Commercial & Power Plants BNT series

BNT

50-60 kW

The Afore BNT Series Three-phase string inverters are designed for commercial and power plant PV system applications, rating from 50kW 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.

ANTI-FLOW
Anti-Feed-in Function

PV OVERSIZE
Max. 1.5 time
PV Oversize Input Capacity

PROTECTION
Multiple Intelligent Protections

AL BODY
Aluminum Housing

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	BNT050KTL	BNT060KTL
Max. DC Power (W)	75000	84000
Max. DC Voltage (V)	1000	1000
MPPT Voltage Range (V)	200-950	200-950
MPPT Full Power Voltage Range (V)	500-950	500-950
Rated Input Voltage (V)	620	620
Start-up Voltage (V)	200	200
Max. Input Current (A)	36 x3	40 x 3
Max. Short Current (A)	45x3	50 x 3
No. of MPP Tracker / No. of PV String	3 /12	3 /12
Input Connector Type	MC4	MC4

AC Output Data	BNT050KTL	BNT060KTL
Max. Output Power (W)	55000	66000
Nominal Output Power (W)	50000	60000
Max. Output Current (A)	75	90
Nominal Output Voltage (V)	3P+N+PE /3P+PE 230/400	
Grid Voltage Range	260-519 (according to local standard)	
Nominal Output Frequency (Hz)	50/60	
Grid Frequency Range	45-55/55-65(according to local standard)	
Output Power Factor	1 default (adjustable from 0.8 leading to 0.8 lagging)	
Output Current THD	<3%	

Efficiency	BNT050KTL	BNT060KTL
Max. Efficiency	98.80%	99.00%
Euro Efficiency	98.45%	98.50%

Protection	BNT050KTL	BNT060KTL
PV Reverse Polarity Protection	YES	YES
PV Insulation Resistance Detection	YES	YES
AC Short Circuit Protection	YES	YES
AC Over Current Protection	YES	YES
AC Over Voltage Protection	YES	YES
Anti-Islanding Protection	YES	YES
Residual Current Detection	YES	YES
Over Temperature Protection	YES	YES
Integrated DC switch	YES	YES
Surge Protection	Integrated (Type II)	

General Data	BNT050KTL	BNT060KTL
Dimensions (W x H x D, mm)	850 x 630 x 306	
Weight (kg)	77	
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	
Noise Emission (db)	55	
Night Power Consumption (W)	<1	
Max. Operation Altitude (m)	4000	

Certifications and Standards	BNT050KTL	BNT060KTL
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, IEEE1547,EN62109	
Grid-connection	UL1741,EN50549,VDE4105, VDE0126, RD1699, ABNT NBR16149 & 16150,AS4777.2, NB/T32004, G98/G99,IEC61727,CSA C22	