

Three Phase PV String Inverter

70-110 kW



The Afore BNT Series Three-phase string inverters are designed for commercial and power plant PV system applications, rating from 70kW to 110kW. All models with aluminum housing 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 (which can be changed to Ethernet / GPRS). Check the system status anytime and anywhere via online portal or APP.



SMART

Intelligent string monitoring,
Smart I-V curve scan



PROTECTION

Type II DC &
AC Lightning Protection



MAX. 38A

String Current Up to 38A



PV OVERSIZE

>1.5 Time
PV Oversize Input



POWER FACTOR

Active and Reactive
Power Compensation



ANTI-FLOW

Anti-Feed-in Function

IP68 Cooling Fan 

Compatible with 210 Solar Panel & bifacial module 


Arc Fault Circuit Interrupter (AFCI) (Optional) 

AC output 1.1x continuous operation 

 Multiple Intelligent Protections

 Remote firmware upgrade with simple operation

 DC side supports "Y" connector

 Supports aluminium wire access to reduce cost

■ Technical Data	BNT070KTL	BNT075KTL	BNT080KTL	BNT090KTL	BNT100KTL	BNT110KTL
PV Input Data						
Max. DC Power (W)	105000	112500	120000	135000	150000	165000
Max. DC Voltage (V)				1100		
MPPT Voltage Range (V)				200 - 1000		
MPPT Full Power Voltage Range (V)				500 - 850		
Rated Input Voltage (V)				620		
Start-up Voltage (V)				200		
Max. Input Current (A)				38 x 6		
Max. Short Current (A)				48 x 6		
No. of MPP Tracker / No. of PV String				6/12		
Input Connector Type				MC4		
AC Output Data						
Max. Output Power (VA)	77000	82500	88000	99000	110000	110000
Nominal Output Power (W)	70000	75000	80000	90000	100000	110000
Max. Output Current (A)	111	120	127	143	158	158
Nominal Output Voltage (V)				3P+N+PE /3P+PE 230/400		
Grid Voltage Range				260Vac-519Vac (according to local standard)		
Nominal Output Frequency (Hz)				50/60		
Grid Frequency Range				45-55Hz/55-66Hz (according to local standard)		
Output Power Factor				1 default (adjustable from 0.8 leading to 0.8 lagging)		
Output Current THD				<3%		
Efficiency						
Max. Efficiency				99.00%		
Euro Efficiency				98.30%	∴	98.40%
Protection						
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						
Dimensions (W x H x D, mm)				979 x 610 x 310		
Weight (kg)				72	∴	76
Protection Degree				IP65		
Enclosure Material				Aluminum		
Ambient Temperature Range (°C)				-25 to 60		
Humidity Range				0 - 100%		
Topology				Transformerless		
Communication Interface				RS485 / WiFi / Wire Ethernet / GPRS (optional)		
Cooling Concept				Intelligent fan cooling		
Noise Emission (db)				<55	∴	<60
Night Power Consumption (W)				<1		
Max. Operation Altitude (m)				≤4000		
Certifications and Standards						
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		