

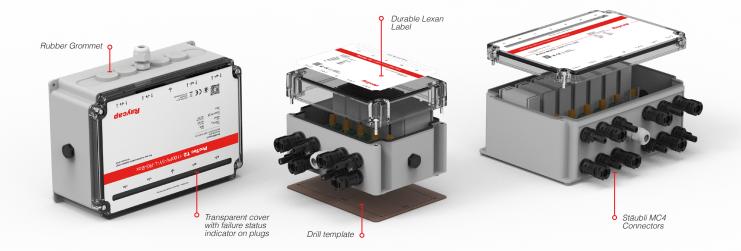
# Raycap Surge Protection Technology

### **Multi-Pole SPD Enclosure Solutions** for Photovoltaic Systems

These space-saving surge protection and connection solutions were developed for the protection of Photovoltaic (PV) inverters. The pre-assembled enclosures feature EN Type 1 & 2 arresters for 1100 V and 1500 V DC. Designed for quick on-wall installation at the DC side of the inverter, the compact UV-stable housing is suitable for indoor and outdoor installations. A transparent cover enables the viewing of module failure status indicators.

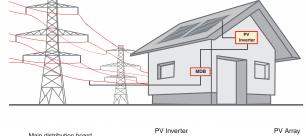
#### Main features:

- Available for 1100 V and 1500 V PV systems
- 3Y, 5Y, 7Y configuration for 1, 2 and 3 string systems
- Compact UV-stable housing with protection class up to IP67
- Transparent cover with failure status indicator on plugs
- Compliant with IEC 61643-31 PV surge protection device standard



#### Key advantages:

- Easily installed inside the string box
- Fast connection of the strings using quick connect terminals or MC4 connectors
- Wide range of uses suitable for indoor and outdoor installations



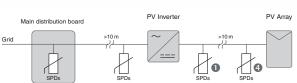


Figure 1: SPD 4 is needed if the cable length between 1 and 4 > 10m.

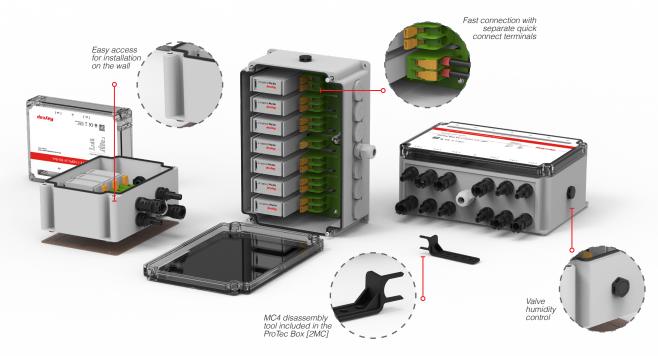
#### Main use:

- Residential PV systems
- Installation on DC side next to solar inverter (1) and combiner box (4) (See figure 1)
- Versions for different lightning protection systems:
- No LPS ProTec T2 PV Box
- External LPS with separation distance - ProTec T2 PV Box
- External LPS with no separation distance - ProTec T1 PV Box

# Raycap

# ProTec PV Box Series

# **Installation Benefits & Product Selector**



Multiple connection options are available depending upon the installation need.

Technical Features			Classification		Product Name	Order Code
RUBBER GROMMETS	T and V connection Quick connect terminals on PCB IP65 ingress protection		1 MPPT [3Y]	TYPE 1	ProTec T1-1100PV-3Y-RG-Box	515 649
					ProTec T1-1500PV-3Y-S-RG-Box	515 651
				TYPE 2	ProTec T2-1100PV-3Y-L-RG-Box	515 646
					ProTec T2-1500PV-3Y-L-RG-Box	515 648
			2 MPPT [5Y]	TYPE 1	ProTec Box T1-1100PV-5Y-RG	515 936
					ProTec Box T1-1500PV-5Y-S-RG	515 937
				TYPE 2	ProTec Box T2-1100PV-5Y-L-RG	515 938
					ProTec Box T2-1500PV-5Y-L-RG	515 939
			3 MPPT [7Y]	TYPE 1	ProTec Box T1-1100PV-7Y-RG	515 863
					ProTec Box T1-1500PV-7Y-S-RG	515 864
				TYPE 2	ProTec Box T2-1100PV-7Y-L-RG	515 865
					ProTec Box T2-1500PV-7Y-L-RG	515 866
DOUBLE MC4 CONNECTORS	V connection Fast installation Connectors on PCB preconnected to MC4 IP67 ingress protection		1 MPPT [3Y]	TYPE 1	ProTec T1-1100PV-3Y-2MC-Box	515 657
					ProTec T1-1500PV-3Y-S-2MC-Box	515 659
				TYPE 2	ProTec T2-1100PV-3Y-L-2MC-Box	515 654
					ProTec T2-1500PV-3Y-L-2MC-Box	515 656
			2 MPPT [5Y]	TYPE 1	ProTec T1-1100PV-5Y-2MC-Box	515 658
					ProTec T1-1500PV-5Y-S-2MC-Box	515 660
				TYPE 2	ProTec T2-1100PV-5Y-L-2MC-Box	515 653
					ProTec T2-1500PV-5Y-L-2MC-Box	515 655
		open and	3 MPPT [7Y]	TYPE 1	ProTec Box T1-1100PV-7Y-2MC4	515 850
					ProTec Box T1-1500PV-7Y-S-2MC4	515 851
				TYPE 2	ProTec Box T2-1100PV-7Y-L-2MC4	515 852
					ProTec Box T2-1500PV-7Y-L-2MC4	515 853