

Commercial & Power Plants BNT series

BNT

05-15 kW



The Afore BNT Series Three-phase string inverters are designed for residential and small commercial PV system applications, rating from 5kW to 15kW. All models have unibody housings with aluminum structure which is anodized, increasing durability and effectively prevents corrosion. Equipped with external inductors, the unibody housings can ensure efficient heat dissipation, which significantly improves the reliability and extends the life of the inverters.

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.



MPPT Range
Wide MPPT Range



PV OVERSIZE
1.5 Times PV Oversize



UNIBODY
One-piece
Aluminum Housing



PROTECTION
Build-in SPD Type II



SMART
Smart IV Curve Scanning



UPDATE
Remote Firmware Update

Quick Arc Fault circuit interruption (Optional)

WiFi standard

Compact design

Multiple intelligent protections

Compatible with bifacial modules

String level monitoring

PV Input Data	BNT005KTL	BNT006KTL	BNT008KTL	BNT010KTL	BNT012KTL	BNT015KTL
Max. DC Power (W)	7500	9000	12000	15000	18000	22500
Max. DC Voltage (V)	650		750			
MPPT Voltage Range (V)	150 - 600					
MPPT Full Power Voltage Range (V)	220 - 600					330 - 600
Rated Input Voltage (V)	380					
Start-up Voltage (V)	200					
Max. Input Current (A)	15 x 2		15 + 32	32 x 2		
Max. Short Current (A)	25 x 2		25 + 48	48 x 2		
No. of MPP Tracker / No. of PV String	2/2		2/3	2/4		
Input Connector Type	MC4					

AC Output Data	BNT005KTL	BNT006KTL	BNT008KTL	BNT010KTL	BNT012KTL	BNT015KTL
Max. Output Power (W)	5500	6600	8800	11000	13200	16500
Nominal Output Power (W)	5000	6000	8000	10000	12000	15000
Max. Output Current (A)	14.4	17.3	23.1	28.9	34.6	43.3
Nominal Output Voltage (V)	3P+N+PE / 3P+PE 220 / 230					
Grid Voltage Range	180-260Vac (According to local standard)					
Nominal Output Frequency (Hz)	50 / 60					
Grid Frequency Range	45-55 / 55-65Hz (According to local standard)					
Output Power Factor	1 default (adjustable from 0.8 leading to 0.8 lagging)					
Output Current THD	<3%					

Efficiency	BNT005KTL	BNT006KTL	BNT008KTL	BNT010KTL	BNT012KTL	BNT015KTL
Max. Efficiency	97.50%		98.00%			
Euro Efficiency	97.00%		97.40%		97.50%	97.55%

Protection	BNT005KTL	BNT006KTL	BNT008KTL	BNT010KTL	BNT012KTL	BNT015KTL
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)					
Smart IV Curve Scanning	YES					
Quick Arc Fault Circuit Interruption	Optional					

General Data	BNT005KTL	BNT006KTL	BNT008KTL	BNT010KTL	BNT012KTL	BNT015KTL
Dimensions (H x W x D, mm)	510 x 370 x 167					
Weight (kg)	17		19		21	
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	Convection		Intelligent fan cooling			
Noise Emission (db)	<30		<40			<51
Night Power Consumption (W)	<1					
Max. Operation Altitude (m)	≤4000					

Certifications and Standards	BNT005KTL	BNT006KTL	BNT008KTL	BNT010KTL	BNT012KTL	BNT015KTL
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					