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: **BNT015KTL**
BNT017KTL
BNT020KTL
BNT025KTL
BNT030KTL

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-19JY3139FCSHP-1**
AFR-19JY3139FCSHP-2

Certificate number: **U19-0628**

Date of issue: **2019-11-29**

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:	BNT015KTL	BNT017KTL	BNT020KTL	BNT025KTL	BNT030KTL
Input DC voltage range [V]:	300-800				
Input DC current [A]:	22 + 11	2 x 21	2 x 22	2 x 21	2 x 22
Output AC voltage [V]:	230/400, 3P+N+PE/3P+PE, 50/60Hz				
Output AC current [A]:	27	30	32	40	45
Output power [VA]:	15000	17000	20000	25000	30000

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	0.01In≤I＜0.05In	1	±1.0	±1.5	±2.0
	0.05In≤I≤Imax	1	±0.5	±1.0	±1.2
	0.02In≤I＜0.1In	0.5L 0.8C	±1.0	±1.5	±2.0
	0.1In≤I≤Imax	0.5L 0.8C	±1.0	±1.0	±1.2
Direct connected	0.05Ib≤I＜0.1Ib	1	-	±1.5	±2.0
	0.1Ib≤I≤Imax	1	-	±1.0	±1.2
	0.01Ib≤I＜0.2Ib	0.5L 0.8C	-	±1.5	±2.0
	0.2Ib≤I≤Imax	0.5L 0.8C	-	±1.0	±1.2
	0.01In≤I＜0.05In	1	±1.0	±1.5	±2.0
Notes	In：secondary rated current of current transformer Ib：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.