TCL

# BlueWave 17-33T

## Grid-tied PV Inverter

### Smart and User Friendly

- Supports remote monitoring and local configuration
- Remote OTA, intelligent upgrade

### Efficient Power Generation

- String current up to 20A, No power derating during operation at 45℃
- 2 MPPTs design

### High Reliability

- Integrated with film capacitor for longer lifespan
- IP66 design for outdoor installation
- No power reduction during operation at 45℃

### Copper-Aluminum Compatibility

- Support aluminum cable connection on AC side;
- Achieving over 30% cable cost reduction.

| Datasheet | 17T | 20T | 23T | 25T | 30T | 33T |
|---|---|---|---|---|---|---|
| **PV Input** | | | | | | |
| Max.Input Voltage | 1100V | | | | | |
| MPPT Voltage Range | 140V-1000V | | | | | |
| Start-up Voltage | 160V | | | | | |
| Rated Input Voltage | 630V | | | | | |
| Max.Operating PV Input Current | 40 A/20 A | 40 A/40A | 40 A/40 A | 40 A/40A | 40 A/40 A/20 A | 40 A/40 A/20 A |
| Max.Input Short Circuit Current | 60 A/30 A | 60 A/60 A | 60 A/30 A | 60 A/30 A | 60 A/60 A/30 A | 60 A/60 A/30 A |
| Number of MPPT Trackers | 2 | 2 | 2 | 2 | 3 | 3 |
| Number of Strings Per MPPT | 2/1 | 2/2 | 2/2 | 2/2 | 2/2/1 | 2/2/1 |
| **AC Output** | | | | | | |
| Nominal Output Power | 17 kW | 20kW | 23kW | 25kW | 30kW | 33kW |
| Max.AC Active Power | 18.7kW | 22kW | 25.3kW | 27.5kW | 33kW | 36.3kW |
| Max.ACApparent Power | 18.7kVA | 22kVA | 25.3kVA | 27.5kVA | 33kVA | 36.3kVA |
| Nominal Output Voltage | 400V(L-L)3L+N+PE or 3L+PE | | | | | |
| Max.Output Current | 27 A | 31.8A | 36.5 A | 39.7 A | 47.6 A | 52.4A |
| Power Factor | >0.99(0.8leading-0.8lagging) | | | | | |
| Max.Total Harmonic Distortion | <3% | | | | | |
| Max.Efficiency | 98.6% | 98.6% | 98.7% | 98.7% | 98.7% | 98.70% |
| Output Voltage Frequency | 50 Hz/60 Hz | | | | | |
| **Protection** | | | | | | |
| PV String Curent Monitoring | Integrated | | | | | |
| PV Insulation Resistance Detection | Integrated | | | | | |
| Residual Current Monitoring | Integrated | | | | | |
| PV Reverse Polarity Protection | Integrated | | | | | |
| Anti-islanding Protection | Integrated | | | | | |
| AC Overcurrent Protection | Integrated | | | | | |
| AC Short Circuit Protection | Integrated | | | | | |
| ACOvervoltage Protection | Integrated | | | | | |
| DC Switch | Integrated | | | | | |
| DC Surge Protection | TypeIII(Type II Optional) | | | | | |
| AC Surge Protection | TypeIII(Type II Optional) | | | | | |
| **General Data** | | | | | | |
| Operating Temperature Range | -30°C-60°C(>45°C Derating) | | | | | |
| Ingress Protection(IP)Rating | IP66 | | | | | |
| Relative Humidity | 0-100% | | | | | |
| Max.Operating Altitude | 3000m | | | | | |
| Cooling Method | Smart Fan Cooling | | | | | |
| User Interface | LED+bluetooth+APP | | | | | |
| Communication | RS485/4G/WiFi | | | | | |
| Weight | 18.5kg | 19kg | 19 kg | 19 kg | 23kg | 23kg |
| Dimension(W*H*D) | 515*400*203.5mm | | | | | |
| Topology | Non-isolated | | | | | |
| Self-consumption at Night | <1W | | | | | |
| Interface(USB/RS485/WiFi/4G/Lan/) | Yes/Yes/Optional/Optional/Optional | | | | | |
| Warranty(5/10years) | Yes/Optional | | | | | |