



**BUREAU
VERITAS**

Certificate of compliance

Manufacturer / applicant: **AFORE NEW ENERGY TECHNOLOGY (SHANGHAI) Co., Ltd.**
1st & 2nd Floor, B Building, Business Building, No. 2 Building,
No. 1588, Lianhang Road, Minhang District, Shanghai
China

Product type: **Photovoltaic inverter**

Model:
BNT003KTL
BNT004KTL
BNT005KTL
BNT006KTL
BNT008KTL
BNT010KTL

The certificate refers to the stated model(s) which passed the tests according to the applicable standard(s):

UNE 217001:2015 IN

Requirements and tests for systems intended to avoid the energy transmission to the distribution network

RD 1699:2011

Regulation for connection to the network of installations for the production of electrical energy with small power.

RD 661:2007

Regulates for the activity of production of electrical energy in special regime

RD 413:2014

Regulation for the activity of production of electrical energy from renewable energy sources, cogeneration and waste

Report number: **AFR-19JY3078FCSHP-1**
AFR-19JY3078FCSHP-2

Certificate number: **U19-0629**

Date of issue: **2019-11-28**

Certification body


Holger Schaffer

Certification body of Bureau Veritas Consumer Products Services Germany GmbH
Accredited according to DIN EN ISO/IEC 17065

Ratings

Photovoltaic inverter:	BNT003KTL	BNT004KTL	BNT005KTL
Input DC voltage range [V]:	200-800 / max. 1000		
Input DC current [A]:	2 x 11		
Output AC voltage [V]:	230/400, 3/N/PE, 50/60Hz		
Output AC current [A]:	5,5	7	8,5
Output power [VA]:	3000	4000	5000
Photovoltaic inverter:	BNT006KTL	BNT008KTL	BNT010KTL
Input DC voltage range [V]:	200-800 / max. 1000	250-800 / max. 1000	300-800 / max. 1000
Input DC current [A]:	2 x 11		2 x 11
Output AC voltage [V]:	230/400, 3/N/PE, 50/60Hz		
Output AC current [A]:	10,5	13,5	17
Output power [VA]:	6000	8000	10000

Wattmeter / Power Analyser:	TAPM-50KW
Electrical ratings	
Operating Voltage Range Line to Neutral [Vac] Line to Line [Vac]	184 – 276 320 – 440
AC Frequency [Hz]	45 – 65
Grids Supported Three Phase	3P+N
Power Consumption (typ.) [W]	≤0,4
Accuracy [%]	1
Rating current [A]	72,5
Max current [A]	80
Connection for measurement	direct connected
Communications	
Supported communication interface:	RS485
Communication protocol:	Modbus
Response time:	≤50ms

Ratings

Note:

The TAPM-50KW is designed for a regulated working temperature of -25°C till +60°C.

Error limit caused by current change

Active percentage error limit value energy meter under balance load

Type	Current range	Power factor	Percentage error limit of each class of meter (%)		
			0.5S	Class 1	Class 2
Via transformer	$0.01I_n \leq I < 0.05I_n$	1	±1.0	±1.5	±2.0
	$0.05I_n \leq I \leq I_{max}$	1	±0.5	±1.0	±1.2
	$0.02I_n \leq I < 0.1I_n$	0.5L 0.8C	±1.0	±1.5	±2.0
	$0.1I_n \leq I \leq I_{max}$	0.5L 0.8C	±1.0	±1.0	±1.2
Direct connected	$0.05I_b \leq I < 0.1I_b$	1	-	±1.5	±2.0
	$0.1I_b \leq I \leq I_{max}$	1	-	±1.0	±1.2
	$0.01I_b \leq I < 0.2I_b$	0.5L 0.8C	-	±1.5	±2.0
	$0.2I_b \leq I \leq I_{max}$	0.5L 0.8C	-	±1.0	±1.2
	$0.01I_n \leq I < 0.05I_n$	1	±1.0	±1.5	±2.0
Notes	I_n : secondary rated current of current transformer I_b : calibrated current of the meter L: Conductive ; C : Capacitive				

Active percentage error limit value of energy meters under unbalance load

For direct connected meters	For transformer operated meters	Power factor	Percentage error limit of each class of meter (%)		
			0.5S	Class 1	Class 2
$0.1 I_b / I_{max}$	$0.05I_n / I_{max}$	1	±0.6	±2.0	±3.0
$0.2I_b / I_{max}$	$0.1I_n / I_{max}$	0.5L	±1.0	±2.0	±3.0

The test system is designed for the use of one photovoltaic inverter together with the power analyser.