

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.

Max.
20A

MAX. 20Adc
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

Technical Data	BNT036KTL	BNT040KTL	BNT050KTL	BNT060KTL
PV Input Data				
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 x3	40 x3	38 x4	
Max. Short Current (A)	48x3	48x3	48x4	
No. of MPP Tracker / No. of PV String	3/6	3/7	4/8	
Input Connector Type	MC4			
AC Output Data				
Max. Output Power (VA)	39600*	44000*	55000*	66000*
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%			
Efficiency				
Max. Efficiency	98.65%	98.65%	98.80%	99.00%
Euro Efficiency	98.20%	98.25%	98.45%	98.50%
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)	710 x 470 x 236			
Weight (kg)	44		51	
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)	<51		<55	
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			

* For Belgium Max. Output Power(VA) BNT030KTL is 30000; BNT036KTL is 36000; BNT040KTL is 40000; BNT050KTL is 50000; BNT060KTL is 60000.