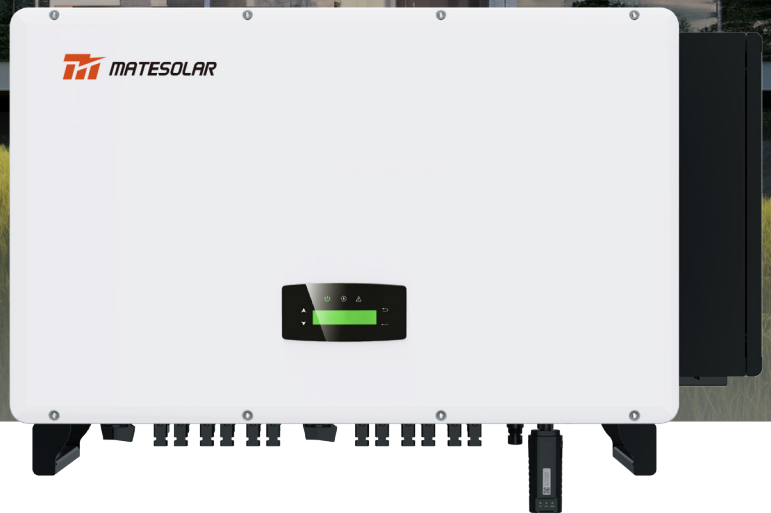


70-110 kW

# THREE PHASE PV STRING INVERTER

The Mate Solar BNT Series Three-phase string inverters are designed for commercial and power plant PV system applications, rating from 70kW to 110kW. All models with aluminum housings which is anodized, increasing durability and effectively prevents corrosion. Equipped with external inductors, ensure efficient heat dissipation, which significantly improves the reliability and extends the life of the inverters.

The inverter menu is activated by sensor touch buttons. Communication implements are via the Wi-Fi module (can be changed to Ethernet / GPRS). Check the system status anytime and anywhere via online portal or APP.



MAX  
38

**MAX. 38Adc**

String Current Up To 38A

MAX  
1.5

**PV Oversize**

>1.5 Time PV Oversize Input



**Protection**

Multiple intelligent Protections



**Anti-Flow**

Anti-Feed-in Function



**Wi-Fi**

Wi-Fi Standard Ethernet/GPRS Optional



**Configuration**

Quick & Easy Config. via Wi-Fi



**Modbus**

MODBUS Communication Ready

- ⬢ MPPT efficiency > 99.9%
- ⬢ Intelligent Temperature Control System
- ⬢ Active and reactive power compensation, adjust power factor
- ⬢ Arc Fault Circuit Interrupter (AFCI) (Optional)

- ⬢ IP 68 Cooling Fan
- ⬢ Type II DC & AC lightning protection
- ⬢ AC output 1.1x continuous operation
- ⬢ Compatible with 210 Solar Panel

| PV Input Data                        | BNT070KTL                                                                                                  | BNT075KTL | BNT080KTL | BNT090KTL | BNT100KTL | BNT110KTL |
|--------------------------------------|------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------|-----------|-----------|
| Max. DC Power ( W )                  | 105000                                                                                                     | 112500    | 120000    | 135000    | 150000    | 165000    |
| Max. DC Voltage ( V )                | 1100                                                                                                       |           |           |           |           |           |
| MPPT Voltage Range ( V )             | 200-1000                                                                                                   |           |           |           |           |           |
| MPPT Full Power Voltage Range ( V )  | 500 - 850                                                                                                  |           |           |           |           |           |
| Rated Input Voltage ( V )            | 620                                                                                                        |           |           |           |           |           |
| Start-up Voltage ( V )               | 150                                                                                                        |           |           |           |           |           |
| Max. Input Current ( A )             | 38 x 6                                                                                                     |           |           |           |           |           |
| Max. Short Current ( A )             | 48 x 6                                                                                                     |           |           |           |           |           |
| No. of MPP Tracker/No. of PV String  | 6/12                                                                                                       |           |           |           |           |           |
| Input Connector Type                 | MC4                                                                                                        |           |           |           |           |           |
| AC Output Data                       |                                                                                                            |           |           |           |           |           |
| Max. Output Power ( W )              | 77000                                                                                                      | 82500     | 88000     | 99000     | 110000    | 110000    |
| Nominal Output Power ( W )           | 70000                                                                                                      | 75000     | 80000     | 90000     | 100000    | 110000    |
| Max. Output Current ( A )            | 111                                                                                                        | 120       | 127       | 143       | 158       | 158       |
| Nominal Output Voltage ( V )         | 3P+N+PE /3P+PE 230/400                                                                                     |           |           |           |           |           |
| Grid Voltage Range                   | 260Vac-519Vac (according to local standard)                                                                |           |           |           |           |           |
| Nominal Output Frequency ( Hz )      | 50/60                                                                                                      |           |           |           |           |           |
| Grid Frequency Range                 | 45-55Hz/54-66Hz (According to local standard)                                                              |           |           |           |           |           |
| Output Power Factor                  | 1 default (adjustable from 0.8 leading to 0.8 lagging)                                                     |           |           |           |           |           |
| Output Current THD                   | <3%                                                                                                        |           |           |           |           |           |
| Efficiency                           |                                                                                                            |           |           |           |           |           |
| Max. Efficiency                      | 99.00%                                                                                                     |           |           |           |           |           |
| Euro Efficiency                      | 98.30%                                                                                                     |           |           |           | 98.40%    |           |
| Protection                           |                                                                                                            |           |           |           |           |           |
| PV Reverse Polarity Protection       | YES                                                                                                        |           |           |           |           |           |
| PV Insulation Resistance Detection   | YES                                                                                                        |           |           |           |           |           |
| AC Short Circuit Protection          | YES                                                                                                        |           |           |           |           |           |
| AC Over Current Protection           | YES                                                                                                        |           |           |           |           |           |
| AC Over Voltage Protection           | YES                                                                                                        |           |           |           |           |           |
| Anti-Islanding Protection            | YES                                                                                                        |           |           |           |           |           |
| Residual Current Detection           | YES                                                                                                        |           |           |           |           |           |
| Over Temperature Protection          | YES                                                                                                        |           |           |           |           |           |
| Integrated DC switch                 | YES                                                                                                        |           |           |           |           |           |
| Surge Protection                     | Integrated (Type III)                                                                                      |           |           |           |           |           |
| Smart IV Curve Scanning              | YES                                                                                                        |           |           |           |           |           |
| Quick Arc Fault Circuit Interruption | Optional                                                                                                   |           |           |           |           |           |
| General Data                         |                                                                                                            |           |           |           |           |           |
| Dimensions ( W x H x D, mm)          | 979 x 610 x 310                                                                                            |           |           |           |           |           |
| Weight ( kg )                        | 72                                                                                                         |           |           | 76        |           |           |
| Protection Degree                    | IP65                                                                                                       |           |           |           |           |           |
| Enclosure Material                   | Aluminum                                                                                                   |           |           |           |           |           |
| Ambient Temperature Range (°C )      | -25 to 60                                                                                                  |           |           |           |           |           |
| Humidity Range                       | 0-100%                                                                                                     |           |           |           |           |           |
| Topology                             | Transformer less                                                                                           |           |           |           |           |           |
| Communication Interface              | RS485 / WiFi / Wire Ethernet / GPRS (optional)                                                             |           |           |           |           |           |
| Cooling Concept                      | Intelligent fan cooling                                                                                    |           |           |           |           |           |
| Noise Emission ( db )                | <55                                                                                                        |           |           | <60       |           |           |
| Night Power Consumption ( W )        | <1                                                                                                         |           |           |           |           |           |
| Max. Operation Altitude ( m )        | ≤ 4000                                                                                                     |           |           |           |           |           |
| Certifications and Standards         |                                                                                                            |           |           |           |           |           |
| EMC Standard                         | EN/IEC 61000-6-2, EN/IEC 61000-6-3, EN61000-3-2, EN61000-3-3, EN61000-3-11, EN61000-3-12                   |           |           |           |           |           |
| Safety Standard                      | IEC 60068, UL1741, EN62109                                                                                 |           |           |           |           |           |
| Grid-connection                      | IEEE1547, CSA C22, EN50549, VDE4105, VDE0126, RD1699, ABNT NBR16149 & 16150, AS4777.2, NB/T32004, IEC61727 |           |           |           |           |           |