

Three Phase PV String Inverter

17-30 kW Low-voltage Series



The Afore Three-phase string inverters Low-voltage Series are designed for commercial and power plant PV system applications, rating from 17kW to 30kW. 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 APP.

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|---|--|---|---|--|--|---|
| Max. 20A String Current Up To 20A | Max. 1.5 Max. 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 |
|---|--|---|---|--|--|---|

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|---|--------------------------------------|
| MPPT efficiency > 99.9% | IP 68 Cooling Fan |
| Intelligent Temperature Control System | Type II DC & AC lightning protection |
| Active and reactive power compensation, adjust power factor | AC output 1.1x continuous operation |

| Technical Data | BNT017KTA | BNT020KTA | BNT025KTA | BNT030KTA |
|---------------------------------------|---|-----------------|-----------|-----------|
| PV Input Data | | | | |
| Max. DC Power (W) | 25500 | 30000 | 37500 | 45000 |
| Max. DC Voltage (V) | 750 | | | |
| MPPT Voltage Range (V) | 200 - 700 | | | |
| MPPT Full Power Voltage Range (V) | 310 - 600 | 320 - 600 | 300 - 600 | |
| Rated Input Voltage (V) | 400 | | | |
| Start-up Voltage (V) | 150 | 200 | | |
| Max. Input Current (A) | 38 x 2 | 38 x 3 | 40 x 3 | 38 x 4 |
| Max. Short Current (A) | 48 x 2 | 48 x 3 | 48 x 3 | 48 x 4 |
| No. of MPP Tracker / No. of PV String | 2 / 5 | 3 / 6 | 3 / 7 | 4 / 8 |
| Input Connector Type | MC4 | | | |
| AC Output Data | | | | |
| Max. Output Power (VA) | 18700 | 22000 | 27500 | 33000 |
| Nominal Output Power (W) | 17000 | 20000 | 25000 | 30000 |
| Max. Output Current (A) | 48 | 60 | 80 | 96 |
| Nominal Output Voltage (V) | 3P+N+PE/3P+PE 133/ 220 or 230 | | | |
| Grid Voltage Range | 180-260Vac (According to local standard) | | | |
| Nominal Output Frequency (Hz) | 50/60 | | | |
| Grid Frequency Range | 45-55 / 55-65Hz (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 | 98.40% | | | |
| Euro Efficiency | 98.00% | | 98.10% | |
| 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 II) | | | |
| General Data | | | | |
| Dimensions (W x H x D, mm) | 450 x 485 x 210 | 710 x 470 x 236 | | |
| Weight (kg) | 26 | 44 | 51 | |
| Protection Degree | IP65 | | | |
| Enclosure Material | Aluminum | | | |
| Ambient Temperature Range (°C) | -25 - +60 | | | |
| Humidity Range | 0-100 % | | | |
| Topology | Transformerless | | | |
| Communication Interface | RS485 / WiFi / Wire Ethernet / GPRS (optional) | | | |
| Cooling Concept | Intelligent Fan Cooling | | | |
| Night Power Consumption (W) | <1 | | | |
| Max. Operation Altitude (m) | 2000 | | | |
| 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, G98/G99, IEC61727 | | | |