

PV 216S0F0C32V1O0T7P015PUS

PV DC Combiner Box

Weidmüller, Inc

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Example of PV DC Combiner Box. Picture may differ from product.

Ready-to-connect generator combiner boxes. The perfect solution for every customer's needs.

This DC PV Combiner Box is used to bundle the output lines of individual strings and connect them to an inverter or to a Level 2 Combiner Box.

Weidmüller's Level 1 combiner boxes are compliant with UL 1741:2021 Ed.3 and CSA C22.2 #290:19 Ed.2. They offer advanced surge protection devices, fused links, and switch disconnects to optimize the protection and operation of the system.

Integrated power monitoring (self-supplied from string voltage) allows to do the right surveillance of the PV site to guarantee the best performance of the system. Additionally, designs can be customized according to application requirements offering customers unique flexibility and scalability with following benefits:

- * 16 string inputs
- * Fuse holder in string input (+/-) including fuse links
- * Surge protection devices for DC system voltage and communication bus
- * String input with cable glands
- * Wall mounted with metal lugs
- * High reliability
- * Wide operating temperature range
- * Monitoring and communication capability

General ordering data

Version	Photovoltaics, Assembled enclosure, Combiner Box, 1500V, with fuseholder and fuses, Surge protection I+II, Cable gland, for wall mounting, Switch disconnect, Portraid
Order No.	8000089216
Type	PV 216S0F0C32V1O0T7P015PUS
GTIN (EAN)	4064675879077
Qty.	1 pc(s)

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Technical Data

Application Data

Operating ambient temperature range	-40 °C to +50 °C (-40 °F to +122 °F)
Intended installation location	protected outdoors (≤ 1 km from sea)
Conformity with norms	UL 1741 / C22.2 No 290:19
Altitude above sea level	up to 3000m
Region of installation	North America

Electrical Characteristics

Rated DC voltage (Un)	1500 VDC
Rated DC current per input (Isc)	20.5A at 50 °C ambient
Rated DC current per input (10h short-circuit at main output)	25.6 A (1.25 x Isc)
DC grounding system	floating positive and negative
Switch disconnect breaking & making capacity (acc. to IEC 60947-3)	500 A (DC PV-2 1500 V)
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 disconnect / circuit breaker / contactor handle location	external handle (outside enclosure)
Surge protection on DC ports	1500V DC, type I+II, I _{max} = 40 kA, U _p ≤ 5.0 kV with 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)	1056 x 852 x 350 mm
Material	glass-fiber reinforced polyester (GFRP)
Degree of protection (acc. to IEC 60529)	IP65 / NEMA 4X
Form factor	cabinet with hinged door(s)
Fixing system	stainless steel wall mount lugs

Inputs

Number of DC inputs (+ & - being one input)	16
Positive DC input wires to be connected to / cross-section (stranded)	screw connection / 2.5 - 35 mm ²
Negative DC input wires to be connected to / cross-section (stranded)	screw connection / 2.5 - 35 mm ²
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)	32 A
Fuse form factor	10/14 x 85 mm
Fuse-link time-current characteristic	gPV (EN 60269-6)

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Technical Data

Outputs

Number of DC outputs (+ & – being one output)	1
DC output wires to be connected to / cross-section (stranded)	M12 bolt and nut connection / $\leq 400 \text{ mm}^2$
DC output wires outer diameter	30 - 38 mm

Grounding Connection

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

Monitoring

Monitoring system included	Transclenic 16i+
Monitoring system powered by	self-powered (300 - 1500 VDC input PSU)
Input current monitoring	two-in-one (1% error full-scale)
System voltage monitoring	yes (1% error full-scale)
Internal temperature monitoring	yes (-20 °C to 80 °C)
Switch disconnect / Circuit breaker / Contactor monitoring	yes (closed / open) via Transclenic's digital inputs
DC and AC surge protection monitoring	yes (healthy / information about end of lifetime)
EIA RS-485 cables wires cross-section (stranded)	0.22 - 2.5 mm ²
EIA RS-485 cables wires - outer diameter	5 - 10 mm

Others

Notes

- 1) Switch disconnect DC-PV2 / UL listed.
- 2) IP2X cover included.
- 3) Combiner box must be installed in a shaded position (out of direct sunlight)