

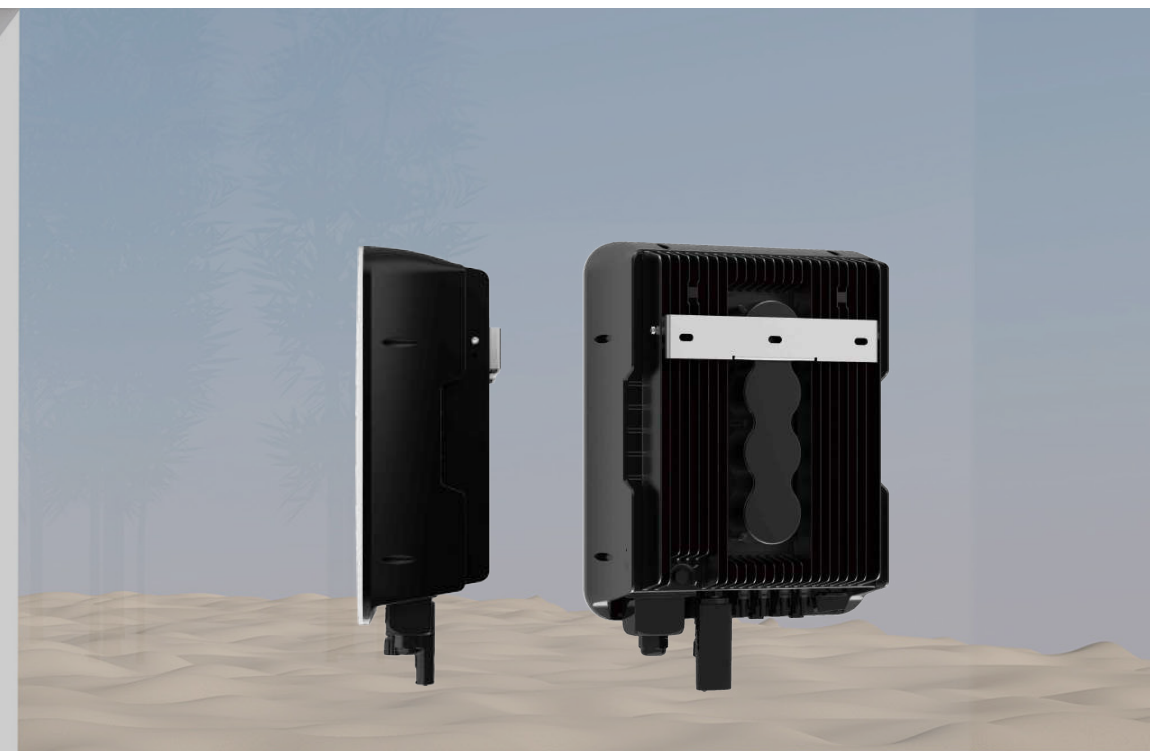
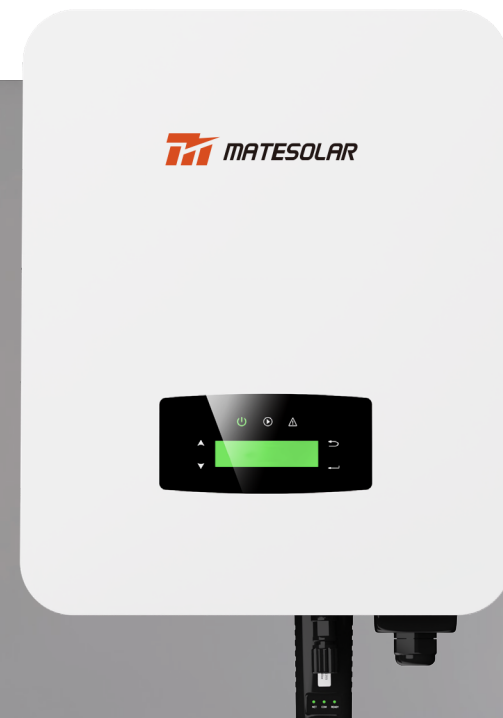
3-25 kW

THREE PHASE PV STRING INVERTER

SMART | EFFICIENT | SAFETY

The Mate Solar BNT Series Three-phase string inverters are designed for residential and small commercial PV system applications, rating from 3kW to 25kW. All models have unibody housings with aluminum structure which is anodized, increasing durability and effectively prevents corrosion. Equipped with external inductors, the unibody housings can ensure efficient heat dissipation, which significantly improves the reliability and extends the life of the inverters. 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.

- Quick Arc Fault circuit interruption (Optional)
- WIFI standard
- Compact design
- Multiple intelligent protections
- Compatible with bifacial modules
- String level monitoring



MPPT

MPPT Range

Wide MPPT Range

**MAX
1.5**

PV Oversize

1.5 Times PV Oversize

**MAX
1100**

DC 1100V

Max. DC 1100V



Unibody

One-piece Aluminum Housing



Protction

Build-in SPD Type II



Smart

Smart IV Curve Scanning



Update

Remote Firmware Update

PV Input Data	BNT003KTL		BNT004KTL	BNT005KTL	BNT006KTL	BNT008KTL	BNT010KTL
Max. DC Power (W)	5100		6000	7500	9000	12000	15000
Max. DC Voltage (V)	1100						
MPPT Voltage Range (V)	150-1000						
MPPT Full Power Voltage Range (V)	200 - 850				250 - 850	300-850	500-850
Rated Input Voltage (V)	620						
Start-up Voltage (V)	150						
Max. Input Current (A)	15 x 2						
Max. Short Current (A)	25 x 2						
No. of MPP Tracker/No. of PV String	2/2						
Input Connector Type	MC4						
AC Output Data							
Max. Output Power (W)	3300		4400	5500	6600	8800	11000
Nominal Output Power (W)	3000		4000	5000	6000	8000	10000
Max. Output Current (A)	5.3		7	8.5	10.5	13.5	17
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	98.30%						98.70%
Euro Efficiency	97.61%	97.65%	98.00%	98.05%			98.23%
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)	370 x 510 x 167					370 x 510 x 192	
Weight (kg)	16					16	
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	Convection					Intelligent fan cooling	
Noise Emission (db)	<30						
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						

PV Input Data	BNT012KTL		BNT013KTL		BNT017KTL		BNT020KTL		BNT025KTL			
Max. DC Power (W)	18000		19500		22500		25500		30000		37500	
Max. DC Voltage (V)	1100											
MPPT Voltage Range (V)	150-1000											
MPPT Full Power Voltage Range (V)	500 - 850											
Rated Input Voltage (V)	620											
Start-up Voltage (V)	150											
Max. Input Current (A)	15 x 2				20 + 32				32 x 2			
Max. Short Current (A)	25 x 2				30 + 48				48 x 2			
No. of MPP Tracker/No. of PV String	2/2				2/3				2/4			
Input Connector Type	MC4											
AC Output Data												
Max. Output Power (W)	13200		14300		16500		18700		22000		27500	
Nominal Output Power (W)	12000		13000		15000		17000		20000		25000	
Max. Output Current (A)	21.5		22		27		30		32		40	
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	98.70%								98.75%			
Euro Efficiency	98.23%								98.35%			
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)	370 x 510 x 192						370 x 535 x 192					
Weight (kg)	16		17				19					
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)	<40										<51	
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											
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