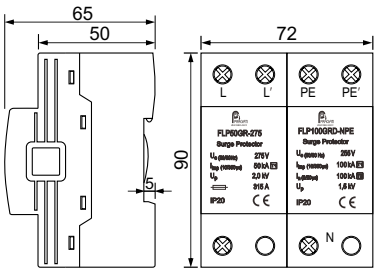
Surge Arrester - Type 1

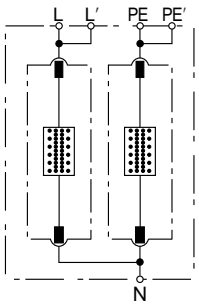
FLP50GR-275/1+1

Integral housing coordinated lightning current and surge arrester for protecting single-phase TT and TN systems ("1+1" circuit) against surges.

- Coordinated spark-gap-based lightning current and surge arrester
- Maximum systems availability due to RADAX Flow follow current limitation
- Capable of protecting terminal equipment



Dimensions



Basic circuit diagram

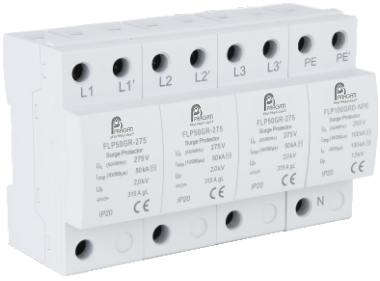
Type		FLP50GR-275/1+1
SPD according to EN 61643-11 / IEC 61643-11		type 1 / class I
Nominal a.c. voltage	U_n	230 / 400 V AC (50/60 Hz)
Max. continuous operating a.c. voltage [L-N]	U_c	275 V AC (50/60 Hz)
Max. continuous operating a.c. voltage [N-PE]	$U_{c\ (N-PE)}$	255 V AC (50/60 Hz)
Lightning impulse current (10/350µs) [L+N-PE]	I_{total}	100 kA
Specific energy [L+N-PE] (W/R)		625,00 kJ/ohms
Lightning impulse current (10/350µs) [L-N]/[N-PE]	I_{imp}	50 kA / 100 kA
Specific energy [L-N]/[N-PE] (W/R)		625,00 kJ/ohms / 1,25 MJ/ohms
Nominal discharge current (8/20µs) [L-N]/[N-PE]	I_n	50 kA / 100 kA
Voltage protection level [L-N]/[N-PE]	U_P	2,0 kV / 1,5 kV
Follow current extinguishing capability a.c.	I_{fi}	50 kA_{rms} / 100 A_{rms}
Follow current limitation / Selectivity		no tripping of a 20 A gL/gG fuse up to 50 kA_{rms} (prosp.)
Response time	t_A	< 100 ns
Max. backup fuse (L) up to I_K = 50 kA_{rms} (ta < 0,2 s)		500 A gL/gG
Max. backup fuse (L) up to I_K = 50 kA_{rms} (ta < 5 s)		315 A gL/gG
Max. backup fuse (L) up to I_K > 50 kA_{rms}		200 A gL/gG
Max. backup fuse (L-L')		125 A gL/gG
Temporary overvoltage [L-N] (TOV) (U_T) - Characteristic		530 V / 120 min. - withstand
Temporary overvoltage [N-PE] (TOV) (U_T) - Characteristic		1200 V / 200 ms. - withstand
Range of operating temperatures [parallel] / [series]	T_U	-40...+80°C / -40...+60°C
Operating state / fault indication		–
Number of ports		1
Cross-sectional area (L, L', N, PE, PE') (min.)		10 mm^2 solid / flexible
Cross-sectional area (L, N, PE) (max.)		50 mm^2 stranded / 35 mm^2 flexible
Cross-sectional area (L', PE') (max.)		35 mm^2 stranded / 25 mm^2 flexible
For mounting on		35 mm DIN rail acc. to EN 60715
Enclosure material		thermoplastic
Place of installation		indoor installation
Degree of protection		IP20
Capacity		4 module(s), DIN 43880
Approvals		CE

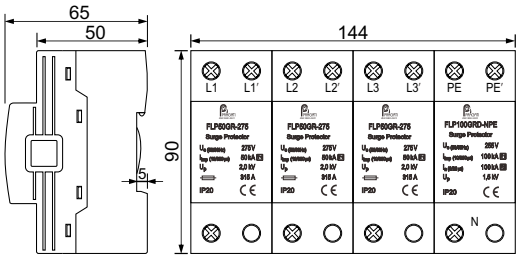
Surge Arrester - Type 1

FLP50GR-275/3+1

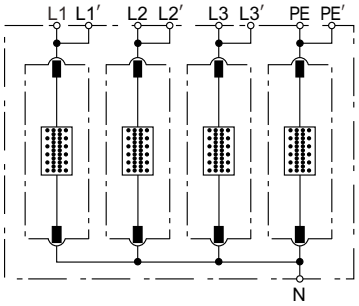
Integral housing coordinated lightning current and surge arrester for protecting three-phase TT and TN-S systems ("3+1" circuit) against surges.

- Coordinated spark-gap-based lightning current and surge arrester
- Maximum systems availability due to RADAX Flow follow current limitation
- Capable of protecting terminal equipment





Dimensions



Basic circuit diagram

Type		FLP50GR-275/3+1
SPD according to EN 61643-11 / IEC 61643-11		type 1 / class I
Nominal a.c. voltage	U_n	230 / 400 V AC (50/60 Hz)
Max. continuous operating a.c. voltage [L-N]	U_c	275 V AC (50/60 Hz)
Max. continuous operating a.c. voltage [N-PE]	$U_{c\ (N-PE)}$	255 V AC (50/60 Hz)
Lightning impulse current (10/350µs) [L1+L2+L3+N-PE]	I_{total}	200 kA
Specific energy [L1+L2+L3+N-PE] (W/R)		2,5 MJ/ohms
Lightning impulse current (10/350µs) [L-N]/[N-PE]	I_{imp}	50 kA / 100 kA
Specific energy [L-N]/[N-PE] (W/R)		625,00 kJ/ohms / 2,5 MJ/ohms
Nominal discharge current (8/20µs) [L-N]/[N-PE]	I_n	50 kA / 100 kA
Voltage protection level [L-N]/[N-PE]	U_P	2,0 kV / 1,5 kV
Follow current extinguishing capability a.c.	I_{fi}	50 kA_{rms} / 100 A_{rms}
Follow current limitation / Selectivity		no tripping of a 20 A gL/gG fuse up to 50 kA_{rms} (prosp.)
Response time	t_A	< 100 ns
Max. backup fuse (L) up to I_K = 50 kA_{rms} (ta < 0,2 s)		500 A gL/gG
Max. backup fuse (L) up to I_K = 50 kA_{rms} (ta < 5 s)		315 A gL/gG
Max. backup fuse (L) up to I_K > 50 kA_{rms}		200 A gL/gG
Max. backup fuse (L-L')		125 A gL/gG
Temporary overvoltage [L-N] (TOV) (U_T) - Characteristic		530 V / 120 min. - withstand
Temporary overvoltage [N-PE] (TOV) (U_T) - Characteristic		1200 V / 200 ms. - withstand
Range of operating temperatures [parallel] / [series]	T_U	-40...+80°C / -40...+60°C
Operating state / fault indication		–
Number of ports		1
Cross-sectional area (L1, L1', L2, L2', L3, L3', N, PE, PE') (min.)		10 mm^2 solid / flexible
Cross-sectional area (L1, L2, L3, N, PE) (max.)		50 mm^2 stranded / 35 mm^2 flexible
Cross-sectional area (L1', L2', L3', PE') (max.)		35 mm^2 stranded / 25 mm^2 flexible
For mounting on		35 mm DIN rail acc. to EN 60715
Enclosure material		thermoplastic
Place of installation		indoor installation
Degree of protection		IP20
Capacity		8 module(s), DIN 43880
Approvals		CE