

# Three Phase PV String Inverter

## 36-60 kW



The Afore BNT Series Three-phase string inverters are designed for commercial and power plant PV system applications, rating from 36kW to 60kW. 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.

<b>Max. 20A</b> String Current Up To 20A	<b>Max. 1.5</b> Max. 1.5 Time PV Oversize Input	<b>PROTECTION</b> Multiple Intelligent Protections	<b>ANTI-FLOW</b> Anti-Feed-in Function	<b>Wi-Fi</b> Wi-Fi Standard, Ethernet/GPRS Optional	<b>CONFIGURATION</b> Quick & Easy Config. via Wi-Fi	<b>MODBUS</b> MODBUS Communication Ready
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MPPT efficiency > 99.9%	IP 68 Cooling Fan
Intelligent Temperature Control System	Type II DC & AC lightning protection
Active and reactive power compensation, adjust power factor	AC output 1.1x continuous operation

■ Technical Data	BNT036KTL	BNT040KTL	BNT050KTL	BNT060KTL
<b>PV Input Data</b>				
Max. DC Power ( W )	54000	60000	75000	90000
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 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			
<b>AC Output Data</b>				
Max. Output Power ( VA )	36000	40000	50000	60000
Nominal Output Power ( W )	36000	40000	50000	60000
Max. Output Current ( A )	60	65	80	96
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/55-65Hz (according to local standard)			
Output Power Factor	1 default (adjustable from 0.8 leading to 0.8 lagging)			
Output Current THD	<3%			
<b>Efficiency</b>				
Max. Efficiency	98.65%	98.65%	98.80%	99.00%
Euro Efficiency	98.20%	98.25%	98.45%	98.50%
<b>Protection</b>				
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
<b>General Data</b>				
Dimensions (W x H x D, mm)	710 x 470 x 236			
Weight ( kg )	44			51
Protection Degree	IP66			
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 )	<51		<55	
Night Power Consumption ( W )	<1			
Max. Operation Altitude ( m )	≤4000			
<b>Certifications and Standards</b>				
EMC Standard	EN/IEC 61000-6-2, EN/IEC 61000-6-3, 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, G99, IEC61727			