

# PWS2-30P-NA/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-NA		
<b>Battery Side</b>		
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	
<b>DC Bus Side</b>		
Rated Power	45kW	
Input Voltage Range	700V-830V	
Maximum Input Current	32.5A*2	
<b>AC Grid-tied Output</b>		
Rated Output Power	30kW	
Maximum Apparent Power	33kVA	
Maximum Active Power	33kW	
Rated Grid Voltage	3P3W+PE, 480 (±15%) Vac	
Rated frequency	60 (±2.5) Hz	
Power Factor	Listed: 0.8~1 leading or lagging Actual:0.1~1 leading or lagging	
THDi	<3%	
<b>AC Off-grid Output</b>		
Rated Output Power	30kW	
Maximum Apparent Power	33kVA	
Maximum Active Power	33kW	
Rated Grid Voltage	3P3W+PE, 480 (±5% configurable) Vac	
Rated frequency	60 (±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	Yes
Maximum number of parallel	10	10
Total length of parallel lines	No limit	7m
Efficiency		
Efficiency curve		
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	-20°C~60°C (>45°C derating) & 0-95%	
Noise	≤75dB	
IP Rating	IP20	
Certification		
Grid-tied Standard	IEEE1547; UL1741SA; RULE 21	
Safety Certification	UL1741; UL9540A	
EMC Standard	FCC	

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Rated Power	45kW	
Input Voltage Range	700V-830V	
Maximum Input Current	32.5A*2	
<b>AC Grid-tied Output</b>		
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%	
<b>AC Off-grid Output</b>		
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
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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 percentage on the x-axis (ranging from 0% to 100%). Four data series are shown in each graph, corresponding to different power ratings: 200V (blue circles), 400V (green squares), 600V (red triangles), and 750V (purple diamonds). In the charging graph, efficiency increases sharply from 5% to 20% load and then levels off, reaching a peak of 97.3% at 100% load for the 750V series. In the discharging graph, efficiency also increases sharply from 5% to 20% load and then levels off, reaching a peak of 96.5% at 100% load for the 750V series.</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	
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Topology	Non-isolation	
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Operation Environment Contamination Level	≤2	
Temperature & Humidity	-20°C~60°C (>45°C derating) & 0-95%	
Noise	≤75dB	
IP Rating	IP20	
Certification		
Grid-tied Standard	EN50549-1, G99, VDE4105, VDE4110, AS477.2:2020 CE10-21, Poland Certification, R25, Synergrid listing	
Safety Certification	IEC62477	
EMC Standard	IEC61009	