

Three Phase PV String Inverter

3-15 kW Low-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)



Multiple intelligent protections

WiFi standard



Compatible with bifacial modules

Compact design



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						330 - 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)	3300	4400	5500	6600	8800	11000	13200	16500	
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+N+PE/3P+PE 133/ 220 or 230								
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%		98.40%	
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 510 x 167			370 x 510 x 192			370 x 535 x 192		
Weight (kg)	16		16		17		19		
Protection Degree	IP65								
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)	2000								
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								