

# Three Phase PV String Inverter

## 3-15 kW Delta Voltage Series



The Afore Three-phase string inverters Low-voltage Series are designed for commercial and power plant PV system applications, rating from 3kW to 15kW. 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 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

### Technical Data

BNT003KTA BNT004KTA BNT005KTA BNT006KTA BNT008KTA BNT010KTA BNT012KTA BNT015KTA

PV Input Data								
Max. DC Power ( W )	5100	6000	7500	9000	12000	15000	18000	22500
Max. DC Voltage ( V )	750							
MPPT Voltage Range ( V )	150 - 600							
MPPT Full Power Voltage Range ( V )	220 - 600		220 - 600			250 - 600		300 - 600
Rated Input Voltage ( V )	380			400				
Start-up Voltage ( V )	150							
Max. Input Current ( A )	15 x 2			20 + 32		32 x 2		
Max. Short Current ( A )	25 x 2			30 x 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								
Max. Output Power ( VA )	3000	4000	5000	6000	8000	10000	12000	15000
Nominal Output Power ( W )	3000	4000	5000	6000	8000	10000	12000	15000
Max. Output Current ( A )	10.5	13.5	17	21.5	27	30	32	40
Nominal Output Voltage ( V )	3P+PE/3P 127/220							
Grid Voltage Range	180-260Vac (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								
Max. Efficiency	97.50%			98.00%		98.10%	98.00%	98.40%
Euro Efficiency	97.00%	97.40%			97.50%			97.80%
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 )	370 x 535 x 192							
Weight ( kg )	16		17			19		
Protection Degree	IP66							
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				
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	UL1741, IEC62109							
Grid-connection	IEEE1547, CSA C22, IEC61727							