

Certificate of Conformity

Certificate Number: CN-PVES-260240

On the basis of the tests undertaken, the sample<s> of the below product have been found to comply with the requirements of the referenced specification<s>/standard<s> at the time the tests were carried out. It does not imply that Intertek has performed any surveillance or control of the manufacture(s). The manufacturer(s) shall ensure that the manufacturing process assures compliance of the production units with the examined products mentioned in this certificate.

Applicant:

Afore New Energy Technology (Shanghai) Co., Ltd.
Building 7, No.333 Wanfang Rd, Minhang District, Shanghai, China. 201112

Manufacturer:

Afore New Energy Technology (Shanghai) Co., Ltd.
Building 7, No.333 Wanfang Rd, Minhang District, Shanghai, China. 201112

Factory:

See appendix of Certificate of Conformity

Product:

PV inverter

Ratings & Principle Characteristics:

See appendix of Certificate of Conformity

Model:

BNT*KTL (*=070, 075, 080, 090, 100, 110),
BNT*KTA (*=040, 050, 060)

Brand Name<s>:

Afore

Product Complies with:

COMMISSION REGULATION (EU) 2016/631 of 14 April 2016 establishing a network code on requirements for grid connection of generators
PSE:May 2025: Wymogi Ogólnego Stosowania wynikające z rozporządzenia komisji UE 2016/631 z dnia 14 kwietnia 2016 r. ustanawiającego kodeks sieci dotyczący wymogów w zakresie przyłączenia jednostek wytwórczych do sieci - zatwierdzone Decyzją Prezesa Urzędu Regulacji Energetyki DRE.WOSE.7128.550.2.2018.ZJ z dnia 2 stycznia 2019 r.
PTPIREE, 2024: Conditions and procedures for the use of certificates in the process of connecting power generation modules to power grids.
Type approval for Type A and B PPMs
Type 1a product certification scheme according to ISO/IEC 17067:2013
Certification procedure SMS-PV-OP-19
Intertek Testing Services Ltd. Shanghai
West Area, 2nd Floor, No. 707, Zhangyang Road
China (Shanghai) Pilot Free Trade Zone, Shanghai, P. R. China
Accredited by ACCREDIA in accordance with ISO/IEC 17065:2012
See appendix of Certificate of Conformity

Certificate Issuing Office

Name & Address:

Testing Location

Name & Address:

Test Report No.<s>:

2605B1473SHA-001, June 13, 2026

Additional information in Appendix.

Signature

Certification Manager: Grady Ye

Issue Date: 25 June 2026

Valid Until: 24 June 2031



01886

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APPENDIX: Certificate of Conformity

This is an Appendix to Certificate of Conformity Number: CN-PVES-260240

Factory: Afore New Energy Technology (Shanghai) Co., Ltd.
Building 7, No.333 Wanfang Rd, Minhang District, Shanghai, China. 201112
Testing Location: Intertek Testing Services (Shanghai FTZ) Co., Ltd.
Name & Address: Building No.86, 1198 Qinzhou Road (North), Shanghai 200233, China

The following functionalities have been assessed based on the rules for the use of certificate for Power Park Modules (PPMs), as specified in chapter 6 of the PTPIREE 2024-10 (WiPWC 1.3). The functions denoted "Not Applicable" in the table of chapter 6 has not been included.

Capability	NC RfG	PSE 2025-05	Type A	Type B	Assessment result(**)
Frequency range	13.1(a)	13.1(a)(i)	x	x	Compliant
Rate of Change of Frequency (ROCOF) Withstand capability, df/dt	13.1(b)	13.1(b)	x	x	Compliant
Remote cessation of active power	13.6	13.6	x	x	Compliant
Remote control of active power	14.2	14.2(b)		x	Compliant
Limited Frequency Sensitive Mode – Over frequency (LFSM-O)	13.2(*)	13.2(a), (b), (f)	x	x	Compliant
Capability to withstand voltage dips for connection below 110V	14.3	14.3(a)(i), (b)		x	Compliant
Fast fault current Injection, symmetric and asymmetric faults	20.2(b), (c), 21.3(e)	20.2(b), (c), 21.3(e)		x	Compliant
Active power recovery after fault clearance	20.3	20.3(a)		x	Compliant

(*) Article 13.2(b) only applicable for type A PPMs according to NC RfG

(**) Please note also the corresponding conditions for compliance.

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Model	BNT070K TL	BNT075K TL	BNT080K TL	BNT090K TL	BNT100K TL	BNT110K TL
Input (PV)						
Max. input voltage	1100 VDC					
MPPT voltage range	200~1000 VDC					
Max. input current per MPPT	38A					
Max. short-circuit current	48A					
Number of MPP trackers	6					
Max. input number per MPP tracker	2					
Output (On Grid)						
Rated output power	70kW	75kW	80kW	90kW	100kW	110kW
Max. apparent power	70kVA	75kVA	80kVA	90kVA	100kVA	110kVA
Max. output current	111A	120A	127A	143A	158A	159.5A
Rated output voltage	3P+N+PE/3P+PE 230/400V					
Rated AC grid frequency	50Hz					
Adjustable power factor	0.8 leading~ 0.8 lagging					
General Data						
Operating temperature range	-25 ~ + 60 °C					
Degree of protection	IP66					
FW Version	1.01					

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Model	BNT040KTA	BNT050KTA	BNT060KTA
Input (PV)			
Max. input voltage	750 VDC		
MPPT voltage range	200~600 VDC		
Max. input current per MPPT	38A		
Max. short-circuit current	48A		
Number of MPP trackers	6		
Max. input number per MPP tracker	2		
Output (On Grid)			
Rated output power	40kW	50kW	60kW
Max. apparent power	40kVA	50kVA	60kVA
Max. output current	120A	143A	158A
Rated output voltage	3P+PE/3P 133/230V		
Rated AC grid frequency	50Hz		
Adjustable power factor	0.8 leading~ 0.8 lagging		
General Data			
Operating temperature range	-25 ~ + 60 °C		
Degree of protection	IP66		
FW Version	1.01		

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Set of protection settings:

Type A

Criterion	Required setting		Minimum required setting range	Inverter action
Undervoltage protection U<	0,85 U_n = 195,5 V;	t=1,2 s	t = 0 – 10 s	Stop generation after a time delay of 1,2 s
Overvoltage protection, 1st stage U>	1,1 U_n = 253 V*	t=3 s	t = 0 – 10 s	Stop generation after a time delay of 3 s
Overvoltage protection, 2nd stage U>>	1,15 U_n = 264,5 V	t=0,1 s	t = 0 – 10 s;	Stop generation after a time delay of 0,1 s
Underfrequency protection f<	47,5 Hz;	t=1 s	t = 0 – 10 s	Stop generation after a time delay of 1 s
Overfrequency protection f>	51,5 Hz;	t=0,3 s	t = 0 – 10 s	Stop generation after a time delay of 0,3 s
Loss of mains protection - RoCoF df/dt criterion	2,5 Hz/s;	t _{max} =0,5 s	t = 0 – 10 s	Stop generation – maximum operating time 0,5 s

Parameter setting

Safety

* Safety

Poland A

Low voltage protection

* UnderVolt ON/OFF

Enable

* VoltProtectStage

Level 1

* GridVoltMin1

195.5

V

* GridVoltMinTime1

1.20

s

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10 minutes overvoltage protection

* 10minOverVolt ON/OFF

Enable

* 10minGridVoltMax

253.0

V

* 10minGridVoltMaxTime

3.00

Over voltage protection

* OverVolt ON/OFF

Enable

* VoltProtectStage

Level 1

* GridVoltMax1

264.5

V

* GridVoltMaxTime1

0.10

s

Low frequency protection

* UnderFreq ON/OFF

Enable

* FreqProtectStage

Level 1

* GridFreqMin1

47.50

Hz

* GridFreqMinTime1

1.00

s

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Over frequency protection

* OverFreq ON/OFF

Enable

* FreqProtectStage

Level 1

* GridFreqMax1

51.50

Hz

* GridFreqMaxTime1

0.30

s

ROCOF

* ROCOF

2.50

Hz/s

* ROCOF Time

0.50

s

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Type B

Criterion	Required setting		Minimum required setting range	Inverter action
Undervoltage protection $U <$	0,80 U_n	$t = 3$ s	$t = 0 - 10$ s	Stop generation after a time delay of 3 s
Overvoltage protection, 1st stage $U >$	1,1 U_n^*	$t = 3$ s	$t = 0 - 10$ s	Stop generation after a time delay of 3 s
Overvoltage protection, 2nd stage $U >>$	1,15 U_n	$t = 0,1$ s	$t = 0 - 10$ s;	Stop generation after a time delay of 0,1 s
Underfrequency protection $f <$	47,5 Hz;	$t = 1$ s	$t = 0 - 10$ s	Stop generation after a time delay of 1 s
Overfrequency protection $f >$	51,5 Hz;	$t = 0,3$ s	$t = 0 - 10$ s	Stop generation after a time delay of 0,3 s
Loss of mains protection - RoCoF df/dt criterion	2 Hz/s;	$t_{max} = 0,2$ s	$t = 0 - 10$ s	Stop generation – maximum operating time 0,2 s

Parameter setting

Safety

* Safety

Poland B LV

Safety

* Safety

Poland B MV

Low voltage protection

* UnderVolt ON/OFF

Enable

* VoltProtectStage

Level 1

* GridVoltMin1

184.0

V

* GridVoltMinTime1

3.00

s

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10 minutes overvoltage protection

* 10minOverVolt ON/OFF

Enable

* 10minGridVoltMax

253.0

V

* 10minGridVoltMaxTime

3.00

Over voltage protection

* OverVolt ON/OFF

Enable

* VoltProtectStage

Level 1

* GridVoltMax1

264.5

V

* GridVoltMaxTime1

0.10

s

Low frequency protection

* UnderFreq ON/OFF

Enable

* FreqProtectStage

Level 1

* GridFreqMin1

47.50

Hz

* GridFreqMinTime1

1.00

s

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Over frequency protection

* OverFreq ON/OFF

Enable

* FreqProtectStage

Level 1

* GridFreqMax1

51.50

Hz

* GridFreqMaxTime1

0.30

s

ROCOF

* ROCOF

2.00

Hz/s

* ROCOF Time

0.20

s

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Confirmation of the presence in the device of a non-removable and non-modifiable record of the changes made to the product/device settings, with the assignment of information about the change made, along with the date on which it was made.

Firmware Upgrade [Upgrade Log](#)

Upgrade State ▾									
Upgraded Time ▴	Firmware Package	Target Version	Previous version	Related Version	Upgrade State	Parse Result	Reason of Failure ⓘ	Operator	Feedback Time ▴
16:59:03 2026/05/26 UTC+08:00	new_InvTp07Master App_Module_1006	110KW	4	Upgrade Flag Bit	Succeeded	4	--	杨亚洲	17:03:00 2026/05/26 UTC+08:00
1 50/page ▴ Go to 1 Page Total 1									



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A set of settings dedicated to Poland, version Poland A/ Poland B LV/ Poland B MV.

We hereby confirm that the device supports the Sunspec communication protocol (models 1,703 and 715) via the RS-485 input port. Remote control via RS-485 (Modbus RTU) is implemented in the device and functions correctly, at least to the following functions:

- Remote stopping and restarting of active power generation (model 715),
- Full-range active power control by setting the active power value, expressed as a percentage of the inverter's rated power (model 703),
- Changing the generated reactive power/setting the $\cos \phi$ value (model 703).

Safety

* Safety

Poland A

Safety

* Safety

Poland B LV

Safety

* Safety

Poland B MV

Version Information

HMI Software Version Number: 1.65

Hardware Version: 1.01

Protocol Version: 1.01

Main DSP Software Version Number: 10.06

Vice DSP Software Version Number: 1.01

Upgrade Flag Bit: 4

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