

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
MPPT Voltage Range (V)		200-950
MPPT Full Power Voltage Range (V)		500-950
Rated Input Voltage (V)		620
Start-up Voltage (V)		200
Max. Input Current (A)	36 x 3	40 x 3
Max. Short Current (A)	45 x 3	50 x 3
No. of MPP Tracker / No. of PV String		3 /12
Input Connector Type		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
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	BNT050KTL	BNT060KTL
Dimensions (H x W x D, mm)		590 x 850 x 285
Weight (kg)		79
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, UL1741, EN62109	
Grid-connection	IEEE1547, CSA C22, EN50549, VDE4105, VDE0126, RD1699, ABNT NBR16149 & 16150, AS4777.2, NB/T32004, G98/G99, IEC61727	