

PWS1-500KTL-EX Power Conversion System



Features

Flexible Configuration

- 62.5kW to 500kW by 1 to 8 power modules.
- 3P3W AC output for 400/480/208/690Vac interconnection w/ external transformer

High Efficiency & Stability

- Maximum efficiency up to 98.2%
- Multi-string technology for better battery safety and performance.

Extensive Use

- Multiple battery strings working in parallel or independently to allow easy power and energy expansion.

Compliance & Compatibility

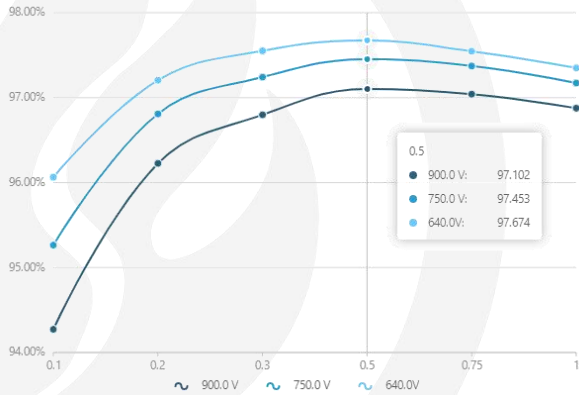
- Compatible with various types of battery system.
- Global grid certified & listed

Specification

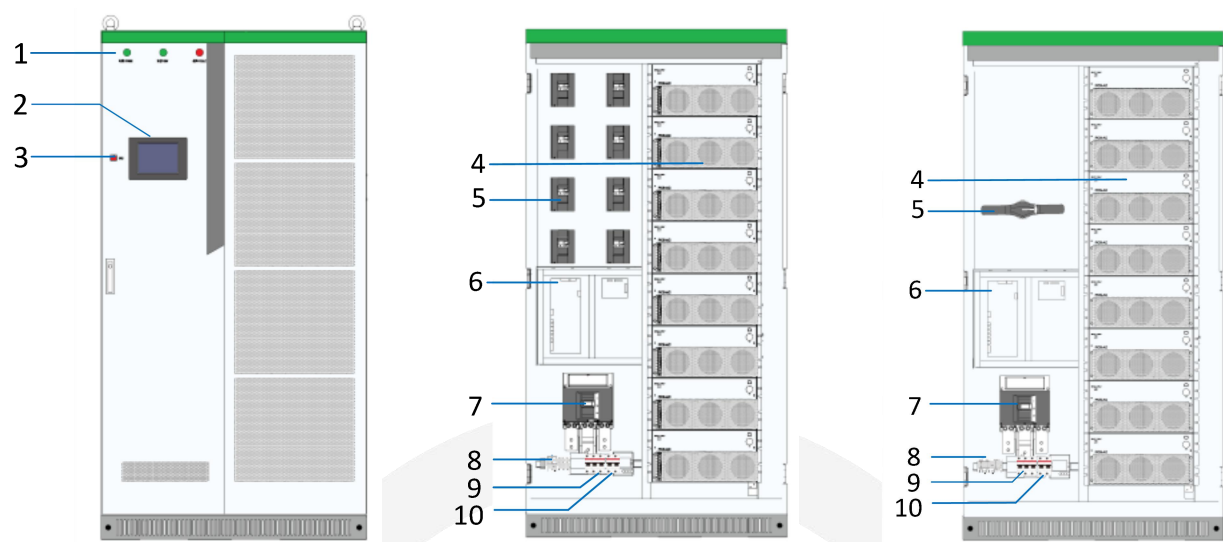
	PWS1-500KTL-EX-8M1	PWS1-500KTL-EX-8M4	PWS1-500KTL-EX-8M8
Utility-interactive Mode			
Nominal power	500kVA ¹		
AC max power	550kVA ¹		
AC frequency	50/60(-2.5~2.5) Hz		
AC voltage	400(-15%~15%) Vac		
Battery voltage range	600~900Vdc		
Quantity of battery strings	1	4	8
DC max current in each branch	880A	220A	110A
THDi	≤3%		
AC PF	Listed: 0.8~1 leading or lagging (Controllable)		
	Actual: 0.1~1 leading or lagging (Controllable)		
Stand-alone Mode			
Nominal AC output power	500kVA ¹		
AC max power	550kVA ¹		
AC frequency	50/60(-2.5~2.5) Hz		
AC output voltage	380/400(±10% configurable) Vac		
Battery voltage range	600~900Vdc		
Quantity of battery strings	1	4	8
DC max current in each branch	880A	220A	110A
Output THDu	≤2% (Linear load)		
AC PF	Listed: 0.8~1 leading or lagging (Load-depend)		
	Actual: 0.1~1 leading or lagging (Load-depend)		
Overload Capability	110%~115% 10min		
	115%~125% 1min		
	125%~150% 200ms		

1. Power could be 62.5Kw to 500Kw by equipping different numbers of power modules.

Specification

Physical																													
Cooling	Forced air cooling																												
Noise	< 75dB																												
Enclosure	NEMA1 IP20 and optional IP54 with outdoor cabinet																												
Max elevation	3000m/10000feet (> 3000m/10000feet derating)																												
Operating ambient temperature	-20°C to 50°C (De-rating over 45°C)																												
Humidity	0~95% (No condensing)																												
Size (W×H×D)	1100×2160×800 mm																												
Weight	Cabinet 280kg + Module 40kg*n (n=1,2,...,8)																												
Installation	Floor standing																												
Other																													
Efficiency curve	 <table><tr><th>PF</th><th>900.0 V</th><th>750.0 V</th><th>640.0 V</th></tr><tr><td>0.1</td><td>94.2</td><td>95.2</td><td>96.0</td></tr><tr><td>0.2</td><td>96.2</td><td>96.8</td><td>97.2</td></tr><tr><td>0.3</td><td>96.8</td><td>97.2</td><td>97.5</td></tr><tr><td>0.5</td><td>97.102</td><td>97.453</td><td>97.674</td></tr><tr><td>0.75</td><td>97.0</td><td>97.4</td><td>97.6</td></tr><tr><td>1</td><td>96.8</td><td>97.2</td><td>97.4</td></tr></table>	PF	900.0 V	750.0 V	640.0 V	0.1	94.2	95.2	96.0	0.2	96.2	96.8	97.2	0.3	96.8	97.2	97.5	0.5	97.102	97.453	97.674	0.75	97.0	97.4	97.6	1	96.8	97.2	97.4
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CEC efficiency	-																												
Protection	OTP, AC OVP/UVP, OFP/UFP, EPO, AC Phase Reverse, Fan/Relay Failure, OLP, GFDI, Anti-islanding																												
Configurable protection limits	Upper/Lower AC Voltage/Frequency limit, Battery EOD voltage.																												
AC connection	3-Phase 3-Wire																												
Display	Touch Screen																												
Communication	RS485, CAN, Ethernet																												
Isolation	Non-isolation																												
Certification	CE LVD IEC 62477, CE EMC IEC 61000 EN 50549-1:2019, EN50549-2 G99, AS4777.2:2020, VDE 4110, CE10-16 Synergrid listing																												
Short circuit																													
Fault current	1600A																												
Fault duration	80ms																												

Appearance



Visible Components of the

4/8 Strings Version

1 String version

Position	Designation	Description
1	Indicator lights	
2	Touch Screen	
3	EPO (Emergency Power Off)	
4	PCS-AC (1~8 module(s))	62.5KW per unit
5	DC disconnectors	1 or 8
6	Main control board	
7	AC Switch	
8	Wiring terminal	
9	SPD switch	
10	AUX Power supply switch	