

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					

Commercial & Power Plants BNT series

BNT

17-30 kW



The Afore BNT Series Three-phase string inverters are designed for commercial and power plant PV system applications, rating from 17kW to 30kW. 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.

Max.
20A

MAX. 20A_{dc}
String Current Up To 20A

Max.
1.5

PV OVERSIZE
Max. 1.5 Time
PV Oversize Input



PROTECTION
Multiple Intelligent
Protections



ANTI-FLOW
Anti-Feed-in Function



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	BNT017KTL	BNT020KTL	BNT025KTL	BNT030KTL
Max. DC Power (W)	25500	30000	37500	45000
Max. DC Voltage (V)	750			
MPPT Voltage Range (V)	200 - 700			
MPPT Full Power Voltage Range (V)	310 - 600	320 - 600	300 - 600	
Rated Input Voltage (V)	380	400		
Start-up Voltage (V)	250	320		
Max. Input Current (A)	38 x 3		40 x 3	38 x 4
Max. Short Current (A)	48 x 3		48 x 3	48 x 4
No. of MPP Tracker / No. of PV String	3 / 6		3 / 7	4 / 8
Input Connector Type	MC4			

AC Output Data	BNT017KTL	BNT020KTL	BNT025KTL	BNT030KTL
Max. Output Power (W)	18700	22000	26500	33000
Nominal Output Power (W)	17000	20000	25000	30000
Max. Output Current (A)	49.1	61	80	95
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	BNT017KTL	BNT020KTL	BNT025KTL	BNT030KTL
Max. Efficiency	98.10%	98.00%	98.40%	98.40%
Euro Efficiency	97.50%	97.82%	98.02%	98.10%

Protection	BNT017KTL	BNT020KTL	BNT025KTL	BNT030KTL
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	BNT017KTL	BNT020KTL	BNT025KTL	BNT030KTL
Dimensions (H x W x D, mm)	712 x 427 x 232		712 x 427 x 232	
Weight (kg)	45	55	56	
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		<55	
Night Power Consumption (W)	<1			
Max. Operation Altitude (m)	≤4000			

Certifications and Standards	BNT017KTL	BNT020KTL	BNT025KTL	BNT030KTL
EMC Standard	EN/IEC 61000-6-2, EN/IEC 61000-6-3, EN61000-3-2, EN61000-3-3, EN61000-3-11, EN61000-3-12			
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