# **TP Grid Tied Solar Inverter Series**

Rating: 12KW – 20KW

Output Voltage: 400VAC

**Configuration:** Rackmount

TP Grid Tied Solar Inverter series is a three-phase grid-tied solar inverters that adopt the latest technologies combination of T type three level topology and SVPWM, provide flexible system configuration and monitoring solutions for household, commercial and power plant systems.

# **Product Highlights:**

## **Efficient**

- Integrated intelligent DC combiner and surge protection improve system flexibility and lower the system cost.
- Max efficiency is up to 98.6%, wide input voltage range, adapt to all kinds of solar panels and string configuration.
- Dual MPPTs work independently and allow unbalanced input power. One MPPT maximum input is up to 60% of Max. DC power.
- Adopt the latest technologies and combination of T-type three level topologies and SVPWM.
- Reactive power control and Power factor adjustable: 0.8 leading ~ 0.8 lagging.

#### Reliable

- IP65 protection level, suitable for various installation environments.
- Bus capacitors consist of advanced film capacitors, designed with the latest thermal simulation technology for longer lifespan.

#### Smart

- AC output power is adjustable between 1-100%.
- Smart grid adaptive to meet the requirements of various power grid accesses.
- Variety of monitoring modes: APP (one-button registration), large screen data monitoring center, cloud monitoring platform.
- Support RS485,GPRS,WIFI, Ethernet.

## **Simple**

- High power density, small size.
- Modular design, easy to maintain.



#### **Accessories:**









| MODEL   | TGT-12KM   | TGT-15KM                                  | TGT-17KM                  |
|---|--|---|---------------------------|
| Input (DC)  |  |   |                           |
| Max. DC voltage (V)   |  | 1000                                      |                           |
| 3 : :   |  |   |                           |
| Starting voltage /Min. operation voltage (V)                  | 200/180  |   |                           |
| Starting power (W)  |  | 150                                       |                           |
| MPPT Operating Voltage Range                                  |  | 100,000//10//                             |                           |
| (V) / Rated Voltage   | 050 000  | 180- 800/610V                             | 100 000                   |
| Rated power voltage range (V)                                 | 350 - 800  | 400 - 800                                 | 400 - 800                 |
| Number Of MPPT /  |  | 0.40                                      |                           |
| String Per MPPT   |  | 2/2                                       |                           |
| Max. DC Power (W)   | 12500  | 15600                                     | 17500                     |
| Max. DC Current (A) Per MPPT x Number Of                      |  |   |                           |
| MPPT  | 19x2   | 21x2                                      | 23x2                      |
| DC switch   | Integrated   |   |                           |
| Output (AC)   |  | <u> </u>                                  |                           |
| Rated power (W)   | 12000  | 15000                                     | 17000                     |
| Max AC Current (A)  | 20   | 24  | 28                        |
| Rated AC Voltage And Range/<br>Rated Grid frequency And Range | 3/PE, 230/400V, (320~460V), 3/PE,220/380V, (320~460V)<br>50Hz (47~51.5Hz) / 60Hz (57~61.5Hz) |   |                           |
| Rated Grid frequency And Range                                | According to VDE0126-1-1, VDE-AR-N4105, CQC, G59/3, C10/11, AS4777/3100.                     |   |                           |
| Power factor  | -0.8~+0.8 (Adjustable)   |   |                           |
| ГНD   | < 3% (at rated power)  |   |                           |
| AC connection   | Three-phase (L1, L2, L3, PE) or (L1, L2, L3, N, PE)  |   |                           |
| System  |  | (2.7 -2.7 -2.7 -2.7 -2.7 -2.7 -2.7 -2.7 - | 7 - 4 - 2)                |
| Cooling method  |  | Smart Cooling method                      |                           |
| Max Efficiency  | 98.20%   | 98.30%                                    | 98.30%                    |
| Euro-Efficiency   | 97.60%   | 97.80%                                    | 97.80%                    |
| MPPT Efficiency   |  | 99.90%                                    |                           |
| Degree of protection  | IP65   |   |                           |
| Self-consumption (at night)                                   | <0.5W  |   |                           |
| Topology  | Transformerless  |   |                           |
| Operating temperature range                                   | -25 ~+60 (derate after 45  |   |                           |
| Relative humidity   | 0~95%, no condensation   |   |                           |
| Protection Functions  | DC isolation monitoring, DC monitoring, grounding fault monitoring, grid monitoring,         |   |                           |
|   | island protection, overvoltage and short circuit protection, etc                             |   |                           |
| Noise   |  | < 50dB                                    |                           |
| Display and communication                                     |  |   |                           |
| Display   | 3.5 inches LCD display, support backlit display  |   |                           |
| System language   | English, Chinese, German, Dutch  |   |                           |
| Key   | Integrated   |   |                           |
| Communication interfaces:                                     | RS485 (Standard), WiFi, Ethernet (Optional)  |   |                           |
| Mechanical parameters   |  |   |                           |
| Dimension (H x W x D mm)                                      | 610x480x204  |   |                           |
| Weight (kg)   | 38   |   |                           |
| Installation  | Wall mounting  |   |                           |
| Others  |  |   |                           |
| DC terminal   | BC03A, BC03B ( PV-F  | Г-CF-C-4-300-BU (-); PV-FT-CM-C-4-300     | )-RD (+), Helios H4 4mm²) |
| Certifications  | VDE0126-1-1, VDE-AR-N4105, CQC, G59/3, C10/11, AS4777/3100.                                  |   |                           |
|   | EN61000  | -6-1:4, EN61000-11:12, IEC62109-1:20      | )10, PEA, LVRT            |

<sup>\*</sup> Specifications are subject to change without prior notice

