

# Pluggable Single-Pole SPD

## FLP7-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:  $I_{imp} =$  up to 7 kA (10/350  $\mu$ s)  
 $I_n =$  up to 20 kA (8/20  $\mu$ 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

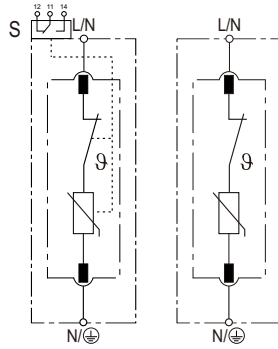
FLP7-XXX/1(S)		75	150	275	320	385	440
<b>IEC Electrical</b>							
Nominal AC Voltage (50/60Hz)	$U_o/U_n$	60 V	120 V	230 V	230 V	230 V	400 V
Maximum Continuous Operating Voltage (AC)	$U_c$	75 V	150 V	275 V	320 V	385 V	440 V
Nominal Discharge Current (8/20 $\mu$ s)	$I_n$	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA
Maximum Discharge Current (8/20 $\mu$ s)	$I_{max}$	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
Impulse Discharge Current (10/350 $\mu$ s)	$I_{imp}$	7 kA	7 kA	7 kA	7 kA	7 kA	7 kA
Specific Energy	W/R	12 kJ/ $\Omega$	12 kJ/ $\Omega$	12 kJ/ $\Omega$	12 kJ/ $\Omega$	10 kJ/ $\Omega$	10 kJ/ $\Omega$
Charge	Q	3.5 As	3.5 As	3.5 As	3.5 As	2.5 As	2.5 As
Voltage Protection Level	$U_p$	400 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					
Back-Up Fuse (max)		160 A gL / gG					
Short-Circuit Current Rating (AC)	$I_{SCCR}$	25 kA					
TOV Withstand 5s	$U_T$	114V	180V	335V	335V	335V	580V
TOV 120min	$U_T$	114V	230V	440V	440V	440V	765V
	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%...95%					
Atmospheric pressure and altitude		80k Pa ... 106k Pa / -500 m ... 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		IP 20 (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: 250V/0.5A; DC: 250V/0.1A; 125V/0.2A; 75V/0.5A					
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
FLP7-XXX/1		0707511	0715011	0727511	0732011	0738511	0744011
FLP7-XXX/1S (with remote contacts)		0707512	0715012	0727512	0732012	0738512	0744012
FLP7-XXX/0 (spare modules)		0707501	0715001	0727501	0732001	0738501	0744001

## FLP7-XXX/1(S)

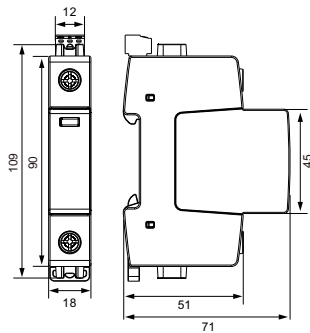
### Internal Configuration

#### Legend

- L Line
- N Neutral
- ⊕ Protective Earth
- S Signalling Contacts Optional



### Dimensions & Packaging

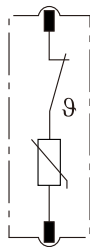


#### Dimensions & Packaging

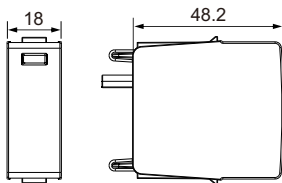
FLP7-XXX/1(S)	75	150	275	320	385	440
Single Unit DIN 43880 Dimension	1 CTN					
Packaging Dimensions (HxWxL)	[270 × 230 × 330 mm]					
Minimum Order Quantity	72 Units					

### Plug Internal Configuration

#### FLP7-XXX/0



### Dimensions & Packaging

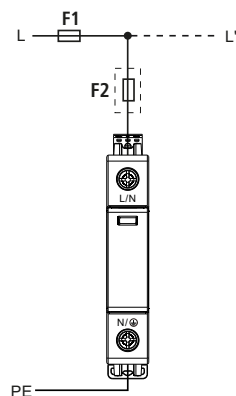


#### Dimensions & Packaging

FLP7-XXX/0	75	150	275	320	385	440
Single Unit DIN 43880 Dimension	1 CTN					
Packaging Dimensions (HxWxL)	[270 × 230 × 330 mm]					
Minimum Order Quantity	96 Units					

### Connection Diagram

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



[mm]



# Pluggable Multi-Pole SPD FLP7-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:  $I_{imp} =$  up to 7 kA (10/350  $\mu$ s)  
 $I_n =$  up to 20kA (8/20  $\mu$ 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

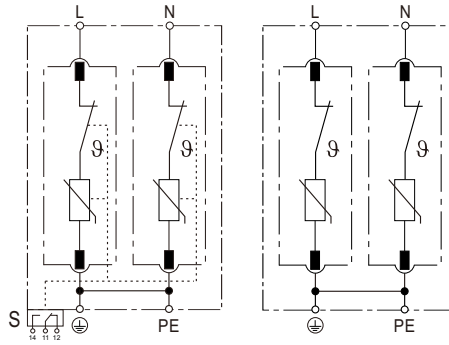
FLP7-XXX/2(S)		75	150	275	320	385	440
<b>IEC Electrical</b>							
Nominal AC Voltage (50/60Hz)	$U_o/U_n$	60 V	120 V	230 V	230 V	230 V	400 V
Maximum Continuous Operating Voltage (AC)	$U_c$	75 V	150 V	275 V	320 V	385 V	440 V
Nominal Discharge Current (8/20 $\mu$ s)	$I_n$	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA
Maximum Discharge Current (8/20 $\mu$ s)	$I_{max}$	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
Impulse Discharge Current (10/350 $\mu$ s)	$I_{imp}$	7 kA	7 kA	7 kA	7 kA	7 kA	7 kA
Specific Energy	W/R	12 kJ/ $\Omega$	12 kJ/ $\Omega$	12 kJ/ $\Omega$	12 kJ/ $\Omega$	10 kJ/ $\Omega$	10 kJ/ $\Omega$
Charge	Q	3.5 As	3.5 As	3.5 As	3.5 As	2.5 As	2.5 As
Voltage Protection Level	$U_p$	400 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					
Back-Up Fuse (max)		160 A gL / gG					
Short-Circuit Current Rating (AC)	$I_{SCCR}$	25 kA					
TOV Withstand 5s	$U_T$	114V	180V	335V	335V	335V	580V
TOV 120min	$U_T$	114V	230V	440V	440V	440V	765V
	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%...95%					
Atmospheric pressure and altitude		80k Pa ... 106k Pa / -500 m ... 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		IP 20 (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: 250V/0.5A; DC: 250V/0.1A; 125V/0.2A; 75V/0.5A					
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
FLP7-XXX/2		0707521	0715021	0727521	0732021	0738521	0744021
FLP7-XXX/2S (with remote contacts)		0707522	0715022	0727522	0732022	0738522	0744022
FLP7-XXX/0 (spare modules)		0707501	0715001	0727501	0732001	0738501	0744001

## FLP7-XXX/2(S)

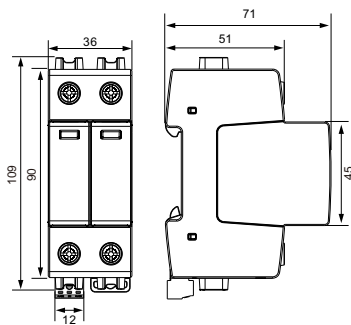
### Internal Configuration

#### Legend

- L Line
- N Neutral
- ⊕/PE Protective Earth
- S Signalling Contacts Optional



### Dimensions & Packaging

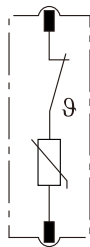


#### Dimensions & Packaging

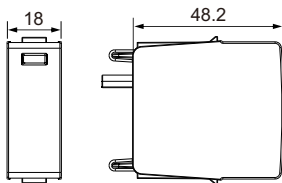
FLP7-XXX/2(S)	75	150	275	320	385	440
Single Unit DIN 43880 Dimension	1 CTN					
Packaging Dimensions (HxWxL)	[270 × 230 × 330 mm]					
Minimum Order Quantity	42 Units					

### Plug Internal Configuration

#### FLP7-XXX/0



### Dimensions & Packaging

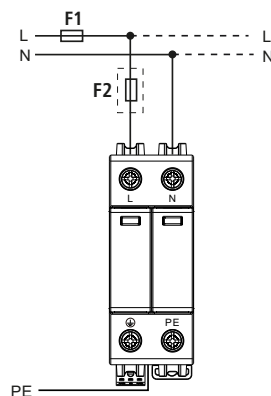


#### Dimensions & Packaging

FLP7-XXX/0	75	150	275	320	385	440
Single Unit DIN 43880 Dimension	1 CTN					
Packaging Dimensions (HxWxL)	[270 × 230 × 330 mm]					
Minimum Order Quantity	96 Units					

### Connection Diagram

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



[mm]



# Pluggable Multi-Pole SPD FLP7-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:  $I_{imp} =$  up to 7 kA (10/350  $\mu$ s)  
 $I_n =$  up to 20 kA (8/20  $\mu$ 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

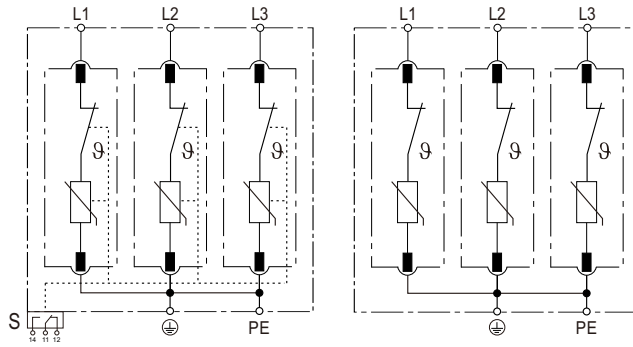
FLP7-XXX/3(S)		150	275	320	385	440
<b>IEC Electrical</b>						
Nominal AC Voltage (50/60Hz)	$U_o/U_n$	120 V	230 V	230 V	230 V	400 V
Maximum Continuous Operating Voltage (AC)	$U_c$	150 V	275 V	320 V	385 V	440 V
Nominal Discharge Current (8/20 $\mu$ s)	$I_n$	20 kA	20 kA	20 kA	20 kA	20 kA
Maximum Discharge Current (8/20 $\mu$ s)	$I_{max}$	50 kA	50 kA	50 kA	50 kA	50 kA
Impulse Discharge Current (10/350 $\mu$ s)	$I_{imp}$	7 kA	7 kA	7 kA	7 kA	7 kA
Specific Energy	W/R	12 kJ/ $\Omega$	12 kJ/ $\Omega$	12 kJ/ $\Omega$	10 kJ/ $\Omega$	10 kJ/ $\Omega$
Charge	Q	3.5 As	3.5 As	3.5 As	2.5 As	2.5 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		
Back-Up Fuse (max)				160 A gL / gG		
Short-Circuit Current Rating (AC)	$I_{SCCR}$			25 kA		
TOV Withstand 5s	$U_T$	180V	335V	335V	335V	580V
TOV 120min	$U_T$	230V	440V	440V	440V	765V
	mode	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%...95%				
Atmospheric pressure and altitude		80k Pa ... 106k Pa / -500 m ... 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		IP 20 (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: 250V/0.5 A; DC: 250V/0.1 A; 125V/0.2 A; 75V/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
FLP7-XXX/3		0715031	0727531	0732031	0738531	0744031
FLP7-XXX/3S (with remote contacts)		0715032	0727532	0732032	0738532	0744032
FLP7-XXX/0 (spare modules)		0715001	0727501	0732001	0738501	0744001

# FLP7-XXX/3(S)

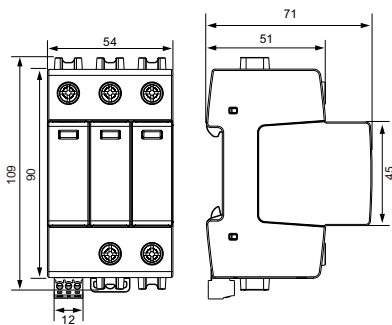
## Internal Configuration

### Legend

- L Line
- N Neutral
- ⊕/PE Protective Earth
- S Signalling Contacts Optional



## Dimensions & Packaging

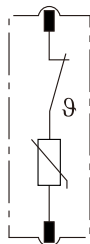


### Dimensions & Packaging

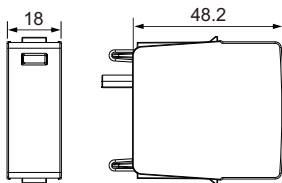
FLP7-XXX/3(S)	150	275	320	385	440
Single Unit DIN 43880 Dimension	1 CTN				
Packaging Dimensions (HxWxL)	[270 × 230 × 330 mm]				
Minimum Order Quantity	30 Units				

## Plug Internal Configuration

### FLP7-XXX/0



## Dimensions & Packaging

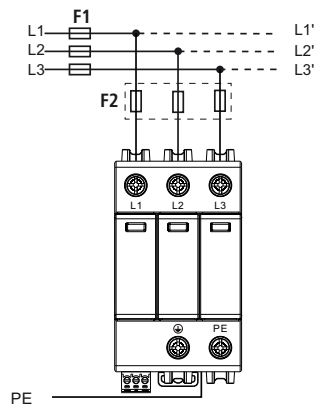


### Dimensions & Packaging

FLP7-XXX/0	150	275	320	385	440
Single Unit DIN 43880 Dimension	1 CTN				
Packaging Dimensions (HxWxL)	[270 × 230 × 330 mm]				
Minimum Order Quantity	96 Units				

## Connection Diagram

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



[mm]



# Pluggable Multi-Pole SPD FLP7-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:  $I_{imp} =$  up to 7 kA (10/350  $\mu$ s)  
 $I_n =$  up to 20 kA (8/20  $\mu$ 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

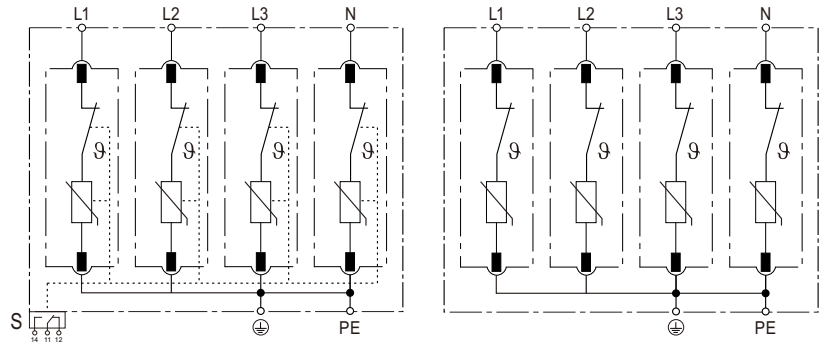
FLP7-XXX/4(S)	150	275	320	385	440	
<b>IEC Electrical</b>						
Nominal AC Voltage (50/60Hz)	$U_o/U_n$	120 V	230 V	230 V	230 V	400 V
Maximum Continuous Operating Voltage (AC)	$U_c$	150 V	275 V	320 V	385 V	440 V
Nominal Discharge Current (8/20 $\mu$ s)	$I_n$	20 kA	20 kA	20 kA	20 kA	20 kA
Maximum Discharge Current (8/20 $\mu$ s)	$I_{max}$	50 kA	50 kA	50 kA	50 kA	50 kA
Impulse Discharge Current (10/350 $\mu$ s)	$I_{imp}$	7 kA	7 kA	7 kA	7 kA	7 kA
Specific Energy	W/R	12 kJ/ $\Omega$	12 kJ/ $\Omega$	12 kJ/ $\Omega$	10 kJ/ $\Omega$	10 kJ/ $\Omega$
Charge	Q	3.5 As	3.5 As	3.5 As	2.5 As	2.5 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		
Back-Up Fuse (max)				160 A gL / gG		
Short-Circuit Current Rating (AC)	$I_{SCCR}$			25 kA		
TOV Withstand 5s	$U_T$	180V	335V	335V	335V	580V
TOV 120min	$U_T$	230V	440V	440V	440V	765V
	mode	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%...95%				
Atmospheric pressure and altitude		80k Pa ... 106k Pa / -500 m ... 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		IP 20 (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: 250V/0.5 A; DC: 250V/0.1 A; 125V/0.2 A; 75V/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
FLP7-XXX/4		0715041	0727541	0732041	0738541	0744041
FLP7-XXX/4S (with remote contacts)		0715042	0727542	0732042	0738542	0744042
FLP7-XXX/0 (spare modules)		0715001	0727501	0732001	0738501	0744001

## FLP7-XXX/4(S)

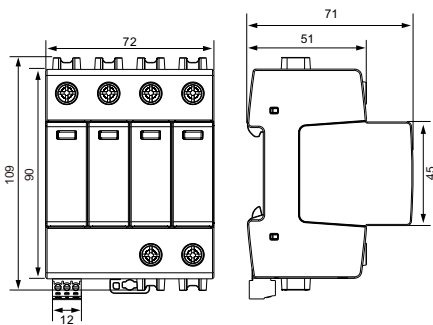
### Internal Configuration

#### Legend

- L Line
- N Neutral
- ⊕/PE Protective Earth
- S Signalling Contacts Optional



### Dimensions & Packaging

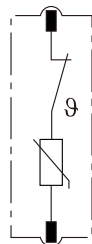


#### Dimensions & Packaging

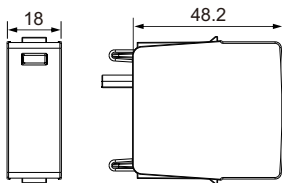
FLP7-XXX/4(S)	150	275	320	385	440
Single Unit DIN 43880 Dimension	1 CTN				
Packaging Dimensions (HxWxL)	[270 × 230 × 330 mm]				
Minimum Order Quantity	24 Units				

### Plug Internal Configuration

#### FLP7-XXX/0



### Dimensions & Packaging

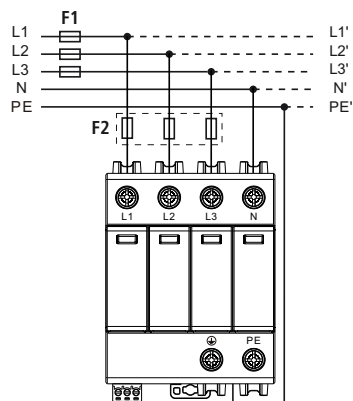


#### Dimensions & Packaging

FLP7-XXX/0	150	275	320	385	440
Single Unit DIN 43880 Dimension	1 CTN				
Packaging Dimensions (HxWxL)	[270 × 230 × 330 mm]				
Minimum Order Quantity	96 Units				

### Connection Diagram

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



[mm]





# Pluggable Multi-Pole SPD FLP7-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:  $I_{imp} = 7 \text{ kA} / 15 \text{ kA} (10/350 \mu\text{s})$   
 $I_n = 20 \text{ kA} (8/20 \mu\text{s})$   
 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

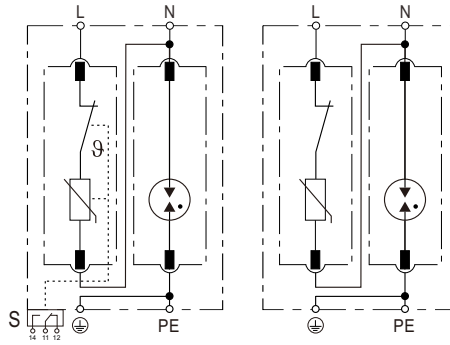
FLP7-XXX/1(S)+1	75	150	275	320	385	440	
<b>IEC Electrical</b>							
Nominal AC Voltage (50/60Hz)	60 V	120 V	230 V	230 V	230 V	400 V	
Maximum Continuous Operating Voltage	(L - N) $U_c$ (N - PE) $U_c$	75 V	150 V	275 V	320 V	385 V	440 V
Nominal Discharge Current (8/20 $\mu\text{s}$ )	(L - N) / (N - PE) $I_n$			20 kA / 20kA			
Maximum Discharge Current (8/20 $\mu\text{s}$ )	(L - N) / (N - PE) $I_{max}$			50 kA / 50kA			
Impulse Discharge Current (10/350 $\mu\text{s}$ )	(L - N) / (N - PE) $I_{imp}$			7 kA / 15kA			
Specific Energy	(L - N) / (N - PE) W/R			12 kJ/ $\Omega$ / 46 kJ/ $\Omega$			
Charge	(L-N)/(N-PE) Q			3.5 As / 7.5As			
Voltage Protection Level	(L - N) / (N - PE) $U_p$	0.7kV / 1.5kV	1.0kV / 1.5kV	1.5kV / 1.5kV	1.6kV / 1.5kV	1.8kV / 1.5kV	2.0kV / 1.5kV
Follow Current Interrupt Rating	(N-PE) $I_{fi}$			100A <sub>RMS</sub>			
Residual Current at $U_c$	$I_{PE}$			none			
Response Time	(L-N)/(N-PE) $t_A$			< 25 ns / < 100 ns			
Back-Up Fuse (max)				160 A gL / gG			
Short-Circuit Current Rating (AC)	(L - N) $I_{SCCR}$			25 kA			
TOV Withstand 5s	(L - N) $U_T$	114V	180V	335V	335V	335V	580V
TOV 120min	(L - N) $U_T$	114V	230V	440V	440V	440V	765V
	mode Withstand	Safe Fail	Safe Fail	Safe Fail	Safe Fail	Safe Fail	Safe Fail
TOV Withstand 200ms	(N-PE) $U_T$			1200V			
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%...95%			
Atmospheric pressure and altitude				80k Pa ... 106k Pa / -500 m ... 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				IP 20 (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: 250V/0.5A; DC: 250V/0.1A; 125V/0.2A; 75V/0.5A			
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	
FLP7-XXX/1+1	0707513	0715013	0727513	0732013	0738513	0744013	
FLP7-XXX/1S+1 (with remote contacts)	0707514	0715014	0727514	0732014	0738514	0744014	
FLP7-XXX/0 (spare modules)	0707501	0715001	0727501	0732001	0738501	0744001	
FLP15-255/0 (spare modules)	1525501	1525501	1525501	1525501	1525501	1525501	

# FLP7-XXX/1(S)+1

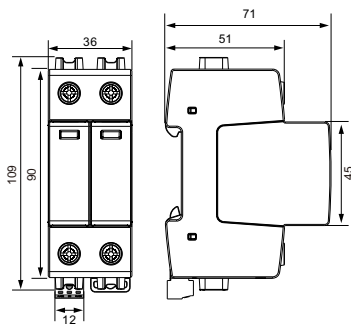
## Internal Configuration

### Legend

- L Line
- N Neutral
- ⊕/PE Protective Earth
- S Signalling Contacts Optional



## Dimensions & Packaging

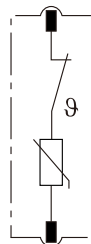


### Dimensions & Packaging

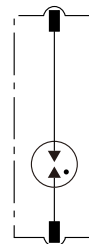
FLP7-XXX/1(S)+1	75	150	275	320	385	440
Single Unit DIN 43880 Dimension	1 CTN					
Packaging Dimensions (HxWxL)	[270 x 230 x 330 mm]					
Minimum Order Quantity	42 Units					

## Plug Internal Configuration

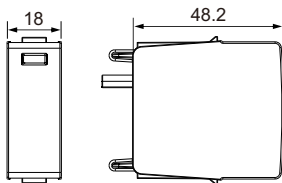
### FLP7-XXX/0



### FLP15-255/0



## Dimensions & Packaging

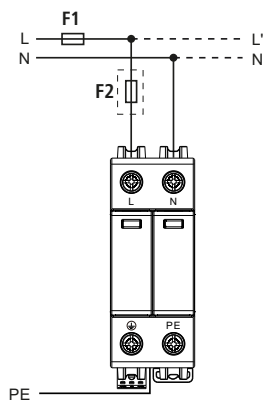


### Dimensions & Packaging

FLP7-XXX/0	75	150	275	320	385	440
FLP15-255/0	255					
Single Unit DIN 43880 Dimension	1 CTN					
Packaging Dimensions (HxWxL)	[270 x 230 x 330 mm]					
Minimum Order Quantity	96 Units					

## Connection Diagram

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



[mm]



# Pluggable Multi-Pole SPD FLP7-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:  $I_{imp} = 7 \text{ kA} / 25 \text{ kA} (10/350 \mu\text{s})$   
 $I_n = 20 \text{ kA} (8/20 \mu\text{s})$   
 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

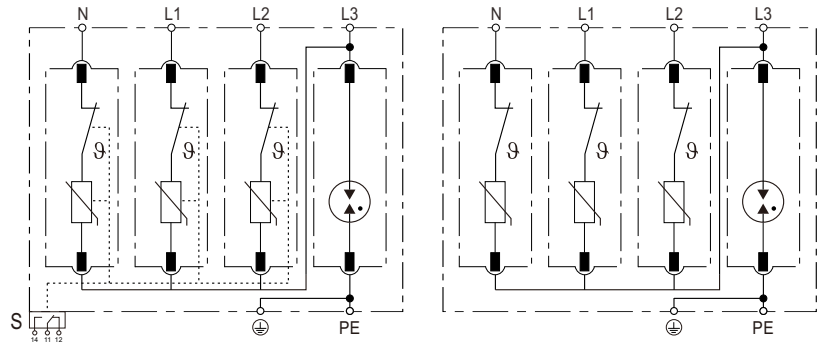
FLP7-XXX/3(S)+1	150	275	320	385	440	
<b>IEC Electrical</b>						
Nominal AC Voltage (50/60Hz)	120 V	230 V	230 V	230 V	400 V	
Maximum Continuous Operating Voltage	(L - N) $U_c$ (N - PE) $U_c$	150 V	275 V	320 V 255 V	385 V	440 V
Nominal Discharge Current (8/20 $\mu\text{s}$ )	(L - N) / (N - PE) $I_n$			20 kA / 20 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) $I_{imp}$			7 kA / 25 kA		
Specific Energy	(L - N) / (N - PE) W/R			12 kJ/ $\Omega$ / 156 kJ/ $\Omega$		
Charge	(L-N)/(N-PE) Q			3.5 As / 12.5 As		
Voltage Protection Level	(L - N) / (N - PE) $U_p$	1.0kV / 1.5kV	1.5kV / 1.5kV	1.6kV / 1.5kV	1.8kV / 1.5kV	2.0kV / 1.5kV
Follow Current Interrupt Rating	(N-PE) $I_{fi}$			100 A <sub>RMS</sub>		
Response Time	(L-N)/(N-PE) $t_A$			< 25 ns / < 100 ns		
Back-Up Fuse (max)				160 A gL / gG		
Short-Circuit Current Rating (AC)	(L - N) $I_{SCCR}$			25 kA		
TOV Withstand 5s	(L - N) $U_T$	180V	335V	335V	335V	580V
TOV 120min	(L - N) $U_T$	230V	440V	440V	440V	765V
	mode	Safe Fail	Safe Fail	Safe Fail	Safe Fail	Safe Fail
TOV Withstand 200ms	(N-PE) $U_T$			1200V		
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%...95%				
Atmospheric pressure and altitude		80k Pa ... 106k Pa / -500 m ... 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		IP 20 (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: 250V/0.5 A; DC: 250V/0.1 A; 125V/0.2 A; 75V/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	
FLP7-XXX/3+1	0715033	0727533	0732033	0738533	0744033	
FLP7-XXX/3S+1 (with remote contacts)	0715034	0727534	0732034	0738534	0744034	
FLP7-XXX/0 (spare modules)	0715001	0727501	0732001	0738501	0744001	
FLP25-255/0 (spare modules)	2525501	2525501	2525501	2525501	2525501	

# FLP7-XXX/3(S)+1

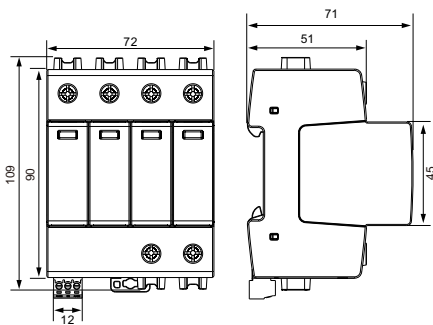
## Internal Configuration

### Legend

- L Line
- N Neutral
- ⊕/PE Protective Earth
- S Signalling Contacts Optional



## Dimensions & Packaging

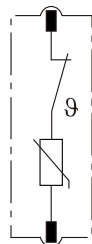


### Dimensions & Packaging

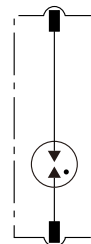
FLP7-XXX/3(S)+1	150	275	320	385	440
Single Unit DIN 43880 Dimension	1 CTN				
Packaging Dimensions (HxWxL)	[270 x 230 x 330 mm]				
Minimum Order Quantity	24 Units				

## Plug Internal Configuration

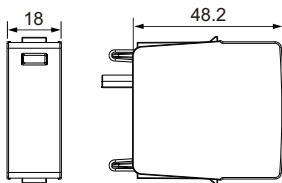
### FLP7-XXX/0



### FLP25-255/0



## Dimensions & Packaging

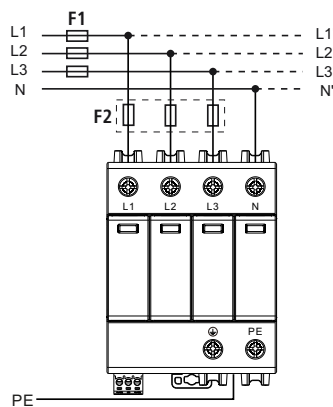


### Dimensions & Packaging

FLP7-XXX/0	150	275	320	385	440
FLP25-255/0	255				
Single Unit DIN 43880 Dimension	1 CTN				
Packaging Dimensions (HxWxL)	[270 x 230 x 330 mm]				
Minimum Order Quantity	96 Units				

## Connection Diagram

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



[mm]

