

2.5MW Central PCS



Product Features	
Smart and efficient	
Three-level topology; maximum 99% efficiency	
Grid-independent V/f output, GFL/GFM VSG, and black start functions	
Fast power response, switching within 30 ms for charge/discharge transition at full load	
Flexible and compatible	
Supports multiple charge/discharge modes including constant voltage, constant current, and constant power	
Supports Modbus-RTU, CAN 2.0B, Modbus-TCP, IEC 61850, and EtherCAT protocols	
Safe and reliable	
Top-rear exhaust design reduces heat island effects and channel clogging risks	
Third-generation closed air-liquid cooling design offers superior environmental adaptability	
Pressure relief and ventilated double protection	
Cost-effective	
30% increase in power density improves field connection ratio	
Multiple systems can be connected in parallel for flexible capacity expansion	



Model	Wattox MPC5-2500-D
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DC Side	
Maximum DC voltage	1500 V
Operating DC voltage range	1000 – 1500 V
Maximum DC current	1403 A × 2
Number of DC input channels	2
AC Side (Grid-connected)	
Rated power	2500 kW @ 45°C
Maximum output power	2750 kW @ 35°C
Rated network voltage	690 V
Network voltage range	621 - 759 V (standard)
Rated network frequency	50 / 60 Hz*
Current THD	< 3% (at rated power)
Reactive power range	-1.05 (capacitive) ~ +1.05 (inductive)
Power factor	-1 (leading) ~ +1 (lagging)
AC connection type	3-phase, 3-wire
AC Side (Independent of the grid)	
Rated AC voltage	690 V
Rated output frequency	50 / 60 Hz
Voltage variation	<1% (linearly balanced load)
Voltage THD	<3% (linear load)
Communication	
Interfaces	RS485, CAN, Ethernet, DI/DO, HMI
Protocols	Modbus-RTU / CAN 2.0B (Optional: Modbus-TCP, IEC 61850, EtherCAT)
System	
Maximum efficiency	99
Cooling method	Liquid-air cooled
Ambient temperature	-40°C ~ +60°C (derating >45°C)
Relative humidity	0% – 100% (non-condensing)
Cable entry direction	DC from below, AC from behind
Dimensions (W×D×H)	1200 × 1250 × 2370 mm
Weight	< 1800 kg
Max. operating altitude	3000 m (derating above 2000 m)
Protection class	IP65
Standards	EN-55011, IEC-61000-6-2/4, EN62477-1, EN-50549-2/10

