# Three Phase String Inverter 320kW

Cherry- 320K-T8001-E

PRODUCT APPEARANCE


FUNCTIONAL CHARACTERISTICS

## Product Features

- Max efficiency 99.03%, China efficiency 98.53%
- Up to 6 MPPTs, suitable for complex terrains to increase energy yield
- Supports up to 30 strings for flexible system configuration
- Module I–V scanning for precise string anomaly detection
- PID night recovery to boost system generation
- Supports PLC communication to lower cabling and installation cost
- Dual AC/DC power redundancy for 24/7 monitoring

## Safe & Reliable

- Self-cleaning fan extends inverter service life
- AC/DC Type II surge protection
- Residual current monitoring
- DC switch with arc-fault suppression for enhanced safety
- Input reverse-polarity protection
- IP66 enclosure for strong environmental adaptability
- Corrosion-resistant C5 design

## TECHNICAL SPECIFICATIONS

| Product Model | Cherry- 320K-T8001-E |
|---|---|
| Power rating | 320kW |
| **Input (DC)** | |
| Max. DC Input Voltage | 1500Vdc |
| Start-up DC Input Voltage | 550V |
| Rated input voltage | 1090Vdc |
| MPPT Operating Voltage Range | 500-1500V |
| Full-Load MPPT Voltage Range | 860-1300V |
| Number of Inputs | 5×6 |
| MPPT No. | 6 |
| Max. Input Current per MPPT | 75A |
| Max. Short-Circuit Current per MPPT | 125A |
| **Output (AC)** | |
| Rated AC Output Power | 320kW |
| Max. AC Output Power (Apparent) | 352 kVA |
| Rated Output Voltage | 800V |
| Grid Connection Type | 3Φ / PE |
| Max Output Current | 254.0A |
| Rated Output Frequency | 50Hz |
| THDi | < 3% (rated power) |
| Power Factor | > 0.99 / 0.8 leading – 0.8 lagging |
| **Efficiency** | |
| Maximum Efficiency | 99.03% |
| China Efficiency | 98.54% |
| **Environment** | |
| Protection Degree | IP66 |
| Cooling | Adjustable speed air cooling |
| Operating Temperature Range | -30°C -60°C，45° no derating（320kW） |
| Operating Humidity | 0 - 100 % Non-condensing |
| Operating Altitude | 5000m（>4000m derating） |
| **Protection** | |
| DC Reverse-Polarity Protection | Yes |
| Anti-Islanding Protection | Yes |
| DC Insulation Resistance Detection | Yes |
| Residual Current Monitoring | Yes |
| String Monitoring | Yes |
| AC Output Over Current Protection | Yes |
| AC Short Circuit Protection | Yes |
| PID Recovery | Yes |
| Overvoltage Class | II (DC), III(AC) |
| DC / AC SPD | DC SPD Type II / AC SPD Type II |
| Smart IV Curve Scanning | Yes |
| Night SVG (Static Var Generation) | Yes |
| Aluminum Cable Support | Yes |
| Smart DC Switch | Yes |
| Smart Terminal Detection | Yes |
| **Display and Communication** | |
| Display | LED + APP |
| Communication | RS485 / PLC |
| **General Data** | |
| Dimensions (W / H / D) | 1140x853x385mm |
| Weight | 108kg * |
| AC Outputs Type | D4 |
| DC Inputs Type | OT/DT Terminals support 400 mm |
| **Certification** | |
| Safety<br>EMC<br>Grid Connection Standards | NB/T 32004-2018（New Energy Standard、EMC）；GB/T29319-2024（Certification）<br>GB/T 19964-2024（LVRT, HVRT、SCR、SCCR）；CNCA/CTS0002-2014(Efficiency) |
| IP66、C5 | GB/T4208-2017；GB/T19292.1-2018 |
| PV Module I–V Scanning & Intelligent Diagnostics | CGC/GF 180:2020A；CGC-R46305:2020A |
| Power Quality | GB/T 29319-2024 Technical requirements for PV system grid connection (≤10 kV grid)<br>GB/T 19964-2024 Technical requirements for PV power station grid connection (>10 kV grid) |

*1: The net weight of the product may deviate by +/-8%.

- Design and specifications are subject to change without notice.