

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	