

30-60 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, ranging from 30kW to 60kW. 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
80**

MAX. 20Adc

String Current Up To 20A

**MAX
1.5**

PV Oversize

Max. 1.5 time PV Oversize Capacity



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

- IP 68 Cooling Fan
- Type II DC & AC lightning protection
- AC output 1.1x continuous operation

PV Input Data	BNT030KTL		BNT036KTL		BNT040KTL		BNT050KTL		BNT060KTL	
Max. DC Power (W)	45000		54000		60000		75000		90000	
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)	200									
Max. Input Current (A)	38 x2		38 x2				40 x3		38 x4	
Max. Short Current (A)	48x2		48x2				48x3		48x4	
No. of MPP Tracker/No. of PV String	2/5		2/5				3/7		4/8	
Input Connector Type	MC4									
AC Output Data										
Max. Output Power (W)	33000		39600		44000		55000		66000	
Nominal Output Power (W)	30000		36000		40000		50000		60000	
Max. Output Current (A)	48		60		65		80		96	
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	98.50%		98.65%		98.65%		98.80%		99.00%	
Euro Efficiency	98.10%		98.20%		98.25%		98.45%		98.50%	
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 Scaning	YES									
Quick Arc Fault Circuit Interruption	Optional									
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 to 60									
Humidity Range	0-100%									
Topology	Transformer less									
Communication Interface	RS485 / WiFi / Wire Ethernet / GPRS (optional)									
Cooling Concept	Convection									
Noise Emission (db)	<51						<55			
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									