

# FLT-CP-2S-350


Order No.: 2859767



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Pluggable lightning current and surge arrester combination, in acc. with typ 1+2 / Class I+II / B+C arresters. Arresters coordinated following the AEC principle, for 2-phase power supply networks with separately installed PE and N (L1, L2, PE, N).



Commercial data	
GTIN (EAN)	 4 017918 956486
sales group	J000
Pack	1 pcs.
Customs tariff	85363030
Catalog page information	Page 23 (TT-2009)

**Product notes**

WEEE/RoHS-compliant since:  
07/12/2006



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Technical data	
<b>Standards</b>	
Housing material	PBT
Inflammability class acc. to UL 94	V0
Color	gray

Standards for air and creepage distances	DIN VDE 0110-1
	IEC 60664-1: 1992-10
	IEC 61643-1
Surge voltage category	III
Pollution degree	2
Degree of protection	IP20
Mounting type	DIN rail: 35 mm
Design	DIN rail module, two-section, divisible
Number of positions	3
Ambient temperature (operation)	-40 °C ... 80 °C
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 3.00
Message: Surge protection fault	Optical, remote indicator contact
Direction of action	2L-N & N-PE
Width	106.90 mm
Height	70.00 mm
Length	95.80 mm
Pitch unit	6 Div.

#### Protective circuit

IEC category	I + II
	T1 + T2
EN type	T1 + T2
Lightning protection class	II /75 kA (TT, TN-C-S)
Nominal voltage $U_N$	240 V AC (230/400 V AC ... 240/415 V AC)
Arrester rated voltage $U_C$ (L-N)	350 V AC
Arrester rated voltage $U_C$ (N-PE)	350 V AC
$U_T$ (TOV-proof)	$\leq 415$ V AC (5 s / L-N)
$U_T$ (TOV-safe)	1200 V AC (200 ms / N-PE)
Nominal frequency $f_N$	50 Hz (60 Hz)
Nominal load current $I_L$	125 A ( $\leq 55^\circ\text{C}$ )
Ground conductor current $I_{PE}$	$\leq 5$ $\mu\text{A}$ (ground conductor current $I_{PE}$ )
Standby power consumption $P_C$	$\leq 3.5$ mW
Nominal discharge surge current $I_n$ (8/20) $\mu\text{s}$ (L-N)	25 kA
Nominal discharge surge current $I_n$ (8/20) $\mu\text{s}$ (N-PE)	100 kA

Lightning test current (10/350) $\mu$ s, charge	37.5 As
Lightning test current (10/350) $\mu$ s, specific energy	1.40 MJ/ $\Omega$
Lightning test current (10/350) $\mu$ s, peak value $I_{imp}$	75 kA
Lightning test current (10/350) $\mu$ s, charge	50 As
Lightning test current (10/350) $\mu$ s, specific energy	2.50 MJ/ $\Omega$
Lightning test current (10/350) $\mu$ s, peak value $I_{imp}$	100 kA (N-PE)
Impulse operate voltage at 6 kV (1.2/50) $\mu$ s (N-PE)	$\leq 1.5$ kV
Protection level $U_p$ (L-N)	$\leq 1.5$ kV
Protection level UP (N-PE)	$\leq 1.5$ kV
Residual voltage (L-N)	$\leq 1.3$ kV (at $I_n$ )
	$\leq 1.1$ kV (at 10 kA)
	$\leq 1$ kV (at 5 kA)
	$\leq 1$ kV (at 3 kA)
Residual voltage (L-PE)	$\leq 2.2$ kV (at $I_n$ )
	$\leq 2$ kV (at 10 kA)
	$\leq 1.8$ kV (at 5 kA)
	$\leq 1.6$ kV (at 3 kA)
Residual voltage (N-PE)	$\leq 1.5$ kV (at $I_n$ )
	$\leq 1$ kV (at 10 kA)
	$\leq 0.9$ kV (at 5 kA)
	$\leq 0.8$ kV (at 3 kA)
Clamping voltage SVR (L-N)	$\leq 0.9$ kV
Clamping voltage SVR (L-PE)	$\leq 1.5$ kV
Clamping voltage SVR (N-PE)	$\leq 1.5$ kV
Response time (L-N)	$\leq 25$ ns
Response time (L-PE)	$\leq 100$ ns
Response time (N-PE)	$\leq 100$ ns
Max. required backup fuse with branch wiring	315 A (gL/gG)
Max. required backup fuse with V-type through wiring	125 A (gL/gG)
Recommended backup fuse maximum	160 A (gL/gG, 125 A with serial through wiring)
Short-circuit resistance $I_p$ with max. backup fuse (effective)	25 kA
Short-circuit current self-quenching	100 A (effective (N-PE))
Follow current quenching capacity $I_f$	100 A (350 V AC (N-PE))

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Follow current quenching capacity If (L-N)	25 kA (264 V AC)
	3 kA (350 V AC)
Follow current quenching capacity If (N-PE)	100 A

**Connection, protective circuit**

Type of connection	Screw terminal blocks
Connection type IN	Biconnect screw terminal block
Connection type OUT	Biconnect screw terminal block
Connection method	Biconnect terminal block
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	18 mm
Conductor cross section stranded min.	2.5 mm <sup>2</sup>
Conductor cross section stranded max.	25 mm <sup>2</sup>
Conductor cross section solid min.	2.5 mm <sup>2</sup>
Conductor cross section solid max.	35 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	13
Conductor cross section AWG/kcmil max	2

**Remote indicator contact**

Connection name	Remote fault indicator contact
Switching function	PDT contact
Type of connection	Plug-in/screw connection via COMBICON
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section stranded min.	0.14 mm <sup>2</sup>
Conductor cross section stranded max.	1.5 mm <sup>2</sup>
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	28
Conductor cross section AWG/kcmil max	16
Maximum operating voltage U <sub>max</sub> AC	250 V AC
Maximum operating voltage U <sub>max</sub> DC	125 V DC

Max. operating current $I_{max}$	1 A AC (inductive)
	1 A AC (ohmic)
	30 mA DC (inductive)
	200 mA DC (ohmic)

#### Environmental conditions

Standards/regulations	IEC 61643-1
	EN 61643-11
	UL 1449

#### Certificates / Approvals



Certification

CB, CCA, CUL, GOST, KEMA, UL

#### Accessories

Item	Designation	Description
<b>General</b>		
2859686	FLT-CP-N/PE-350-ST	Type 1 / Class I / B arrester (lightning arrester) replacement plug for path N-PE, can be combined with FLASHTRAB compact series of products.
2859602	VAL-CP-350-ST	Type 2 arrester replacement plug (surge arrester) with high-capacity varistor with low leakage current.

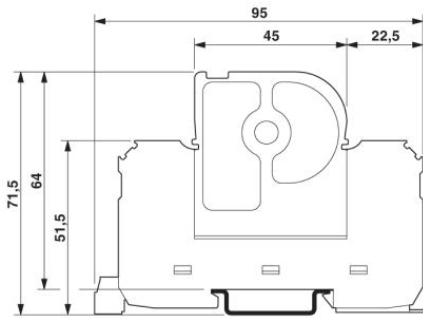
#### Marking

1051993	B-STIFT	Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm
0803595	ZBFM 5/WH:UNBEDRUCKT	Zack marker sheet, flat, unprinted: 120-section, 10 strips à 12 markers, sufficient for 120 terminal blocks, for all terminal blocks, pitch 5.2 mm, labeling with M-PEN or CMS system, color: white
2749589	ZBN 18,LGS:ERDE	Marking labels, printed horizontally, strips with 5 labels, GND (grounding symbol), color: White
2749576	ZBN 18,LGS:L1-N,ERDE	Marker labels, printed horizontally, strips with 5 labels, L1, L2, L3, N, GND, color: white
0800763	ZBN 18:SO/CMS	Marker labels, 5-section, special printing, labeled according to customer requirements (Please specify the required marking with order), for terminal width: 17.5 mm, color: White

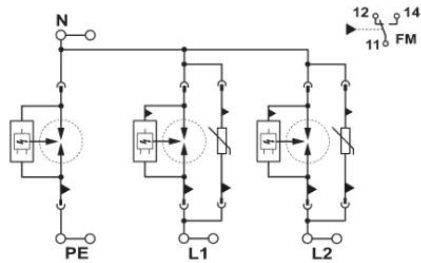
2809128	ZBN 18:UNBEDRUCKT	Unprinted marker labels, strips with 5 labels for individual labeling with M-PEN or CMS system, for terminal block width: 17.5 mm, color: White
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**Diagrams/Drawings**

Dimensioned drawing



Circuit diagram



**Address**

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