

# DC Box

Protect and keep an eye on the arrays of your PV installation.



## Product at a glance

The DC Box is a PV array combiner box installed next to the Conext™ Core XC inverter, providing protection and supervision of the PV plant performance.

## Higher return on investment

- Reduced CAPEX: Highly cost-competitive offer with and without current monitoring
- Reduced OPEX: Detection of PV strings failure and aging by measuring the energy produced with a high precision

## Designed for reliability

- Designed for indoor use with temperature around DC Box from  $-10^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$
- Control of humidity by using an internal controlled heater when DC Box is monitored
- Robust metal enclosure painted with epoxy-polyester resin, textured RAL 7035 grey
- Optimal cooling of the PV fuses to reduce their temperature rise and increase their life duration
- Certified according IEC/EN 61439-1 and -2 as quality guarantee for construction and verification

## Flexible

- Offer range with 6/10 inputs and a maximum output current of 1600A STC to fit with a large number of PV plant designs
- Large range of possible fuse ratings for each DC Box model
- Available with and without monitoring of the sub-array currents to fit with every monitoring architecture approach

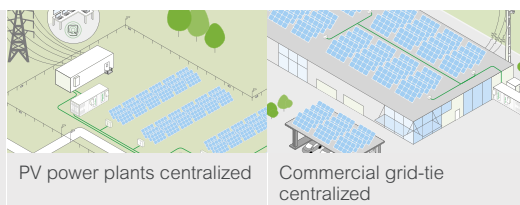
## Easy to service

- Need for DC Box service is reported by Conext Control for the replacement of blown fuses
- Fuses are quickly mountable in fuse-holders to reduce service duration
- Enclosure with 2 narrow doors for a safer use in PV Box

## Easy to install

- Floor-standing close to the inverter, cables are passing through the bottom
- Up to 2 x 300 mm<sup>2</sup> DC input cables per polarity to connect the PV string combiner boxes
- Up to 4 x 300 mm<sup>2</sup> DC output cables per polarity to connect the inverter

Product applications



PV power plants centralized

Commercial grid-tie centralized

Device short name	DC06B Protect	DC06B Monitored	DC10B Protect	DC10B Monitored
<b>Electrical specifications</b>				
<b>Input (DC)</b>				
Number of inputs	6	6	10	10
Max. voltage in open circuit	1000 V	1000 V	1000 V	1000 V
Max. input current in short circuit	375 A	375 A	200 A	200 A
Max. input current in short circuit @ STC	300 A	300 A	160 A	160 A
<b>Output (DC)</b>				
Max. output current in short circuit	2000 A	2000 A	2000 A	2000 A
Max. output current in short circuit @ SCT	1600 A	1600 A	1600 A	1600 A
Max. output current in operation	1280 A	1280 A	1280 A	1280 A
Max. thermal dissipation in operation @ 1280A <sup>9)</sup>	250 W	300 W	250 W	300 W
<b>AC supply<sup>10)</sup></b>				
Voltage at 50/60 Hz	-	230 V + 10/-15%	-	230 V + 10/-15%
Internal consumption	-	60 VA	-	60 VA
Additional consumption for heater	-	170 VA	-	170 VA
<b>Environmental specifications (in operation)</b>				
Ambient air temperature for operation	-10°C to 55°C (23°F to 131°F)	-10°C to 55°C (23°F to 131°F)	-10°C to 55°C (23°F to 131°F)	-10°C to 55°C (23°F to 131°F)
Operating altitude	0 to 2000 m without derating	0 to 2000 m without derating	0 to 2000 m without derating	0 to 2000 m without derating
Relative humidity	0 to 100%, condensing	0 to 100%, condensing, control of humidity by using an internal controlled heater	0 to 100%, condensing	0 to 100%, condensing, control of humidity by using an internal controlled heater
<b>General specifications</b>				
<b>Enclosure</b>				
Enclosure material	Indoor use, metallic cabinet with two doors			
Color	RAL 7035, grey			
<b>Product</b>				
Product weight	180.0 kg (396.8 lb)	190.0 kg (418.9 lb)	200.0 kg (440.9 lb)	210.0 kg (463.0 lb)
Product dimensions (H x W x D)	206.5 x 80.0 x 60.0 cm (81.3 x 31.5 x 23.6 in)			
Device mounting	Floor-standing			
Degrees of protection	IP20, IK10			
<b>Features</b>				
<b>Protection</b>				
DC input overcurrent protection <sup>9)</sup>	Protection on both polarities, gPV fuses			
Range of fuses (for other ratings, contact Schneider Electric)	315 A, 355 A, 400 A	315 A, 355 A, 400 A	160 A, 200 A, 250 A	160 A, 200 A, 250 A
Electric shock protection	Class I equipment			
<b>Monitoring<sup>10)</sup></b>				
DC input currents (one measurement per input)	-	0 to 400 A, accuracy +/- 2% full scale	-	0 to 200 A, accuracy +/- 2% full scale
Communication interface	-	RS485 / Modbus RTU	-	RS485 / Modbus RTU
Relative humidity control by heater	-	Local setting range 20-80%	-	Local setting range 20-80%
<b>Regulatory approvals</b>				
Electrical safety	CE marked for the Low Voltage Directive 2006-95-EC			
EMC	CE marked for the EMC directive 2004-108-EC			
LV switchgear assemblies	IEC/EN 61439-1, IEC/EN 61439-2			
<b>Available models</b>				
Part number	PVSDC31101	PVSDC31111	PVSDC31201	PVSDC31211

Specifications are subject to change without notice. <sup>9)</sup>DC Box equipped with the fuses listed below. <sup>10)</sup>For monitored models. <sup>11)</sup>Fuses not provided with product, to be ordered separately.