

## Level 1 Combiner Box

PV Combiner Box Level 1 to bundle the output lines of individual harness and to connect them to the inverter or optionally to a Level 2 Combiner Box.

Smart design customized for each customers application.

Advanced surge-protection devices, fuse links and switch disconnecter keep the correct operation and protection of the system.

Additionally, PV Combiner Box fulfill the standard IEC/EN 61439-2 to offer a high reliability on the units supplied.



(Example of Combiner Box. Picture may differ from product)

**PV 208S0F0C75V100TXPX15PUS**

Order reference    OPP xxxxxx    Rev 0

## Technical Data

### APPLICATION DATA

Operating ambient temperature range	-40 °C to +50 °C	
Intended installation location	protected outdoors (≤ 1 km from sea)	
Conformity with norms	UL 1741	
Altitud above sea level	up to 3000m	
Country of installation	North_America	United States of America

### ELECTRICAL CHARACTERISTICS

Rated DC voltage (Un)	1500 VDC	
Rated DC current per input (Isc)	3 * 16 A at 50 °C ambient	
Rated DC current per input (10h short-circuit at main output)	60 A (1.25 * Isc)	
DC earthing system	floating positive and negative	
Switch disconnecter breaking & making capacity (acc. to IEC 60947-3)	500 A (DC PV-2 1500 V/ UL listed)	
Circuit breaker breaking & making capacity (acc. to IEC 60947-2)	N/A	
Contactors breaking & making capacity (acc. to IEC 60947-4-1)	N/A	
Switch-disconnector / Circuit breaker / Contactor handle location	external handle (outside enclosure)	
Surge protection on DC ports	1500V DC, type I+II, I <sub>max</sub> = 40 kA, U <sub>p</sub> ≤ 5.0 kV, no aux. contact	
Surge protection on monitoring supply ports	N/A	
Surge protection on EIA RS-485 ports	N/A	

### ENCLOSURE

Enclosure dimensions (H x W x D)	1035 x 835 x 300 mm	
Material	glass-fiber reinforced polyester (GFRP)	
Degree of protection (acc. to IEC 60529)	IP65	
Form factor	cabinet with hinged door(s)	

Fixing system	stainless steel wall mount lugs
<b>INPUTS</b>	
Number of DC inputs (+ & – being one input)	08
Positive DC input wires' to be connected to / cross-section (stranded)	screw connection / 1.5 - 16 mm <sup>2</sup>
Negative DC input wires' to be connected to / cross-section (stranded)	screw connection / 1.5 - 16 mm <sup>2</sup>
Positive / Negative DC input wires' outer diameter	5 - 10 mm
Fuses	fuse-links and fuse-disconnectors
Location of fuses	positive and negative inputs
Fuse-link rated current (In)	75 A
Fuse form factor	10 x 85 mm
Fuse-link time-current characteristic	gPV (EN 60269-6)

### OUTPUTS

Number of DC outputs (+ & – being one output)	1
DC output wires' to be connected to / cross-section (stranded)	M12 Nut and bolt connection / ≤ 400 mm <sup>2</sup>
DC output wires' outer diameter	22 - 32 mm

### EARTHING CONNECTION

Earth wire to be connected to / cross-section (stranded)	screw connection / 2.5 - 35 mm <sup>2</sup>
Earth wire outer diameter	6 - 12 mm

### OTHERS

#### Notes

- 1) Switch-disconnector SOCOMEC DC-PV2 / UL listed.
- 2) IP2X cover included.
- 3) To suit Earthed Array/Non-isolated inverter (in accordance with AS/ANZ 5033:2018 Appendix B, Figure B3, B.4 or B5).
- 4) Combiner box must be installed in a shaded position (out of direct sunlight)