

Commercial & Power Plants BNT series

# BNT

## 30-40 kW



The Afore BNT Series Three-phase string inverters are designed for commercial and power plant PV system applications, rating from 25kW to 40kW. 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 III DC & AC lightning protection



AC output 1.1x continuous operation

PV Input Data	BNT030KTL	BNT036KTL	BNT040KTL
Max. DC Power ( W )	42000	54000	56000
Max. DC Voltage ( V )		1000	
MPPT Voltage Range ( V )		200-950	
MPPT Full Power Voltage Range ( V )		500-850	
Rated Input Voltage ( V )		620	
Start-up Voltage ( V )		200	
Max. Input Current ( A )	22 x3	36 x 2	40 x 2
Max. Short Current ( A )	28 x3	45 x 2	50 x 2
No. of MPP Tracker / No. of PV String	3/6	2/8	2/8
Input Connector Type		MC4	

AC Output Data	BNT030KTL	BNT036KTL	BNT040KTL
Max. Output Power ( W )	33000	39600	44000
Nominal Output Power ( W )	30000	36000	40000
Max. Output Current ( A )	48	56	61
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	BNT030KTL	BNT036KTL	BNT040KTL
Max. Efficiency	98.50 %	98.65%	98.65 %
Euro Efficiency	98.10 %	98.20%	98.25 %

Protection	BNT030KTL	BNT036KTL	BNT040KTL
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)		

General Data	BNT030KTL	BNT036KTL	BNT040KTL
Dimensions (H x W x D, mm)	610 x 450 x 222	780 x 500 x 230	
Weight ( kg )	32	55	
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 )	<51		
Night Power Consumption ( W )	<1		
Max. Operation Altitude ( m )	≤4000		

Certifications and Standards	BNT030KTL	BNT036KTL	BNT040KTL
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		