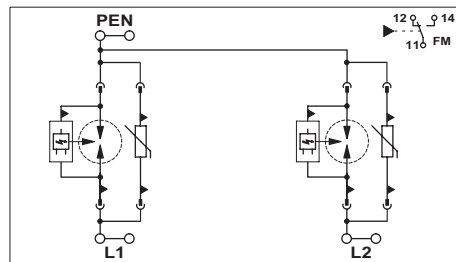
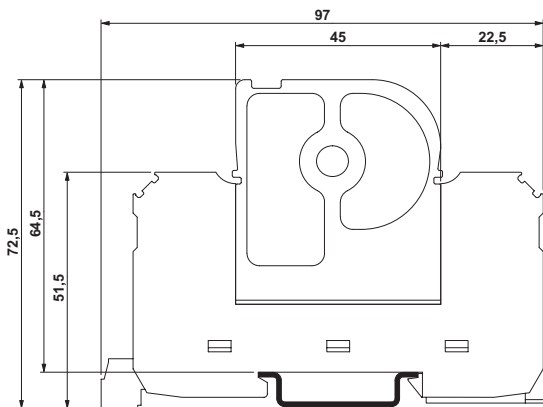
Technical Data

		Type	Order No.	Pcs. Pkt.
FLASHTRAB compact, for 2-phase power supply systems	L1, L2, PEN	FLT-CP-2C-350	28 59 77 0	1
Replacement connector,	Lightning current arrester L-N Surge voltage arrester	FLT-CP-350-ST VAL-CP-350-ST	28 59 66 0 28 59 60 2	10 10

Technical Data

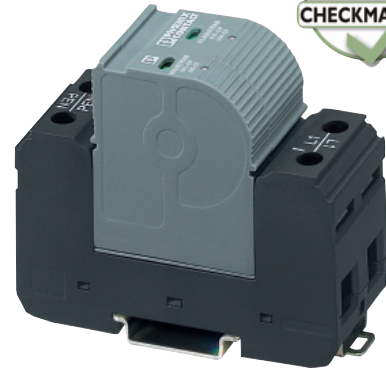
IEC category/VDE requirement class/EN type	I + II/ B + C/ $T1 + T2$
Lightning protection class:	II
Nominal voltage U_N :	230 / 400 V AC ... 240 / 415 V AC
Arrester rated voltage U_C :	350 V AC
Lightning test current I_{imp} (10/350) μ s	50 kA
Peak value	25 As / 625 kJ/ Ω
Charge/specific energy	50 kA
Nominal discharge surge current i_{sn} (8/20) μ s:	≤ 1 kV
Residual voltage at 5 kA:	L-N ≤ 1.5 kV
Protection level U_p :	L-N ≤ 25 ns
Response time t_a :	L-N 25 kA / 264 V
Follow current quenching capacity I_{F1} :	315 A
Backup fuse ¹⁾ max. in acc. with IEC:	25 kA _{eff}
Short circuit resistance with max. backup fuse I_p :	-40°C ... +80°C
Temperature range:	IP20
Degree of protection in acc. with IEC 60529/EN 60529:	105 mm (6 TE)
Total width:	PBT
Insulation housing:	V0
Inflammability class:	M5 / 4.5 Nm
Thread/torque	M2 / 0.25 Nm
	$\frac{K_{EMA}}$ applied for
Approvals:	DIN EN 61643-11:2002-07/IEC 61643-1:1998-02
Test standards:	floating
Remote indication contact:	PDT
	Max. operating voltage
	Max. operating current AC (Ω /Ind.)
	Max. operating current DC (Ω /Ind.)
	250 AC / 125 V DC
	1 A / 1 A
	0.2 A / 300 mA

¹⁾ 315 A gL/gG tested acc. to IEC, recommended fuse 160 A gL/gG for branch wiring
125 A gL/gG for (V) through wiring



FLT-CP-1C-350

Arrester combination for 2-conductor networks in a TN-C system



Technical Data

		Type	Order No.	Pcs. Pkt.
FLASHTRAB compact, for 1-phase power supply systems	L1, PEN	FLT-CP-1C-350	28 59 74 1	1
Replacement connector,	Lightning current arrester L-N Surge voltage arrester	FLT-CP-350-ST VAL-CP-350-ST	28 59 66 0 28 59 60 2	10 10

Technical Data

IEC category/VDE requirement class/EN type	I + II/ B + C/ $T1 + T2$
Lightning protection class:	III, IV
Nominal voltage U_N :	230 V AC ... 240 V AC
Arrester rated voltage U_C :	350 V AC
Lightning test current I_{imp} (10/350) μ s	25 kA
Peak value	12.5 As / 160 kJ/ Ω
Charge/specific energy	25 kA
Nominal discharge surge current i_{sn} (8/20) μ s:	≤ 1 kV
Residual voltage at 5 kA:	L-N ≤ 1.5 kV
Protection level U_p :	L-N ≤ 25 ns
Response time t_a :	25 kA / 264 V
Follow current quenching capacity I_{F1} :	315 A
Backup fuse ¹⁾ max. in acc. with IEC:	25 kA _{eff}
Short circuit resistance with max. backup fuse I_p :	-40°C ... +80°C
Temperature range:	IP20
Degree of protection in acc. with IEC 60529/EN 60529:	70 mm (4 TE)
Total width:	PBT
Insulation housing:	V0
Inflammability class:	M5 / 4.5 Nm
Thread/torque	M2 / 0.25 Nm
	Remote indication contact
Approvals:	ETA applied for
Test standards:	DIN EN 61643-11:2002-07/IEC 61643-1:1998-02
Remote indication contact:	floating
	PDT
	Max. operating voltage
	Max. operating current AC (Ω /Ind.)
	Max. operating current DC (Ω /Ind.)
	250 AC / 125 V DC
	1 A / 1 A
	0.2 A / 300 mA

¹⁾ 315 A gL/gG tested acc. to IEC, recommended fuse 160 A gL/gG for branch wiring
125 A gL/gG for (V) through wiring

