

# DC Box

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

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.

### Why choose DC Box?



#### True bankability

- Warranty from a trusted partner with 178 years of experience
- World leader in industrial power drives, UPS and electrical distribution
- Strong service infrastructure worldwide to support your global needs



#### 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°C to +55°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

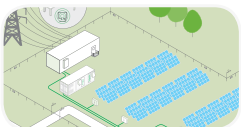
- Need for DC Box service is reported by Conext Control for the replacement of blown fuses
- Fuses are quickly mountable in fuse-holders to reduce service duration
- Enclosure with 2 narrow doors for a safer use in PV Box



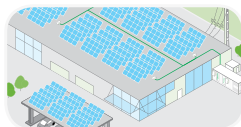
#### Easy to install

- 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 centralised



Commercial grid-tie centralised



Device short name	DC06B Protect	DC06B Monitored	DC10B Protect	DC10B Monitored
<b>Electrical specifications</b>				
<b>DC input</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>DC output</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*	250 W	300 W	250 W	300 W
<b>AC supply**</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	Indoor use, metallic cabinet with two doors	Indoor use, metallic cabinet with two doors	Indoor use, metallic cabinet with two doors
Color	RAL 7035, grey	RAL 7035, grey	RAL 7035, grey	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)	206.5 x 80.0 x 60.0 cm (81.3 x 31.5 x 23.6 in)	206.5 x 80.0 x 60.0 cm (81.3 x 31.5 x 23.6 in)	206.5 x 80.0 x 60.0 cm (81.3 x 31.5 x 23.6 in)
Device mounting	Floor-standing	Floor-standing	Floor-standing	Floor-standing
Degrees of protection	IP20, IK10	IP20, IK10	IP20, IK10	IP20, IK10
<b>Features</b>				
<b>Protection</b>				
DC input overcurrent protection***	Protection on both polarities, gPV fuses	Protection on both polarities, gPV fuses	Protection on both polarities, gPV fuses	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	Class I equipment	Class I equipment	Class I equipment
<b>Monitoring**</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. \*DC Box equipped with the fuses listed below. \*\* For monitored models. \*\*\*Fuses not provided with product, to be ordered separately.

### DC Box works with the following Schneider Electric products



**For DC Box DC06B**  
Fuse gPV 400A-1000V, pack 12 units  
Product no. PVSDC30201



**For DC Box DC06B**  
Fuse gPV 355A-1000V, pack 12 units  
Product no. PVSDC30211



**For DC Box DC06B**  
Fuse gPV 315A-1000V, pack 12 units  
Product no. PVSDC30221



**For DC Box DC10CB**  
Fuse gPV 250A-1000V, pack 20 units  
Product no. PVSDC30231



**For DC Box DC10CB**  
Fuse gPV 200A-1000V, pack 20 units  
Product no. PVSDC30241



**For DC Box DC10CB**  
Fuse gPV 160A-1000V, pack 20 units  
Product no. PVSDC30251