YOTAI

# Residential ESS Series

## High-voltage Three-phase Hybrid Inverter

YT-P4000TH2-EU, YT-P5000TH2-EU, YT-P6000TH2-EU,
YT-P8000TH2-EU, YT-P10K0TH2-EU, YT-P12K0TH2-EU


## Features

### Technical advantage

- 98.2%highest conversion efficiency
- 15A max. photovoltaic input current,
- 2 channels MPPT
  Support 110% three-phase unbalanced output

### Strong performance

- Max. to 110% continuous grid-connected overload output
- 200% overload output for up to 60s at the off-grid end
- Support 150% photovoltaic module over-provisioning

### Flexible design

- 135-750V ultra-wide battery voltage range
- Supports indoor and outdoor IP65 protection level
- Small, lightweight, beautiful, and elegant appearance

*The product diagram is for reference only!

# Technical Parameters

| Model | YT-P4000TH2-EU | YT-P5000TH2-EU | YT-P6000TH2-EU | YT-P8000TH2-EU | YT-P10K0TH2-EU | YT-P12K0TH2-EU |
|---|---|---|---|---|---|---|
| **PV input parameter** | | | | | | |
| Suggest Maximum input power [kW] | 6.0 | 7.5 | 9.0 | 12.0 | 15.0 | 18.0 |
| Starting voltage[V] | 135 | 135 | 135 | 135 | 135 | 135 |
| Max. DC input voltage *[V] | 1000* | 1000* | 1000* | 1000* | 1000* | 1000* |
| Rated DC input voltage[V] | 620 | 620 | 620 | 620 | 620 | 620 |
| MPPT operating voltage range *[V] | 120-950* | 120-950* | 120-950* | 120-950* | 120-950* | 120-950* |
| MPPT Quantity | 2 | 2 | 2 | 2 | 2 | 2 |
| Number of Single MPPT input channels | 1/1 | 1/1 | 1/1 | 1/1 | 1/1 | 1/1 |
| Max. input current[A] | 15/15 | 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 | 20/20 |
| **Battery parameter** | | | | | | |
| Battery type | Lithium battery (with BMS) | | | | | |
| Battery voltage range[V] | 135~750 | | | | | |
| Max. charge/discharge current [A] | 25/25 | | | | | |
| **AC parameters (grid side)** | | | | | | |
| Rate output power [kW] | 4.0 | 5.0 | 6.0 | 8.0 | 10.0 | 12.0 |
| Max. output apparent power[kVA] | 4.4 | 5.5 | 6.6 | 8.8 | 11.0[1)] | 13.2 |
| Max. input apparent power **[kVA] | 8.0 | 10.0 | 12.0 | 16.0 | 16.5 | 16.5 |
| Battery maximum charging power[kW] | 4.0 | 5.0 | 6.0 | 8.0 | 10.0 | 12.0 |
| Rated voltage | 3L/N/PE; 220/380V;230/400V;240/415V | | | | | |
| Grid frequency[Hz] | 50/60 | 50/60 | 50/60 | 50/60 | 50/60 | 50/60 |
| Maximum output current[A] | 6.7 | 8.3 | 10.00 | 13.3 | 16.5[2)] | 20.0 |
| Power factor | 0.8 lead… 0.8 lag | | | | | |
| Max. total harmonic distortion | <3% @ rated pwoer | | | | | |
| 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] | 4.0 | 5.0 | 6.0 | 8.0 | 10.0 | 12.0 |
| Max. output apparent power[kVA] | 4.4 | 5.5 | 6.6 | 8.8 | 11.0 | 13.2 |
| Max. output current[A] | 6.7 | 8.3 | 10.0 | 13.3 | 16.5 | 20.0 |
| UPS switch time | <10ms | <10ms | <10ms | <10ms | <10ms | <10ms |
| Rated output voltage | 3L/N/PE; 220/380V;230/400V;240/415V | | | | | |
| 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 | 98.1% | 98.1% | 98.1% | 98.2% | 98.2% | 98.2% |
| Europe efficiency | 97.3% | 97.3% | 97.3% | 97.4% | 97.4% | 97.4% |
| **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] | 26.0 | | | | | |
| 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;

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