

Residential ESS Series

High-voltage Single-phase Hybrid Inverter

YT-P3000SH2-EU, YT-P3600SH2-EU, YT-P4200SH2-EU,
YT-P5000SH2-EU, YT-P6000SH2-EU, YT-P8000SH2-EU



Features

■ Technical advantage

- 97.6% highest conversion efficiency
- 15A maximum photovoltaic input current,
- 1-2 channels MPPT
30A battery maximum charge and discharge current

■ Flexible design

- 85-450V ultra-wide battery voltage range
- Supports indoor and outdoor IP65 protection level
- Small, lightweight, beautiful, and elegant appearance

■ Strong performance

- Up to 110% continuous grid-connected overload output
- 130% overload output for up to 60s at the off-grid end
- Support 160% photovoltaic module over-provisioning

Technical Parameters

Model	YT-P3000SH2-EU	YT-P3600SH2-EU	YT-P4200SH2-EU	YT-P5000SH2-EU	YT-P6000SH2-EU	YT-P8000SH2-EU
PV input parameter						
Suggest Maximum input power [kW]	4.80	5.76	6.72	8.00	9.60	12.80
Starting voltage[V]	80	80	80	80	80	80
Max. DC input voltage *[V]	600*	600*	600*	600*	600*	600*
Rated DC input voltage[V]	360	360	360	360	360	360
MPPT operating voltage range *[V]	100-550*	100-550*	100-550*	100-550*	100-550*	100-550*
MPPT Quantity	1	1	2	2	2	2
Number of Single MPPT input channels	1	1	1/1	1/1	1/1	1/1
Max. input current[A]	15	15	15/15	15/15	15/15	15/15
Max. short-circuit current[A]	20	20	20/20	20/20	20/20	20/20
Battery parameter						
Battery type	Lithium battery (with BMS)					
Battery voltage range[V]	85~450					
Max. charge/discharge current [A]	30/30					
AC parameters (grid side)						
Rate output power [kW]	3.00	3.60	4.20	5.00 ³⁾	6.00	8.00
Max. output apparent power[kVA]	3.30	3.96 ¹⁾	4.60	5.50 ⁴⁾	6.60	8.00
Max. input apparent power **[kVA]	6.00	7.20	8.40	10.00	10.00	12.00
Battery maximum charging power[kW]	3.00	3.60	4.20	5.00	6.00	8.00
Rated voltage	L/N/PE; 220/230/240V					
Grid frequency[Hz]	50/60	50/60	50/60	50/60	50/60	50/60
Maximum output current[A]	15.00	18.00 ²⁾	21.00	25.00 ⁵⁾	28.70	36.30
Power factor	0.8 lead...0.8 lag					
Max. total harmonic distortion	<3% @ rated power					
DC component	<0.5%In	<0.5%In	<0.5%In	<0.5%In	<0.5%In	<0.5%In
AC parameter(Off-grid side)						
Rate output power[kW]	3.00	3.60	4.20	5.00	6.00	8.00
Max. output apparent power[kVA]	3.30	3.96	4.60	5.50	6.60	8.00
Max. output current[A]	15.00	18.00	21.00	25.00	28.70	36.30
UPS switch time	<10ms	<10ms	<10ms	<10ms	<10ms	<10ms
Rated output voltage	L/N/PE; 220/230/240V					
Rated ac frequency [Hz]	50/60	50/60	50/60	50/60	50/60	50/60
Voltage total harmonic distortion	<3% @ Linear load					
Efficiency parameters						
Max. PV conversion efficiency	97.6%	97.6%	97.6%	97.6%	97.6%	97.6%
Europe efficiency	97.0%	97.0%	97.0%	97.0%	97.0%	97.0%
Protection parameter						
PV input reverse polarity protection	Integrated					
Battery input reverse polarity protection	Integrated					
Insulation resistance protection	Integrated					
Surge protection	Integrated					
Over-temperature protection	Integrated					
Leakage current protection	Integrated					
Anti-islanding protection	Integrated					
AC overvoltage protection	Integrated					
Overload protection	Integrated					
Short circuit protection	Integrated					
General parameters						
Overvoltage category	PV: II Main: III					
Dimensions[W* D* Hmm]	534*210*418					
Weight[kg]	27.0					
Protection level	IP65					
Standby loss[W]	<15					
Topology	Transformerless type					
Operating temperature[°C]	-30~60					
Relative humidity[%]	0~100					
Working altitude[m]	3000 (>3000m load reduction)					
Cooling method	Natural air cooling					
Noise index[dB]	<25					
Display	OLED & LED					
Communication	CAN, RS485, WiFi/LAN (Option)					

* Without a battery, the maximum photovoltaic input voltage is 550V. With a battery, the maximum photovoltaic input voltage is 500V. Other cases are waiting for testing;

** Maximum grid input power refers to the maximum power drawn from the grid, including supply to off-grid loads and battery charging.

1) G98: 3.68kVA; 2) G98: 16.00A; 3) AS 4777.2: 5.0kW, VDE-AR-N 4105: 4.6kW; 4) AS 4777.2: 5.0kVA, VDE-AR-N 4105: 4.60kVA, C10/11: 5.0kVA; 5) AS 4777.2: 21.7A, VDE-AR-N 4105: 21.0A, C10/11: 21.7A;

