

# DC Combiner Box

Catalogue 

Reliability in  
Solar Combiner Box

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## DC Combiner Box

- > Integrated DC Circuit Protection
- > High-Performance DC SPD
- > IP66 UV-Resistant Enclosure
- > Modular Plug-and-Play Design
- > Transparent Inspection Window



# DC Combiner Box

## SLP-1/1-600V

1 String Input 1 String Output DC



### Technical Data

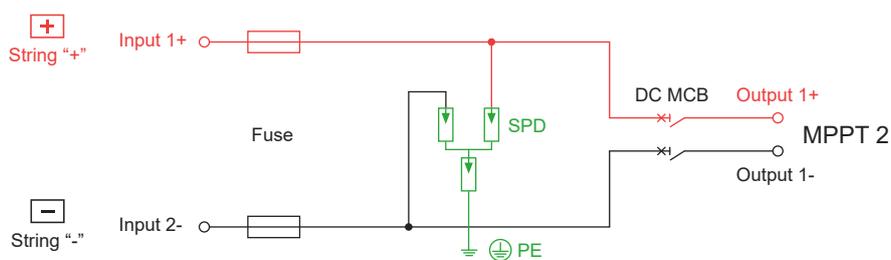
#### SLP-1/1-600V

##### General Data

Model No.	SLP-1/1-600 V	Maximum Current Output	16 A
Input	1 string	Operating Temperature	-20 °C to + 60 °C
Output	1 string	Humidity	5% to 95%
Maximum Voltage	600 V	Altitude	2000 m
Max DC Short Circuit Current per Input ( $I_{sc}$ )	16 A (Changeable)	Installation	Wall Mounting

##### Accessory Data

<b>PV Surge Protector</b>	<b>SLP-PV600(S)</b>	<b>DC Fuse Holder</b>	<b>LFPV-1038H</b>
Max. Operation Voltage ( $U_{opv}$ )	600 V	Thermoplastic	Yes
Compliance	IEC/EN 61643-31	Rated Working Voltage	1000 V
Maximum Discharge Current	40 kA	Fuse Link	10 × 38 mm, 16 A
Certification	CE	Certification	CE
<b>DC Miniature Circuit Breaker</b>	<b>TX7-63Z</b>	<b>Enclosure</b>	<b>LWB-06</b>
Rated Insulation Voltage ( $U_i$ )	600 V	Material Type	Polycarbonate
Rated Current ( $I_e$ )	16 A	Degree of Protection	IP65
Category	DC-Breaker	Degree of Resistance to Impacts	IK10
Compliance	IEC 60947-2	Dimension (W x H x D)	172 × 200 × 110 mm
Certification	CE	Cable Input Entry	PG09 Cable Gland, 2.5-16 mm <sup>2</sup>
		Output Cable Gland	PG21 2.5-16 mm <sup>2</sup>



# DC Combiner Box

## SLP-2/1-600V

2 String Input 1 String Output DC



### Technical Data

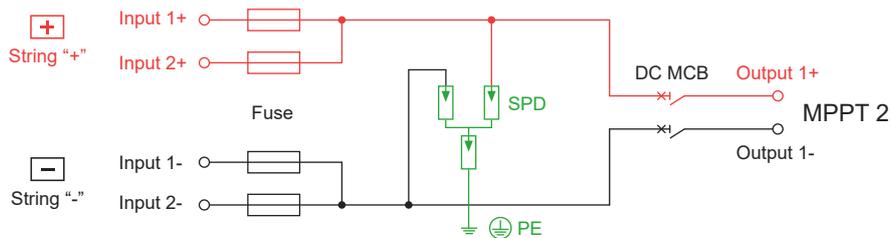
#### SLP-2/1-600V

##### General Data

Model No.	SLP-2/1-600 V	Maximum Current Output	32 A
Input	2 string	Operating Temperature	-20 °C to + 60 °C
Output	1 string	Humidity	5% to 95%
Maximum Voltage	600 V	Altitude	2000 m
Max DC Short Circuit Current per Input ( $I_{sc}$ )	16 A (Changeable)	Installation	Wall Mounting

##### Accessory Data

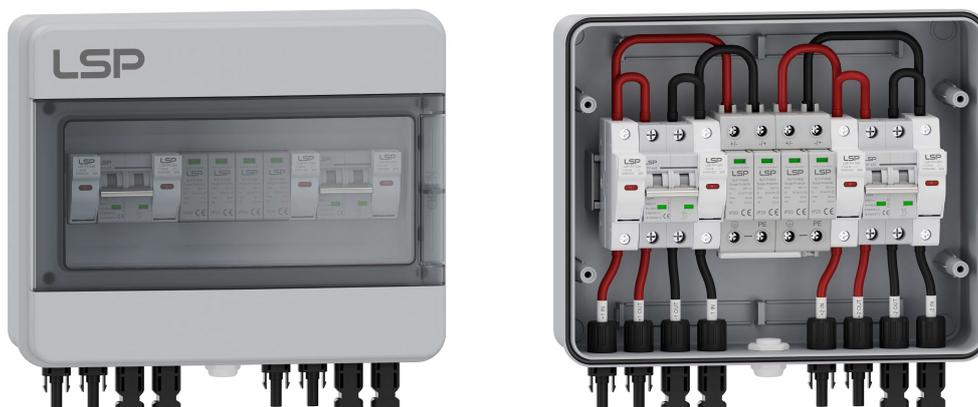
PV Surge Protector	SLP-PV600(S)	DC Fuse Holder	LFPV-1038H
Max. Operation Voltage ( $U_{cpv}$ )	600 V	Thermoplastic	Yes
Compliance	IEC/EN 61643-31	Rated Working Voltage	1000 V
Maximum Discharge Current	40 kA	Fuse Link	10 × 38 mm, 16 A
Certification	CE	Certification	CE
DC Miniature Circuit Breaker	TX7-63Z	Enclosure	LWB-09
Rated Insulation Voltage ( $U_i$ )	600 V	Material Type	Polycarbonate
Rated Current ( $I_e$ )	32 A	Degree of Protection	IP65
Category	DC-Breaker	Degree of Resistance to Impacts	IK10
Compliance	IEC 60947-2	Dimension (W x H x D)	226 × 200 × 110 mm
Certification	CE	Cable Input Entry	PG09 Cable Gland, 2.5-16 mm <sup>2</sup>
		Output Cable Gland	PG21 2.5-16 mm <sup>2</sup>



# DC Combiner Box

## SLP-2/2-600V

2 String Input 2 String Output DC



### Technical Data

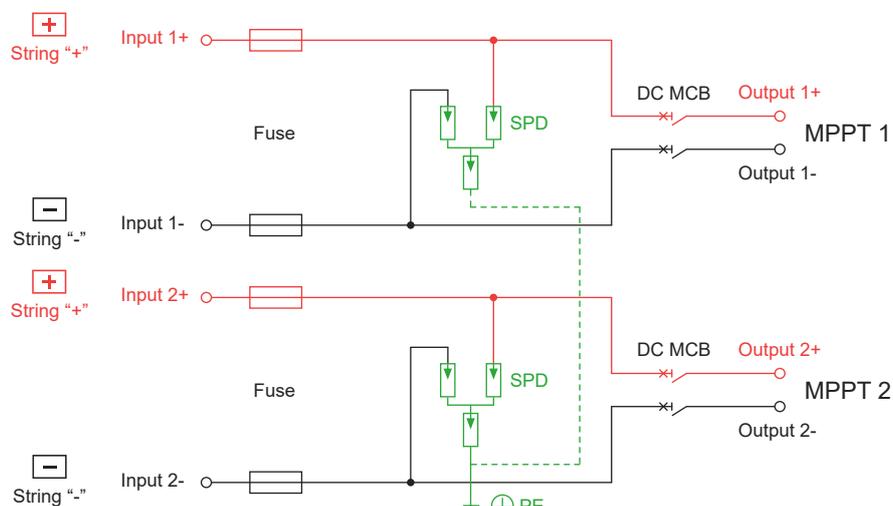
#### SLP-2/2-600V

##### General Data

Model No.	SLP-2/2-600 V	Maximum Current Output	16 A
Input	2 string	Operating Temperature	-20 °C to + 60 °C
Output	2 string	Humidity	5% to 95%
Maximum Voltage	600 V	Altitude	2000 m
Max DC Short Circuit Current per Input ( $I_{sc}$ )	16 A (Changeable)	Installation	Wall Mounting

##### Accessory Data

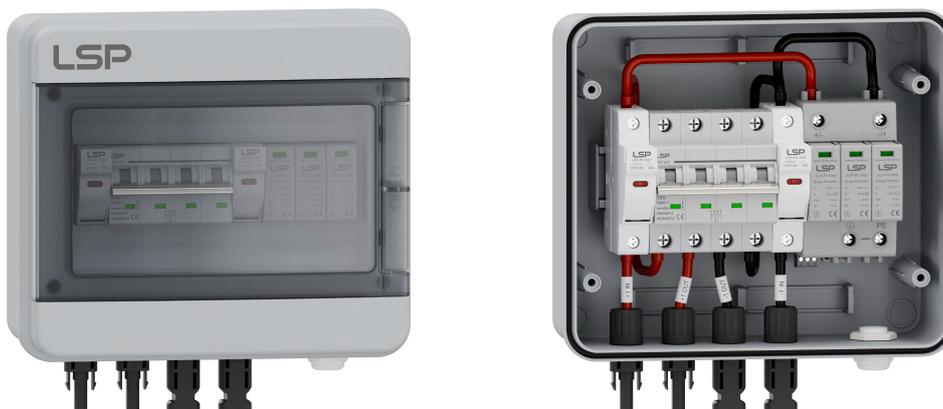
PV Surge Protector	SLP-PV600(S)	DC Fuse Holder	LFPV-1038H
Max. Operation Voltage ( $U_{opv}$ )	600 V	Thermoplastic	Yes
Compliance	IEC/EN 61643-31	Rated Working Voltage	1000 V
Maximum Discharge Current	40 kA	Fuse Link	10 × 38 mm, 16 A
Certification	CE	Certification	CE
DC Miniature Circuit Breaker	TX7-63Z	Enclosure	LWB-12
Rated Insulation Voltage ( $U_i$ )	600 V	Material Type	Polycarbonate
Rated Current ( $I_e$ )	16 A	Degree of Protection	IP65
Category	DC-Breaker	Degree of Resistance to Impacts	IK10
Compliance	IEC 60947-2	Dimension (W x H x D)	280 × 230 × 120 mm
Certification	CE	Cable Input Entry	PG09 Cable Gland, 2.5-16 mm <sup>2</sup>
		Output Cable Gland	PG21 2.5-16 mm <sup>2</sup>



# DC Combiner Box

## SLP-1/1-1000V

1 String Input 1 String Output DC



### Technical Data

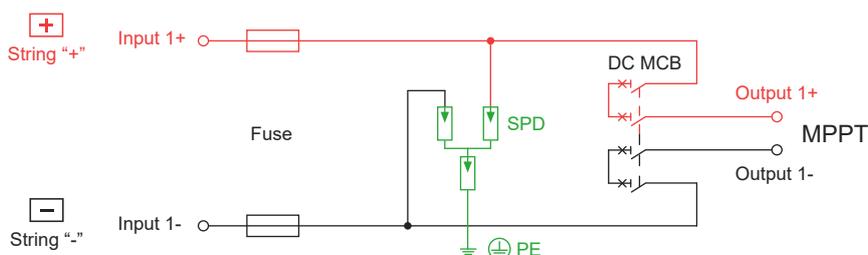
#### SLP-1/1-1000V

##### General Data

Model No.	SLP-1/1-1000 V	Maximum Current Output	16 A
Input	1 string	Operating Temperature	-20 °C to + 60 °C
Output	1 string	Humidity	5% to 95%
Maximum Voltage	1000 V	Altitude	2000 m
Max DC Short Circuit Current per Input ( $I_{sc}$ )	16 A (Changeable)	Installation	Wall Mounting

##### Accessory Data

<b>PV Surge Protector</b>	<b>SLP-PV1000/(S)</b>	<b>DC Fuse Holder</b>	<b>LFPV-1038H</b>
Max. Operation Voltage ( $U_{cpv}$ )	1000 V	Thermoplastic	Yes
Compliance	IEC/EN 61643-31	Rated Working Voltage	1000 V
Maximum Discharge Current	40 kA	Fuse Link	10 × 38 mm, 16 A
Certification	TUV CE	Certification	CE
<b>DC Miniature Circuit Breaker</b>	<b>TX7-63Z</b>	<b>Enclosure</b>	<b>LWB-09</b>
Rated Insulation Voltage ( $U_i$ )	1000 V	Material Type	Polycarbonate
Rated Current ( $I_e$ )	16 A	Degree of Protection	IP65
Category	DC-Breaker	Degree of Resistance to Impacts	IK10
Compliance	IEC 60947-2	Dimension (W x H x D)	226 × 200 × 110 mm
Certification	CE	Cable Input Entry	PG09 Cable Gland, 2.5-16 mm <sup>2</sup>
		Output Cable Gland	PG21 2.5-16 mm <sup>2</sup>



# DC Combiner Box

## SLP-2/1-1000V

2 String Input 1 String Output DC



### Technical Data

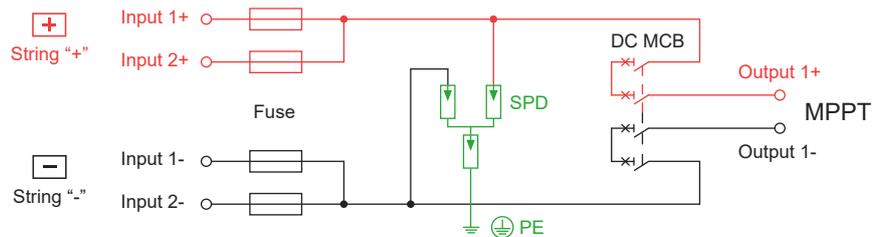
#### SLP-2/1-1000V

##### General Data

Model No.	SLP-2/1-1000 V	Maximum Current Output	32 A
Input	2 string	Operating Temperature	-20 °C to + 60 °C
Output	1 string	Humidity	5% to 95%
Maximum Voltage	1000 V	Altitude	2000 m
Max DC Short Circuit Current per Input ( $I_{sc}$ )	16 A (Changeable)	Installation	Wall Mounting

##### Accessory Data

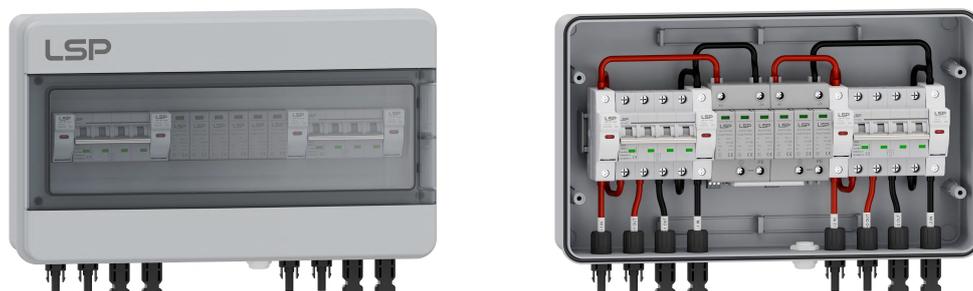
PV Surge Protector	SLP-PV1000/(S)	DC Fuse Holder	LFPV-1038H
Max. Operation Voltage ( $U_{cpv}$ )	1000 V	Thermoplastic	Yes
Compliance	IEC/EN 61643-31	Rated Working Voltage	1000 V
Maximum Discharge Current	40 kA	Fuse Link	10 × 38 mm, 16 A
Certification	TUV CE	Certification	CE
DC Miniature Circuit Breaker	TX7-63Z	Enclosure	LWB-12
Rated Insulation Voltage ( $U_i$ )	1000 V	Material Type	Polycarbonate
Rated Current ( $I_e$ )	32 A	Degree of Protection	IP65
Category	DC-Breaker	Degree of Resistance to Impacts	IK10
Compliance	IEC 60947-2	Dimension (W x H x D)	280 × 230 × 120 mm
Certification	CE	Cable Input Entry	PG09 Cable Gland, 2.5-16 mm <sup>2</sup>
		Output Cable Gland	PG21 2.5-16 mm <sup>2</sup>



# DC Combiner Box

## SLP-2/2-1000V

2 String Input 2 String Output DC



### Technical Data

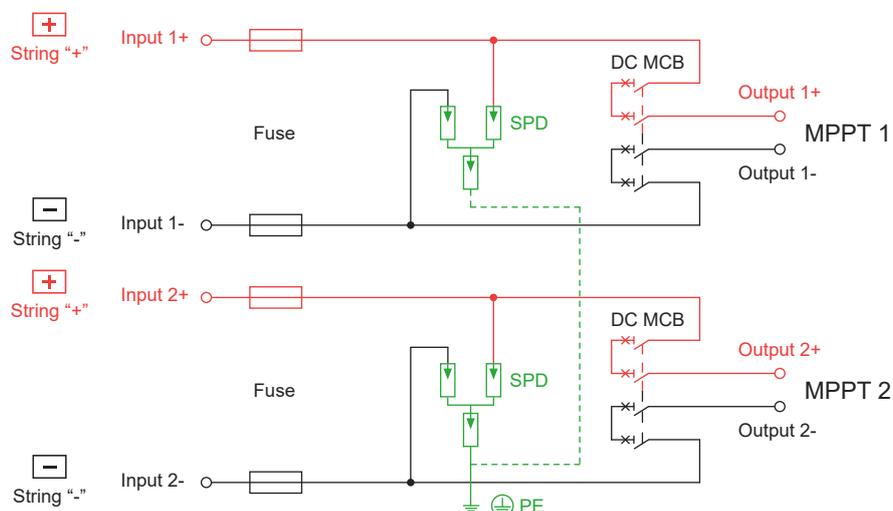
#### SLP-2/2-1000V

##### General Data

Model No.	SLP-2/2-1000V	Maximum Current Output	16 A
Input	2 string	Operating Temperature	-20 °C to + 60 °C
Output	2 string	Humidity	5% to 95%
Maximum Voltage	1000 V	Altitude	2000 m
Max DC Short Circuit Current per Input ( $I_{sc}$ )	16 A (Changeable)	Installation	Wall Mounting

##### Accessory Data

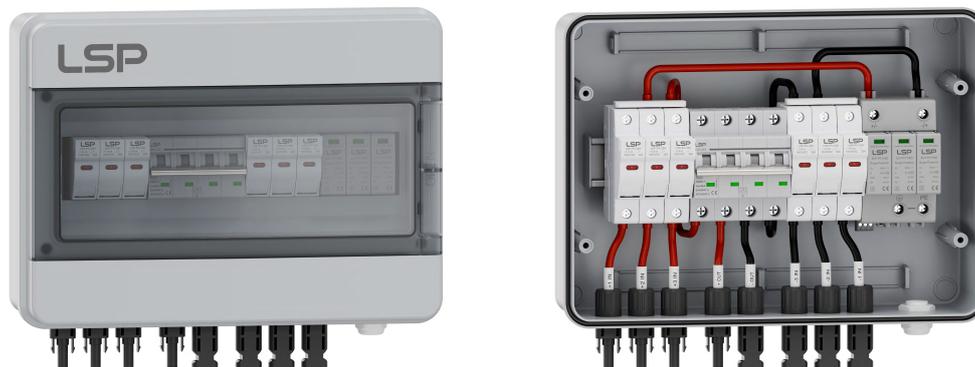
PV Surge Protector	SLP-PV1000/(S)	DC Fuse Holder	LFPV-1038H
Max. Operation Voltage ( $U_{opv}$ )	1000 V	Thermoplastic	Yes
Compliance	IEC/EN 61643-31	Rated Working Voltage	1000 V
Maximum Discharge Current	40 kA	Fuse Link	10 × 38 mm, 16 A
Certification	TUV CE	Certification	CE
DC Miniature Circuit Breaker	TX7-63Z	Enclosure	LWB-18
Rated Insulation Voltage ( $U_i$ )	1000 V	Material Type	Polycarbonate
Rated Current ( $I_e$ )	16 A	Degree of Protection	IP65
Category	DC-Breaker	Degree of Resistance to Impacts	IK10
Compliance	IEC 60947-2	Dimension (W x H x D)	388 × 230 × 120 mm
Certification	CE	Cable Input Entry	PG09 Cable Gland, 2.5-16 mm <sup>2</sup>
		Output Cable Gland	PG21 2.5-16 mm <sup>2</sup>



# DC Combiner Box

## SLP-3/1-1000V

3 String Input 1 String Output DC



### Technical Data

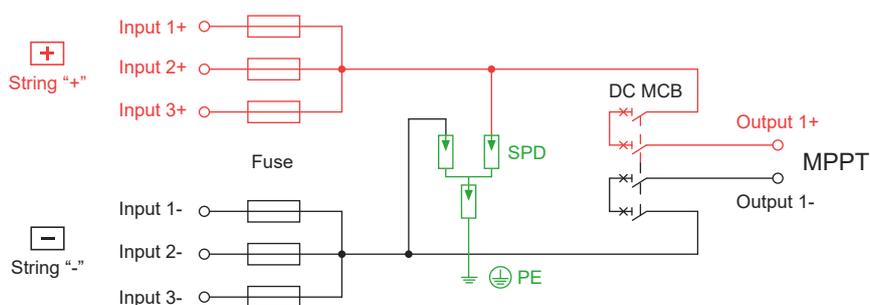
#### SLP-3/1-1000V

##### General Data

Model No.	SLP-3/1-1000V	Maximum Current Output	50 A
Input	3 string	Operating Temperature	-20 °C to + 60 °C
Output	1 string	Humidity	5% to 95%
Maximum Voltage	1000 V	Altitude	2000 m
Max DC Short Circuit Current per Input ( $I_{sc}$ )	16 A (Changeable)	Installation	Wall Mounting

##### Accessory Data

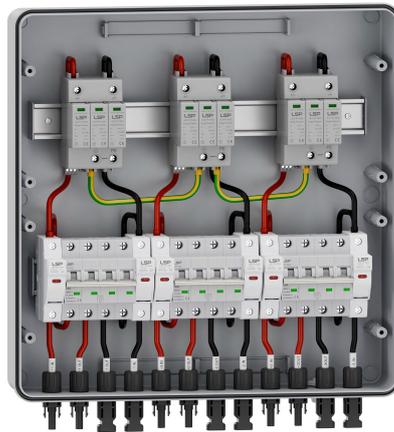
PV Surge Protector	SLP-PV1000/(S)	DC Fuse Holder	LFPV-1038H
Max. Operation Voltage ( $U_{cpv}$ )	1000 V	Thermoplastic	Yes
Compliance	IEC/EN 61643-31	Rated Working Voltage	1000 V
Maximum Discharge Current	40 kA	Fuse Link	10 × 38 mm, 16 A
Certification	TUV CE	Certification	CE
DC Miniature Circuit Breaker	TX7-63Z	Enclosure	LWB-14
Rated Insulation Voltage ( $U_i$ )	1000 V	Material Type	Polycarbonate
Rated Current ( $I_e$ )	50 A	Degree of Protection	IP65
Category	DC-Breaker	Degree of Resistance to Impacts	IK10
Compliance	IEC 60947-2	Dimension (W x H x D)	310 × 230 × 120 mm
Certification	CE	Cable Input Entry	PG09 Cable Gland, 2.5-16 mm <sup>2</sup>
		Output Cable Gland	PG21 2.5-16 mm <sup>2</sup>



# DC Combiner Box

## SLP-3/3-1000V

3 String Input 3 String Output DC



### Technical Data

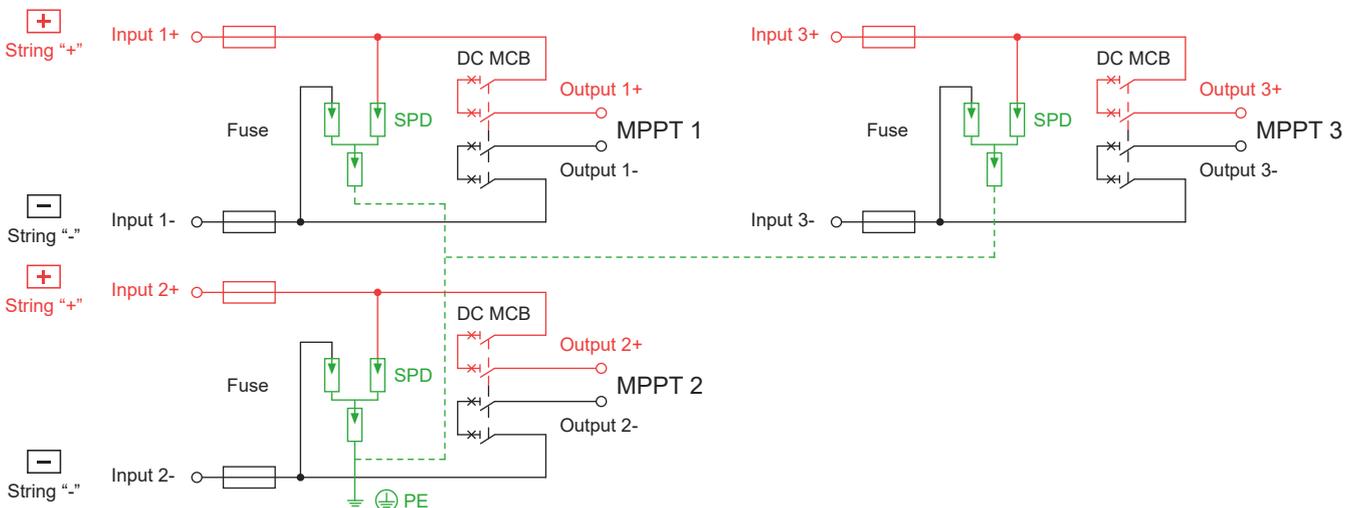
#### SLP-3/3-1000V

##### General Data

Model No.	SLP-3/3-1000 V	Maximum Current Output	16 A
Input	3 string	Operating Temperature	-20 °C to + 60 °C
Output	3 string	Humidity	5% to 95%
Maximum Voltage	1000 V	Altitude	2000 m
Max DC Short Circuit Current per Input ( $I_{sc}$ )	16 A (Changeable)	Installation	Wall Mounting

##### Accessory Data

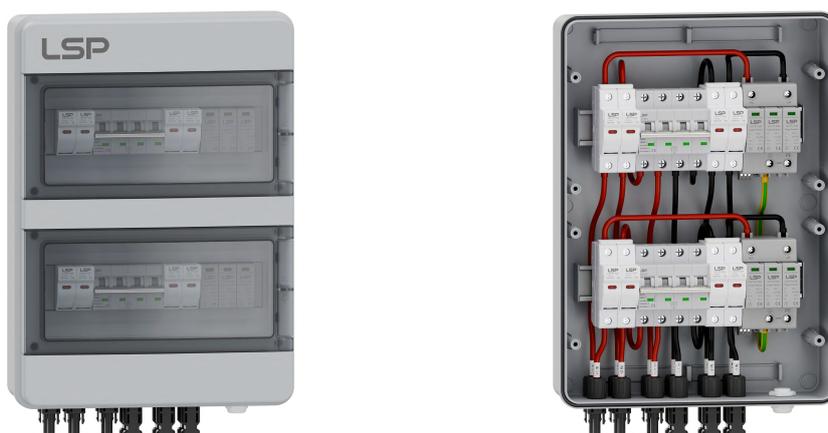
<b>PV Surge Protector</b>	<b>SLP-PV1000/(S)</b>	<b>DC Fuse Holder</b>	<b>LFPV-1038H</b>
Max. Operation Voltage ( $U_{cpv}$ )	1000 V	Thermoplastic	Yes
Compliance	IEC/EN 61643-31	Rated Working Voltage	1000 V
Maximum Discharge Current	40 kA	Fuse Link	10 × 38 mm, 16 A
Certification	TUV CE	Certification	CE
<b>DC Miniature Circuit Breaker</b>	<b>TX7-63Z</b>	<b>Enclosure</b>	<b>LWB-36</b>
Rated Insulation Voltage ( $U_i$ )	1000 V	Material Type	Polycarbonate
Rated Current ( $I_e$ )	16 A	Degree of Protection	IP65
Category	DC-Breaker	Degree of Resistance to Impacts	IK10
Compliance	IEC 60947-2	Dimension (W x H x D)	388 × 393 × 120 mm
Certification	CE	Cable Input Entry	PG09 Cable Gland, 2.5-16 mm <sup>2</sup>
		Output Cable Gland	PG21 2.5-16 mm <sup>2</sup>



# DC Combiner Box

## SLP-4/2-1000V

4 String Input 2 String Output DC



### Technical Data

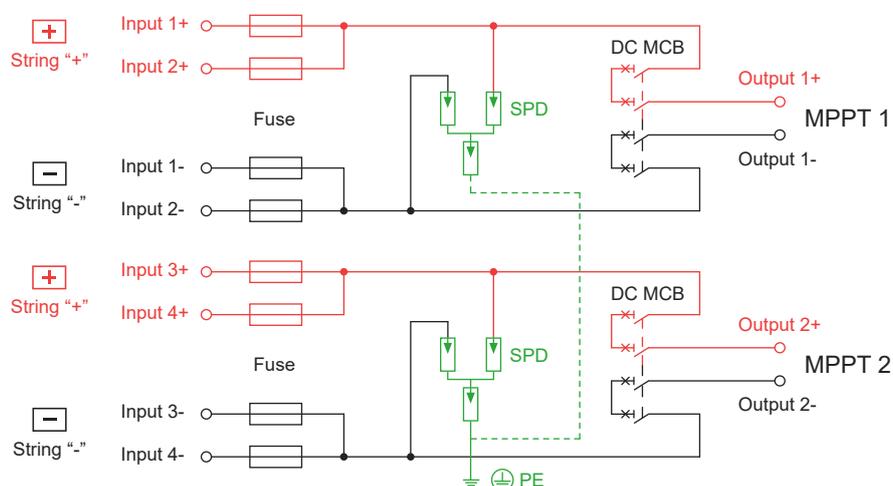
#### SLP-4/2-1000V

##### General Data

Model No.	SLP-4/2-1000 V	Maximum Current Output	32 A
Input	4 string	Operating Temperature	-20 °C to + 60 °C
Output	2 string	Humidity	5% to 95%
Maximum Voltage	1000 V	Altitude	2000 m
Max DC Short Circuit Current per Input ( $I_{sc}$ )	16 A (Changeable)	Installation	Wall Mounting

##### Accessory Data

PV Surge Protector	SLP-PV1000/(S)	DC Fuse Holder	LFPV-1038H
Max. Operation Voltage ( $U_{opv}$ )	1000 V	Thermoplastic	Yes
Compliance	IEC/EN 61643-31	Rated Working Voltage	1000 V
Maximum Discharge Current	40 kA	Fuse Link	10 × 38 mm, 16 A
Certification	TUV CE	Certification	CE
DC Miniature Circuit Breaker	TX7-63Z	Enclosure	LWB-24
Rated Insulation Voltage ( $U_i$ )	1000 V	Material Type	Polycarbonate
Rated Current ( $I_e$ )	32 A	Degree of Protection	IP65
Category	DC-Breaker	Degree of Resistance to Impacts	IK10
Compliance	IEC 60947-2	Dimension (W x H x D)	280 × 393 × 120 mm
Certification	CE	Cable Input Entry	PG09 Cable Gland, 2.5-16 mm <sup>2</sup>
		Output Cable Gland	PG21 2.5-16 mm <sup>2</sup>



# DC Combiner Box

## SLP-1/1-1500V

1 String Input 1 String Output DC



### Technical Data

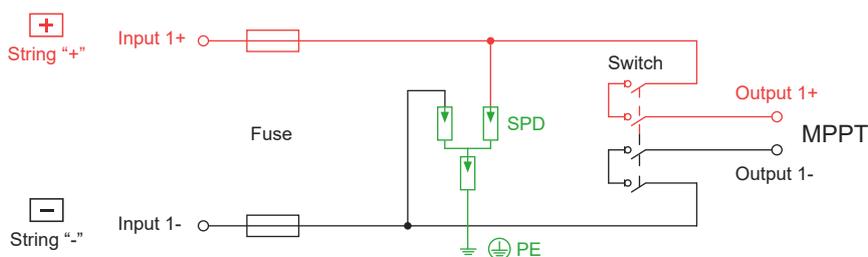
#### SLP-1/1-1500V

##### General Data

Model No.	SLP-1/1-1500 V	Maximum Current Output	16 A
Input	1 string	Operating Temperature	-20 °C to + 60 °C
Output	1 string	Humidity	5% to 95%
Maximum Voltage	1500 V	Altitude	2000 m
Max DC Short Circuit Current per Input ( $I_{sc}$ )	16 A (Changeable)	Installation	Wall Mounting

##### Accessory Data

PV Surge Protector	SLP-PV1500(S)	DC Fuse Holder	LFPV-1485H
Max. Operation Voltage ( $U_{cpv}$ )	1500 V	Thermoplastic	Yes
Compliance	IEC/EN 61643-31	Rated Working Voltage	1500 V
Maximum Discharge Current	40 kA	Fuse Link	10/14 × 85 mm, 16 A
Certification	TUV CE	Certification	CE
Isolating Switch	LDS-32/4	Enclosure	
Rated Insulation Voltage ( $U_i$ )	1500 V	Material Type	Polycarbonate
Rated Current ( $I_e$ )	32 A	Degree of Protection	IP65
Category	Switch	Degree of Resistance to Impacts	IK10
Compliance	IEC 60947-2	Dimension (W x H x D)	309 × 321 × 150 mm
Certification	CE	Cable Input Entry	PG09 Cable Gland, 2.5-16 mm <sup>2</sup>
		Output Cable Gland	PG21 2.5-16 mm <sup>2</sup>



# DC Combiner Box

## SLP-16/1-1500V

16 String Input 1 String Output DC



### Technical Data

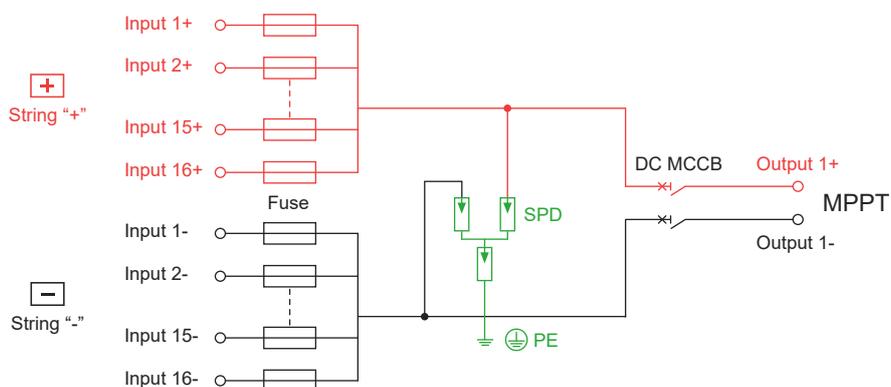
#### SLP-16/1-1500V

##### General Data

Model No.	FLP-16/1-1500 V	Maximum Current Output	250 A
Input	16 string	Operating Temperature	-20 °C to + 60 °C
Output	1 string	Humidity	5% to 95%
Maximum Voltage	1500 V	Altitude	2000 m
Max DC Short Circuit Current per Input ( $I_{sc}$ )	15 A (Changeable)	Installation	Wall Mounting

##### Accessory Data

PV Surge Protector	SLP-PV1500/(S)	DC Fuse Holder	LFPV-1485H
Max. Operation Voltage ( $U_{cpv}$ )	1500 V	Thermoplastic	Yes
Compliance	IEC/EN 61643-31	Rated Working Voltage	1500 V
Maximum Discharge Current	40 kA	Fuse Link	10/14 × 85 mm, 16 A
Certification	TUV CE	Certification	CE
DC Circuit Breaker	LDS6DB	Enclosure	
Rated Insulation Voltage ( $U_i$ )	1500 V	Material Type	Polycarbonate
Rated Current ( $I_e$ )	250 A	Degree of Protection	IP65
Category	DC-Breaker	Degree of Resistance to Impacts	IK10
Compliance	IEC 60947-2	Dimension (W x H x D)	280 × 230 × 120 mm
Certification	CE	Cable Input Entry	PG09 Cable Gland, 2.5-16 mm <sup>2</sup>
		Output Cable Gland	PG21 2.5-16 mm <sup>2</sup>



# PV Surge Protective Device FLP-PVxxxG/(S)

Class I • Class II • Type 1 • Type 2



Location of Use: String box, Inverter  
 Network Systems: (DC+)-PE, (DC-)-PE  
 Surge Ratings:  $I_{total} = 12.5 \text{ kA (10/350 } \mu\text{s)}$   
 $I_{total} = 40 \text{ kA (8/20 } \mu\text{s)}$   
 IEC/EN Category: Class I+II / Type 1+2  
 Protective Elements: High Energy MOV  
 Housing: Monoblock Design  
 Compliance: IEC 61643-31:2018  
 EN 61643-31:2019

## Technical Data

FLP-PVxxxG/(S)		1000	1500	
<b>IEC Electrical</b>				
Maximum Continuous Operating DC Voltage	(DC+)-PE, (DC-)-PE	$U_{CPV}$	725 V	1100 V
	(DC+)-(DC-)	$U_{CPV}$	1000 V	1500 V
Nominal Discharge Current (8/20 $\mu\text{s}$ )		$I_n$	20 kA	
Impulse Discharge Current (10/350 $\mu\text{s}$ )		$I_{imp}$	6.25 kA	
Specific energy [(DC+)-PE / (DC-)-PE]		W/R	9.76 kJ/ $\Omega$	
Total Discharge Current (10/350 $\mu\text{s}$ )		$I_{total}$	12.5 kA	
Specific energy [(DC+) / (DC-)-PE]		I	39.06 kJ/ $\Omega$	
Total Discharge Current (8/20 $\mu\text{s}$ )		$I_{total}$	40 kA	
Maximum Discharge Current (8/20 $\mu\text{s}$ )		$I_{max}$	40 kA	
Voltage Protection Level	(DC+)-PE, (DC-)-PE	$U_p$	2.5 kV	3.75 kV
	(DC+)-(DC-)	$U_p$	4.75 kV	7.25 kV
Residual Current at $U_c$		$I_{PE}$	none	
Response Time		$t_A$	< 25 ns	
Short-Circuit Current Rating		$I_{SCPV}$	2000 A	
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			1000	1500
FLP-PVxxxG			0710237	0715233
FLP-PVxxxG/(S) (with remote contacts)			0710238	0715234

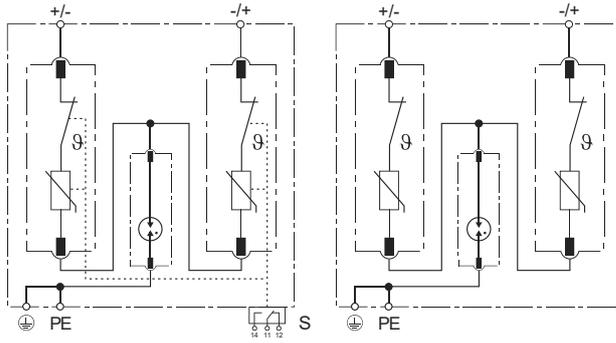


## FLP-PVxxxG/(S)

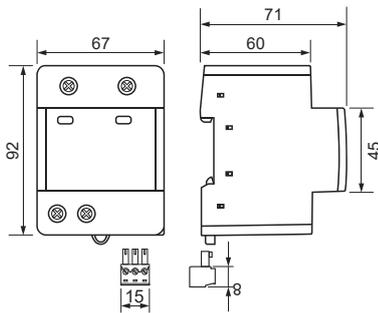
### Internal Configuration

#### Legend

- ⊕ PE/G Conductor Terminal
- S Signalling Contacts Optional



### Dimensions & Packaging



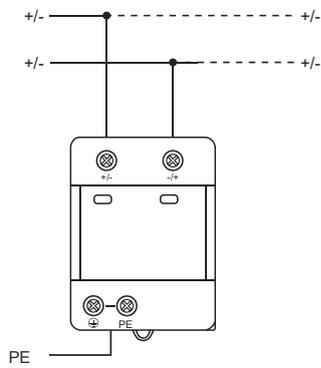
[mm]

#### Complete Unit

FLP-PVxxxG/(S)	1000	1500
DIN 43880 Dimension	1 CTN	
Packaging Dimensions (H x W x L)	[210 x 220 x 330 mm]	
Standard Order Quantity	16 Units	

### Connection Diagram

#### FLP-PVxxxG/(S)



# PV Surge Protective Device

## FLP-PVxxx/(S)

Class I • Class II • Type 1 • Type 2



Location of Use: String box, Inverter  
 Network Systems: (DC+)-PE, (DC-)-PE  
 Surge Ratings:  $I_{total} = 12.5 \text{ kA (10/350 } \mu\text{s)}$   
 $I_{total} = 40 \text{ kA (8/20 } \mu\text{s)}$   
 IEC/EN Category: Class I+II / Type 1+2  
 Protective Elements: High Energy MOV  
 Housing: Pluggable Design  
 Compliance: IEC 61643-31:2018  
 EN 61643-31:2019

### Technical Data

FLP-PVxxx/(S)			600	1000	1200	1500
<b>IEC Electrical</b>						
Maximum Continuous Operating DC Voltage	(DC+)-PE, (DC-)-PE	$U_{CPV}$	600 V	1000 V	1200 V	1500 V
	(DC+)-(DC-)	$U_{CPV}$	-	1000 V	1200 V	1500 V
Nominal Discharge Current (8/20 $\mu\text{s}$ )		$I_n$		20 kA		
Impulse Discharge Current (10/350 $\mu\text{s}$ )		$I_{imp}$		6.25 kA		
Total Discharge Current (10/350 $\mu\text{s}$ )		$I_{total}$		12.5 kA		
Total Discharge Current (8/20 $\mu\text{s}$ )		$I_{total}$		40 kA		
Maximum Discharge Current (8/20 $\mu\text{s}$ )		$I_{max}$		40 kA		
Voltage Protection Level	(DC+)-PE, (DC-)-PE	$U_p$	2.2 kV	4 kV	4.4 kV	5.2 kV
	(DC+)-(DC-)	$U_p$	-	4 kV	4.4 kV	5.2 kV
Residual Current at $U_c$		$I_{PE}$		< 0.5 mA		
Response Time		$t_A$		< 25 ns		
Short-Circuit Current Rating		$I_{SCP}$		10 kA		
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			600	1000	1200	1500
FLP-PVxxx			0760025	0710235	0712231	0715231
FLP-PVxxx/(S) (with remote contacts)			0760026	0710236	0712232	0715232
FLP-PVxxx/0 (spare modules)			0760002	0710202	0712202	0715202



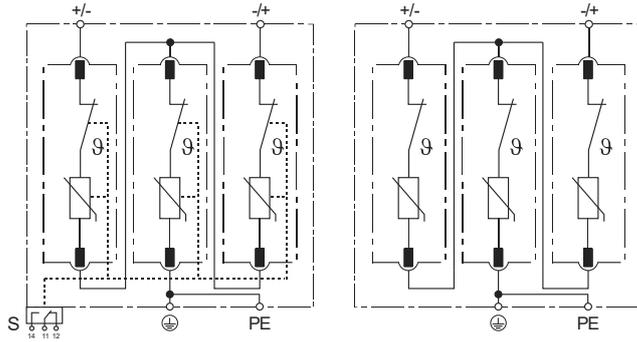
# FLP-PVxxx/(S)

## Internal Configuration

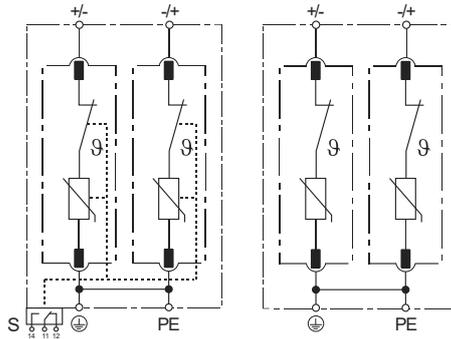
### Legend

- ⊕ PE/G Conductor Terminal
- S Signalling Contacts Optional

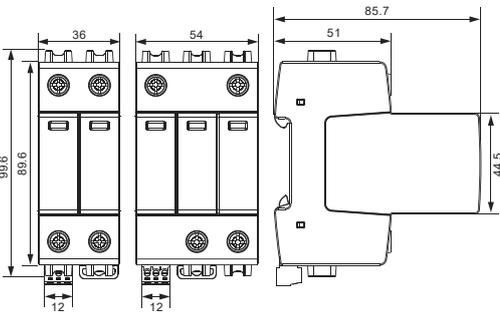
### FLP-PV1000/(S), FLP-PV1200/(S), FLP-PV1500/(S)



### FLP-PV600/(S)



## Dimensions & Packaging

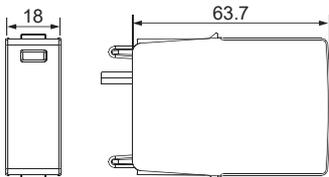


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FLP-PV600/(S) FLP-PV1000/(S)  
FLP-PV1200/(S) FLP-PV1500/(S)

Complete Unit				
FLP-PVxxx/(S)	600	1000	1200	1500
DIN 43880 Dimension	1 CTN			
Packaging Dimensions (H x W x L)	[210 × 220 × 330 mm]			
Standard Order Quantity	32 Units	32 Units	32 Units	32 Units

## Spare Plug



Single Unit				
FLP-PVxxx/0	600	1000	1200	1500
DIN 43880 Dimension	1 CTN			
Packaging Dimensions (H x W x L)	[210 × 220 × 330 mm]			
Standard Order Quantity	120 Units			

# PV Surge Protective Device

## SLP-PVxxx/(S)

Class II • Type 2



Location of Use: String box, Inverter  
 Mode of Protection: (DC+)-PE, (DC-)-PE  
 Surge Ratings:  $I_n = 20 \text{ kA (8/20 } \mu\text{s)}$   
 $I_{\text{max}} = 40 \text{ kA (8/20 } \mu\text{s)}$   
 IEC/EN Category: Class II / Type 2  
 Protective Elements: High Energy MOV  
 Housing: Pluggable Design  
 Compliance: IEC 61643-31:2018  
 EN 61643-31:2019

### Technical Data

SLP-PVxxx/(S)		600	1000	1200	1500	
<b>IEC Electrical</b>						
Maximum Continuous Operating DC Voltage	(DC+)-PE, (DC-)-PE	$U_{\text{CPV}}$	600 V	1000 V	1200 V	1500 V
	(DC+)-(DC-)	$U_{\text{CPV}}$	-	1000 V	1200 V	1500 V
Nominal Discharge Current (8/20 $\mu\text{s}$ )		$I_n$		20 kA		
Total Discharge Current (8/20 $\mu\text{s}$ )		$I_{\text{total}}$		40 kA		
Maximum Discharge Current (8/20 $\mu\text{s}$ )		$I_{\text{max}}$		40 kA		
Voltage Protection Level	(DC+)-PE, (DC-)-PE	$U_p$	2.2 kV	4 kV	4.4 kV	5.2 kV
	(DC+)-(DC-)	$U_p$	-	4 kV	4.4 kV	5.2 kV
Residual Current at $U_c$		$I_{\text{PE}}$		< 0.5 mA		
Response Time		$t_A$		< 25 ns		
Short-Circuit Current Rating		$I_{\text{SCPV}}$		1 kA		
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		$M_{\text{max}}$	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		600	1000	1200	1500	
SLP-PVxxx		4060025	4010235	4012231	4015231	
SLP-PVxxx/(S) (with remote contacts)		4060026	4010236	4012232	4015232	
SLP-PVxxx/0 (spare modules)		4060002	4010202	4012202	4015202	



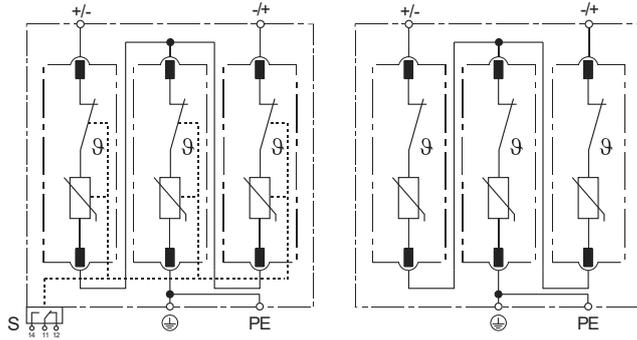
# SLP-PVxxx/(S)

## Internal Configuration

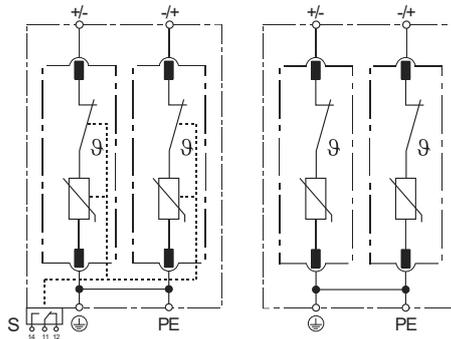
### Legend

- ⊕ PE/G Conductor Terminal
- S Signalling Contacts Optional

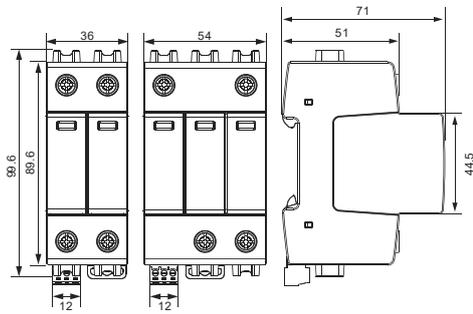
### SLP-PV1000/(S), SLP-PV1200/(S), SLP-PV1500/(S)



### SLP-PV600/(S)



## Dimensions & Packaging

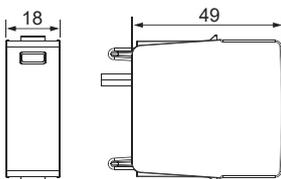


SLP-PV600/(S) SLP-PV1000/(S)  
SLP-PV1200/(S)  
SLP-PV1500/(S)

[mm]

Complete Unit				
SLP-PVxxx/(S)	600	1000	1200	1500
DIN 43880 Dimension	1 CTN			
Packaging Dimensions (H x W x L)	[260 × 220 × 330 mm]			
Standard Order Quantity	48 Units	30 Units	30 Units	30 Units

## Spare Plug



Single Unit				
SLP-PVxxx/0	600	1000	1200	1500
DIN 43880 Dimension	1 CTN			
Packaging Dimensions (H x W x L)	[260 × 220 × 330 mm]			
Standard Order Quantity	120 Units			

# Waterproof Plastic Enclosure

## LWB-06

### Wall-Mounted Enclosure



- Enclosure Capacity (No. of Modules): 6
- Enclosure Material: PC + ABS Alloy
- Flame Retardancy: UL 94 V-0
- Degree of Protection: IP65
- Compliance: IEC 60529, EN 60309
- Applicable Environment: Suitable for wet, outdoor, and harsh conditions

### Technical Data

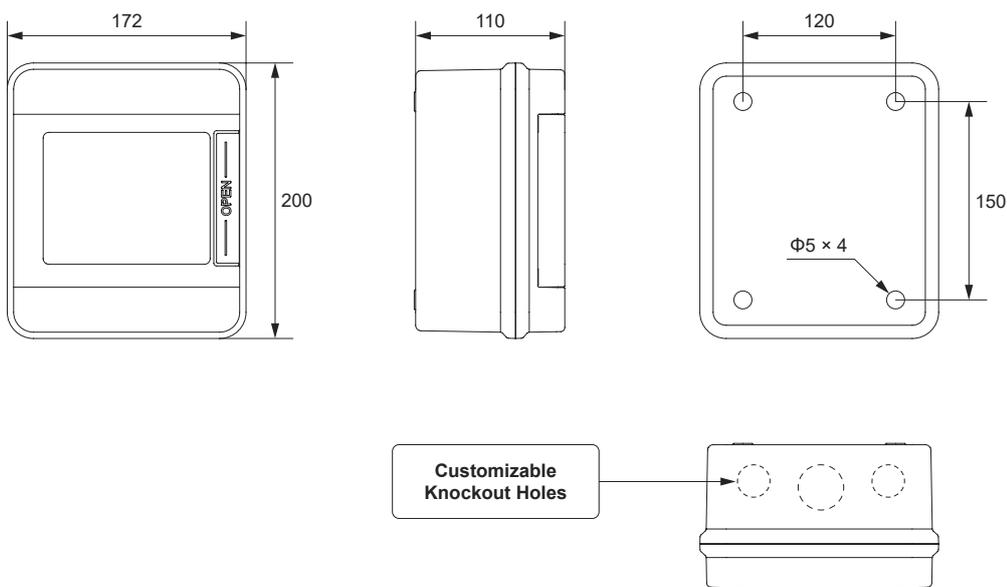
#### LWB-06

#### Enclosure

Enclosure Capacity (No. of Modules)	6
Type of Covering	Door
Transparent Cover/Door	Yes
Earthing Terminal Block	Yes
Neutral Terminal Block	Yes
Enclosure Material	PC + ABS Alloy
Gasket Material	Silicone Rubber
Degree of Protection	IP65
IK Rating	IK10
Flame Retardancy	UL 94 V-0
Mounting Method	Wall-mounted
Operating Temperature Range	-30 °C to +60 °C
Customizable Knockouts	Yes

### Dimensions

[mm]



# Waterproof Plastic Enclosure

## LWB-09

### Wall-Mounted Enclosure



- Enclosure Capacity (No. of Modules): 9
- Enclosure Material: PC + ABS Alloy
- Flame Retardancy: UL 94 V-0
- Degree of Protection: IP65
- Compliance: IEC 60529, EN 60309
- Applicable Environment: Suitable for wet, outdoor, and harsh conditions

### Technical Data

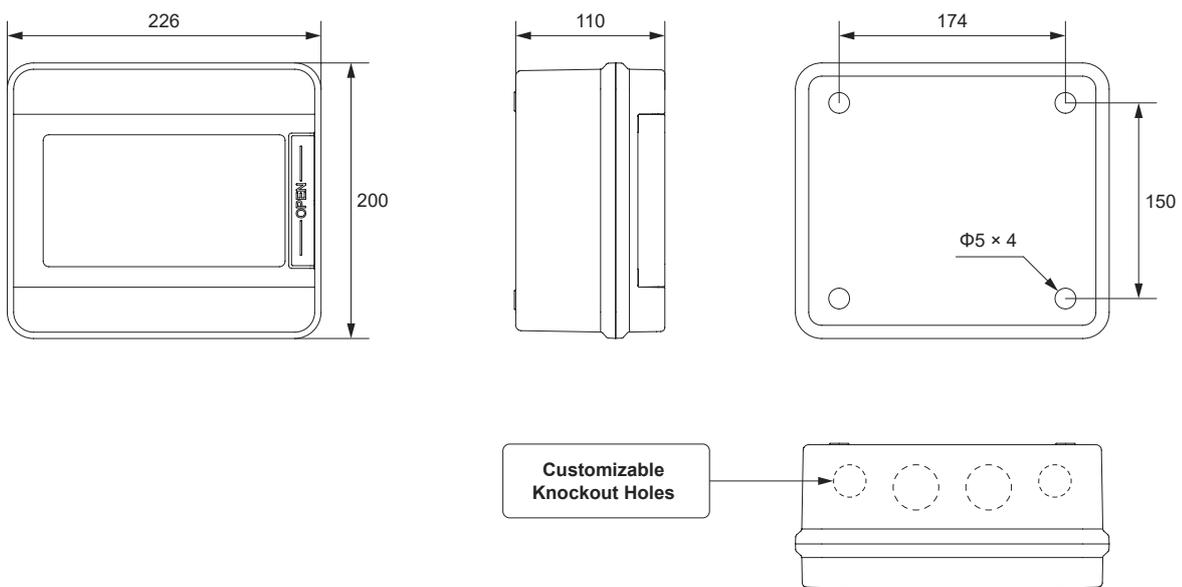
#### LWB-09

#### Enclosure

Enclosure Capacity (No. of Modules)	9
Type of Covering	Door
Transparent Cover/Door	Yes
Earthing Terminal Block	Yes
Neutral Terminal Block	Yes
Enclosure Material	PC + ABS Alloy
Gasket Material	Silicone Rubber
Degree of Protection	IP65
IK Rating	IK10
Flame Retardancy	UL 94 V-0
Mounting Method	Wall-mounted
Operating Temperature Range	-30 °C to +60 °C
Customizable Knockouts	Yes

### Dimensions

[mm]



# Waterproof Plastic Enclosure

## LWB-12

### Wall-Mounted Enclosure



- Enclosure Capacity (No. of Modules): 12
- Enclosure Material: PC + ABS Alloy
- Flame Retardancy: UL 94 V-0
- Degree of Protection: IP65
- Compliance: IEC 60529, EN 60309
- Applicable Environment: Suitable for wet, outdoor, and harsh conditions

### Technical Data

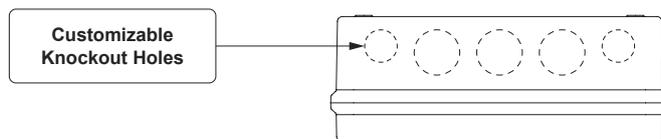
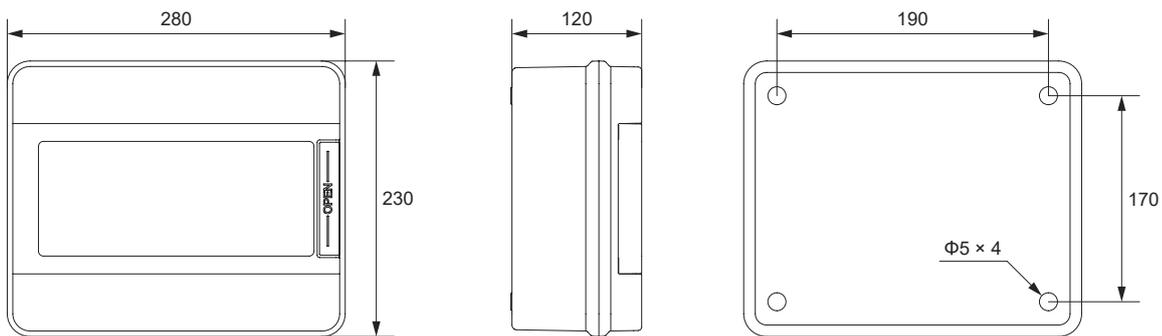
#### LWB-12

#### Enclosure

Enclosure Capacity (No. of Modules)	12
Type of Covering	Door
Transparent Cover/Door	Yes
Earthing Terminal Block	Yes
Neutral Terminal Block	Yes
Enclosure Material	PC + ABS Alloy
Gasket Material	Silicone Rubber
Degree of Protection	IP65
IK Rating	IK10
Flame Retardancy	UL 94 V-0
Mounting Method	Wall-mounted
Operating Temperature Range	-30 °C to +60 °C
Customizable Knockouts	Yes

### Dimensions

[mm]



# Waterproof Plastic Enclosure

## LWB-14

### Wall-Mounted Enclosure



- Enclosure Capacity (No. of Modules): 14
- Enclosure Material: PC + ABS Alloy
- Flame Retardancy: UL 94 V-0
- Degree of Protection: IP65
- Compliance: IEC 60529, EN 60309
- Applicable Environment: Suitable for wet, outdoor, and harsh conditions

### Technical Data

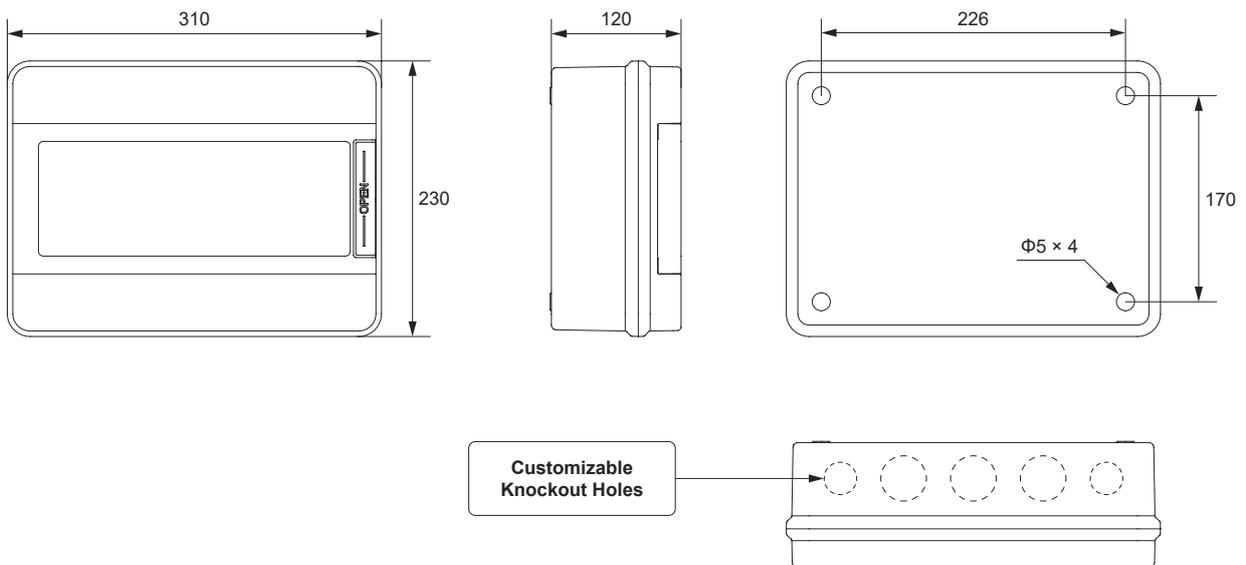
#### LWB-14

#### Enclosure

Enclosure Capacity (No. of Modules)	14
Type of Covering	Door
Transparent Cover/Door	Yes
Earthing Terminal Block	Yes
Neutral Terminal Block	Yes
Enclosure Material	PC + ABS Alloy
Gasket Material	Silicone Rubber
Degree of Protection	IP65
IK Rating	IK10
Flame Retardancy	UL 94 V-0
Mounting Method	Wall-mounted
Operating Temperature Range	-30 °C to +60 °C
Customizable Knockouts	Yes

### Dimensions

[mm]



# Waterproof Plastic Enclosure

## LWB-16

### Wall-Mounted Enclosure



- Enclosure Capacity (No. of Modules): 16
- Enclosure Material: PC + ABS Alloy
- Flame Retardancy: UL 94 V-0
- Degree of Protection: IP65
- Compliance: IEC 60529, EN 60309
- Applicable Environment: Suitable for wet, outdoor, and harsh conditions

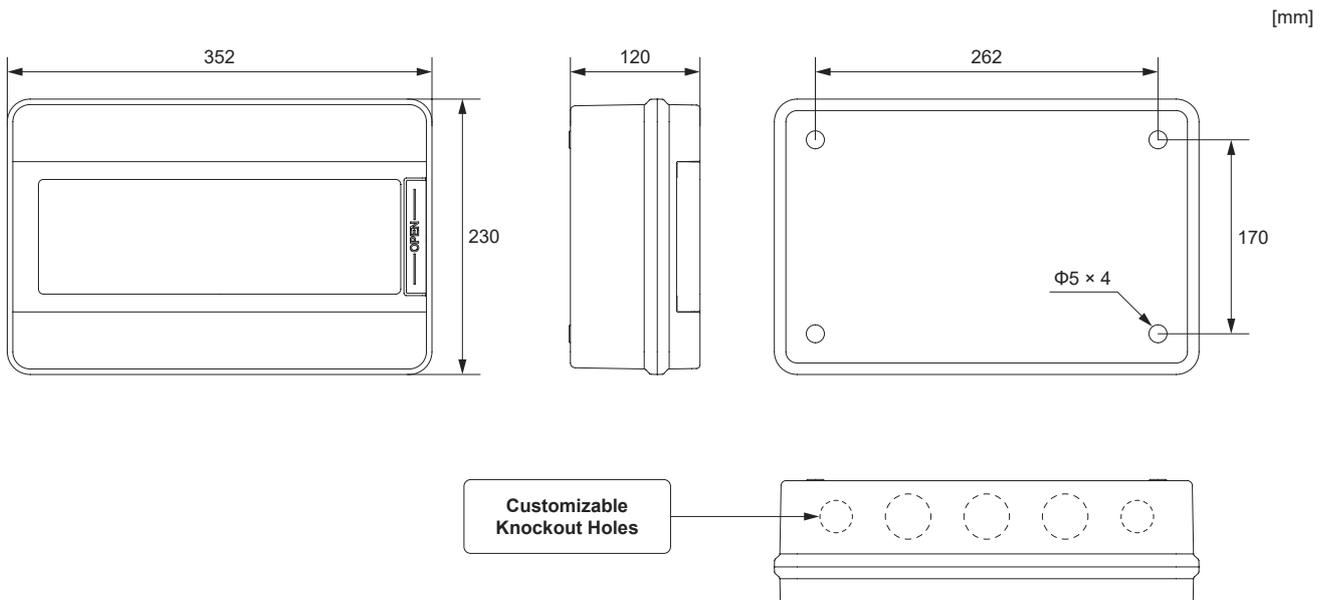
### Technical Data

#### LWB-16

#### Enclosure

Enclosure Capacity (No. of Modules)	16
Type of Covering	Door
Transparent Cover/Door	Yes
Earthing Terminal Block	Yes
Neutral Terminal Block	Yes
Enclosure Material	PC + ABS Alloy
Gasket Material	Silicone Rubber
Degree of Protection	IP65
IK Rating	IK10
Flame Retardancy	UL 94 V-0
Mounting Method	Wall-mounted
Operating Temperature Range	-30 °C to +60 °C
Customizable Knockouts	Yes

### Dimensions



# Waterproof Plastic Enclosure

## LWB-18

### Wall-Mounted Enclosure



- Enclosure Capacity (No. of Modules): 18
- Enclosure Material: PC + ABS Alloy
- Flame Retardancy: UL 94 V-0
- Degree of Protection: IP65
- Compliance: IEC 60529, EN 60309
- Applicable Environment: Suitable for wet, outdoor, and harsh conditions

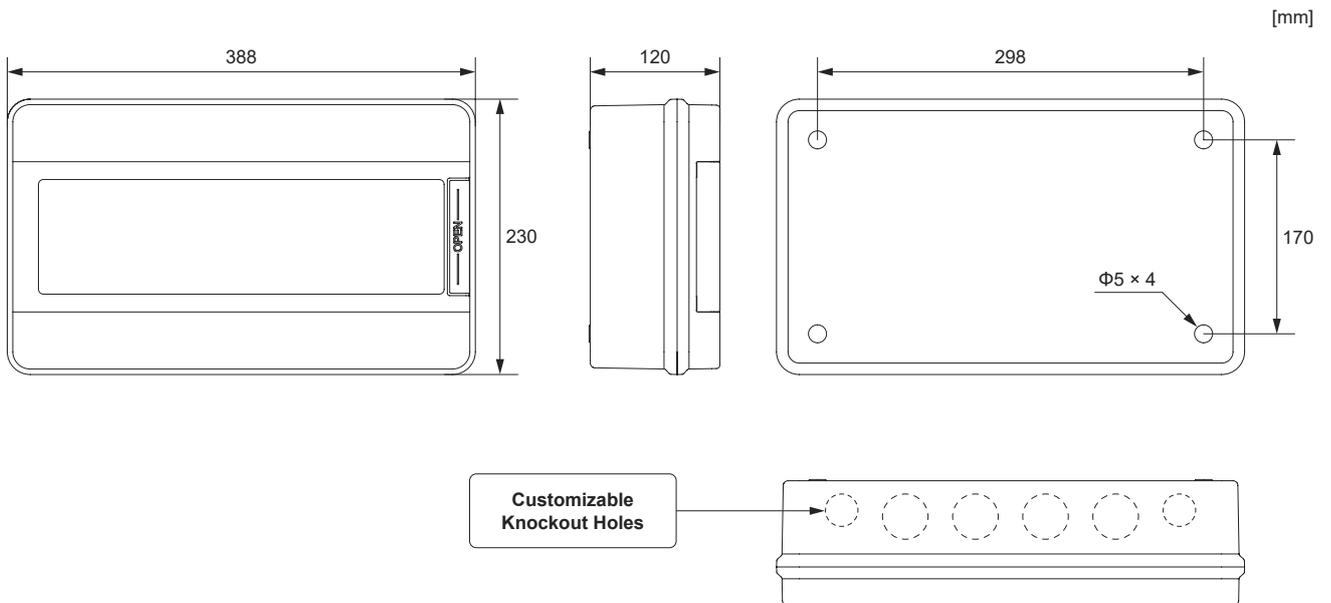
### Technical Data

#### LWB-18

#### Enclosure

Enclosure Capacity (No. of Modules)	18
Type of Covering	Door
Transparent Cover/Door	Yes
Earthing Terminal Block	Yes
Neutral Terminal Block	Yes
Enclosure Material	PC + ABS Alloy
Gasket Material	Silicone Rubber
Degree of Protection	IP65
IK Rating	IK10
Flame Retardancy	UL 94 V-0
Mounting Method	Wall-mounted
Operating Temperature Range	-30 °C to +60 °C
Customizable Knockouts	Yes

### Dimensions



# Waterproof Plastic Enclosure

## LWB-24

### Wall-Mounted Enclosure



- Enclosure Capacity (No. of Modules): 24
- Enclosure Material: PC + ABS Alloy
- Flame Retardancy: UL 94 V-0
- Degree of Protection: IP65
- Compliance: IEC 60529, EN 60309
- Applicable Environment: Suitable for wet, outdoor, and harsh conditions

### Technical Data

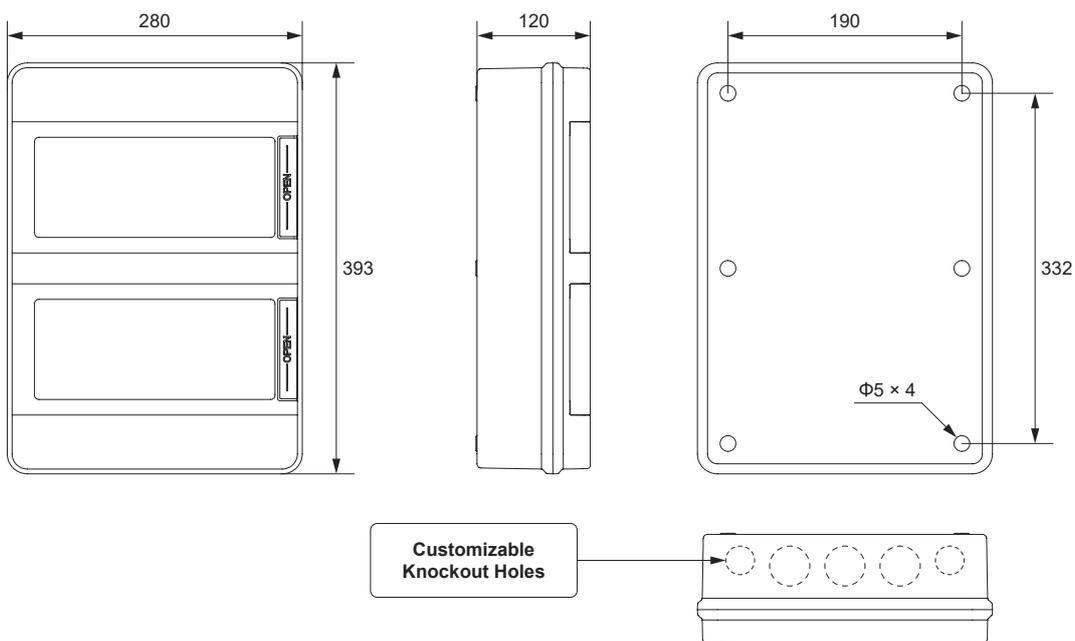
#### LWB-24

##### Enclosure

Enclosure Capacity (No. of Modules)	24
Type of Covering	Door
Transparent Cover/Door	Yes
Earthing Terminal Block	Yes
Neutral Terminal Block	Yes
Enclosure Material	PC + ABS Alloy
Gasket Material	Silicone Rubber
Degree of Protection	IP65
IK Rating	IK10
Flame Retardancy	UL 94 V-0
Mounting Method	Wall-mounted
Operating Temperature Range	-30 °C to +60 °C
Customizable Knockouts	Yes

### Dimensions

[mm]



# Waterproof Plastic Enclosure

## LWB-36

### Wall-Mounted Enclosure



- Enclosure Capacity (No. of Modules): 36
- Enclosure Material: PC + ABS Alloy
- Flame Retardancy: UL 94 V-0
- Degree of Protection: IP65
- Compliance: IEC 60529, EN 60309
- Applicable Environment: Suitable for wet, outdoor, and harsh conditions

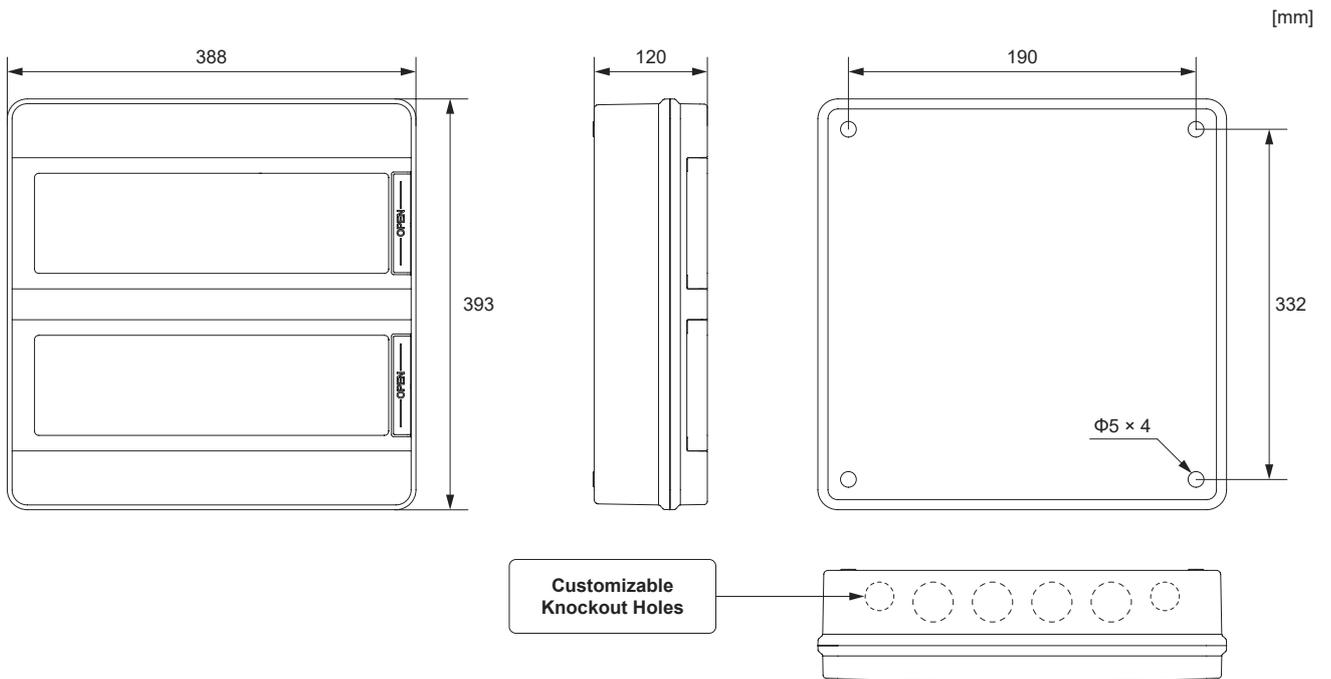
### Technical Data

#### LWB-36

#### Enclosure

Enclosure Capacity (No. of Modules)	36
Type of Covering	Door
Transparent Cover/Door	Yes
Earthing Terminal Block	Yes
Neutral Terminal Block	Yes
Enclosure Material	PC + ABS Alloy
Gasket Material	Silicone Rubber
Degree of Protection	IP65
IK Rating	IK10
Flame Retardancy	UL 94 V-0
Mounting Method	Wall-mounted
Operating Temperature Range	-30 °C to +60 °C
Customizable Knockouts	Yes

### Dimensions



# DC Isolator Switch LDS-32/4E(D/Q) PV Disconnect Switch



- Compliance: IEC/EN 60947-3 and AS 60947.3
- Utilization Category: DC-PV1 / DC-PV2
- Polarity: Non-polarized
- Degree of Protection: IP66, UV-resistant
- OFF-position lockable
- UV-resistant, Flame-retardant (UL94 V-0)
- Arcing Time: <2 ms

The LDS series solar DC disconnect switch is suitable for rated voltage DC 1200 V and below, rated current 32 A and below power systems. It is designed for infrequent connection and disconnection, providing

reliable isolation of 1–2 MPPT lines simultaneously. Ideal for isolating lines in DC transmission and distribution systems, such as cutting the direct current circuit between solar panels and inverters.

## Technical Data

### LDS-32/4E(D/Q)

#### Electrical Characteristic

Rated Frequency		DC
Rated Operating Voltage	$U_e$	300 V / 600 V / 800 V / 1000 V / 1200 V
Rated Insulation Voltage	$U_i$	1200 V
Rated thermal current	$I_{th}$	32 A
Rated Short-time Withstand Current	$I_{ow}$	1 kA/1s (4, 4T, 4B, 4S), 1.7 kA/1s (2H)
Rated Impulse Withstand Voltage	$U_{imp}$	8 kV
Pole		4 Poles
Function		Isolation and control
Utilization Category		DC-PV1 / DC-PV2
Overvoltage Category		II
Polarity		Mechanically non-polarized; "+" and "-" polarities can be interchanged
Compliance		IEC/EN 60947-3, AS 60947.3
Service Life / Cycle Operations	Mechanical	15000
	Electrical	300
Accessory		Staggered busbar

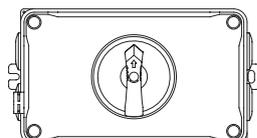
#### Installation Environment

Degree of Protection	IP66
Storage Temperature	-40 °C to +85 °C
Mounting Type	Vertically or horizontally
Pollution Degree	3

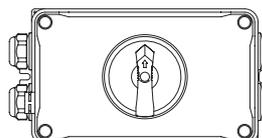
#### Order Information

Ordering Code	32
LDS-32/4E	3212212
LDS-32/4ED	3212213
LDS-32/4EQ	3212214

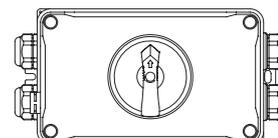
## Cable Entry Configurations



LDS-32/4E



LDS-32/4ED



LDS-32/4EQ

Customized solutions available to meet your requirements. Please contact us for details.

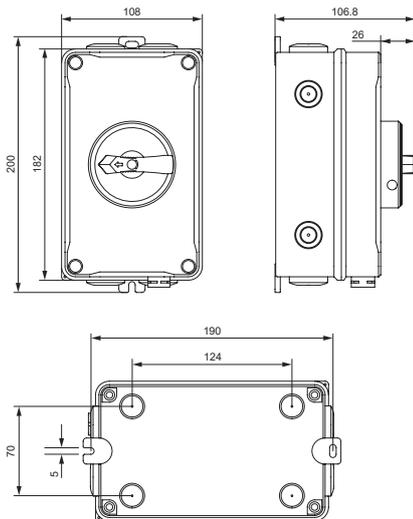
## LDS-32/4E(D/Q)

### Wiring interchange - Corresponding figure

Type	4-Pole				2-Pole 4 Paralleled Poles				4-Pole With Input And Output Bottom				4-Pole With Input And Output Bottom				4-Pole With Input On Top Output Bottom			
-	4				2H				4T				4B				4S			
Contacts Wiring Draph																				
Switching Examples																				
Rated Voltage	300 V	600 V	800 V	1000 V	300 V	600 V	800 V	1000 V	300 V	600 V	800 V	1000 V	300 V	600 V	800 V	1000 V	300 V	600 V	800 V	1000 V
Rated Current	32 A	32 A	12 A	8A	32 A				32 A				32 A				32 A			

For detailed wiring instructions, please refer to the installation instruction.

### Dimensions & Packaging

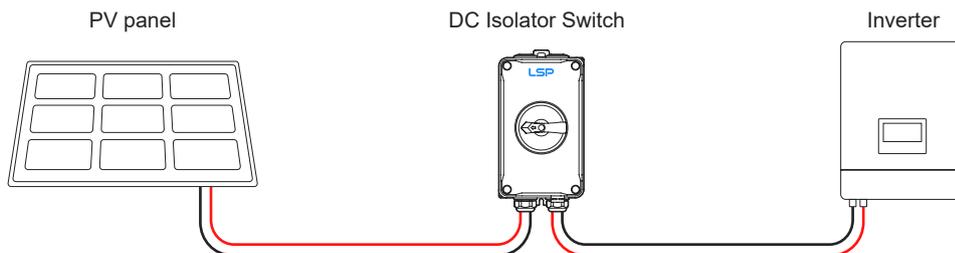


[mm]

#### Complete Unit

LDS-32	LDS-32/4E	LDS-32/4ED LDS-32/4EQ
Units per Carton	16 pcs	12 pcs
Gross Weight per Carton	12 kg	10.6kg
Dimensions (H x W x L)	[480 × 410 × 244 mm]	[570 × 350 × 250 mm]

### Easy Installation Instructions



# DC Isolator Switch LDS-32/4M(H/X) PV Disconnect Switch



- Compliance: IEC/EN 60947-3 and AS 60947.3
- Utilization Category: DC-PV1 / DC-PV2
- Polarity: Non-polarized
- Degree of Protection: IP66, UV-resistant
- OFF-position lockable
- UV-resistant, Flame-retardant (UL94 V-0)
- Arcing Time: <2 ms

The LDS series solar DC disconnect switch is suitable for rated voltage DC 1200 V and below, rated current 32 A and below power systems. It is designed for infrequent connection and disconnection, providing

reliable isolation of 1–2 MPPT lines simultaneously. Ideal for isolating lines in DC transmission and distribution systems, such as cutting the direct current circuit between solar panels and inverters.

## Technical Data

### LDS-32/4M(H/X)

#### Electrical Characteristic

Rated Frequency		DC
Rated Operating Voltage	$U_e$	300 V / 600 V / 800 V / 1000 V / 1200 V
Rated Insulation Voltage	$U_i$	1200 V
Rated thermal current	$I_{th}$	32 A
Rated Short-time Withstand Current	$I_{ow}$	1 kA/1s (4, 4T, 4B, 4S), 1.7 kA/1s (2H)
Rated Impulse Withstand Voltage	$U_{imp}$	8 kV
Pole		4 Poles
Function		Isolation and control
Utilization Category		DC-PV1 / DC-PV2
Overvoltage Category		II
Polarity		Mechanically non-polarized; "+" and "-" polarities can be interchanged
Compliance		IEC/EN 60947-3, AS 60947.3
Service Life / Cycle Operations	Mechanical	15000
	Electrical	300
Accessory		Staggered busbar

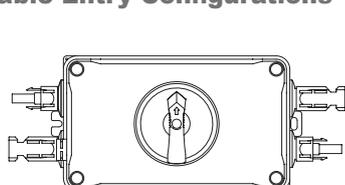
#### Installation Environment

Degree of Protection	IP66
Storage Temperature	-40 °C to +85 °C
Mounting Type	Vertically or horizontally
Pollution Degree	3

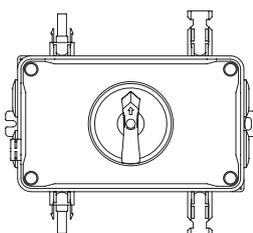
#### Order Information

Ordering Code	32
LDS-32/4M	3212215
LDS-32/4MH	3212216
LDS-32/4MX	3212217

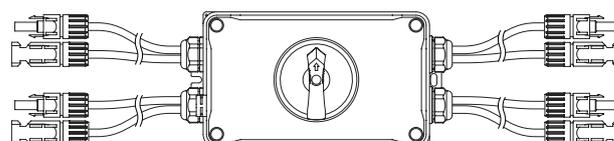
## Cable Entry Configurations



LDS-32/4M



LDS-32/4MH



LDS-32/4MX

Customized solutions available to meet your requirements. Please contact us for details.

## LDS-32/4M(H/X)

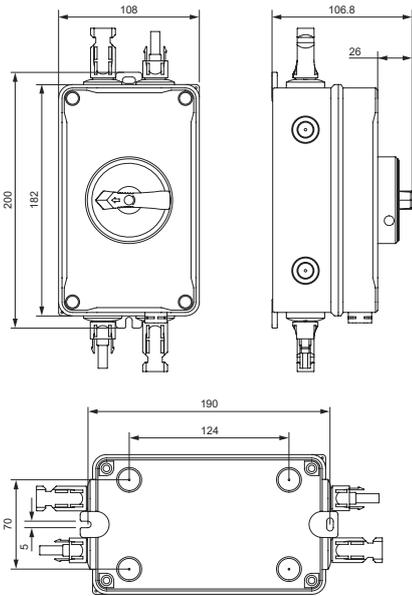
### Wiring interchange - Corresponding figure

Type	4-Pole				2-Pole 4 Paralleled Poles				4-Pole With Input And Output Bottom				4-Pole With Input And Output Bottom				4-Pole With Input On Top Output Bottom			
-	4				2H				4T				4B				4S			
Contacts Wiring Dragh																				
Switching Examples																				
Rated Voltage	300 V	600 V	800 V	1000 V	300 V	600 V	800 V	1000 V	300 V	600 V	800 V	1000 V	300 V	600 V	800 V	1000 V	300 V	600 V	800 V	1000 V
Rated Current	32 A	32 A	12 A	8A	32 A				32 A				32 A				32 A			

For detailed wiring instructions, please refer to the installation instruction.

### Dimensions & Packaging

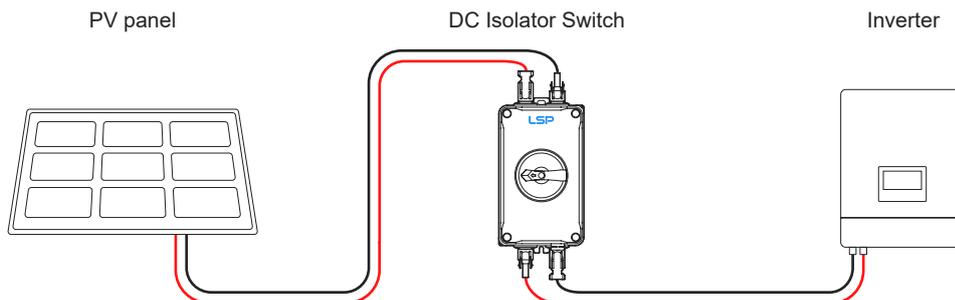
[mm]



#### Complete Unit

LDS-32	LDS-32/4M(H/X)
Units per Carton	12 pcs
Gross Weight per Carton	13.7 kg
Dimensions (H x W x L)	[630 × 350 × 280 mm]

### Easy Installation Instructions



# Low Voltage DC Fuse

## LFPV-1038L

### Photovoltaic Fuse Link



- Compliance: IEC/EN 60269-6
- Class of Operation: gPV
- Fuse Link Size:  $\Phi 10 \times 38$  mm
- Rated Breaking Capacity ( $I_{cn}$ ): 20 kA
- Time Constant: 1-3 ms

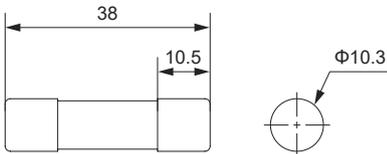
## Technical Data

### LFPV-1038L

#### Electrical Characteristic

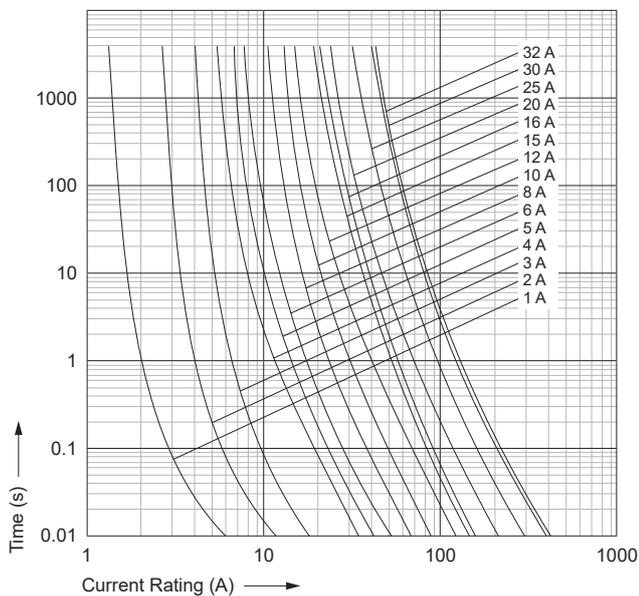
Rated Operating Current	$I_n$	1-32 A
Rated Operating Voltage	$U_e$	1000 Vdc
Rated Breaking Capacity	$I_t$	20 kA
Class of Operation		gPV
Fuse Link Size		$\Phi 10 \times 38$ mm
Environmental / Safety		RoHS Compliant, Pb-free
Operating Temperature Range		-40 °C to +90 °C
Altitude Range		< 2000 m
Mounting Type		Vertical or Horizontal
Pollution Degree		3

## Dimensions



[mm]

## Time-Current Curve



# Low Voltage DC Fuse

## LFPV-1038H

### Photovoltaic Fuse Holder



- Compliance: IEC/EN 60269-6
- Class of Operation: gPV
- Rated operating voltage ( $U_e$ ): 1000 Vdc
- Applicable Fuse Link Size:  $\Phi 10 \times 38$  mm

## Technical Data

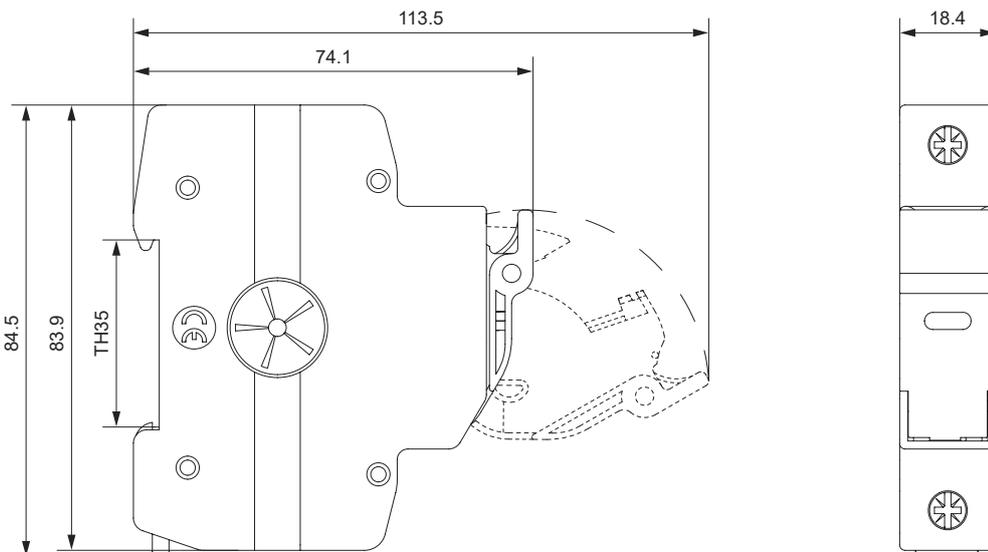
### LFPV-1038H

#### Electrical Characteristic

Rated Current	$I_n$	32 A
Rated Operating Voltage	$U_e$	1000 Vdc
Class of Operation		gPV
Applicable Fuse Link Size		$\Phi 10 \times 38$ mm
Metal Material		Copper
Environmental / Safety		RoHS Compliant, Pb-free
Degree of Protection		IP20
Operating Temperature Range		-40 °C to +90 °C
Altitude Range		< 2000 m
Mounting Type		Vertical or Horizontal
Wire Range		1-10 mm <sup>2</sup>
Torque		2-2.5 Nm

## Dimensions

[mm]



# Low Voltage DC Fuse

## LFPV-1038L

### Photovoltaic Fuse Link



- Compliance: IEC/EN 60269-6
- Class of Operation: gPV
- Fuse Link Size:  $\Phi 10 \times 38$  mm
- Rated Breaking Capacity ( $I_{cn}$ ): 20 kA
- Time Constant: 1-3 ms

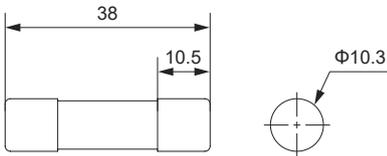
## Technical Data

### LFPV-1038L

#### Electrical Characteristic

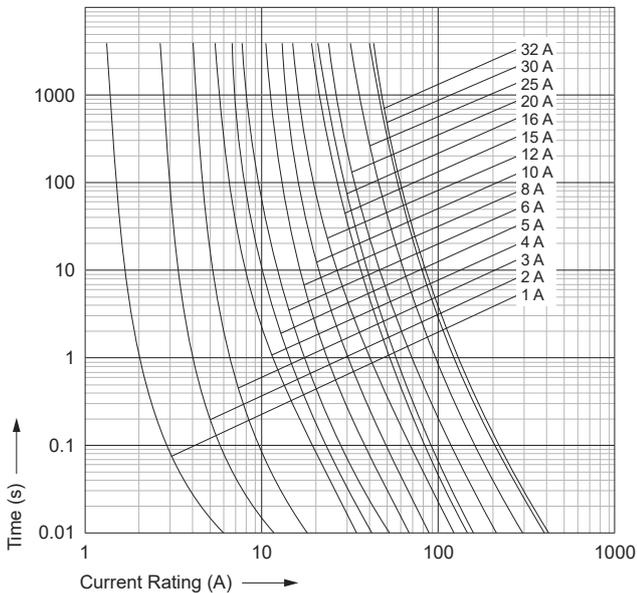
Rated Operating Current	$I_n$	1-32 A
Rated Operating Voltage	$U_e$	1000 Vdc
Rated Breaking Capacity	$I_t$	20 kA
Class of Operation		gPV
Fuse Link Size		$\Phi 10 \times 38$ mm
Environmental / Safety		RoHS Compliant, Pb-free
Operating Temperature Range		-40 °C to +90 °C
Altitude Range		< 2000 m
Mounting Type		Vertical or Horizontal
Pollution Degree		3

## Dimensions



[mm]

## Time-Current Curve



# Low Voltage DC Fuse

## LFPV-1038H

### Photovoltaic Fuse Holder



- Compliance: IEC/EN 60269-6
- Class of Operation: gPV
- Rated operating voltage ( $U_e$ ): 1000 Vdc
- Applicable Fuse Link Size:  $\Phi 10 \times 38$  mm

## Technical Data

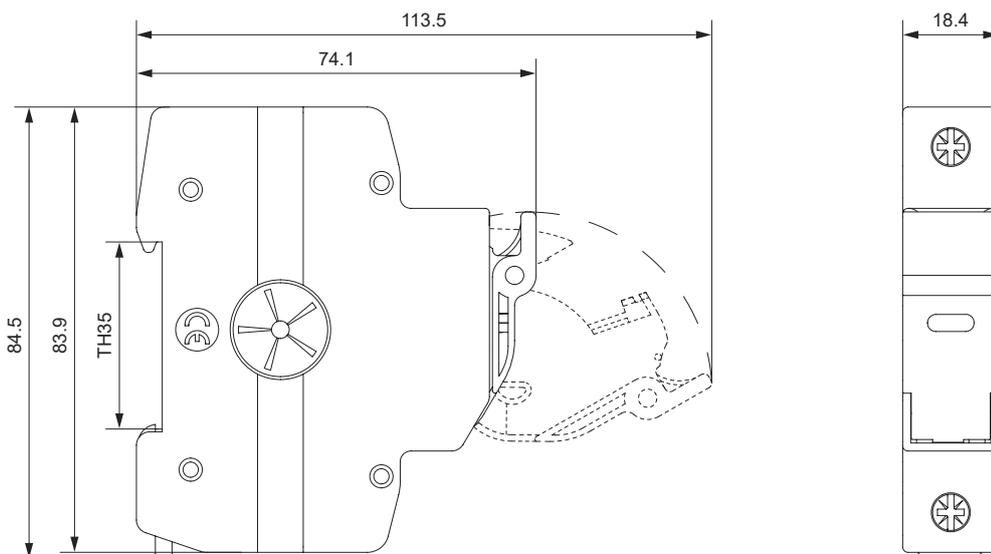
### LFPV-1038H

#### Electrical Characteristic

Rated Current	$I_n$	32 A
Rated Operating Voltage	$U_e$	1000 Vdc
Class of Operation		gPV
Applicable Fuse Link Size		$\Phi 10 \times 38$ mm
Metal Material		Copper
Environmental / Safety		RoHS Compliant, Pb-free
Degree of Protection		IP20
Operating Temperature Range		-40 °C to +90 °C
Altitude Range		< 2000 m
Mounting Type		Vertical or Horizontal
Wire Range		1-10 mm <sup>2</sup>
Torque		2-2.5 Nm

## Dimensions

[mm]



# Low Voltage DC Fuse

## LFPV-1085L / LFPV-1485L

### Photovoltaic Fuse Link

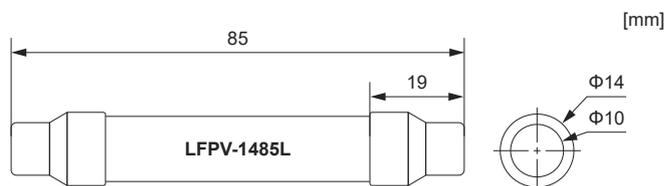
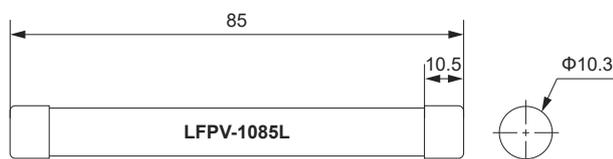


- Compliance: IEC/EN 60269-6
- Class of Operation: gPV
- Fuse Link Size:  $\Phi 10 \times 85$  mm /  $\Phi 14 \times 85$  mm
- Rated Breaking Capacity ( $I_{cn}$ ): 50 kA
- Time Constant: 1-3 ms

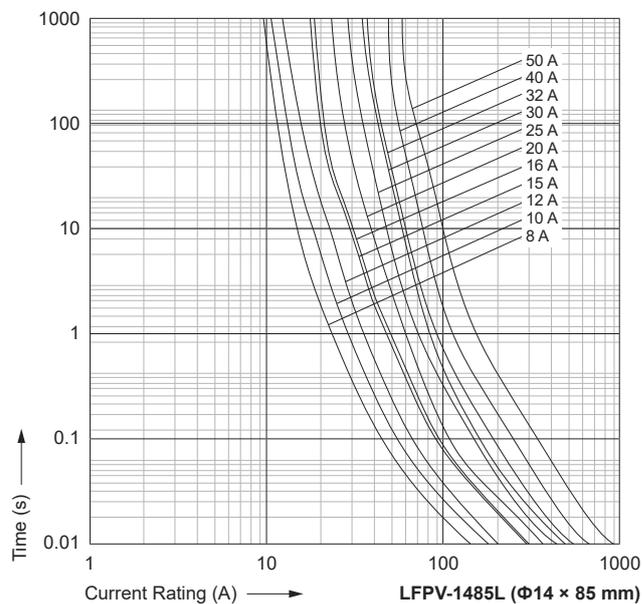
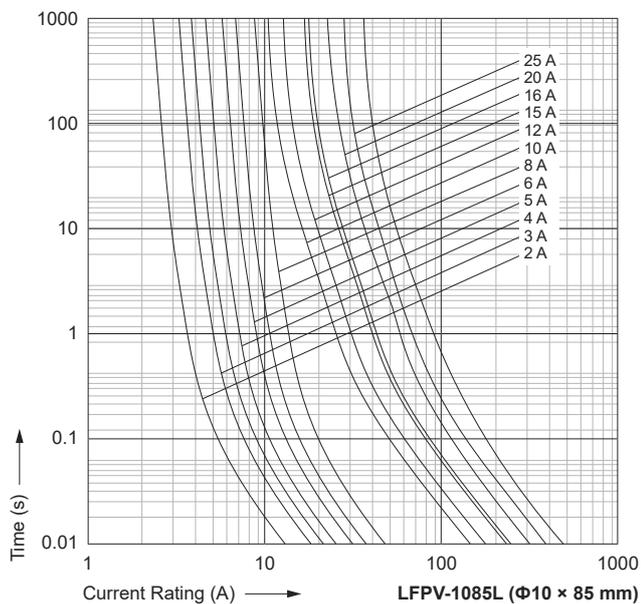
### Technical Data

DC Fuse Link		LFPV-1085L	LFPV-1485L
<b>Electrical Characteristic</b>			
Rated Operating Current	$I_n$	2-32 A	8-50 A
Rated Operating Voltage	$U_e$		1500 Vdc
Rated Breaking Capacity	$I_t$		50 kA
Class of Operation			gPV
Fuse Link Size		$\Phi 10 \times 85$ mm	$\Phi 14 \times 85$ mm
Environmental / Safety		RoHS Compliant, Pb-free	
Operating Temperature Range		-40 °C to +90 °C	
Altitude Range		< 2000 m	
Mounting Type		Vertical or Horizontal	
Pollution Degree		3	

### Dimensions



### Time-Current Curve



# Low Voltage DC Fuse

## LFPV-1485H

Photovoltaic Fuse Holder



- Compliance: IEC/EN 60269-6
- Class of Operation: gPV
- Rated operating voltage ( $U_e$ ): 1500 Vdc
- Applicable Fuse Link Size:  $\Phi 10 \times 85$  mm  
 $\Phi 14 \times 85$  mm

### Technical Data

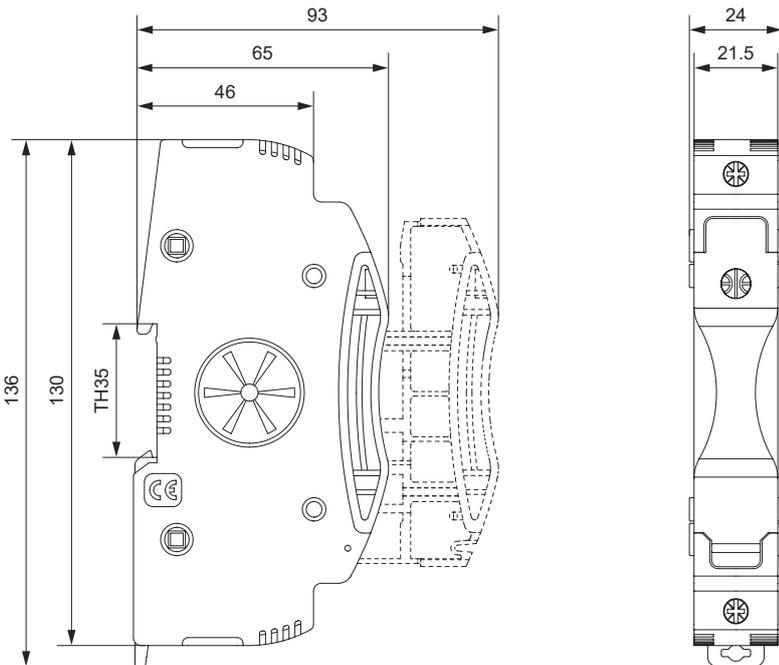
#### LFPV-1485H

##### Electrical Characteristic

Rated Current	$I_n$	63 A
Rated Operating Voltage	$U_e$	1500 Vdc
Class of Operation		gPV
Applicable Fuse Link Size		$\Phi 10 \times 85$ mm / $\Phi 14 \times 85$ mm
Metal Material		Copper
Environmental / Safety		RoHS Compliant, Pb-free
Degree of Protection		IP20
Operating Temperature Range		-40 °C to +90 °C
Altitude Range		< 2000 m
Mounting Type		Vertical or Horizontal
Wire Range		1-10 mm <sup>2</sup>
Torque		2-2.5 Nm

### Dimensions

[mm]



# DC Miniature Circuit Breaker TX7-63Z

Photovoltaic Circuit Breaker



- Compliance: IEC/EN 60947-2
- RoHS Compliant
- Rated Operating Current ( $I_n$ ): 1-63 A
- Instantaneous Tripping Pattern: C Type (8-12)  $I_n$
- Rated Impulse Withstand Voltage ( $U_{imp}$ ): 4 kV

The TX7-63Z DC miniature circuit breaker provides reliable overload and short-circuit protection for circuits and equipment up to DC 1000 V / 63 A, making it ideal for photovoltaic (PV) systems. With high breaking capacity, it prevents hazards from DC

and AC feedback currents, ensuring safe operation. Key features include dual wiring terminals, fast energy-storage switching, clear contact indication, and a compact, eco-friendly modular Degree of Protection. Complies with IEC/EN 60947-2 Compliance.

## Technical Data

### TX7-63Z

#### Electrical Characteristic

Rated Operating Current	$I_n$	1-63 A
Rated Frequency		DC
Pole		1-4 Poles
Rated Operating Voltage	$U_e$	1P: 250 Vdc / 2P: 500 Vdc / 3P: 750 Vdc / 4P: 1000 Vdc
Rated Impulse Withstand Voltage	$U_{imp}$	4.0 kV
Rated Short-circuit Capacity	$I_{cn}$	S: 6 kA / H: 10 kA
Compliance		IEC/EN 60947-2
Service Life / Cycle Operations	Mechanical	20000
	Electrical	8000
Max Power Consumption Per Pole	1-10 A	2 W
	16-32 A	3.5 W
	40-63 A	5 W

#### Installation Environment

Ambient Temperature	-35 °C to +70 °C
Relative Humidity	≤ 95%
Pollution Level	Class 2
Elevation	< 2000 m
Terminal Tightening Torque	2.5 Nm

## Current Correction Factor for Different Ambient Temperatures

The reference value is 1.0 at 30 °C, representing the mean value for all rated operating currents.

Temperature	-35 °C	-30 °C	-20 °C	-10 °C	0 °C	10 °C	20 °C	30 °C	40 °C	50 °C	60 °C	70 °C
Correction Factor	1.32	1.26	1.25	1.21	1.15	1.11	1.06	1	0.96	0.94	0.89	0.83

## Current Correction Factor at Different Elevations

Elevation	≤ 2000 m	2000-3000 m	≥ 3000 m
Correction Factor	1.0	0.9	0.8

# TX7-63Z

## Wiring Method

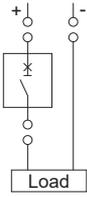


Diagram A - 1 Pole DC 250 V

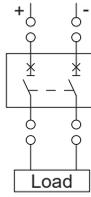


Diagram B - 2 Poles DC 500 V

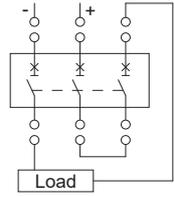


Diagram C - 3 Poles DC 750 V

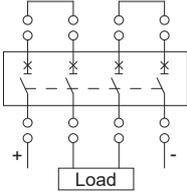


Diagram D - 4 Poles DC 1000 V

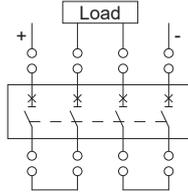


Diagram D - 4 Poles DC 1000 V

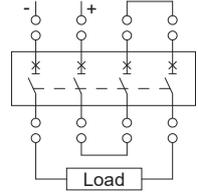
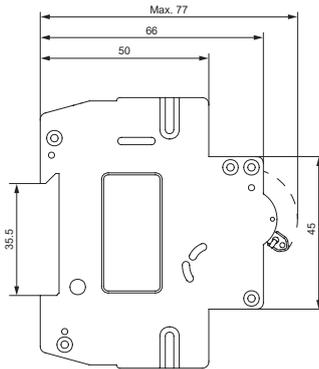
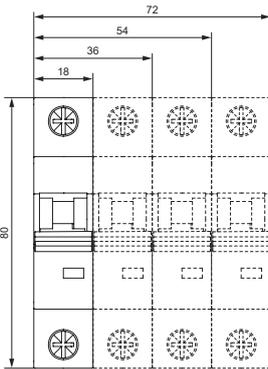


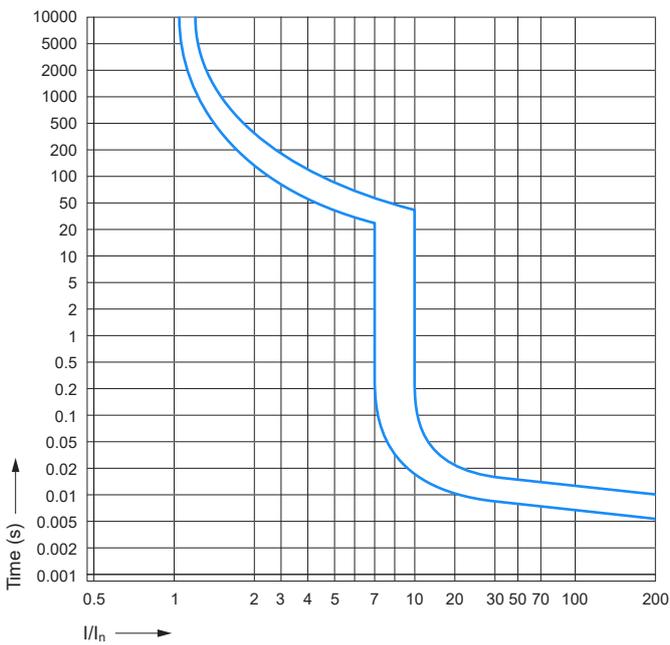
Diagram D - 4 Poles DC 1000 V

## Dimensions

[mm]



## Tripping characteristic curve



# MC4 Solar Connector

## LPVC4

Compliance 4 mm PV Connector



- Suitable for high-current and high-voltage photovoltaic applications
- Feature: Low contact resistance
- Degree of Protection: IP67
- Performance: Excellent resistance to extreme temperatures, fire, and UV radiation
- Compliance: IEC 62852

### Technical Data

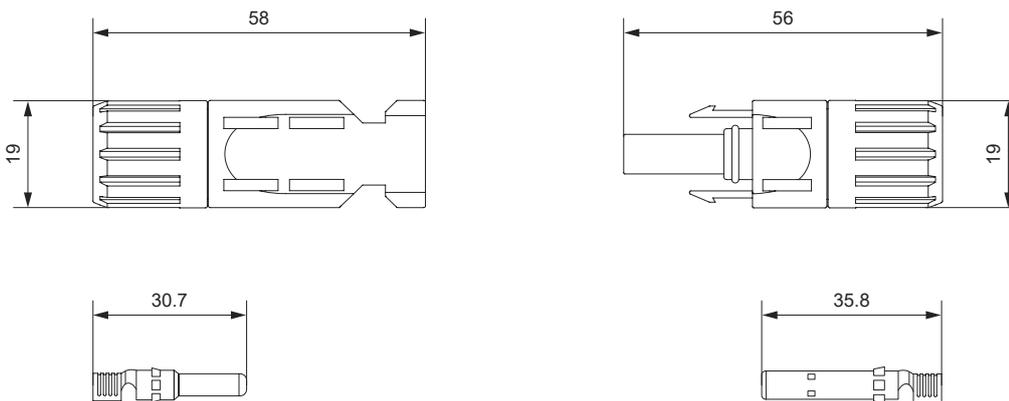
#### LPVC4

#### Electrical Characteristic

Rated Voltage	$U_e$	1000 Vdc
Rated Impulse Withstand Voltage	$U_{imp}$	8 kV
Rated Insulation Voltage	$U_i$	6 kV
Rated Current	$I_e$	30 A
Compliance		IEC 62852
Degree of Protection		IP67
Contact Resistance		$\leq 0.5 \text{ m}\Omega$
Pollution Degree		2
Ambient Temperature		-40 °C to +85 °C
Conductor Cross-section		2.5 mm <sup>2</sup> / 4.0 mm <sup>2</sup> / 6.0 mm <sup>2</sup>
Insulation Material		PC EXL9330
Flammability Rating		UL 94 V-0

### Dimensions

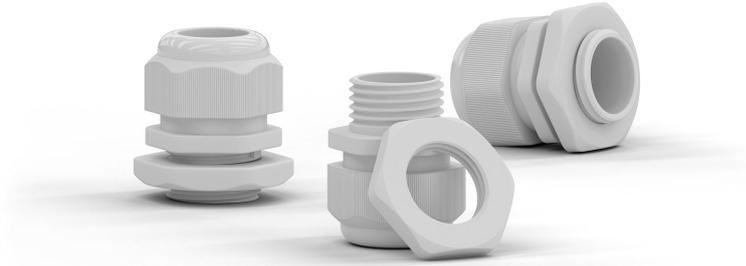
[mm]



# Cable Gland

## PG(X)

Panzer-Gewinde (PG) Cable Gland



- Thread Compliance: PG (Panzer-Gewinde)
- Material: PA66 (nylon)
- Sealing Material: Rubber
- Degree of Protection: IP68
- Flammability Rating: UL 94 V-0
- Ambient Temperature: -40 °C to +100 °C (short-term up to +120 °C)
- Colour: Grey

For secure fixing and sealing of cables when entering or exiting enclosures and equipment. Provides safe electrical connections with reliable waterproof and dustproof protection. Commonly used

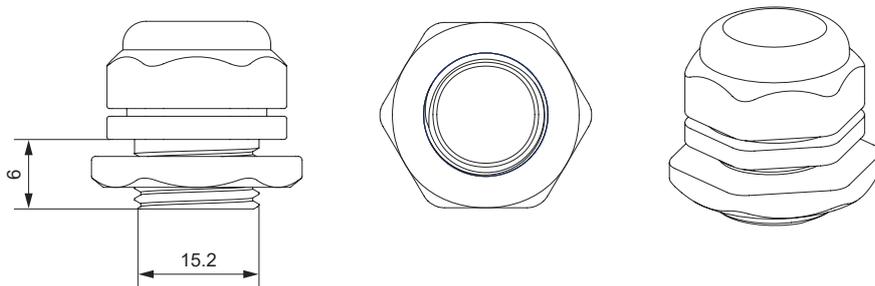
in distribution boxes, control cabinets, machinery, and photovoltaic (PV) systems.

### Cable Gland Specification

Type	Thread Outer Diameter (mm)	Recommended Cut-out (mm)	Thread Length (mm)	Cable Range (mm)
PG7	12.5	12.5-12.8	6	3-6.5
PG9	15.2	15.5-16.0	6	4-8
PG11	18.6	18.6-19.0	6	5-10
PG13.5	20.4	20.4-20.8	6	6-12
PG16	22.5	22.5-23.0	6	10-14
PG19	24.9	25.0-25.5	6	12-15
PG21	28.3	28.3-28.8	6	13-18
PG25	32	32.0-32.5	6	16-21
PG29	37	37.0-37.5	6	18-25

### PG9 Dimensions

[mm]



DC Solar Cable  
**LSP-H1Z2Z2-K**  
 PV Cable for Solar Array DC Connections



**Technical Data**

**LSP-H1Z2Z2-K**

**Electrical Characteristic**

Cable Type / Compliance	H1Z2Z2-K (1500 Vdc) / EN 50618 PV1-F (1000 V) or PV-YJYJ (1500 V) / CQC
Conductor	Class 5 Flexible Stranded, Tinned Copper
Insulation	Halogen-free Cross-linked Polyolefin (XLPO)
Sheath	Halogen-free Cross-linked Polyolefin (XLPO)
Rated Voltage	AC: 0.6 / 1 kV; DC: 1.5 kV
Weather Resistance	UV, Ozone, and Hydrolysis Resistant
Operating Temperature	-40 °C to +90 °C

**Solar Cable Specification**

Cross-sectional Area (mm <sup>2</sup> )	Insulation Thickness (mm)	Sheath Thickness (mm)	Approx. Overall Diameter (mm)	Approx. Cable Weight (kg/km)	Conductor Resistance at 20°C (Ω/km)	Test Voltage (AC kV)
1 × 1.5	0.7	0.8	4.8	35	13.5	10
1 × 2.5	0.7	0.8	5.3	48	8.21	10
1 × 4	0.7	0.8	5.9	64	5.09	10
1 × 6	0.7	0.8	6.5	85	3.39	10
1 × 10	0.7	0.8	7.5	130	1.95	10
1 × 16	0.7	0.9	10	195	1.24	10
1 × 25	0.9	1.0	12	295	0.795	12
1 × 35	1.0	1.0	13	385	0.565	12
2 × 2.5	0.7	0.8	10 × 4.8	92	8.21	10
2 × 4	0.7	0.8	11.5 × 5	126	5.09	10
2 × 6	0.8	0.8	13 × 6	168	3.39	10

## **Wenzhou Arrester Electric Co., Ltd.**

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<https://lsp.global/>