

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 II 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	1000	1000
MPPT Voltage Range (V)	200-950	200-950	200-950
MPPT Full Power Voltage Range (V)	500-850	500-850	500-850
Rated Input Voltage (V)	620	620	620
Start-up Voltage (V)	200	200	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	2/6	2/8	2/8
Input Connector Type	MC4	MC4	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	YES	YES
PV Insulation Resistance Detection	YES	YES	YES
AC Short Circuit Protection	YES	YES	YES
AC Over Current Protection	YES	YES	YES
AC Over Voltage Protection	YES	YES	YES
Anti-Islanding Protection	YES	YES	YES
Residual Current Detection	YES	YES	YES
Over Temperature Protection	YES	YES	YES
Integrated DC switch	YES	YES	YES
Surge Protection	Integrated (Type III)		
Smart IV Curve Scanning	YES		
Quick Arc Fault Circuit Interruption	Optional		

General Data	BNT030KTL	BNT036KTL	BNT040KTL
Dimensions (W x H 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		