

Hybrid PV inverter

HEXP500TS-400-A



Fully Integrated, All-Scenario Solution for Rapid Deployment

Comprehensive System Components: Includes PV modules, mounting structures, cables, MPPT controllers, storage inverters, and battery systems for a complete turnkey solution.

Quick Installation: Standardized component interfaces minimize on-site customization, boosting deployment efficiency by 40%.

Direct Connection Architecture: Simple, Efficient, Lower Maintenance

Reduced Line Loss: Short-distance DC-side direct connections decrease energy loss by 15%.

Smart Diagnostics: Real-time voltage and current monitoring at each node enhances fault localization accuracy to the module level.

Rugged Industrial-Grade Design for Harsh Environments

Outdoor-Rated MPPT Controllers: Mounted directly on PV structures with IP65 protection, operating reliably in extreme temperatures from -30°C to 60°C .

Anti-Corrosion Materials: Mounting structures and connectors made of galvanized aluminum alloy, suitable for coastal, high-humidity, and other demanding climates.

Seamless Grid/Off-Grid Switching for Enhanced Reliability

Millisecond Transition: STS automatic transfer switch responds in $<20\text{ms}$, ensuring zero interruption for critical loads.

Flexible Multi-Mode Operation: Participate in peak shaving in grid-tied mode or provide ≥ 8 hours of backup power in off-grid mode.

Model	HEXP500TS-400-A
DC side parameters	
Voltage range	500-950V
Maximum current	1128A
AC side parameters (On Grid)	
Rated output power	500kW
Maximum output power	550kW
Rated output current	722A
THDi	<3%
System voltage configuration	3W+N+PE
Voltage range	360VAC~440VAC
Frequency range	45-55Hz/55-65Hz
Power factor	-1-1
AC side parameters (off-grid)	
Rated output power	500kW
Rated output voltage	400V
Rated output frequency	50/60Hz
THDu	<1% (linear), <5% (non-linear)
Overload capacity	Overload at 110% for 10 minutes
On/Off grid switching and configuration	
Bypass maintenance switch	1250A
DC switch	1250A
Load switch	1250A
Grid switch	1250A
STS Unit	1155A/800kW
STS switching time	<20ms
System parameters	
Maximum efficiency	0.975
Operating temperature	-30 ~ 55°C (derating usage above 40°C)
Relative humidity	0~95%RH, no condensation
Dimensions	1600×1050×2050mm
Weight	2700kg
Protection Level	Whole unit IP21
Noise Level	<70dB
Display	LCD
BMS Communication	CAN
EMS Communication	TCP/IP
Other parameters	
Related certificates	IEC/EN 62109-1/-2, EN 62477-1, IEC/EN 61000-6-2/-6-4, EN 50549-1/-10, NRS 097-2-1:2017ASGC, GB/T 34120, GB/T 34133, CGC-R46103:2018A, PTPIREE REV1.2:2024 TYPE B