

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 - 700					
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 + 26		26 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	180-270Vac (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					

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# BNT

## 17-20 kW



The Afore BNT Series Three-phase string inverters are designed for commercial and power plant PV system applications, rating from 17kW to 20kW. 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



#### 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	BNT017KTL	BNT020KTL
Max. DC Power ( W )	18700	22000
Max. DC Voltage ( V )	750	750
MPPT Voltage Range ( V )	220- 700	220- 700
MPPT Full Power Voltage Range ( V )	310- 600	320- 600
Rated Input Voltage ( V )	380	400
Start-up Voltage ( V )	250	320
Max. Input Current ( A )	22 x 3	40 x 2
Max. Short Current ( A )	28 x 3	50 x 2
No. of MPP Tracker / No. of PV String	3 / 6	2 / 8
Input Connector Type	MC4	

AC Output Data	BNT017KTL	BNT020KTL
Max. Output Power ( W )	18700	22000
Nominal Output Power ( W )	17000	20000
Max. Output Current ( A )	49.1	61
Nominal Output Voltage ( V )	3P+N+PE /3P+PE 220/230	
Grid Voltage Range	180V-270Vac (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
Max. Efficiency	98.10%	98.20%
Euro Efficiency	97.50%	97.82%

Protection	BNT017KTL	BNT020KTL
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	BNT017KTL	BNT020KTL
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	BNT017KTL	BNT020KTL
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	



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# BNT

## 25-30 kW



The Afore BNT Series Three-phase string inverters are designed for commercial and power plant PV system applications, rating from 25kW 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.



#### ANTI-FLOW

Anti-Feed-in Function



#### 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	BNT025KTL	BNT030KTL
Max. DC Power ( W )	27500	33000
Max. DC Voltage ( V )	750	
MPPT Voltage Range ( V )	220 - 700	
MPPT Full Power Voltage Range ( V )	300 - 600	
Rated Input Voltage ( V )	400	
Start-up Voltage ( V )	320	
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	BNT025KTL	BNT030KTL
Max. Output Power ( W )	26500	33000
Nominal Output Power ( W )	25000	30000
Max. Output Current ( A )	80	95
Nominal Output Voltage ( V )	3P+N+PE / 3P+PE 220/230	
Grid Voltage Range	180-270Vac (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	BNT025KTL	BNT030KTL
Max. Efficiency	98.40%	98.40%
Euro Efficiency	98.02%	98.10%

Protection	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	BNT025KTL	BNT030KTL
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	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	
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	