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Installation Instructions Installationsanleitung Manuel d'installation Instrucciones de Instalación Istruzioni per l'installazione



3 MPPT
[7Y]

TYPE 1

TYPE 2

a	ProTec Box T1-1100PV-7Y-2MC4	515 850
b	ProTec Box T1-1500PV-7Y-S-2MC4	515 851
c	ProTec Box T2-1100PV-7Y-L-2MC4	515 852
d	ProTec Box T2-1500PV-7Y-L-2MC4	515 853

ENGLISH

Please read the following before installing your Surge Protective Device:

- Verify the system voltage and configuration on the label if it is appropriate for the application.
- Risk of Electric Shock – Installation and maintenance should be performed by qualified personnel only.
- Disconnect from energized circuits before installing or servicing.
- Safety rules and regulations applicable to all devices connected to power lines should always be followed. National standards and safety regulations must be followed.
- The external mechanical integrity of the device must be checked before installation. Products with visible damage should not be installed.
- Its use is only permitted within the limits shown and stated in these installation instructions. Opening or tampering with the device invalidates the warranty.
- Connecting leads shall be kept as short as possible, without loops.

DEUTSCH

Bitte lesen Sie die folgenden Angaben vor Installation der Überspannungsschutzgerät:

- Sicherstellen, dass die Systemspannung und -konfiguration auf dem Etikett für die Anwendung geeignet ist.
- Stromschlaggefahr – Installation und Wartung sollten nur vom Fachmann durchgeführt werden.
- Gerät vor der Installation oder Wartung/Reparatur von spannungsführenden Leitungen trennen.
- Die Sicherheitsvorschriften und -regeln für alle an Stromleitungen angeschlossenen Geräte sind stets zu befolgen. Vor Ort geltende Normen und Sicherheitsvorschriften befolgen.
- Vor der Installation ist die externe mechanische Unversehrtheit des Geräts sicherzustellen. Produkte mit sichtbaren Schäden dürfen nicht installiert werden.
- Das Gerät ist nur für den Betrieb innerhalb der angegebenen Grenzwerte zugelassen. Wird das Gerät geöffnet oder manipuliert, erlischt die Garantie.
- Anschlussleitungen sollten so kurz wie möglich gehalten werden, dürfen keine Schleifen enthalten.

FRANÇAIS

Veillez lire les instructions suivantes avant d'installer votre parafoudre:

- Vérifiez que la tension et la configuration du système sur l'étiquette du produit convient à l'application
- Déconnectez le produit de circuits sous tension avant l'installation ou l'entretien
- Les règles de sécurité et les réglementations applicables aux appareils connectés aux lignes électriques doivent toujours être respectées. Les normes nationales et les règles de sécurité doivent être respectées
- L'intégrité mécanique externe du produit doit être vérifiée avant l'installation. Les produits présentant des dommages visibles ne doivent pas être installés
- L'utilisation du produit est uniquement autorisée dans les limites indiquées dans ce manuel d'installation. Le désassemblage ou la modification du produit annule sa garantie
- Les câbles de raccordement doivent être aussi courts que possible, sans boucle.

ESPAÑOL

Lea las siguientes instrucciones antes de la instalación de su dispositivo de protección contra sobretensiones:

- Compruebe que la tensión y configuración del sistema que aparecen en la etiqueta son adecuadas para su instalación.
- Riesgo de descarga eléctrica: únicamente personal cualificado puede instalar o dar mantenimiento a este dispositivo.
- Desconecte los circuitos con tensión antes instalarlo o darle mantenimiento.
- Siga siempre todas las normativas y reglamentos de seguridad pertinentes a todos los dispositivos conectados a la red eléctrica. Debe respetar la normativa nacional y los reglamentos de seguridad.
- Compruebe la integridad mecánica externa del dispositivo antes de su instalación. Nunca instale productos que presenten daños visibles.
- Sólo se permite utilizarse dentro de los límites establecidos en estas instrucciones de instalación. Abrir o alterar el dispositivo anula la garantía.
- Las conexiones de cables deben ser lo más cortas posibles, sin bucles.

ITALIANO

Prima di installare il limitatore di sovratensione (SPD: Surge Protective Device), leggere attentamente quanto segue:

- Verificare la tensione e la configurazione del sistema sull'etichetta per capire se sono appropriati per l'applicazione del dispositivo.
- Rischi di elettrocuzione – L'installazione e la manutenzione devono essere effettuate unicamente da personale qualificato.
- Togliere corrente ai circuiti, prima dell'installazione o della manutenzione.
- È necessario rispettare sempre le normative e i regolamenti di sicurezza applicabili, per tutti i dispositivi collegati alla linea elettrica. È necessario rispettare gli standard nazionali e i regolamenti di sicurezza.
- Prima dell'installazione, è necessario verificare l'integrità meccanica esterna del dispositivo. Non bisogna installare prodotti che mostrino danni evidenti.
- Il suo uso è consentito solo entro i limiti indicati e dichiarati in queste istruzioni di installazione. L'apertura o la manomissione del dispositivo causano l'annullamento della garanzia.
- L'interconnessione delle parti conduttrici deve essere la più corta possibile, evitando la formazione di anelli.

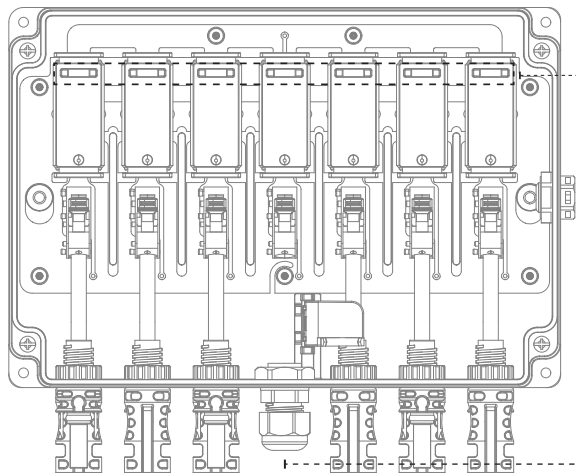
TECHNICAL DATA	ProTec Box 7Y(-S)(-L)-2MC4				
		1	2	3	4
per IEC / EN 61643-31	Type 1 1100V	Type 1 1500V	Type 2 1100V	Type 2 1500V	Type 2 1500V
U _{CPV}	DC 1100V	1500V	1100V	1500V	1500V
I _n (8/20)	20 kA	20 kA	20 kA	20 kA	15 kA
I _{max} (8/20)	40 kA	50 kA	40 kA	40 kA	40 kA
I _{imp} (10/350)	6.25 kA	6.25 kA	-	-	-
I _{Total} (8/20) / I _{Total} (10/350)	50 kA / 12.5 kA	50 kA / 12.5 kA	40 kA / -	40 kA / -	40 kA / -
U _p	4400V	5200V	4200V	5200V	5200V
I _{scpv}	11 kA	30 kA	9 kA	9 kA	9 kA
I _L	45 A	45 A	45 A	45 A	45 A
I _{PE}	AC/DC <1 mA / <50 μA	<1 mA / <50 μA	<1 mA / <50 μA	<1 mA / <50 μA	<1 mA / <50 μA
I _{cpv}	DC <50 μA	<50 μA	<50 μA	<50 μA	<50 μA
SPD Failure Mode	Open Circuit Failure Mode (OCFM)				
Type of PV System	Not earthed/earthed				
Mecha. & Envi.	Number of Strings per MPPT 3 [7Y]		3 [7Y]		
Ta	-40°C to +85°C [-40°F to +185°F]				
RH	5%...95%				
Mounting	Outdoor wall				
Altitude (max)	4000m [13123ft]				
IP	67				

INSTALLATION



WARNING!
Before the first use of the PV Box, modules shall be firmly pressed into the PCB, as connecting on a dislocated SPD module can result in non-functional surge protection.

NOTE:
ProTec Box T1-1500-xY-S-2MC4 middle module is without indication.



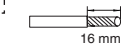
Fault Indication

- Green / Grün
- Not Green / Nicht grün
- ↓
- Replace PV Box
Ersetzen PV Box

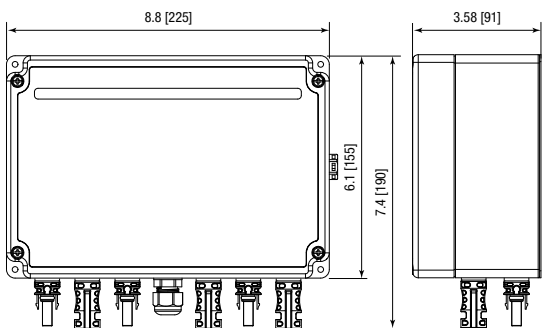
● **Wire insulation outer diameter:**
min ø 4 mm
max ø 8 mm

● **Conductor:**
ø 0.2mm² - 16mm²

Stranded / Flexible
PV cables with ferrule only

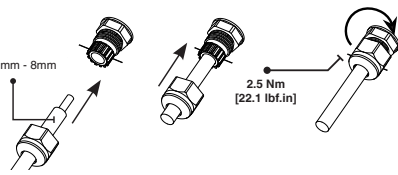


DIMENSION DRAWING

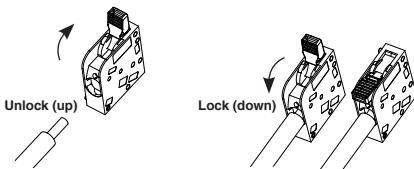


CONNECTING CABLES

1 Cable Gland

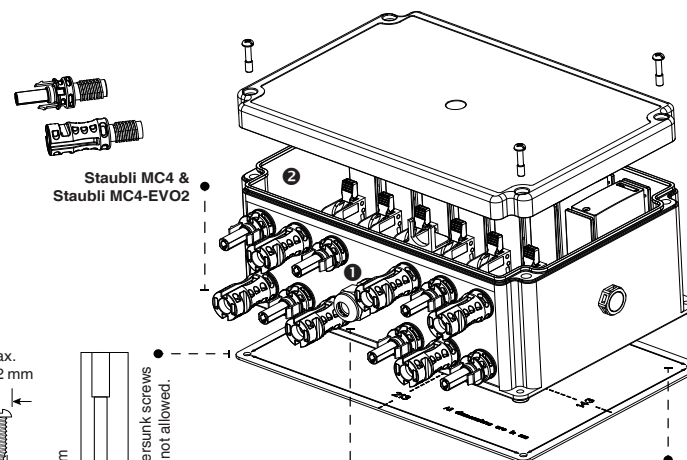


2 Connectors



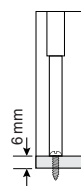
MOUNTING & PRODUCT DESCRIPTION

- 4x PH2 / Slot 1/4
1.5 Nm [13.3 lbf.in]



● **Staubli MC4 & Staubli MC4-EVO2**

max. ø 8.2 mm
max. ø 4.2 mm



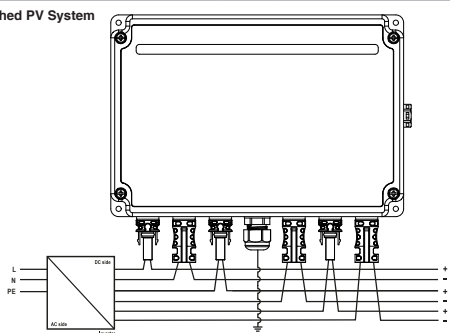
Countersunk screws are not allowed.

● **Cable Gland PG9**

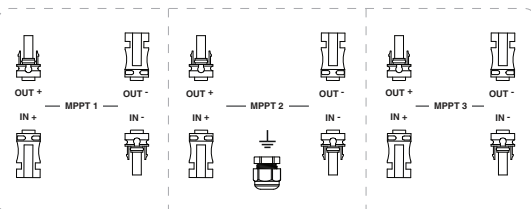
● **Drill template**
146 / 88 mm
[5.75 / 3.64"]

NETWORK CONNECTIONS

Unearthed PV System



Inputs / Outputs



Polarities can be reversed, but this must be applied uniformly on all connections.

Determination of which connector in a connector block will be used as input and which as output can also be determined by installer differently, but should be kept the same plug orientation across the whole installation.

+/- min ø 6 mm² [T1], min ø 2.5 mm² [T2] ↓, PE min ø 16 mm² [T1], min ø 6 mm² [T2]

For earthed PV System the wiring is the same, without connecting (-) to PV box.