

DC SPD

Imax: 40kA

ETAK®

ETU5-T2-40PV

DC Surge Protective Device



Type 2 Surge Protection for Solar PV Systems

Optional Remote Signaling

In: 20kA (8/20 μ s)

Visual Status Indication

Imax: 40kA (8/20 μ s)

35mm DIN Rail Mounting

Uc_{pv}: up to 1500V DC

Removable Arc-Safe Barrier

Isc_{pv}: 2000A

Standard: IEC/EN 61643-31 Low-voltage surge protective devices

Applications



PV String Boxes



Inverter DC Input Side



Residential Rooftop PV Systems



Commercial Rooftop PV Systems

Overview

ETU5-T2-40PV Series DC Surge Protective Device is designed for enhanced surge protection on the DC side of solar photovoltaic systems. It is suitable for PV string boxes and inverter DC inputs, helping to improve system reliability by limiting the effects of lightning-induced surges and transient overvoltages.

With higher discharge capability for demanding PV applications, the series is well suited for solar installations requiring robust and dependable DC-side protection.

Product Selection Guide

E	T	U5	-	T2	-	40	PV	-	2M	600	S
①	②	③		④		⑤	⑥		⑦	⑧	⑨
①	ETEK						⑥	Solar PV system			
②	T series						⑦	No. of Module: 2:2Module; 3:3Module			
③	SPD series No.5						⑧	Uc: 600:DC600V; 800:DC800V; 1000:DC1000V; 1500:DC1500V			
④	Class II / Type 2						⑨	With Remote Signaling			
⑤	I _{max} : 40kA										

Product Tips



- ① Removable arc-safe barrier
- ② Pluggable cartridge
- ③ Visual status indication
- ④ Remote signal terminal
- ⑤ Line connection
- ⑥ Ground line interface

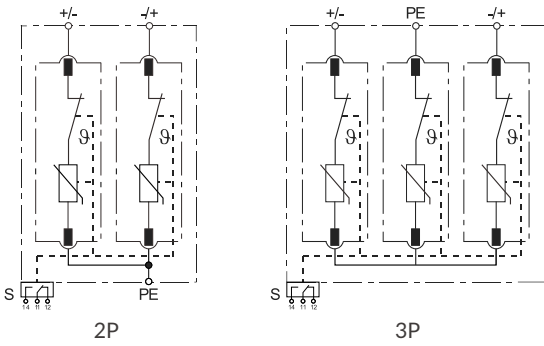
Technical Data

No. of poles	2P(2Mods), 3P(3Mods)				
Location of Use	String box, Inverter				
Mode of protection	(DC+)-PE, (DC-)-PE, (DC+)-(DC-)				
Protective elements	High Energy MOV				
Maximum continuous operating DC voltage	Ucpv	600V	800V	1000V	1500V
Norminal discharge current (8/20 μ s)	In	20kA			
Total discharge current (8/20 μ s)	ITotal	40kA			
Maximum discharge current (8/20 μ s)	I _{max}	40kA			
Voltage protection level (2P)	Up	2.6kV	3.5kV	4.0kV	-
Voltage protection level (3P)	Up	-	-	4.0kV	5.2kV
Response time	tA	≤25ns			
Short-circuit current rating	Iscpv	2000A			
Operating temperature range	Tu	-40°C to +80°C			
Operating state/fault indication	Green/Red				
Cross-section area (Min.)/(Max.)	4mm ² /35mm ²				
Mounting	35mm DIN Rail, EN 60715				
Enclosure material	Thermal Plastic UL94-V0				
Degree of protection	IP20 (built-in)				
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) / 1.5mm ² (Solid)				

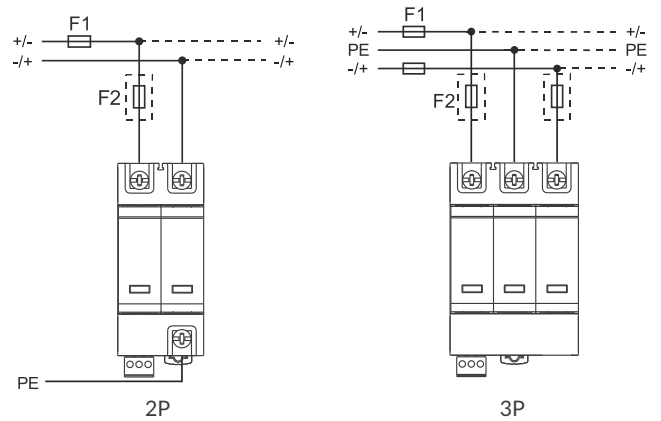
SPD Type Reference List

No. of module	Max. continuous operating DC voltage			
	600VDC	800VDC	1000VDC	1500VDC
2 module	ETU5-T2-40PV-2M600	ETU5-T2-40PV-2M800	ETU5-T2-40PV-2M1000	-
3 module	-	-	ETU5-T2-40PV-3M1000	ETU5-T2-40PV-3M1500
With Remote Signaling				
2 module	ETU5-T2-40PV-2M600S	ETU5-T2-40PV-2M800S	ETU5-T2-40PV-2M1000S	-
3 module	-	-	ETU5-T2-40PV-3M1000S	ETU5-T2-40PV-3M1500S

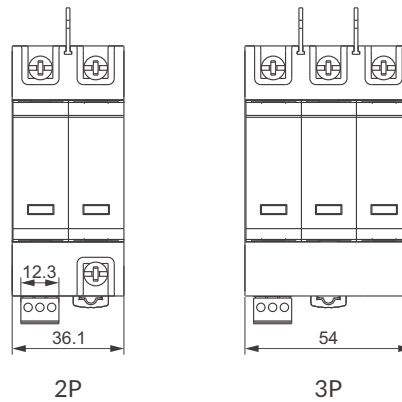
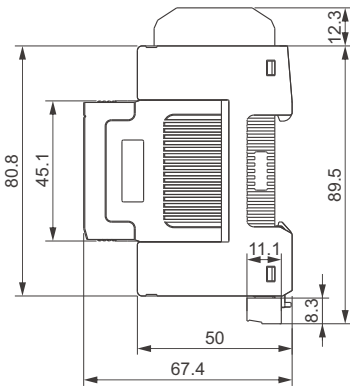
Basic Circuit Diagram



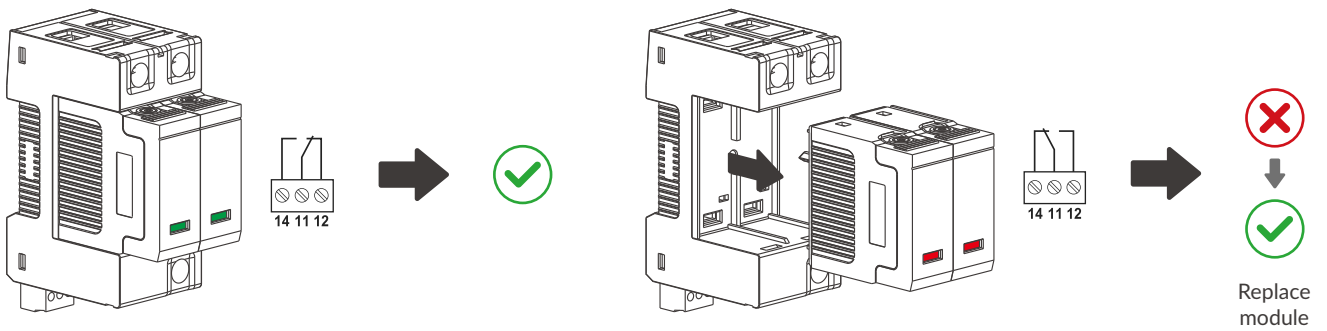
Connection Diagram



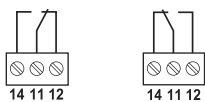
Dimension (mm)



Maintenance



Remote Signal Terminal



Remote signal for disconnection information

11-12 Closed = SPD OK
11-14 Open = SPD OK

11-12 Open = SPD disconnect
11-14 Closed = SPD disconnect