

PV Box

Containerised plug and play power conversion system adapted to customer requirements and local standards

PV Box is a power conversion system. In PV plant installation, it operates between DC field and AC MV grid connection point. The PV Box performs the DC power concentration, the DC/AC conversion and the AC voltage elevation to the grid voltage level. It ensures the protection of the maintenance people and the installation against electrical faults such as short-circuit and lightning. The optimised versions of the PV Box allow a reduction of the balance of systems cost, an increase of the reliability and an improvement of construction lead times.

Why choose PV Box?



True bankability

- Warranty from a trusted partner with over 177 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

- Compressed construction lead-times through factory integrated solution
- Reduced transportation, off-loading and on-site labour costs
- Enhanced uptime thanks to qualified and reliable designs



Designed for reliability

- Designed to withstand severe weather conditions
- Undergone extensive safety, quality and reliability risk mitigation
- Robust design through rigorous Custom Reliability Testing



Flexible

- Customisable to be compliant with customer local building codes



Easy to service

- Fully monitored solution
- Convenient and safe enclosure design for maintenance purposes
- Local Schneider Electric service and maintenance available in 100+ countries



Easy to install

- Ease in transportation due to its compact and light design (<20t, minimised width, height and length for easy shipping by road and by sea)
- Solution delivered pre-assembled, configured and tested to reduce on-site labour and project duration

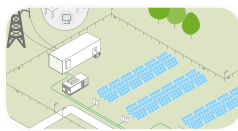


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Product applications



Large commercial



Centralised PV plants

Device short name	PV Box 1080	PV Box 1260	PV Box 1360
Electrical specifications			
Input ratings (DC)			
Recommended PV power	2 x 621 kWp	2 x 725 kWp	2 x 782 kWp
Voltage range, MPPT	440 - 800 V (at PF=1)	510 - 800 V (at PF=1)	550 - 800 V (at PF=1)
Max. input voltage, open circuit	1000 V	1000 V	1000 V
Max. DC current	2 x 1280 A	2 x 1280 A	2 x 1280 A
Output ratings (AC)			
Nominal power	1080 kVA	1260 kVA	1360 kVA
Nominal voltage	up to 36 kV	up to 36 kV	up to 36 kV
Frequency	50 Hz	50 Hz	50 Hz
General specifications			
Inverters			
Power rating	2 x XC 540	2 x XC 630	2 x XC 680
DC recombiner			
Standard configuration 1	2 x 6 input channels max. with fuses between 350 and 400 A	2 x 6 input channels max. with fuses between 350 and 400 A	2 x 6 input channels max. with fuses between 350 and 400 A
Standard configuration 2	2 x 8 input channels max. with fuses between 160 and 350 A	2 x 8 input channels max. with fuses between 160 and 350 A	2 x 8 input channels max. with fuses between 160 and 350 A
Transformer			
Power rating	1080 kVA	1260 kVA	1360 kVA
Standard	IEC 60076	IEC 60076	IEC 60076
MV protection			
Grid voltage < 24 kV	RM6	RM6	RM6
Grid voltage 24 to 36 kV	Flusarc	Flusarc	Flusarc
Auxiliary power supply			
Voltage / frequency	230 V / 50 Hz	230 V / 50 Hz	230 V / 50 Hz
Power rating	2500 VA, ensured by UPS	2500 VA, ensured by UPS	2500 VA, ensured by UPS
Enclosure			
Dimensions			
During transportation (H x W x D)	310 x 250 x 886 cm	310 x 250 x 886 cm	310 x 250 x 886 cm
Installed on site (H x W x D)	260 x 250 x 886 cm	260 x 250 x 886 cm	260 x 250 x 886 cm
Weight			
Weight with standard content	< 20 Tons	< 20 Tons	< 20 Tons
Layout			
Subdivision	Fully separated LV and MV compartments	Fully separated LV and MV compartments	Fully separated LV and MV compartments
Cooling			
LV compartment	Forced, ensured by inverter fans. No extra fans	Forced, ensured by inverter fans. No extra fans	Forced, ensured by inverter fans. No extra fans
MV compartment	Natural	Natural	Natural
IP grade			
LV compartment	IP54 (with filters)	IP54 (with filters)	IP54 (with filters)
Transformer / MV protection	IP21 / IP33	IP21 / IP33	IP21 / IP33
Operating conditions			
Operating temperature range	-10°C / +45°C, power derating for higher ambient		
Max. relative humidity	95% non condensing		
Altitude	< 1500 m		
Max. solar irradiance	1200 W / m ²		
Max. wind speed	123 km / h		
Max. snow load	250 kg / m ²		
Seisms	Peak horizontal acceleration up to 0.3* g		
Mechanically active pollution	< 0.2 mg / m ³		
Chemically active pollution	Rural and suburban environment		
Other features			
Lighting	Indoor and outdoor lighting		
Energy supply for servicing	Socket outlets		
Heating	Heater with thermostat		
Safety	Emergency lighting, safety and information kit according to IEC 62271-202		

Specifications are subject to change without notice.