

# AC Surge Protective Device

## FLP12,5-xxx/1(S)

Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards  
 Network Systems: TN-S, TN-C, TT (only L-N)  
 Mode of Protection: L-PE, N-PE (only TN-S), L-PEN, L-N  
 Surge Ratings:  $I_{imp} = 12.5 \text{ kA} (10/350 \mu\text{s})$   
 $I_n = 20 \text{ kA} (8/20 \mu\text{s})$   
 IEC/EN Category: Class I+II / Type 1+2  
 Protective Elements: High Energy MOV  
 Housing: Pluggable Design  
 Compliance: IEC 61643-11:2011  
 EN 61643-11:2012

### Technical Data

FLP12,5-xxx/1(S)		75	150	275	320	385	440
<b>IEC Electrical</b>							
Nominal AC Voltage (50/60 Hz)	$U_o / U_n$	60 V	120 V	230 V	230 V	230 V	400 V
Maximum Continuous Operating Voltage (AC)	$U_c$	75 V	150 V	275 V	320 V	385 V	440 V
Nominal Discharge Current (8/20 $\mu\text{s}$ )	$I_n$	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA
Maximum Discharge Current (8/20 $\mu\text{s}$ )	$I_{max}$	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
Impulse Discharge Current (10/350 $\mu\text{s}$ )	$I_{imp}$	12.5 kA	12.5 kA	12.5 kA	12.5 kA	12.5 kA	12.5 kA
Specific Energy	W/R	39 kJ/ $\Omega$	39 kJ/ $\Omega$	39 kJ/ $\Omega$	39 kJ/ $\Omega$	25 kJ/ $\Omega$	25 kJ/ $\Omega$
Charge	Q	6.25 As	6.25 As	6.25 As	6.25 As	5 As	5 As
Voltage Protection Level	$U_p$	700 V	1000 V	1500 V	1600 V	1800 V	2000 V
Residual Current at $U_c$	$I_{PE}$	< 0.5 mA					
Response Time	$t_A$	< 25 ns					
Max. Backup Fuse		160 A gL / gG					
Short-Circuit Current Rating (AC)	$I_{SCCR}$	25 kA					
TOV Withstand 5 s	$U_T$	114 V	180 V	335 V	335 V	335 V	580 V
TOV 120 min	$U_T$	114 V	230 V	440 V	440 V	440 V	765 V
	mode	Withstand	Safe Fail	Safe Fail	Safe Fail	Safe Fail	Safe Fail
Number of Ports		1					
<b>Mechanical &amp; Environmental</b>							
Operating Temperature Range	$T_a$	-40 °F to +158 °F [-40 °C to +70 °C]					
Permissible Operating Humidity	RH	5% to 95%					
Atmospheric Pressure and Altitude		80 kPa to 106 kPa / -500 m to 2000 m					
Terminal Screw Torque	$M_{max}$	39.9 lbf·in [4.5 Nm]					
Conductor Cross Section (max.)		2 AWG (Solid, Stranded) / 4 AWG (Flexible) 35 mm <sup>2</sup> (Solid, Stranded) / 25 mm <sup>2</sup> (Flexible)					
Mounting		35 mm DIN Rail, EN 60715					
Degree of Protection		IP20 (built-in)					
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0					
Thermal Protection		Yes					
Operating State / Fault Indication		Green ok / Red defect					
Remote Contacts (RC)		Optional					
RC Switching Capacity		AC: 250 V / 0.5 A; DC: 250 V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A					
RC Conductor Cross Section (max.)		16 AWG (Solid) / 1.5 mm <sup>2</sup> (Solid)					
<b>Order Information</b>							
Ordering Code		75	150	275	320	385	440
FLP12,5-xxx/1		1207511	1215011	1227511	1232011	1238511	1244011
FLP12,5-xxx/1S (with remote contacts)		1207512	1215012	1227512	1232012	1238512	1244012
FLP12,5-xxx/0 (spare modules)		1207501	1215001	1227501	1232001	1238501	1244001

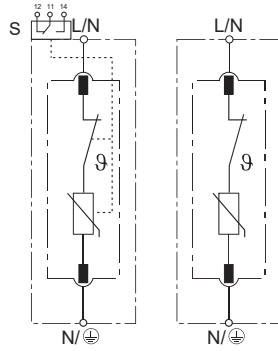


## FLP12,5-xxx/1(S)

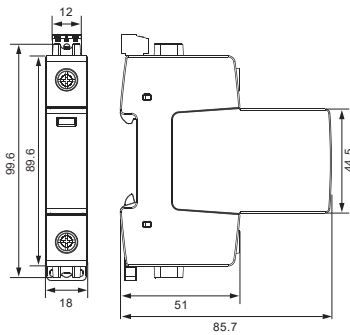
### Internal Configuration

#### Legend

- L Line Conductor Terminal
- N Neutral Conductor Terminal
- ⊕ PE/G Conductor Terminal
- S Signalling Contacts Optional



### Dimensions & Packaging

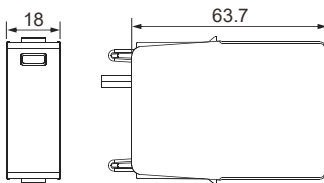


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#### Complete Unit

FLP12,5-xxx/1(S)	75	150	275	320	385	440
DIN 43880 Dimension	1 CTN					
Packaging Dimensions (H x W x L)	[210 × 220 × 330 mm]					
Standard Order Quantity	64 Units					

### Spare Plug

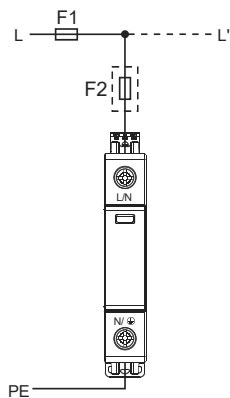


#### Single Unit

FLP12,5-xxx/0	75	150	275	320	385	440
DIN 43880 Dimension	1 CTN					
Packaging Dimensions (H x W x L)	[210 × 220 × 330 mm]					
Standard Order Quantity	120 Units					

### Connection Diagram

TN-S, TN-C, TT (Single-phase, 1+0)



# AC Surge Protective Device FLP12,5-xxx/2(S)

Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards  
 Network Systems: TN-S  
 Mode of Protection: L-PE, N-PE  
 Surge Ratings:  $I_{imp} = 12.5 \text{ kA} (10/350 \mu\text{s})$   
 $I_n = 20 \text{ kA} (8/20 \mu\text{s})$   
 IEC/EN Category: Class I+II / Type 1+2  
 Protective Elements: High Energy MOV  
 Housing: Pluggable Design  
 Compliance: IEC 61643-11:2011  
 EN 61643-11:2012

## Technical Data

FLP12,5-xxx/2(S)		75	150	275	320	385	440
<b>IEC Electrical</b>							
Nominal AC Voltage (50/60 Hz)	$U_o / U_n$	60 V	120 V	230 V	230 V	230 V	400 V
Maximum Continuous Operating Voltage (AC)	$U_c$	75 V	150 V	275 V	320 V	385 V	440 V
Nominal Discharge Current (8/20 $\mu\text{s}$ )	$I_n$	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA
Maximum Discharge Current (8/20 $\mu\text{s}$ )	$I_{max}$	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
Impulse Discharge Current (10/350 $\mu\text{s}$ )	$I_{imp}$	12.5 kA	12.5 kA	12.5 kA	12.5 kA	12.5 kA	12.5 kA
Specific Energy	W/R	39 kJ/ $\Omega$	39 kJ/ $\Omega$	39 kJ/ $\Omega$	39 kJ/ $\Omega$	25 kJ/ $\Omega$	25 kJ/ $\Omega$
Charge	Q	6.25 As	6.25 As	6.25 As	6.25 As	5 As	5 As
Voltage Protection Level	$U_p$	700 V	1000 V	1500 V	1600 V	1800 V	2000 V
Residual Current at $U_c$	$I_{PE}$	< 0.5 mA					
Response Time	$t_A$	< 25 ns					
Max. Backup Fuse		160 A gL / gG					
Short-Circuit Current Rating (AC)	$I_{SCCR}$	25 kA					
TOV Withstand 5 s	$U_T$	114 V	180 V	335 V	335 V	335 V	580 V
TOV 120 min	$U_T$	114 V	230 V	440 V	440 V	440 V	765 V
	mode	Withstand	Safe Fail	Safe Fail	Safe Fail	Safe Fail	Safe Fail
Number of Ports		1					
<b>Mechanical &amp; Environmental</b>							
Operating Temperature Range	$T_a$	-40 °F to +158 °F [-40 °C to +70 °C]					
Permissible Operating Humidity	RH	5% to 95%					
Atmospheric Pressure and Altitude		80 kPa to 106 kPa / -500 m to 2000 m					
Terminal Screw Torque	$M_{max}$	39.9 lbf·in [4.5 Nm]					
Conductor Cross Section (max.)		2 AWG (Solid, Stranded) / 4 AWG (Flexible) 35 mm <sup>2</sup> (Solid, Stranded) / 25 mm <sup>2</sup> (Flexible)					
Mounting		35 mm DIN Rail, EN 60715					
Degree of Protection		IP20 (built-in)					
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0					
Thermal Protection		Yes					
Operating State / Fault Indication		Green ok / Red defect					
Remote Contacts (RC)		Optional					
RC Switching Capacity		AC: 250 V / 0.5 A; DC: 250 V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A					
RC Conductor Cross Section (max.)		16 AWG (Solid) / 1.5 mm <sup>2</sup> (Solid)					
<b>Order Information</b>							
Ordering Code		75	150	275	320	385	440
FLP12,5-xxx/2		1207521	1215021	1227521	1232021	1238521	1244021
FLP12,5-xxx/2S (with remote contacts)		1207522	1215022	1227522	1232022	1238522	1244022
FLP12,5-xxx/0 (spare modules)		1207501	1215001	1227501	1232001	1238501	1244001

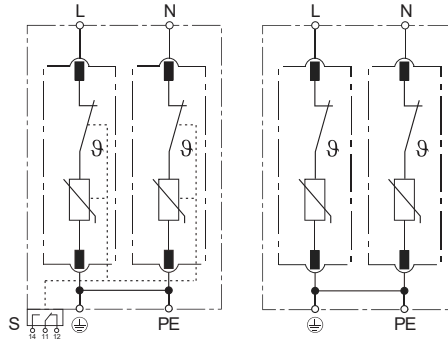


## FLP12,5-xxx/2(S)

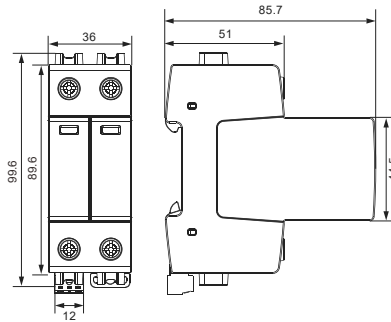
### Internal Configuration

#### Legend

- L Line Conductor Terminal
- N Neutral Conductor Terminal
- ⊕ PE/G Conductor Terminal
- S Signalling Contacts Optional



### Dimensions & Packaging

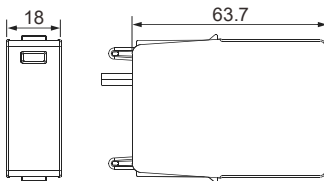


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#### Complete Unit

FLP12,5-xxx/2(S)	75	150	275	320	385	440
DIN 43880 Dimension	1 CTN					
Packaging Dimensions (H x W x L)	[210 × 220 × 330 mm]					
Standard Order Quantity	28 Units					

### Spare Plug

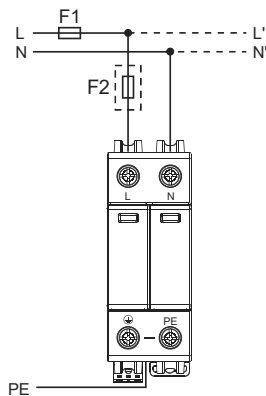


#### Single Unit

FLP12,5-xxx/0	75	150	275	320	385	440
DIN 43880 Dimension	1 CTN					
Packaging Dimensions (H x W x L)	[210 × 220 × 330 mm]					
Standard Order Quantity	120 Units					

### Connection Diagram

#### TN-S (Single-phase, 2+0)



# AC Surge Protective Device FLP12,5-xxx/3(S)

Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards  
 Network Systems: TN-C,  
 Mode of Protection: L-PEN  
 Surge Ratings:  $I_{imp} = 12.5 \text{ kA (10/350 } \mu\text{s)}$   
 $I_n = 20 \text{ kA (8/20 } \mu\text{s)}$   
 IEC/EN Category: Class I+II / Type 1+2  
 Protective Elements: High Energy MOV  
 Housing: Pluggable Design  
 Compliance: IEC 61643-11:2011  
 EN 61643-11:2012

## Technical Data

FLP12,5-xxx/3(S)		150	275	320	385	440
<b>IEC Electrical</b>						
Nominal AC Voltage (50/60 Hz)	$U_o / U_n$	120 V	230 V	230 V	230 V	400 V
Maximum Continuous Operating Voltage (AC)	$U_c$	150 V	275 V	320 V	385 V	440 V
Nominal Discharge Current (8/20 $\mu\text{s}$ )	$I_n$	20 kA	20 kA	20 kA	20 kA	20 kA
Maximum Discharge Current (8/20 $\mu\text{s}$ )	$I_{max}$	50 kA	50 kA	50 kA	50 kA	50 kA
Impulse Discharge Current (10/350 $\mu\text{s}$ )	$I_{imp}$	12.5 kA	12.5 kA	12.5 kA	12.5 kA	12.5 kA
Specific Energy	W/R	39 kJ/ $\Omega$	39 kJ/ $\Omega$	39 kJ/ $\Omega$	25 kJ/ $\Omega$	25 kJ/ $\Omega$
Charge	Q	6.25 As	6.25 As	6.25 As	5 As	5 As
Voltage Protection Level	$U_p$	1000 V	1500 V	1600 V	1800 V	2000 V
Residual Current at $U_c$	$I_{PE}$			< 0.5 mA		
Response Time	$t_A$			< 25 ns		
Max. Backup Fuse				160 A gL / gG		
Short-Circuit Current Rating (AC)	$I_{SCCR}$			25 kA		
TOV Withstand 5 s	$U_T$	180 V	335 V	335 V	335 V	580 V
TOV 120 min	$U_T$	230 V	440 V	440 V	440 V	765 V
	mode			Safe Fail		
Number of Ports				1		
<b>Mechanical &amp; Environmental</b>						
Operating Temperature Range	$T_a$	-40 °F to +158 °F [-40 °C to +70 °C]				
Permissible Operating Humidity	RH	5% to 95%				
Atmospheric Pressure and Altitude		80 kPa to 106 kPa / -500 m to 2000 m				
Terminal Screw Torque	$M_{max}$	39.9 lbf-in [4.5 Nm]				
Conductor Cross Section (max.)		2 AWG (Solid, Stranded) / 4 AWG (Flexible) 35 mm <sup>2</sup> (Solid, Stranded) / 25 mm <sup>2</sup> (Flexible)				
Mounting		35 mm DIN Rail, EN 60715				
Degree of Protection		IP20 (built-in)				
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0				
Thermal Protection		Yes				
Operating State / Fault Indication		Green ok / Red defect				
Remote Contacts (RC)		Optional				
RC Switching Capacity		AC: 250 V / 0.5 A; DC: 250 V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A				
RC Conductor Cross Section (max.)		16 AWG (Solid) / 1.5 mm <sup>2</sup> (Solid)				
<b>Order Information</b>						
Ordering Code		150	275	320	385	440
FLP12,5-xxx/3		1215031	1227531	1232031	1238531	1244031
FLP12,5-xxx/3S (with remote contacts)		1215032	1227532	1232032	1238532	1244032
FLP12,5-xxx/0 (spare modules)		1215001	1227501	1232001	1238501	1244001

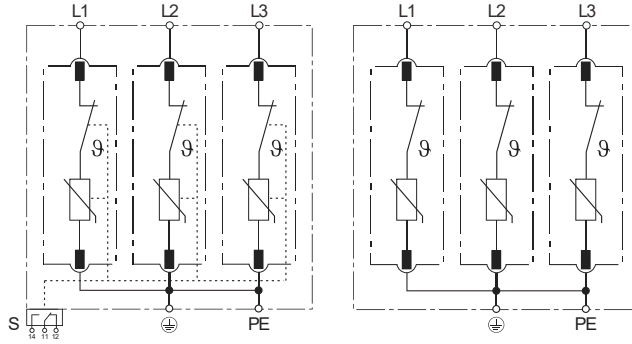


# FLP12,5-xxx/3(S)

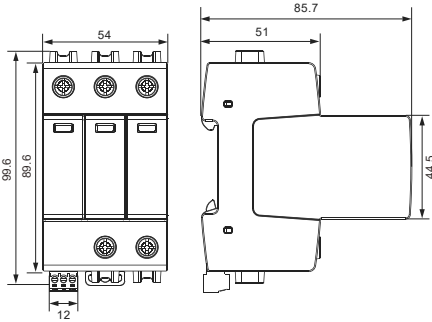
## Internal Configuration

### Legend

- L Line Conductor Terminal
- N Neutral Conductor Terminal
- ⊕ PE/G Conductor Terminal
- S Signalling Contacts Optional



## Dimensions & Packaging

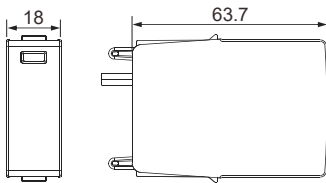


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### Complete Unit

FLP12,5-xxx/3(S)	150	275	320	385	440
DIN 43880 Dimension	1 CTN				
Packaging Dimensions (H x W x L)	[210 × 220 × 330 mm]				
Standard Order Quantity	20 Units				

## Spare Plug

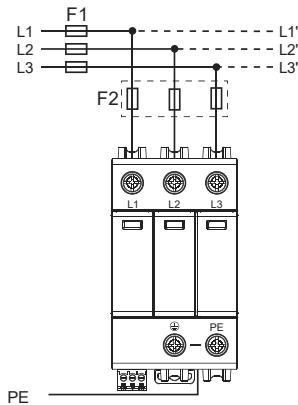


### Single Unit

FLP12,5-xxx/0	150	275	320	385	440
DIN 43880 Dimension	1 CTN				
Packaging Dimensions (H x W x L)	[210 × 220 × 330 mm]				
Standard Order Quantity	120 Units				

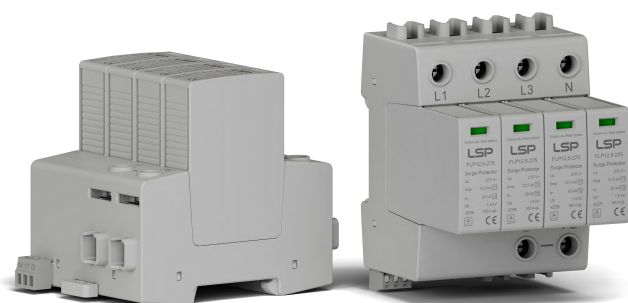
## Connection Diagram

### TN-C (Three-phase, 3+0)



# AC Surge Protective Device FLP12,5-xxx/4(S)

Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards  
 Network Systems: TN-S  
 Mode of Protection: L-PE, N-PE  
 Surge Ratings:  $I_{imp} = 12.5 \text{ kA (10/350 } \mu\text{s)}$   
 $I_n = 20 \text{ kA (8/20 } \mu\text{s)}$   
 IEC/EN Category: Class I+II / Type 1+2  
 Protective Elements: High Energy MOV  
 Housing: Pluggable Design  
 Compliance: IEC 61643-11:2011  
 EN 61643-11:2012

## Technical Data

FLP12,5-xxx/4(S)		150	275	320	385	440
<b>IEC Electrical</b>						
Nominal AC Voltage (50/60 Hz)	$U_o / U_n$	120 V	230 V	230 V	230 V	400 V
Maximum Continuous Operating Voltage (AC)	$U_c$	150 V	275 V	320 V	385 V	440 V
Nominal Discharge Current (8/20 $\mu\text{s}$ )	$I_n$	20 kA	20 kA	20 kA	20 kA	20 kA
Maximum Discharge Current (8/20 $\mu\text{s}$ )	$I_{max}$	50 kA	50 kA	50 kA	50 kA	50 kA
Impulse Discharge Current (10/350 $\mu\text{s}$ )	$I_{imp}$	12.5 kA	12.5 kA	12.5 kA	12.5 kA	12.5 kA
Specific Energy	W/R	39 kJ/ $\Omega$	39 kJ/ $\Omega$	39 kJ/ $\Omega$	25 kJ/ $\Omega$	25 kJ/ $\Omega$
Charge	Q	6.25 As	6.25 As	6.25 As	5 As	5 As
Voltage Protection Level	$U_p$	1000 V	1500 V	1600 V	1800 V	2000 V
Residual Current at $U_c$	$I_{PE}$			< 0.5 mA		
Response Time	$t_A$			< 25 ns		
Max. Backup Fuse				160 A gL / gG		
Short-Circuit Current Rating (AC)	$I_{SCCR}$			25 kA		
TOV Withstand 5 s	$U_T$	180 V	335 V	335 V	335 V	580 V
TOV 120 min	$U_T$	230 V	440 V	440 V	440 V	765 V
	mode			Safe Fail		
Number of Ports				1		
<b>Mechanical &amp; Environmental</b>						
Operating Temperature Range	$T_a$	-40 °F to +158 °F [-40 °C to +70 °C]				
Permissible Operating Humidity	RH	5% to 95%				
Atmospheric Pressure and Altitude		80 kPa to 106 kPa / -500 m to 2000 m				
Terminal Screw Torque	$M_{max}$	39.9 lbf-in [4.5 Nm]				
Conductor Cross Section (max.)		2 AWG (Solid, Stranded) / 4 AWG (Flexible) 35 mm <sup>2</sup> (Solid, Stranded) / 25 mm <sup>2</sup> (Flexible)				
Mounting		35 mm DIN Rail, EN 60715				
Degree of Protection		IP20 (built-in)				
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0				
Thermal Protection		Yes				
Operating State / Fault Indication		Green ok / Red defect				
Remote Contacts (RC)		Optional				
RC Switching Capacity		AC: 250 V / 0.5 A; DC: 250 V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A				
RC Conductor Cross Section (max.)		16 AWG (Solid) / 1.5 mm <sup>2</sup> (Solid)				
<b>Order Information</b>						
Ordering Code		150	275	320	385	440
FLP12,5-xxx/4		1215041	1227541	1232041	1238541	1244041
FLP12,5-xxx/4S (with remote contacts)		1215042	1227542	1232042	1238542	1244042
FLP12,5-xxx/0 (spare modules)		1215001	1227501	1232001	1238501	1244001

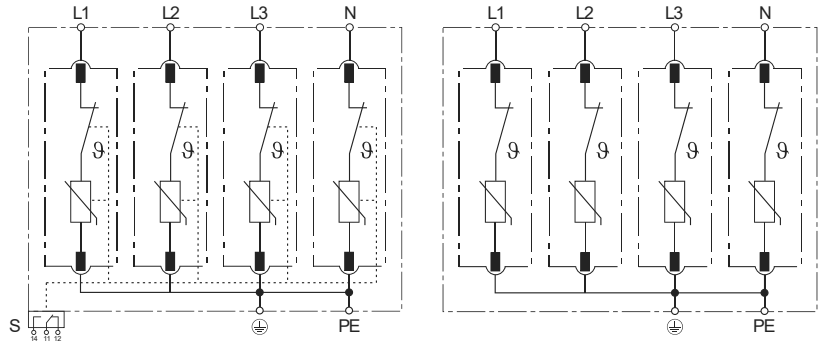


# FLP12,5-xxx/4(S)

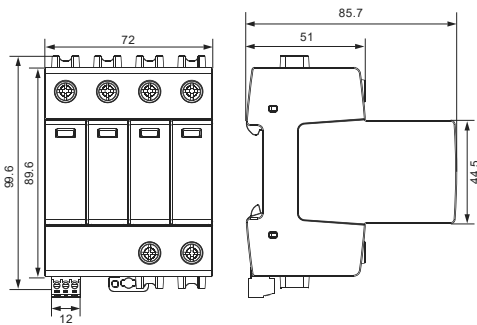
## Internal Configuration

### Legend

- L Line Conductor Terminal
- N Neutral Conductor Terminal
- ⊕ PE/G Conductor Terminal
- S Signalling Contacts Optional



## Dimensions & Packaging

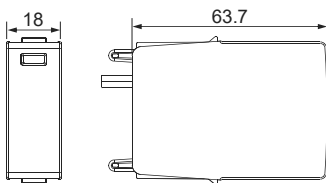


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### Complete Unit

FLP12,5-xxx/4(S)	150	275	320	385	440
DIN 43880 Dimension	1 CTN				
Packaging Dimensions (H x W x L)	[210 × 220 × 330 mm]				
Standard Order Quantity	16 Units				

## Spare Plug

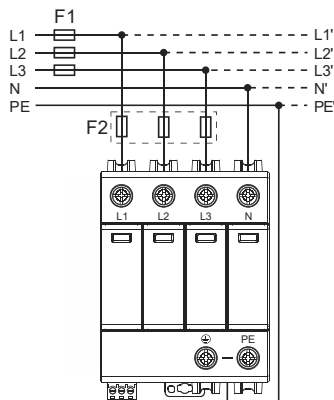


### Single Unit

FLP12,5-xxx/0	150	275	320	385	440
DIN 43880 Dimension	1 CTN				
Packaging Dimensions (H x W x L)	[210 × 220 × 330 mm]				
Standard Order Quantity	120 Units				

## Connection Diagram

### TN-S (Three-phase, 4+0)



# AC Surge Protective Device FLP12,5-xxx/1(S)+1

Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards  
 Network Systems: TT, TN-S  
 Mode of Protection: L-N, N-PE  
 Surge Ratings:  $I_{imp} = 12.5 \text{ kA} / 25 \text{ kA} (10/350 \mu\text{s})$   
 $I_n = 20 \text{ kA} (8/20 \mu\text{s})$   
 IEC/EN Category: Class I+II / Type 1+2  
 Protective Elements: High Energy MOV and GDT  
 Housing: Pluggable Design  
 Compliance: IEC 61643-11:2011  
 EN 61643-11:2012

## Technical Data

### FLP12,5-xxx/1(S)+1

75

150

275

320

385

440

#### IEC Electrical

Nominal AC Voltage (50/60 Hz)	$U_o / U_n$	60 V	120 V	230 V	230 V	230 V	400 V
Maximum Continuous Operating Voltage	(L-N) $U_c$	75 V	150 V	275 V	320 V	385 V	440 V
	(N-PE) $U_c$	255 V					
Nominal Discharge Current (8/20 $\mu\text{s}$ )	(L-N) / (N-PE) $I_n$	20 kA / 25 kA					
Maximum Discharge Current (8/20 $\mu\text{s}$ )	(L-N) / (N-PE) $I_{max}$	50 kA / 50 kA					
Impulse Discharge Current (10/350 $\mu\text{s}$ )	(L-N) / (N-PE) $I_{imp}$	12.5 kA / 25 kA					
Specific Energy	(L-N) / (N-PE) W/R	39 kJ/ $\Omega$ / 156 kJ/ $\Omega$					
Charge	(L-N) / (N-PE) Q	6.25 As / 12.5 As					
Voltage Protection Level	(L-N) / (N-PE) $U_p$	0.7 kV / 1.5 kV	1.0 kV / 1.5 kV	1.5 kV / 1.5 kV	1.6 kV / 1.5 kV	1.8 kV / 1.5 kV	2.0 kV / 1.5 kV
Follow Current Interrupt Rating	(N-PE) $I_{fi}$	100 A <sub>RMS</sub>					
Residual Current at $U_c$	$I_{PE}$	none					
Response Time	(L-N) / (N-PE) $t_A$	< 25 ns / < 100 ns					
Max. Backup Fuse		160 A gL / gG					
Short-Circuit Current Rating (AC)	(L-N) $I_{SCCR}$	25 kA					
TOV Withstand 5 s	(L-N) $U_T$	114 V	180 V	335 V	335 V	335 V	580 V
TOV 120 min	(L-N) $U_T$	114 V	230 V	440 V	440 V	440 V	765 V
		mode	Withstand	Safe Fail	Safe Fail	Safe Fail	Safe Fail
TOV Withstand 200 ms	(N-PE) $U_T$	1200 V					
Number of Ports		1					

#### Mechanical & Environmental

Operating Temperature Range	$T_a$	-40 °F to +158 °F [-40 °C to +70 °C]					
Permissible Operating Humidity	RH	5% to 95%					
Atmospheric Pressure and Altitude		80 kPa to 106 kPa / -500 m to 2000 m					
Terminal Screw Torque	$M_{max}$	39.9 lbf-in [4.5 Nm]					
Conductor Cross Section (max.)		2 AWG (Solid, Stranded) / 4 AWG (Flexible)					
		35 mm <sup>2</sup> (Solid, Stranded) / 25 mm <sup>2</sup> (Flexible)					
Mounting		35 mm DIN Rail, EN 60715					
Degree of Protection		IP20 (built-in)					
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0					
Thermal Protection		Yes					
Operating State / Fault Indication		Green ok / Red defect					
Remote Contacts (RC)		Optional					
RC Switching Capacity		AC: 250 V / 0.5 A; DC: 250 V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A					
RC Conductor Cross Section (max.)		16 AWG (Solid) / 1.5 mm <sup>2</sup> (Solid)					

#### Order Information

Ordering Code	75	150	275	320	385	440
FLP12,5-xxx/1+1	1207513	1215013	1227513	1232013	1238513	1244013
FLP12,5-xxx/1S+1 (with remote contacts)	1207514	1215014	1227514	1232014	1238514	1244014
FLP12,5-xxx/0 (spare modules)	1207501	1215001	1227501	1232001	1238501	1244001
FLP25-255/0 (spare modules)	2525502	2525502	2525502	2525502	2525502	2525502

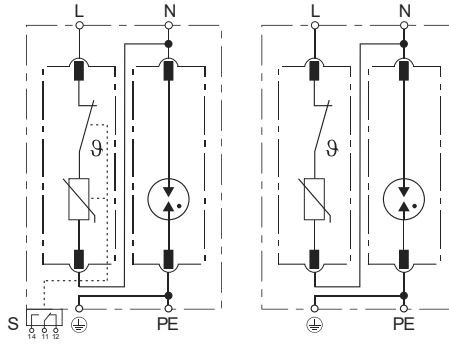


# FLP12,5-xxx/1(S)+1

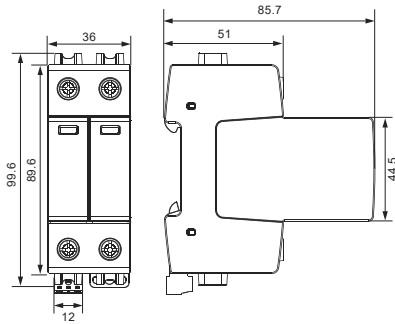
## Internal Configuration

### Legend

- L Line Conductor Terminal
- N Neutral Conductor Terminal
- ⊕ PE/G Conductor Terminal
- S Signalling Contacts Optional



## Dimensions & Packaging

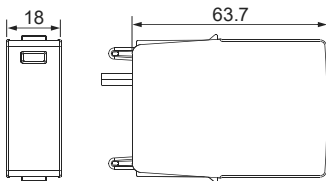


[mm]

### Complete Unit

FLP12,5-xxx/1(S)+1	75	150	275	320	385	440
DIN 43880 Dimension	1 CTN					
Packaging Dimensions (H x W x L)	[210 × 220 × 330 mm]					
Standard Order Quantity	28 Units					

## Spare Plug

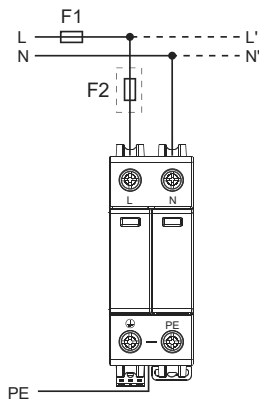


### Single Unit

FLP12,5-xxx/0	75	150	275	320	385	440
FLP25-255/0	255					
DIN 43880 Dimension	1 CTN					
Packaging Dimensions (H x W x L)	[210 × 220 × 330 mm]					
Standard Order Quantity	120 Units					

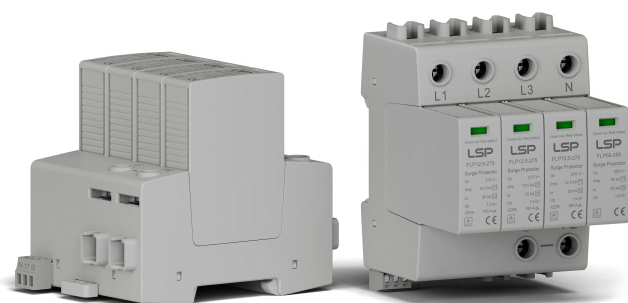
## Connection Diagram

### TN-S, TT (Single-phase, 1+1)



# AC Surge Protective Device FLP12,5-xxx/3(S)+1

Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards  
 Network Systems: TT, TN-S  
 Mode of Protection: L-N, N-PE  
 Surge Ratings:  $I_{imp} = 12.5 \text{ kA} / 50 \text{ kA} (10/350 \mu\text{s})$   
 $I_n = 20 \text{ kA} (8/20 \mu\text{s})$   
 IEC/EN Category: Class I+II / Type 1+2  
 Protective Elements: High Energy MOV and GDT  
 Housing: Pluggable Design  
 Compliance: IEC 61643-11:2011  
 EN 61643-11:2012

## Technical Data

FLP12,5-xxx/3(S)+1

150

275

320

385

440

### IEC Electrical

Nominal AC Voltage (50/60 Hz)	$U_o / U_n$	120 V	230 V	230 V	230 V	400 V
Maximum Continuous Operating Voltage	(L-N) $U_c$	150 V	275 V	320 V	385 V	440 V
	(N-PE) $U_c$			255 V		
Nominal Discharge Current (8/20 $\mu\text{s}$ )	(L-N) / (N-PE) $I_n$			20 kA / 50 kA		
Maximum Discharge Current (8/20 $\mu\text{s}$ )	(L-N) / (N-PE) $I_{max}$			50 kA / 100 kA		
Impulse Discharge Current (10/350 $\mu\text{s}$ )	(L-N) / (N-PE) $I_{imp}$			12.5 kA / 50 kA		
Specific Energy	(L-N) / (N-PE) W/R			39 kJ/ $\Omega$ / 625 kJ/ $\Omega$		
Charge	(L-N) / (N-PE) Q			6.25 As / 25 As		
Voltage Protection Level	(L-N) / (N-PE) $U_p$	1.0 kV / 1.5 kV	1.5 kV / 1.5 kV	1.6 kV / 1.5 kV	1.8 kV / 1.5 kV	2.0 kV / 1.5 kV
Follow Current Interrupt Rating	(N-PE) $I_{fi}$			100 A <sub>RMS</sub>		
Residual Current at $U_c$	$I_{PE}$			none		
Response Time	(L-N) / (N-PE) $t_A$			< 25 ns / < 100 ns		
Max. Backup Fuse				160 A gL / gG		
Short-Circuit Current Rating (AC)	(L-N) $I_{SCCR}$			25 kA		
TOV Withstand 5 s	(L-N) $U_T$	180 V	335 V	335 V	335 V	580 V
TOV 120 min	(L-N) $U_T$	230 V	440 V	440 V	440 V	765 V
		mode		Safe Fail		
TOV Withstand 200 ms	(N-PE) $U_T$			1200 V		
Number of Ports				1		

### Mechanical & Environmental

Operating Temperature Range	$T_a$	-40 °F to +158 °F [-40 °C to +70 °C]				
Permissible Operating Humidity	RH	5% to 95%				
Atmospheric Pressure and Altitude		80 kPa to 106 kPa / -500 m to 2000 m				
Terminal Screw Torque	$M_{max}$	39.9 lbf-in [4.5 Nm]				
Conductor Cross Section (max.)		2 AWG (Solid, Stranded) / 4 AWG (Flexible)				
		35 mm <sup>2</sup> (Solid, Stranded) / 25 mm <sup>2</sup> (Flexible)				
Mounting		35 mm DIN Rail, EN 60715				
Degree of Protection		IP20 (built-in)				
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0				
Thermal Protection		Yes				
Operating State / Fault Indication		Green ok / Red defect				
Remote Contacts (RC)		Optional				
RC Switching Capacity		AC: 250 V / 0.5 A; DC: 250 V / 0.1 A; 125 V / 0.2 A; 75 V / 0.5 A				
RC Conductor Cross Section (max.)		16 AWG (Solid) / 1.5 mm <sup>2</sup> (Solid)				

### Order Information

Ordering Code	150	275	320	385	440
FLP12,5-xxx/3+1	1215033	1227533	1232033	1238533	1244033
FLP12,5-xxx/3S+1 (with remote contacts)	1215034	1227534	1232034	1238534	1244034
FLP12,5-xxx/0 (spare modules)	1215001	1227501	1232001	1238501	1244001
FLP50-255/0 (spare modules)	5025501	5025501	5025501	5025501	5025501

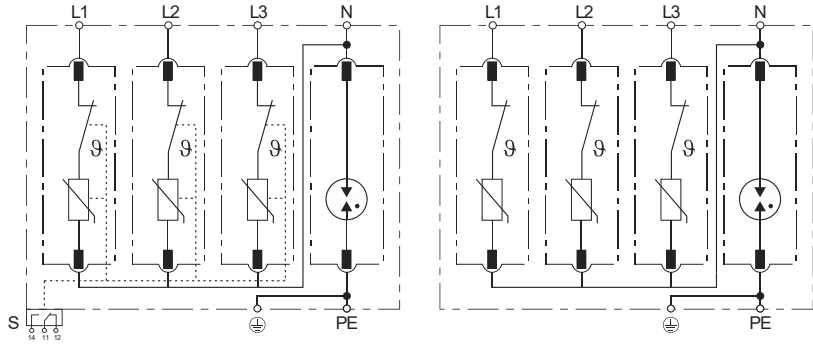


# FLP12,5-xxx/3(S)+1

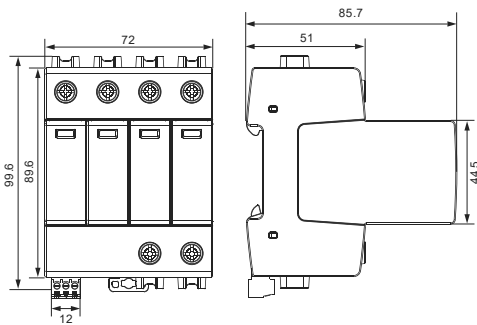
## Internal Configuration

### Legend

- L Line Conductor Terminal
- N Neutral Conductor Terminal
- ⊕ PE/G Conductor Terminal
- S Signalling Contacts Optional



## Dimensions & Packaging

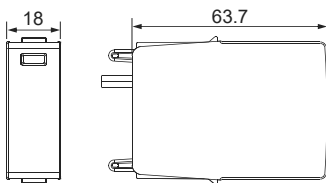


[mm]

### Complete Unit

FLP12,5-xxx/3(S)+1	150	275	320	385	440
DIN 43880 Dimension	1 CTN				
Packaging Dimensions (H x W x L)	[210 × 220 × 330 mm]				
Standard Order Quantity	16 Units				

## Spare Plug



### Single Unit

FLP12,5-xxx/0	150	275	320	385	440
FLP50-255/0	255				
DIN 43880 Dimension	1 CTN				
Packaging Dimensions (H x W x L)	[210 × 220 × 330 mm]				
Standard Order Quantity	120 Units				

## Connection Diagram

### TN-S, TT (Three-phase, 3+1)

