

# PWS1-500KTL-EX POWER CONVERSION SYSTEM



## FEATURES

### 01 FLEXIBLE CONFIGURATION

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

### 02 HIGH EFFICIENCY & STABILITY

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

### 03 EXTENSIVE USE

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

### 04 COMPLIANCE & COMPATIBILITY

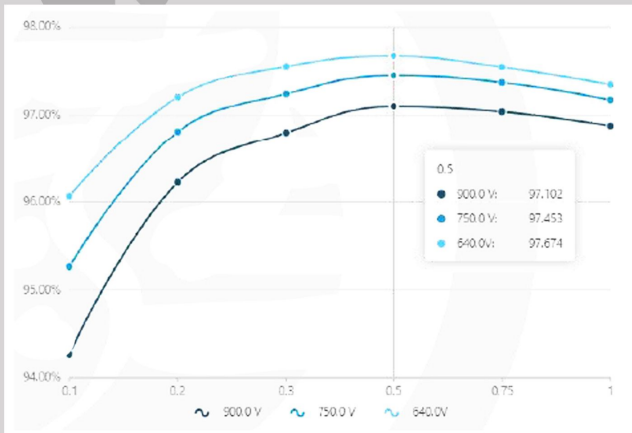
- Compatible with various types of battery system.
- Global grid certified & listed.

# SPECIFICATION

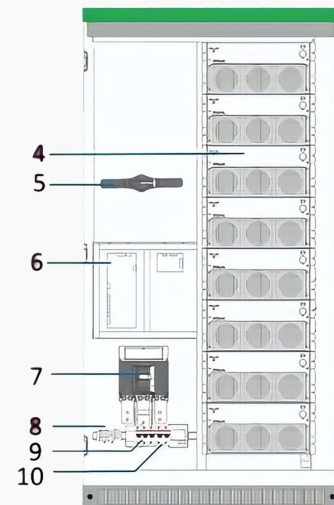
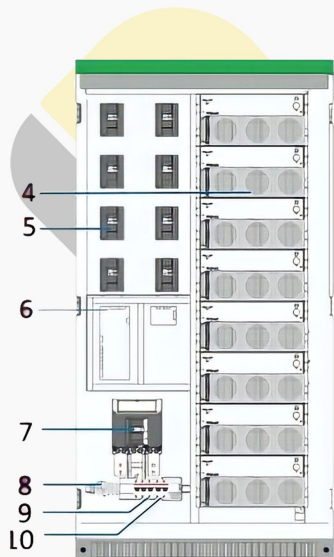
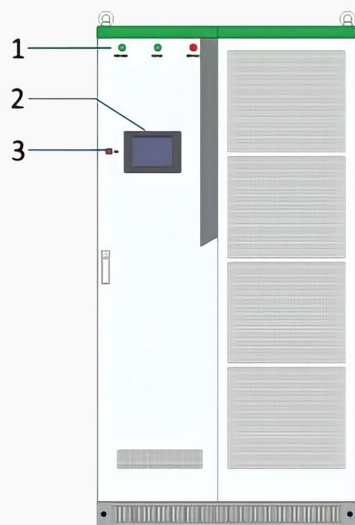
Model	PWS1-500KTL-EX-8M1	PWS1-500KTL-EX-8M4	PWS1-500KTL-EX-8M8
Utility-interactive Mode			
Nominal power	500kVA <sup>1</sup>		
AC max power	550kVA <sup>1</sup>		
AC frequency	50/60(-2.5~2.5) Hz		
AC voltage	400(-15%~15%) Va		
Battery voltage range	600~900Vdc		
Quantity of battery strings	1	4	8
DC max 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 <sup>1</sup>		
AC max power	550kVA <sup>1</sup>		
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>900.0V (%)</th><th>750.0V (%)</th><th>640.0V (%)</th></tr><tr><td>0.1</td><td>94.00</td><td>95.00</td><td>95.00</td></tr><tr><td>0.2</td><td>95.50</td><td>96.50</td><td>97.00</td></tr><tr><td>0.3</td><td>96.50</td><td>97.00</td><td>97.50</td></tr><tr><td>0.5</td><td>97.00</td><td>97.50</td><td>97.80</td></tr><tr><td>0.75</td><td>97.00</td><td>97.50</td><td>97.80</td></tr><tr><td>1</td><td>96.80</td><td>97.30</td><td>97.60</td></tr></table>	PF	900.0V (%)	750.0V (%)	640.0V (%)	0.1	94.00	95.00	95.00	0.2	95.50	96.50	97.00	0.3	96.50	97.00	97.50	0.5	97.00	97.50	97.80	0.75	97.00	97.50	97.80	1	96.80	97.30	97.60
PF	900.0V (%)	750.0V (%)	640.0V (%)																										
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0.3	96.50	97.00	97.50																										
0.5	97.00	97.50	97.80																										
0.75	97.00	97.50	97.80																										
1	96.80	97.30	97.60																										
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 disconnect	1 or 8
6	Main control board	
7	AC Switch	
8	Wiring terminal	
9	SPD switch	
10	AUX Power supply switch	