

PWS2-30P-EX

Bi-directional Storage Inverter



Features

Flexible Configuration

- Wide voltage range of 150~750V
- Parallel in both AC side and DC side for larger power & energy

High Efficiency & Stability

- Compatible with 19-inch rack for easy integration and installation

Extensive Use

- Droop control/communication control
- Optional PV charger for DC-coupled hybrid system
- Optional smart transfer switch for auto-backup.

Safety & Compatibility

- Global grid certified & listed
- Support lead-acid batteries, lithium batteries & sodium ion batteries & fly-wheel.

Specification

PWS2-30P-EX	
Battery Side	
Charging and Discharging voltage range	150V-750V(350V-750V @full load)
Rated Power	30kW
Maximum Power	33kW
Maximum Charging and Discharging Current	90A
Battery Switch-off Mode	Relay
Over Voltage Protection	Software Protection
Over Current Protection	Software Protection & DC Fuse
DC Bus Side	
Rated Power	45kW
Input Voltage Range	700V-830V
Maximum Input Current	32.5A*2
AC Grid-tied Output	
Rated Output Power	30kW
Maximum Apparent Power	33kVA
Maximum Active Power	33kW
Rated Grid Voltage	3P4W+PE, 400 (±15%) Vac
Rated frequency	50 (±2.5) Hz
Power Factor	Listed: 0.8~1 leading or lagging Actual:0.1~1 leading or lagging
THDi	<3%
AC Off-grid Output	
Rated Output Power	30kW
Maximum Apparent Power	33kVA
Maximum Active Power	33kW
Rated Grid Voltage	3P4W+PE, 400 (±20% configurable) Vac
Rated frequency	50 (±5 configurable) Hz
Power Factor	Listed: 0.8~1 leading or lagging Actual:0.1~1 leading or lagging
Overload Capacity	110%~120%, 10 min 120%~130%, 1 min
	130%~150%, 200ms > 150%, 100ms

Specification

Off-grid and parallel mode		
	Droop control parallel	Communication parallel
External transformer	Yes	No
Maximum number of parallel	10	10
Total length of parallel lines	No limit	7m
Efficiency		
Efficiency curve	<p>The figure contains two line graphs. The left graph is labeled 'Charging' and the right graph is labeled 'Discharging'. Both graphs plot Efficiency (%) on the y-axis (ranging from 80.00% to 97.50%) against Load (%) on the x-axis (ranging from 5% to 100%). Four data series are shown in each graph, corresponding to different voltages: 200V (blue), 400V (orange), 600V (green), and 750V (red). In the charging graph, efficiency increases with load and voltage, with 750V reaching the highest efficiency of 97.3% at 100% load. In the discharging graph, efficiency also increases with load and voltage, with 750V reaching 96.4% at 100% load. A legend in the charging graph provides the following data points: 200V: 93.2, 400V: 95.45, 600V: 96.37, 750V: 96.47.</p>	
Peak Efficiency	97.3%	
CEC Measured Efficiency	96.5%	
Communication		
Communication Port	CAN/RS485/Ethernet/WIFI	
General Specification		
Dimension(W*H*D)	440*173*596mm	
Cooling	Forced Air Cooling	
Weight	33kg	
Topology	Non-isolation	
Operation Altitude	3000m(>3000m derating)	
Operation Environment Contamination Level	≤2	
Temperature & Humidity	-30°C~60°C (>45°C derating) & 0-95%	
Noise	≤75dB	
IP Rating	IP20	
Certification		
Grid-tied Standard	EN50549	
Safety Certification	CE	
EMC Standard	FCC	

PDS1-45M DC-DC PV Charger



Features

Flexible Configuration

- Compatible with 19-inch rack for easy installation & installation
- Modular design

High Efficiency & Stability

- High power density
- Maximum power up to 45kW

Extensive Use

- Built-in MPPT *3
- Wide voltage range of 200~810V
- Support controllable by PCS & EMS

Safety & Compatibility

- Active protections

Specification

PDS1-45M	
Power Level	
Rated Power	45kW
PV Side	
Maximum Input Voltage	830V
Start-up Voltage	250V
MPPT Voltage Range	200~750 (430~750 @full load) V
Number of MPPT	3
Maximum Input Current of each MPPT	35A/35A/35A
DC Bus Side	
Maximum Output Voltage	830V
Working Voltage Range	700V-830V
Rated Current	65A
Maximum Working Current	75A
Protections	
PV Reverse Connection Protection	Yes
Insulation Impedance Detection	Yes
PV Side Switch	Yes
Temperature Protection	Yes
DC Arc Detection	Optional
PID Repairment	Optional
PV SPD	L2 Lightning Protection
Bus SPD	L2 Lightning Protection
General Specification	
Dimension(W*H*D)	440*175*580mm
Cooling	Forced Air Cooling
Weight	24kg
Communication	RS485
Operation Altitude	3000m(>3000m derating)
Humidity	0-95%
Temperature	-20°C~60°C
Noise	≤70dB
IP Rating	IP66
DC Bus terminal	OT
PV Terminal	MC4
Display	LED
Installation	Wall Mounting/ Module
Safety Certification	IEC62109-1, UL 1741

PWD-100M Intelligent Switch Module



Features

Flexible Configuration

- Compatible with 19-inch rack
- Compact size

High Efficiency & Stability

- Active switching time from on-grid to off-grid is 0ms
- Passive switching time from on-grid to off-grid < 30ms

Extensive Use

- Auto-switching between on-grid and off-grid for backup
- Working with single or multiple 30kW inverters

Safety & Compatibility

- Support controlled by PCS & EMS
- Automatically backup

Specification

	PWD-100M
AC Grid-tied Output	
Grid Type	TN-C-S; TN-S, TT, TN-C
Rated Grid Voltage	380/400/480Vac
Grid Frequency	50/60Hz
AC Off-grid Output	
Rated Voltage	Single-phase: 220/230Vac Three-phase: 380/400/480Vac
AC Frequency	50/60Hz
Maximum Apparent Power	100kVA
Maximum Output Current	145A
Transition Time	Active Switching: Seamless Passive Switching: 30ms
AC Input (PCS)	
Rated Voltage	380/400/480Vac
AC Frequency	50/60Hz
AC Power	100kVA
Quantity of PCS	3 sets of 30kW inverter
AC Input (PV Optimizer)	
Rated Power	100kVA
General Specification	
Dimension(W*H*D)	440*175*580mm
Cooling	Forced Air Cooling
Temperature & Humidity	-20°C~60°C& 0-95%
Weight	32kg
Noise	≤70dB
IP Rating	IP20
Communication Port	CAN*2/RS485*4/Ethernet*2/WIFI*1
DI	6
DO	4
Certification	
Standard	AS4777.1, VDE4105

PWD-100M-O Intelligent Switch Module



Features

Flexible Configuration

- Compact size

High Efficiency & Stability

- Active switching time from on-grid to off-grid is 0ms
- Passive switching time from on-grid to off-grid < 30ms

Extensive Use

- Auto-switching between on-grid and off-grid for backup
- Working with single or multiple 30kW inverters

Safety & Compatibility

- Support controlled by PCS & EMS
- Automatically backup

Specification

	PWD-100M-O
AC Grid-tied Output	
Grid Type	TN-C-S; TN-S, TT, TN-C
Rated Grid Voltage	380/400/480Vac
Grid Frequency	50/60Hz
AC Off-grid Output	
Rated Voltage	Single-phase: 220/230Vac Three-phase: 380/400/480Vac
AC Frequency	50/60Hz
Maximum Apparent Power	100kVA
Maximum Output Current	145A
Transition Time	Active Switching: Seamless Passive Switching: 30ms
AC Input (PCS)	
Rated Voltage	380/400/480Vac
AC Frequency	50/60Hz
AC Power	100kVA
Quantity of PCS	3 sets of 30kW inverter
AC Input (PV Optimizer)	
Rated Power	100kVA
General Specification	
Dimension(W*H*D)	Hanging 440*920*205 mm
Cooling	Forced Air Cooling
Temperature & Humidity	-20°C~60°C& 0-95%
Weight	35kg
Noise	≤70dB
IP Rating	IP65
Communication Port	CAN*2/RS485*4/Ethernet*2/WIFI*1
DI	6
DO	4
Certification	
Standard	AS4777.1, VDE4105