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)
- WIFI standard
- Compact design
- Multiple intelligent protections
- Compatible with bifacial modules
- String level monitoring

PV Input Data	BNT003KTA	BNT004KTA	BNT005KTA	BNT006KTA	BNT008KTA	BNT010KTA	BNT012KTA	BNT015KTA
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	**BNT003KTA**	**BNT004KTA**	**BNT005KTA**	**BNT006KTA**	**BNT008KTA**	**BNT010KTA**	**BNT012KTA**	**BNT015KTA**
Max. Output Power (W)	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 / 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	**BNT003KTA**	**BNT004KTA**	**BNT005KTA**	**BNT006KTA**	**BNT008KTA**	**BNT010KTA**	**BNT012KTA**	**BNT015KTA**
Max. Efficiency	97.50%			98.00%		98.10%	98.00%	98.40%
Euro Efficiency	97.00%		97.40%		97.50%		97.80%	
Protection	**BNT003KTA**	**BNT004KTA**	**BNT005KTA**	**BNT006KTA**	**BNT008KTA**	**BNT010KTA**	**BNT012KTA**	**BNT015KTA**
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 Scaning	YES							
Quick Arc Fault Circuit Interruption	Optional							
General Data	**BNT003KTA**	**BNT004KTA**	**BNT005KTA**	**BNT006KTA**	**BNT008KTA**	**BNT010KTA**	**BNT012KTA**	**BNT015KTA**
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					
Noise Emission (db)	<30		<40					<51
Night Power Consumption (W)	<1							
Max. Operation Altitude (m)	2000							
Certifications and Standards	**BNT003KTA**	**BNT004KTA**	**BNT005KTA**	**BNT006KTA**	**BNT008KTA**	**BNT010KTA**	**BNT012KTA**	**BNT015KTA**
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							