

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 μ s)
 $I_n =$ up to 20kA (8/20 μ 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

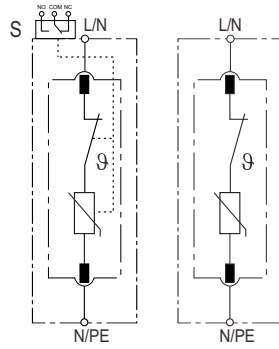
FLP7-XXX/1(S)		75	150	275	320	385	440
IEC Electrical							
Nominal AC Voltage (50/60Hz)	U_o/U_n	60 V	120 V	230 V	230 V	230 V	400 V
Maximum Continuous Operating Voltage (AC)	U_c	75 V	150 V	275 V	320 V	385 V	440 V
Nominal Discharge Current (8/20 μ s)	I_n	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA
Maximum Discharge Current (8/20 μ s)	I_{max}	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
Impulse Discharge Current (10/350 μ s)	I_{imp}	7 kA	7 kA	7 kA	7 kA	7 kA	7 kA
Specific Energy	W/R	12 kJ/ Ω	12 kJ/ Ω	12 kJ/ Ω	12 kJ/ Ω	10 kJ/ Ω	10 kJ/ Ω
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
Response Time	t_A	< 25 ns					
Back-Up Fuse (max)		160 A gL / gG					
Short-Circuit Current Rating (AC)	I_{SCCR}	25 kA / 50 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					
Mechanical & Environmental							
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 ² (Solid, Stranded) / 25 mm ² (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 ² (Solid)					
Order Information							
Order 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)

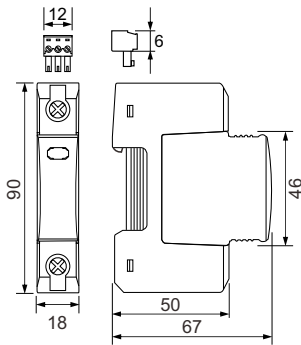
Internal Configuration

Legend

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



Dimensions & Packaging

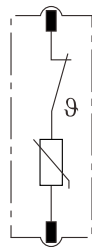


Dimensions & Packaging

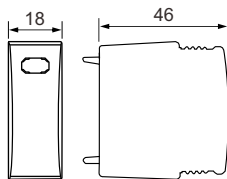
FLP7-XXX/1(S)	75	150	275	320	385	440
Single Unit DIN 43880 Dimension	1 CTN					
Packaging Dimensions (HxWxL)	[270 × 230 × 330 mm]					
Minimum Order Quantity	72 Units					

Plug Internal Configuration

FLP7-XXX/0



Dimensions & Packaging

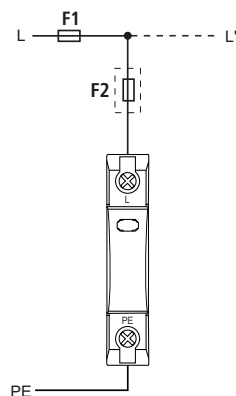


Dimensions & Packaging

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)



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 μ s)
 $I_n =$ up to 20kA (8/20 μ 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

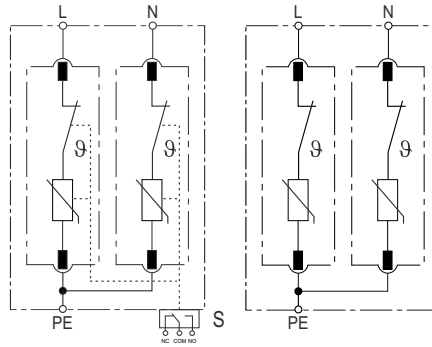
FLP7-XXX/2(S)		75	150	275	320	385	440
IEC Electrical							
Nominal AC Voltage (50/60Hz)	U_o/U_n	60 V	120 V	230 V	230 V	230 V	400 V
Maximum Continuous Operating Voltage (AC)	U_c	75 V	150 V	275 V	320 V	385 V	440 V
Nominal Discharge Current (8/20 μ s)	I_n	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA
Maximum Discharge Current (8/20 μ s)	I_{max}	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
Impulse Discharge Current (10/350 μ s)	I_{imp}	7 kA	7 kA	7 kA	7 kA	7 kA	7 kA
Specific Energy	W/R	12 kJ/ Ω	12 kJ/ Ω	12 kJ/ Ω	12 kJ/ Ω	10 kJ/ Ω	10 kJ/ Ω
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
Response Time	t_A	< 25 ns					
Back-Up Fuse (max)		160 A gL / gG					
Short-Circuit Current Rating (AC)	I_{SCCR}	25 kA / 50 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					
Mechanical & Environmental							
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 ² (Solid, Stranded) / 25 mm ² (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 ² (Solid)					
Order Information							
Order 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)

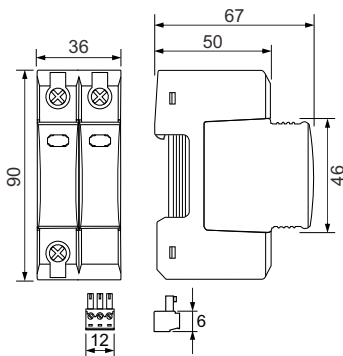
Internal Configuration

Legend

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



Dimensions & Packaging

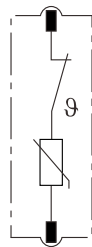


Dimensions & Packaging

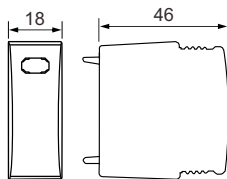
FLP7-XXX/2(S)	75	150	275	320	385	440
Single Unit DIN 43880 Dimension	1 CTN					
Packaging Dimensions (HxWxL)	[270 × 230 × 330 mm]					
Minimum Order Quantity	42 Units					

Plug Internal Configuration

FLP7-XXX/0



Dimensions & Packaging

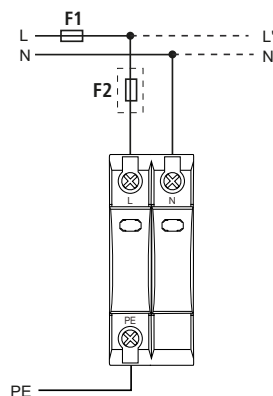


Dimensions & Packaging

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)



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 μ s)
 $I_n =$ up to 20 kA (8/20 μ 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

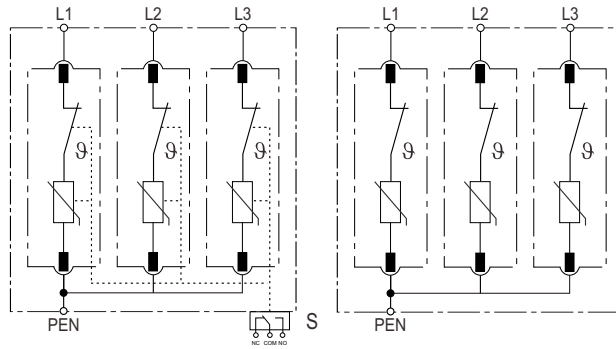
FLP7-XXX/3(S)		150	275	320	385	440
IEC Electrical						
Nominal AC Voltage (50/60Hz)	U_o/U_n	120 V	230 V	230 V	230 V	400 V
Maximum Continuous Operating Voltage (AC)	U_c	150 V	275 V	320 V	385 V	440 V
Nominal Discharge Current (8/20 μ s)	I_n	20 kA	20 kA	20 kA	20 kA	20 kA
Maximum Discharge Current (8/20 μ s)	I_{max}	50 kA	50 kA	50 kA	50 kA	50 kA
Impulse Discharge Current (10/350 μ s)	I_{imp}	7 kA	7 kA	7 kA	7 kA	7 kA
Specific Energy	W/R	12 kJ/ Ω	12 kJ/ Ω	12 kJ/ Ω	10 kJ/ Ω	10 kJ/ Ω
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
Response Time	t_A			< 25 ns		
Back-Up Fuse (max)				160 A gL / gG		
Short-Circuit Current Rating (AC)	I_{SCCR}			25 kA / 50 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		
Mechanical & Environmental						
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 ² (Solid, Stranded) / 25 mm ² (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 ² (Solid)				
Order Information						
Order 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)

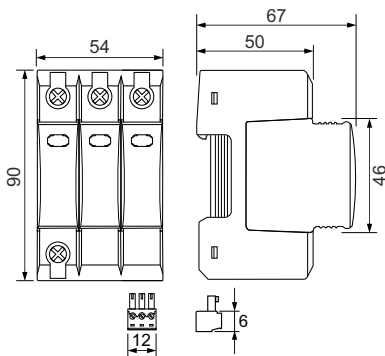
Internal Configuration

Legend

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



Dimensions & Packaging

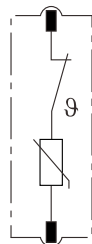


Dimensions & Packaging

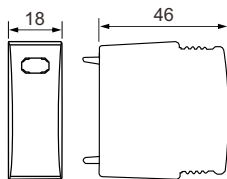
FLP7-XXX/3(S)	150	275	320	385	440
Single Unit DIN 43880 Dimension	1 CTN				
Packaging Dimensions (HxWxL)	[270 × 230 × 330 mm]				
Minimum Order Quantity	30 Units				

Plug Internal Configuration

FLP7-XXX/0



Dimensions & Packaging

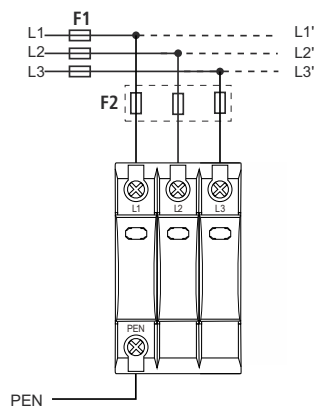


Dimensions & Packaging

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)



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 μ s)
 $I_n =$ up to 20 kA (8/20 μ 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

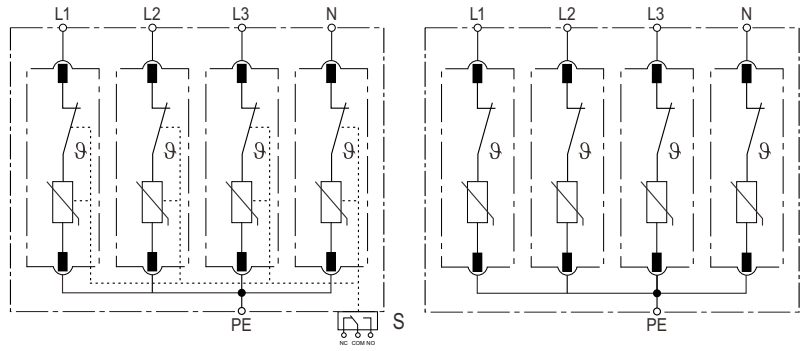
FLP7-XXX/4(S)		150	275	320	385	440
IEC Electrical						
Nominal AC Voltage (50/60Hz)	U_o/U_n	120 V	230 V	230 V	230 V	400 V
Maximum Continuous Operating Voltage (AC)	U_c	150 V	275 V	320 V	385 V	440 V
Nominal Discharge Current (8/20 μ s)	I_n	20 kA	20 kA	20 kA	20 kA	20 kA
Maximum Discharge Current (8/20 μ s)	I_{max}	50 kA	50 kA	50 kA	50 kA	50 kA
Impulse Discharge Current (10/350 μ s)	I_{imp}	7 kA	7 kA	7 kA	7 kA	7 kA
Specific Energy	W/R	12 kJ/ Ω	12 kJ/ Ω	12 kJ/ Ω	10 kJ/ Ω	10 kJ/ Ω
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
Response Time	t_A			< 25 ns		
Back-Up Fuse (max)				160 A gL / gG		
Short-Circuit Current Rating (AC)	I_{SCCR}			25 kA / 50 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		
Mechanical & Environmental						
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 ² (Solid, Stranded) / 25 mm ² (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 ² (Solid)				
Order Information						
Order 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)

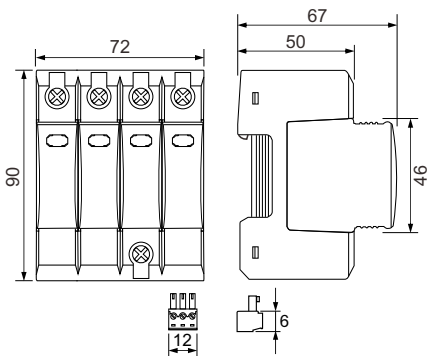
Internal Configuration

Legend

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



Dimensions & Packaging

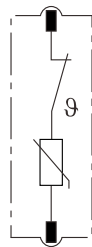


Dimensions & Packaging

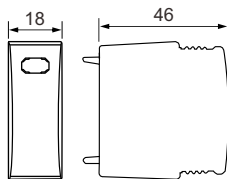
FLP7-XXX/4(S)	150	275	320	385	440
Single Unit DIN 43880 Dimension	1 CTN				
Packaging Dimensions (HxWxL)	[270 × 230 × 330 mm]				
Minimum Order Quantity	24 Units				

Plug Internal Configuration

FLP7-XXX/0



Dimensions & Packaging

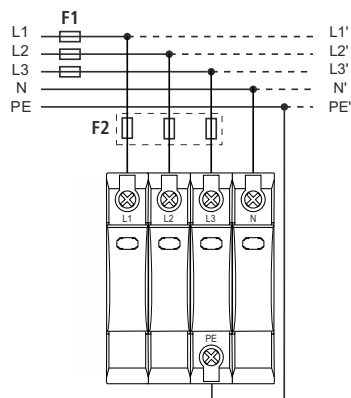


Dimensions & Packaging

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)



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

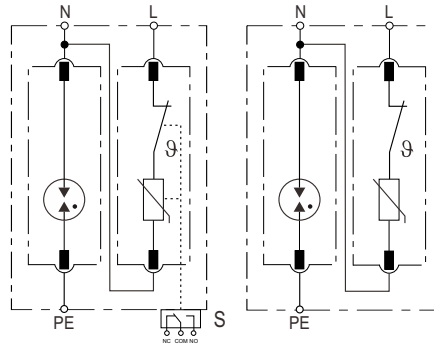
FLP7-XXX/1(S)+1	75	150	275	320	385	440	
IEC Electrical							
Nominal AC Voltage (50/60Hz)	60 V	120 V	230 V	230 V	230 V	400 V	
Maximum Continuous Operating Voltage	(L - N) U_c (N - PE) U_c	75 V	150 V	275 V	320 V	385 V	440 V
Nominal Discharge Current (8/20 μs)	(L - N) / (N - PE) I_n			20 kA / 20kA			
Maximum Discharge Current (8/20 μs)	(L - N) / (N - PE) I_{max}			50 kA / 50kA			
Impulse Discharge Current (10/350 μs)	(L - N) / (N - PE) I_{imp}			7 kA / 15kA			
Specific Energy	(L - N) / (N - PE) W/R			12 kJ/ Ω / 46 kJ/ Ω			
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 _{RMS}			
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 / 50 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			
Mechanical & Environmental							
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 ² (Solid, Stranded) / 25 mm ² (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 ² (Solid)			
Order Information							
Order 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	
FLP7-NPE/0 (spare modules)	0725501	0725501	0725501	0725501	0738501	0725501	

FLP7-XXX/1(S)+1

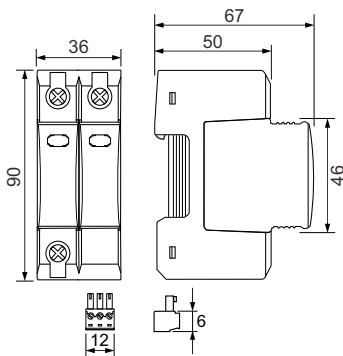
Internal Configuration

Legend

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



Dimensions & Packaging

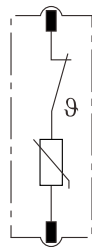


Dimensions & Packaging

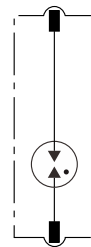
FLP7-XXX/1(S)+1	75	150	275	320	385	440
Single Unit DIN 43880 Dimension	1 CTN					
Packaging Dimensions (HxWxL)	[270 x 230 x 330 mm]					
Minimum Order Quantity	42 Units					

Plug Internal Configuration

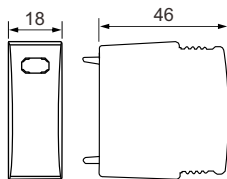
FLP7-XXX/0



FLP7-NPE/0



Dimensions & Packaging

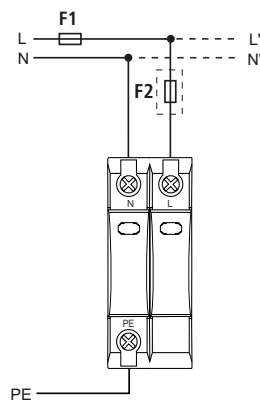


Dimensions & Packaging

FLP7-XXX/0	75	150	275	320	385	440
FLP7-NPE/0	15					
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)



Pluggable Multi-Pole SPD FLP7-XXX/2(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

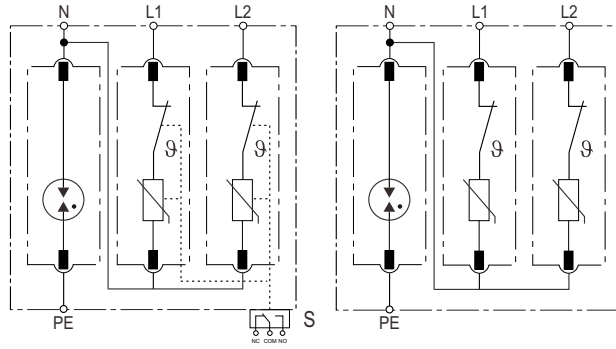
FLP7-XXX/2(S)+1	150	275	320	385	440	
IEC Electrical						
Nominal AC Voltage (50/60Hz)	120 V	230 V	230 V	230 V	400 V	
Maximum Continuous Operating Voltage	(L - N) U_c (N - PE) U_c	150 V	275 V	320 V	385 V	440 V
Nominal Discharge Current (8/20 μs)	(L - N) / (N - PE) I_n			20 kA / 20 kA		
Maximum Discharge Current (8/20 μs)	(L - N) / (N - PE) I_{max}			50 kA / 50 kA		
Impulse Discharge Current (10/350 μs)	(L - N) / (N - PE) I_{imp}			7 kA / 25 kA		
Specific Energy	(L - N) / (N - PE) W/R			12 kJ/ Ω / 156 kJ/ Ω		
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 _{RMS}		
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 / 50 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		
Mechanical & Environmental						
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 ² (Solid, Stranded) / 25 mm ² (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 ² (Solid)				
Order Information						
Order Code	150	275	320	385	440	
FLP7-XXX/2+1	0715023	0727523	0732023	0738523	0744023	
FLP7-XXX/2S+1 (with remote contacts)	0715024	0727524	0732024	0738524	0744024	
FLP7-XXX/0 (spare modules)	0715001	0727501	0732001	0738501	0744001	
FLP7-NPE/0 (spare modules)	0725502	0725502	0725502	0725502	0725502	

FLP7-XXX/2(S)+1

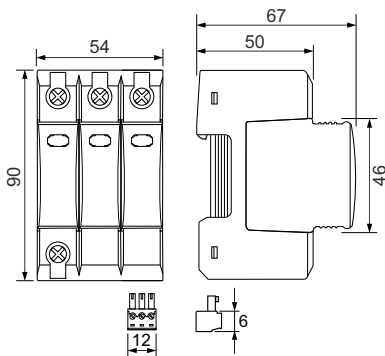
Internal Configuration

Legend

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



Dimensions & Packaging

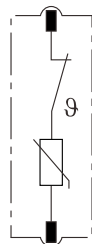


Dimensions & Packaging

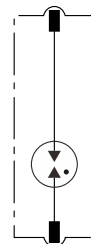
FLP7-XXX/2(S)+1	150	275	320	385	440
Single Unit DIN 43880 Dimension	1 CTN				
Packaging Dimensions (HxWxL)	[270 × 230 × 330 mm]				
Minimum Order Quantity	30 Units				

Plug Internal Configuration

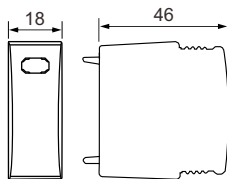
FLP7-XXX/0



FLP7-NPE/0



Dimensions & Packaging

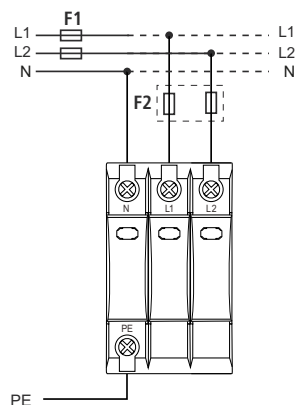


Dimensions & Packaging

FLP7-XXX/0	150	275	320	385	440
FLP7-NPE/0	25				
Single Unit DIN 43880 Dimension	1 CTN				
Packaging Dimensions (HxWxL)	[270 × 230 × 330 mm]				
Minimum Order Quantity	96 Units				

Connection Diagram

TN-S, TT (Three-phase, 2+1)



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

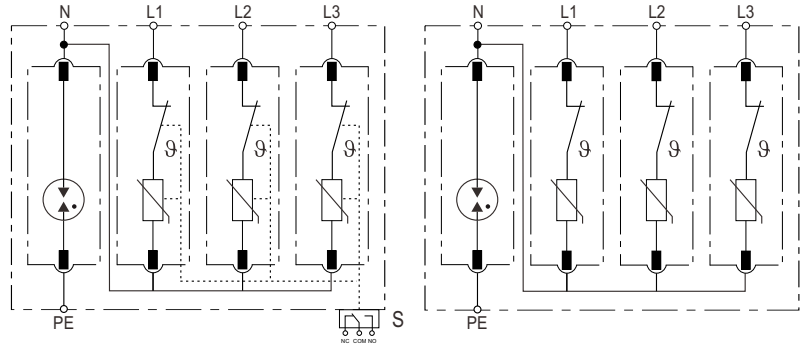
FLP7-XXX/3(S)+1	150	275	320	385	440
IEC Electrical					
Nominal AC Voltage (50/60Hz)	120 V	230 V	230 V	230 V	400 V
Maximum Continuous Operating Voltage	(L - N) U_c 150 V (N - PE) U_c 255 V	275 V	320 V	385 V	440 V
Nominal Discharge Current (8/20 μs)	(L - N) / (N - PE) I_n		20 kA / 20 kA		
Maximum Discharge Current (8/20 μs)	(L - N) / (N - PE) I_{max}		50 kA / 50 kA		
Impulse Discharge Current (10/350 μs)	(L - N) / (N - PE) I_{imp}		7 kA / 25 kA		
Specific Energy	(L - N) / (N - PE) W/R		12 kJ/ Ω / 156 kJ/ Ω		
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 _{RMS}		
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 / 50 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		
Mechanical & Environmental					
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 ² (Solid, Stranded) / 25 mm ² (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 ² (Solid)		
Order Information					
Order 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
FLP7-NPE/0 (spare modules)	0725502	0725502	0725502	0725502	0725502

FLP7-XXX/3(S)+1

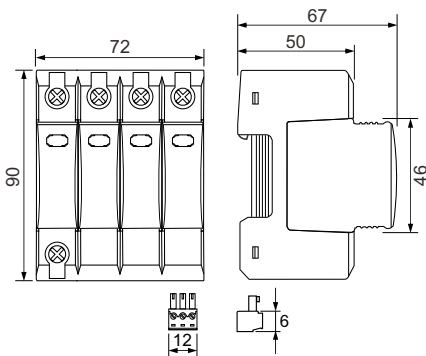
Internal Configuration

Legend

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



Dimensions & Packaging

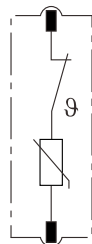


Dimensions & Packaging

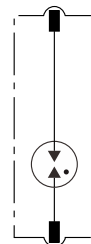
FLP7-XXX/3(S)+1	150	275	320	385	440
Single Unit DIN 43880 Dimension	1 CTN				
Packaging Dimensions (HxWxL)	[270 x 230 x 330 mm]				
Minimum Order Quantity	24 Units				

Plug Internal Configuration

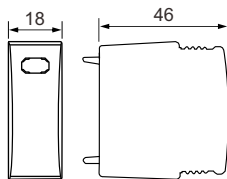
FLP7-XXX/0



FLP7-NPE/0



Dimensions & Packaging



Dimensions & Packaging

FLP7-XXX/0	150	275	320	385	440
FLP7-NPE/0	25				
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)

