

# 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 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.



**SMART**  
Intelligent string monitoring,  
Smart I-V curve scan



**PROTECTION**  
Type II DC &  
AC Lighting Protection



**Max. 38A**  
String Current Up to 38A



**>1.5**  
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



PV Input Data	BNT070KTL	BNT075KTL	BNT080KTL	BNT090KTL	BNT100KTL	BNT110KTL
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	BNT070KTL	BNT075KTL	BNT080KTL	BNT090KTL	BNT100KTL	BNT110KTL
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	BNT070KTL	BNT075KTL	BNT080KTL	BNT090KTL	BNT100KTL	BNT110KTL
Max. Efficiency	99.00%					
Euro Efficiency	98.30%			98.40%		

Protection	BNT070KTL	BNT075KTL	BNT080KTL	BNT090KTL	BNT100KTL	BNT110KTL
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	BNT070KTL	BNT075KTL	BNT080KTL	BNT090KTL	BNT100KTL	BNT110KTL
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	BNT070KTL	BNT075KTL	BNT080KTL	BNT090KTL	BNT100KTL	BNT110KTL
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					