

# **Test Verification of Conformity**

#### Verification Number: 240100596SHA-V2

On the basis of the referenced test report(s), sample(s) tested of the below product have been found to comply with the standards harmonized with the directives listed on this verification at the time the tests were carried out. Other standards and Directives may be relevant to the product. This verification is part of the full test report(s) and should be read in conjunction with it <them>.

Once compliance with all product relevant mark directives are verified, including any relevant e.g. risk assessment and production control, the manufacturer may indicate compliance by signing a Declaration of Conformity themselves and applying the mark to products identical to the tested sample(s).

Applicant Name & Address: Afore New Energy Technology (Shanghai) Co., Ltd.

Building 7, No.333 Wanfang Rd, Minhang District, Shanghai, China. 201112

Product Description: Hybrid inverter Ratings & Principle See Appendix

Characteristics:

Models/Type References: AF\*-ATH (\*=3K, 4K, 4.99K, 5K, 6K, 8K, 9.99K, 10K, 12K, 14.99K, 15K)

AF\*-ATH-0 (\*=3K, 4K, 4.99K, 5K, 6K, 8K, 9.99K, 10K, 12K, 14.99K, 15K)

AF\*-ATHA (\*=3K, 4K, 4.99K, 5K, 6K, 7K) AF\*-ATHA-0 (\*=3K, 4K, 4.99K, 5K, 6K, 7K)

Brand Name: Afore

Relevant Standards/Directives: EN 62477-1:2012+A11:2014+A1:2017+A12:2021

Verification Issuing Office Intertek Testing Services Shanghai

Name & Address: Building No.86, 1198 Qinzhou Road (North), Shanghai 200233, China

Date of Tests: 2024-04-17 to 2024-05-14
Test Report Number(s): 240100596SHA-003

Signature

Name: Max Jin

**Position: General Manager** 

Date: 2024-05-14



This is an Appendix to Test Verification of Conformity Number: 240100596SHA-V2

#### Ratings:

Model   AF3K-ATH   AF4K-ATH   AF4K-ATH   AF4K-ATH   AF5K-ATH	Specifications table					
PV input	Model					
Py Max (kW)		ALORAIII	ALTICATII	AI 4.55K ATTI	ALORATTI	
Vinax PV (Vdc) (absolute Max.)   1000   10		5	6	7.5	7.5	
Sec PV (absolute Max.) (A)						
Number MPP trackers   2   2   2   2   2   2   2   2   2						
Number input strings						
Max. PV input current (A)         18.5°2         18.5°2         18.5°2         18.5°2         18.5°2         18.5°2         18.5°2         18.5°2         18.5°2         18.5°2         18.5°2         18.5°2         150-850         150-850         150-850         150-850         150-850         20.5         20.5         20.5         2						
MPPT voltage range (Vdc)         150-850         150-850         150-850         150-850         150-850         150-850         200-8						
Votc range @ full power (Vdc)         200-850         200-850         200-850         200-850           Battery (charge/discharge)         Battery (type         Li-ion/Lead-acid etc.           Battery Normal Voltage Range (Vdc)         80-600(Field adapt battery voltage range)           Max charge/discharge Current(A)         30         30         30         30           Max charge/discharge Power(kW)         3         4         4.99         5           AC Grid (input and output)         50         3P+N+PE/3P+PE 230/400         Frequency (Hz)         50           Normal AC Voltage (Vac)         3P+N+PE/3P+PE 230/400         50         50           Normal AC Current (A)         4.4         5.8         7.3         7.3           Max. cont. input/output current (A)         8/5.3         10.5/7         13/8.5         13/8.5           Rated Power (kW)         3         4         4.99         5           Rated Apparent Power (kW)         3         4         4.99         5           Max. cont. input/output Power (kW)         4.5/3.3         6/4.4         7.5/4.99         7.5/5.5           Max. cont. paparent input/output Power (kW)         4.5/3.3         6/4.4         7.5/4.99         7.5/5.5           Max. cont. data current (A)         4.4						
Battery (charge/discharge)           Battery Normal Voltage Range (Vdc)         80-600(Field adapt battery voltage range)           Max charge/discharge Current(A)         30         30         30         30           Max charge/discharge Power(kW)         3         4         4.99         5           AC Grid (input and output)         Normal AC Voltage (Vac)         3P+N+PE/3P+PE 230/400         Prequency (Hz)           Normal AC Current (A)         4.4         5.8         7.3         7.3           Max. cont. input/output current (A)         8/5.3         10.5 / 7         13 / 8.5         13 / 8.5           Rated Power (kW)         3         4         4.99         5           Rated Apparent Power (kWA)         3         4         4.99         5           Max. cont. input/output Power (kW)         4.5 / 3.3         6 / 4.4         7.5 / 4.99         7.5 / 5.5           Max. cont. Apparent input/output Power (kVA)         4.5 / 3.3         6 / 4.4         7.5 / 4.99         7.5 / 5.5           (kVA)         1.0(-0.8~+0.8)         AC Load output (stand-alone)         1.0(-0.8~+0.8)         AC Load output (stand-alone)           Normal Voltage (Vac)         3P+N+PE/3P+PE 230/400         5         8.5         8.5           Max. cont. current (A) <td< td=""><td></td><td></td><td></td><td></td><td></td></td<>						
Battery type		200 000	200 000	200 000	200 000	
Battery Normal Voltage Range (Vdc)   80-600(Field adapt battery voltage range)			Li-ion/Lea	nd-acid etc.		
Max charge/discharge Current(A)         30         30         30         30           Max charge/discharge Power(kW)         3         4         4.99         5           AC Grid (input and output)         Normal AC Voltage (Vac)         3P+N+PE/3P+PE 230/400           Frequency (Hz)         50           Normal AC Current (A)         4.4         5.8         7.3         7.3           Max. cont. input/output current (A)         8/5.3         10.5 / 7         13/8.5		80			ie)	
Max charge/discharge Power(kW)         3         4         4.99         5           AC Grid (input and output)         3P+N+PE/3P+PE 230/400           Normal AC Voltage (Vac)         50           Normal AC Current (A)         4.4         5.8         7.3         7.3           Max. cont. input/output current (A)         8 / 5.3         10.5 / 7         13 / 8.5         13 / 8.5           Rated Power (kW)         3         4         4.99         5           Rated Apparent Power (kVA)         3         4         4.99         5           Max. cont. input/output Power (kW)         4.5 / 3.3         6 / 4.4         7.5 / 4.99         7.5 / 5.5           Max. cont. Apparent input/output Power (kW)         4.5 / 3.3         6 / 4.4         7.5 / 4.99         7.5 / 5.5           Max. cont. Apparent input/output Power (kVA)         4.5 / 3.3         6 / 4.4         7.5 / 4.99         7.5 / 5.5           Max. cont. dajustable)         AC Load output (stand-alone)         3P.N+PE/3P+PE 230/400         7.5 / 5.5           Normal Voltage (Vac)         3P.N+PE/3P+PE 230/400         3P.N+P						
Normal AC Voltage (Vac)   3P+N+PE/3P+PE 230/400						
Normal AC Voltage (Vac)   3P+N+PE/3P+PE 230/400				1.00		
Normal AC Current (A)		~	3P+N+PF/3F	P+PF 230/400		
Normal AC Current (A)	<u> </u>					
Max. cont. input/output current (A)         8 / 5.3         10.5 / 7         13 / 8.5         13 / 8.5           Rated Power (kW)         3         4         4.99         5           Rated Apparent Power (kVA)         3         4         4.99         5           Max. cont. input/output Power (kW)         4.5 / 3.3         6 / 4.4         7.5 / 4.99         7.5 / 5.5           Max. cont. Apparent input/output Power (kVA)         4.5 / 3.3         6 / 4.4         7.5 / 4.99         7.5 / 5.5           Power factor(adjustable)         1.0(-0.8~+0.8)         7.5 / 4.99         7.5 / 5.5           AC Load output (stand-alone)         3P+N+PE/3P+PE 230/400         7.5 / 4.99         7.5 / 5.5           Normal Voltage (Vac)         3P+N+PE/3P+PE 230/400         3P+N+PE/3P+PE 230/400         3P+N+PE/3P+PE 230/400           Frequency (Hz)         50         50         50         50           Nominal Current (A)         4.4         5.8         7.3         7.3           Max. cont. current (A)         5.3         7         8.5         8.5           Max. cont. Power (kW)         3         4         4.99         5           Rated Apparent Power (kVA)         3         4         4.99         5           Max. cont. Apparent Power (kVA)		4 4	5.8	7.3	7.3	
Rated Power (kW)       3       4       4.99       5         Rated Apparent Power (kVA)       3       4       4.99       5         Max. cont. input/output Power (kW)       4.5 / 3.3       6 / 4.4       7.5 / 4.99       7.5 / 5.5         Max. cont. Apparent input/output Power (kVA)       4.5 / 3.3       6 / 4.4       7.5 / 4.99       7.5 / 5.5         AC Load output (stand-alone)         Normal Voltage (Vac)       3P+N+PE/3P+PE 230/400         Frequency (Hz)         Nominal Current (A)       4.4       5.8       7.3       7.3         Max. cont. current (A)       5.3       7       8.5       8.5         Max. cont. Power (kW)       3       4       4.99       5         Rated Apparent Power (kVA)       3       4       4.99       5         Max. cont. Apparent Power (kVA)       3       4       4.99       5         Power factor       1.0       1.0       0         Others       1       1.0       1.0         Ingress protection (IP)       IP66       1.0       1.0       1.0         Protective class       Class I       1.0       1.0       1.0       1.0       1.0       1.0       1.0       1.0						
Rated Apparent Power (kVA)         3         4         4.99         5           Max. cont. input/output Power (kVA)         4.5 / 3.3         6 / 4.4         7.5 / 4.99         7.5 / 5.5           Max. cont. Apparent input/output Power (kVA)         4.5 / 3.3         6 / 4.4         7.5 / 4.99         7.5 / 5.5           Power factor(adjustable)         1.0(-0.8~ +0.8)         7.5 / 4.99         7.5 / 5.5           AC Load output (stand-alone)         3P+N+PE/3P+PE 230/400         7.5 / 5.5           Normal Voltage (Vac)         3P+N+PE/3P+PE 230/400         7.3           Frequency (Hz)         50         7.3         7.3           Nominal Current (A)         4.4         5.8         7.3         7.3           Max. cont. current (A)         5.3         7         8.5         8.5           Max. cont. Power (kW)         3         4         4.99         5           Rated Apparent Power (kVA)         3         4         4.99         5           Max. cont. Apparent Power (kVA)         3         4         4.99         5           Power factor         1.0         1.0         1.0           Others         1.0         1.0         1.0           Others         1.0         1.0         1.0						
Max. cont. input/output Power (kW)         4.5/3.3         6/4.4         7.5/4.99         7.5/5.5           Max. cont. Apparent input/output Power (kVA)         4.5/3.3         6/4.4         7.5/4.99         7.5/5.5           Max. cont. Apparent input/output Power (kVA)         4.5/3.3         6/4.4         7.5/4.99         7.5/5.5           Power factor (adjustable)         1.0(-0.8~ +0.8)         1.0(-0.8~ +0.8)         1.0(-0.8~ +0.8)         1.0           AC Load output (stand-alone)         3P+N+PE/3P+PE 230/400         1.0         1.0         1.0           Frequency (Hz)         50         50         1.0         1.0           Nominal Current (A)         4.4         5.8         7.3         7.3           Max. cont. current (A)         5.3         7         8.5         8.5           Max. cont. Power (kW)         3         4         4.99         5           Rated Apparent Power (kVA)         3         4         4.99         5           Max. cont. Apparent Power (kVA)         3         4         4.99         5           Power factor         1.0         1.0         1.0           Others           Ingress protection (IP)         IP66         1.0         1.0           Power factor<						
Max. cont. Apparent input/output Power (kVA)       4.5 / 3.3       6 / 4.4       7.5 / 4.99       7.5 / 5.5         Power factor (adjustable)         AC Load output (stand-alone)         Normal Voltage (Vac)         Frequency (Hz)         50         Nominal Current (A)       4.4       5.8       7.3       7.3         Max. cont. current (A)       5.3       7       8.5       8.5         Max. cont. Power (kW)       3       4       4.99       5         Rated Apparent Power (kVA)       3       4       4.99       5         Max. cont. Apparent Power (kVA)       3       4       4.99       5         Power factor       1.0         Others         Ingress protection (IP)       IP66         Protective class       Class I         Temperature (°C)       -25°C to +60°C (Derating 45°C)         Inverter Isolation       Non-isolated (PV - AC - BAT)         Overvoltage category       OVC III (AC Main), OVC II (DC)				11.00	-	
Description	Max. cont. Apparent input/output Power					
AC Load output (stand-alone)           Normal Voltage (Vac)         3P+N+PE/3P+PE 230/400           Frequency (Hz)         50           Nominal Current (A)         4.4         5.8         7.3         7.3           Max. cont. current (A)         5.3         7         8.5         8.5           Max. cont. Power (kW)         3         4         4.99         5           Rated Apparent Power (kVA)         3         4         4.99         5           Max. cont. Apparent Power (kVA)         3         4         4.99         5           Power factor         1.0         1.0           Others         Ingress protection (IP)         IP66           Protective class         Class I           Temperature (°C)         -25°C to +60°C (Derating 45°C)           Inverter Isolation         Non-isolated (PV - AC - BAT)           Overvoltage category         OVC III (AC Main), OVC II (DC)		1.0( -0.8~ +0.8)				
Normal Voltage (Vac)         3P+N+PE/3P+PE 230/400           Frequency (Hz)         50           Nominal Current (A)         4.4         5.8         7.3         7.3           Max. cont. current (A)         5.3         7         8.5         8.5           Max. cont. Power (kW)         3         4         4.99         5           Rated Apparent Power (kVA)         3         4         4.99         5           Max. cont. Apparent Power (kVA)         3         4         4.99         5           Power factor         1.0         1.0           Others         Ingress protection (IP)         IP66           Protective class         Class I           Temperature (°C)         -25°C to +60°C (Derating 45°C)           Inverter Isolation         Non-isolated (PV - AC - BAT)           Overvoltage category         OVC III (AC Main), OVC II (DC)				/		
Frequency (Hz)         50           Nominal Current (A)         4.4         5.8         7.3         7.3           Max. cont. current (A)         5.3         7         8.5         8.5           Max. cont. Power (kW)         3         4         4.99         5           Rated Apparent Power (kVA)         3         4         4.99         5           Max. cont. Apparent Power (kVA)         3         4         4.99         5           Power factor         1.0         1.0           Others           Ingress protection (IP)         IP66           Protective class         Class I           Temperature (°C)         -25°C to +60°C (Derating 45°C)           Inverter Isolation         Non-isolated (PV - AC - BAT)           Overvoltage category         OVC III (AC Main), OVC II (DC)			3P+N+PE/3F	P+PE 230/400		
Nominal Current (A)         4.4         5.8         7.3         7.3           Max. cont. current (A)         5.3         7         8.5         8.5           Max. cont. Power (kW)         3         4         4.99         5           Rated Apparent Power (kVA)         3         4         4.99         5           Max. cont. Apparent Power (kVA)         3         4         4.99         5           Power factor         1.0         1.0           Others         Class I         1.0           Protective class         Class I           Temperature (℃)         -25 ℃ to +60 ℃ (Derating 45 ℃)           Inverter Isolation         Non-isolated (PV - AC - BAT)           Overvoltage category         OVC III (AC Main), OVC II (DC)		_				
Max. cont. Power (kW)         3         4         4.99         5           Rated Apparent Power (kVA)         3         4         4.99         5           Max. cont. Apparent Power (kVA)         3         4         4.99         5           Power factor         1.0         1.0           Others           Ingress protection (IP)         IP66           Protective class         Class I           Temperature (°C)         -25°C to +60°C (Derating 45°C)           Inverter Isolation         Non-isolated (PV - AC - BAT)           Overvoltage category         OVC III (AC Main), OVC II (DC)	Nominal Current (A)	4.4	5.8	7.3	7.3	
Rated Apparent Power (kVA)         3         4         4.99         5           Max. cont. Apparent Power (kVA)         3         4         4.99         5           Power factor         1.0           Others         Ingress protection (IP)         IP66           Protective class         Class I           Temperature (°C)         -25°C to +60°C (Derating 45°C)           Inverter Isolation         Non-isolated (PV - AC - BAT)           Overvoltage category         OVC III (AC Main), OVC II (DC)	Max. cont. current (A)	5.3	-	8.5	8.5	
Max. cont. Apparent Power (kVA)         3         4         4.99         5           Power factor         1.0         1.0         Others         Image: Control of the co	Max. cont. Power (kW)		4	4.99		
Power factor         1.0           Others         Ingress protection (IP)           Ingress protection (IP)         IP66           Protective class         Class I           Temperature (°C)         -25°C to +60°C (Derating 45°C)           Inverter Isolation         Non-isolated (PV - AC - BAT)           Overvoltage category         OVC III (AC Main), OVC II (DC)	Rated Apparent Power (kVA)		4	4.99		
Others         Ingress protection (IP)       IP66         Protective class       Class I         Temperature (°C)       -25°C to +60°C (Derating 45°C)         Inverter Isolation       Non-isolated (PV - AC - BAT)         Overvoltage category       OVC III (AC Main), OVC II (DC)		3	4	4.99	5	
Ingress protection (IP)       IP66         Protective class       Class I         Temperature (°C)       -25°C to +60°C (Derating 45°C)         Inverter Isolation       Non-isolated (PV - AC - BAT)         Overvoltage category       OVC III (AC Main), OVC II (DC)		1.0				
Protective class       Class I         Temperature (°C)       -25°C to +60°C (Derating 45°C)         Inverter Isolation       Non-isolated (PV - AC - BAT)         Overvoltage category       OVC III (AC Main), OVC II (DC)	Others					
Temperature (°C)       -25°C to +60°C (Derating 45°C)         Inverter Isolation       Non-isolated (PV - AC - BAT)         Overvoltage category       OVC III (AC Main), OVC II (DC)	Ingress protection (IP)	IP66				
Inverter Isolation Non-isolated (PV - AC - BAT)  Overvoltage category OVC III (AC Main), OVC II (DC)	Protective class	Class I				
Overvoltage category OVC III (AC Main), OVC II (DC)	Temperature (℃)	-25°C to +60°C (Derating 45°C)				
	Inverter Isolation	Non-isolated (PV - AC - BAT)				
Firmware version 1.01	Overvoltage category	OVC III (AC Main), OVC II (DC)				
	Firmware version					



This is an Appendix to Test Verification of Conformity Number: 240100596SHA-V2

Specifications table					
Model	AF6K-ATH AF8K-ATH AF9.99K-ATH AF10K-AT				
PV input					
P pv Max (kW)	9	12	15	15	
Vmax PV (Vdc) (absolute Max.)	1000	1000	1000	1000	
Isc PV (absolute Max.) (A)	25*2	25*2	25*2	25*2	
Number MPP trackers	2	2	2	2	
Number input strings	2/2	2/2	2/2	2/2	
Max. PV input current (A)	18.5*2	18.5*2	18.5*2	18.5*2	
MPPT voltage range (Vdc)	150-850	150-850	150-850	150-850	
Vdc range @ full power (Vdc)	250-850	300-850	500-850	500-850	
Battery (charge/discharge)					
Battery type		Li-ion/Lea	nd-acid etc.		
Battery Normal Voltage Range (Vdc)		-600(Field adapt b	oattery voltage rang	ge)	
Max charge/discharge Current(A)	30	30	30	30	
Max charge/discharge Power(kW)	6	8	9.99	10	
AC Grid (input and output)					
Normal AC Voltage (Vac)		3P+N+PE/3F	P+PE 230/400		
Frequency (Hz)		Ę	50		
Normal AC Current (A)	8.7	11.6	14.5	14.5	
Max. cont. input/output current (A)	16 / 10.5	20 / 13.5	26 / 17	26 / 17	
Rated Power (kW)	6	8	9.99	10	
Rated Apparent Power (kVA)	6	8	9.99	10	
Max. cont. input/output Power (kW)	9 / 6.6	12 / 8.8	15 / 9.99	15 / 11	
Max. cont. Apparent input/output Power	9 / 6.6	12 / 8.8	15 / 9.99	15 / 11	
(kVA)	3 / 0.0			137 11	
Power factor(adjustable)	1.0( -0.8~ +0.8)				
AC Load output (stand-alone)					
Normal Voltage (Vac)	3P+N+PE/3P+PE 230/400				
Frequency (Hz)			50		
Nominal Current (A)	8.7	11.6	14.5	14.5	
Max. cont. current (A)	10.5	13.5	17	17	
Max. cont. Power (kW)	6	8	9.99	10	
Rated Apparent Power (kVA)	6	8	9.99	10	
Max. cont. Apparent Power (kVA)	6	8	9.99	10	
Power factor Others	1.0				
		IF	266		
Ingress protection (IP)	IP66				
Protective class	Class I				
Temperature (°C)	-25°C to +60°C (Derating 45°C)				
Inverter Isolation	Non-isolated (PV - AC - BAT)				
Overvoltage category	OVC III (AC Main), OVC II (DC)				
Firmware version	1.01				



This is an Appendix to Test Verification of Conformity Number: 240100596SHA-V2

Specifications table				
Model	AF12K-ATH AF14.99K-ATH AF15K-ATH			
PV input	7.1. 1.2.1.71111	7	, , <b>.</b> , ,	
P pv Max (kW)	18	22.5	22.5	
Vmax PV (Vdc) (absolute Max.)	1000	1000	1000	
Isc PV (absolute Max.) (A)	25*2	25*2	25*2	
Number MPP trackers	2	2	2	
Number input strings	2/2	2/2	2/2	
Max. PV input current (A)	18.5*2	18.5*2	18.5*2	
MPPT voltage range (Vdc)	150-850	150-850	150-850	
Vdc range @ full power (Vdc)	500-850	500-850	500-850	
Battery (charge/discharge)				
Battery type	/	Li-ion/Lead		
Battery Normal Voltage Range (Vdc)		0-600(Field adapt ba	ttery voltage range)	
Max charge/discharge Current(A)	30	50	50	
Max charge/discharge Power(kW)	12	14.99	15	
AC Grid (input and output)				
Normal AC Voltage (Vac)		3P+N+PE/3P+	PE 230/400	
Frequency (Hz)	0	50		
Normal AC Current (A)	17.4	21.8	21.8	
Max. cont. input/output current (A)	32 / 21.5	40.5 / 27	40.5 / 27	
Rated Power (kW)	12	14.99	15	
Rated Apparent Power (kVA)	12	14.99	15	
Max. cont. input/output Power (kW)	18 / 13.2	22.5 / 14.99	22.5 / 16.5	
Max. cont. Apparent input/output Power (kVA)	18 / 13.2	22.5 / 14.99	22.5 / 16.5	
Power factor(adjustable)		1.0( -0.8	~ +0.8)	
AC Load output (stand-alone)				
Normal Voltage (Vac)		3P+N+PE/3P+	PE 230/400	
Frequency (Hz)		50		
Nominal Current (A)	17.4	21.8	21.8	
Max. cont. current (A)	21.5	27	27	
Max. cont. Power (kW)	12	14.99	15	
Rated Apparent Power (kVA)	12	14.99	15	
Max. cont. Apparent Power (kVA)	12	14.99	15	
Power factor	1.0			
Others				
Ingress protection (IP)	IP66			
Protective class	Class I			
Temperature (°C)	-25°C to +60°C (Derating 45°C)			
Inverter Isolation	Non-isolated (PV - AC - BAT)			
Overvoltage category	OVC III (AC Main), OVC II (DC)			
Firmware version	1.01			



This is an Appendix to Test Verification of Conformity Number: 240100596SHA-V2

Specifications table					
Model	AF3K-ATH-0	AF4K-ATH-0	AF4.99K-ATH- 0	AF5K-ATH-0	
Battery (charge/discharge)					
Battery type			d-acid etc.		
Battery Normal Voltage Range (Vdc)		-800(Field adapt b	attery voltage rang		
Max charge/discharge Current(A)	30*2	30*2	30*2	30*2	
Max charge/discharge Power(kW)	3 / 3.3	4 / 4.4	4.99	5 / 5.5	
AC Grid (input and output)					
Normal AC Voltage (Vac)	//	3P+N+PE/3F	P+PE 230/400		
Frequency (Hz)	/ 1	5	50		
Normal AC Current (A)	4.4	5.8	7.3	7.3	
Max. cont. input/output current (A)	8 / 5.3	10.5 / 7	13 / 8.5	13 / 8.5	
Rated Power (kW)	3	4	4.99	5	
Rated Apparent Power (kVA)	3	4	4.99	5	
Max. cont. input/output Power (kW)	4.5 / 3.3	6 / 4.4	7.5 / 4.99	7.5 / 5.5	
Max. cont. Apparent input/output Power (kVA)	4.5 / 3.3	6 / 4.4	7.5 / 4.99	7.5 / 5.5	
Power factor(adjustable)	1.0( -0.8~ +0.8)				
AC Load output (stand-alone)					
Normal Voltage (Vac)	3P+N+PE/3P+PE 230/400				
Frequency (Hz)			50		
Nominal Current (A)	4.4	5.8	7.3	7.3	
Max. cont. current (A)	5.3	7	8.5	8.5	
Max. cont. Power (kW)	3	4	4.99	5	
Rated Apparent Power (kVA)	3	4	4.99	5	
Max. cont. Apparent Power (kVA)	3	4	4.99	5	
Power factor	1.0				
Others					
Ingress protection (IP)	IP66				
Protective class	Class I				
Temperature (°C)	- 8	-25°C to +60°C	(Derating 45°C)		
Inverter Isolation	Non-isolated (AC - BAT)				
Overvoltage category	OVC III (AC Main), OVC II (DC)				
Firmware version	1.01				



This is an Appendix to Test Verification of Conformity Number: 240100596SHA-V2

	Specifications table				
Model	AF6K-ATH-0	AF8K-ATH-0	AF9.99K-ATH- 0	AF10K-ATH-0	
Battery (charge/discharge)					
Battery type			ıd-acid etc.		
Battery Normal Voltage Range (Vdc)			attery voltage ran		
Max charge/discharge Current(A)	30*2	30*2	30*2	30*2	
Max charge/discharge Power(kW)	6 / 6.6	8 / 8.8	9.99	10 / 11	
AC Grid (input and output)					
Normal AC Voltage (Vac)	// 1		P+PE 230/400		
Frequency (Hz)	/ 1	Ę	50		
Normal AC Current (A)	8.7	11.6	14.5	14.5	
Max. cont. input/output current (A)	16 / 10.5	20 / 13.5	26 / 17	26 / 17	
Rated Power (kW)	6	8	9.99	10	
Rated Apparent Power (kVA)	6	8	9.99	10	
Max. cont. input/output Power (kW)	9 / 6.6	12 / 8.8	15 / 9.99	15 / 11	
Max. cont. Apparent input/output Power (kVA)	9 / 6.6	12 / 8.8	15 / 9.99	15 / 11	
Power factor(adjustable)	)	1.0( -0.	8~ +0.8)		
AC Load output (stand-alone)					
Normal Voltage (Vac)			P+PE 230/400		
Frequency (Hz)			50		
Nominal Current (A)	8.7	11.6	14.5	14.5	
Max. cont. current (A)	10.5	13.5	17	17	
Max. cont. Power (kW)	6	8	9.99	10	
Rated Apparent Power (kVA)	<u>6</u> 6	8 8	9.99 9.99	10 10	
Max. cont. Apparent Power (kVA)	0			10	
Power factor	1.0				
Others					
Ingress protection (IP)	IP66				
Protective class	Class I				
Temperature (°C)	-25°C to +60°C (Derating 45°C)				
Inverter Isolation	Non-isolated (AC - BAT)				
Overvoltage category	OVC III (AC Main), OVC II (DC)				
Firmware version	1.01				

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This is an Appendix to Test Verification of Conformity Number: 240100596SHA-V2

Specifications table					
Model	AF12K-ATH-0 AF14.99K-ATH-0 AF15K-ATH-0				
Battery (charge/discharge)					
Battery type		Li-ion/Lead			
Battery Normal Voltage Range (Vdc)		-800(Field adapt ba		)	
Max charge/discharge Current(A)	30*2	30*2	30*2		
Max charge/discharge Power(kW)	12 / 13.2	14.99	15 / 16.5		
AC Grid (input and output)					
Normal AC Voltage (Vac)	//	3P+N+PE/3P+			
Frequency (Hz)		50			
Normal AC Current (A)	17.4	21.8	21.8		
Max. cont. input/output current (A)	32 / 21.5	40.5 / 27	40.5 / 27		
Rated Power (kW)	12	14.99	15		
Rated Apparent Power (kVA)	12	14.99	15		
Max. cont. input/output Power (kW)	18 / 13.2	22.5 / 14.99	22.5 / 16.5		
Max. cont. Apparent input/output Power (kVA)	18 / 13.2	22.5 / 14.99	22.5 / 16.5		
Power factor(adjustable)	)	1.0( -0.8	~ +0.8)		
AC Load output (stand-alone)					
Normal Voltage (Vac)		3P+N+PE/3P+			
Frequency (Hz)		50			
Nominal Current (A)	17.4	21.8	21.8		
Max. cont. current (A)	21.5	27	27		
Max. cont. Power (kW)	12 12	14.99 14.99	15 15		
Rated Apparent Power (kVA)  Max. cont. Apparent Power (kVA)	12	14.99	15		
Power factor	12				
	1.0				
Others					
Ingress protection (IP)		IP6	66		
Protective class	Class I				
Temperature (℃)	-25°C to +60°C (Derating 45°C)				
Inverter Isolation	Non-isolated (AC - BAT)				
Overvoltage category	OVC III (AC Main), OVC II (DC)				
Firmware version	1.01				



This is an Appendix to Test Verification of Conformity Number: 240100596SHA-V2

Specifications table					
Model	AF3K-ATHA	AF4K-ATHA	AF4.99K-ATHA	AF5K-ATHA	
PV input					
P pv Max (kW)	5	6	7.5	7.5	
Vmax PV (Vdc) (absolute Max.)	600	600	600	600	
Isc PV (absolute Max.) (A)	25*2	25*2	25*2	25*2	
Number MPP trackers	2	2	2	2	
Number input strings	2/2	2/2	2/2	2/2	
Max. PV input current (A)	18.5*2	18.5*2	18.5*2	18.5*2	
MPPT voltage range (Vdc)	100-550	100-550	100-550	100-550	
Vdc range @ full power (Vdc)	120-550	150-550	200-550	200-550	
Battery (charge/discharge)					
Battery type			ad-acid etc.		
Battery Normal Voltage Range (Vdc)		-450(Field adapt I	battery voltage rang		
Max charge/discharge Current(A)	30	30	30	30	
Max charge/discharge Power(kW)	3	4	4.99	5	
AC Grid (input and output)					
Normal AC Voltage (VAC)		3P+PE/3	P 133/230		
Frequency (Hz)			50		
Normal AC Current (A)	7.6	10.1	12.6	12.6	
Max. cont. input/output current (A)	16 / 10.5	20 / 13.5	26 / 17	26 / 17	
Rated Power (kW)	3	4	4.99	5	
Rated Apparent Power (kVA)	3	4	4.99	5	
Max. cont. input/output Power (kW)	4.5 / 3.3	6 / 4.4	7.5 / 4.99	7.5 / 5.5	
Max. cont. Apparent input/output Power (kVA)	4.5 / 3.3	6 / 4.4	7.5 / 4.99	7.5 / 5.5	
Power factor(adjustable)	1.0( -0.8~ +0.8)				
AC Load output (stand-alone)		· · ·	·		
Normal Voltage (VAC)		3P+PE/3	P 133/230		
Frequency (Hz)	\ I		50		
Nominal Current (A)	7.6	10.1	12.6	12.6	
Max. cont. current (A)	10.5	13.5	17	17	
Max. cont. Power (kW)	3	4	4.99	5	
Rated Apparent Power (kVA)	3	4	4.99	5	
Max. cont. Apparent Power (kVA)	3	4	4.99	5	
Power factor	1.0				
Others					
Ingress protection (IP)	IP66				
Protective class	Class I				
Temperature (°C)	-25°C to +60°C (Derating 45°C)				
Inverter Isolation	Non-isolated (PV - AC - BAT)				
Overvoltage category	OVC III (AC Main), OVC II (DC)				
Firmware version	1.01				



This is an Appendix to Test Verification of Conformity Number: 240100596SHA-V2

Specifications table				
Model	AF6K-ATHA AF7K-ATHA			
PV input				
P pv Max (kW)	9	10.5		
Vmax PV (Vdc) (absolute Max.)	600	600		
Isc PV (absolute Max.) (A)	25*2	25*2		
Number MPP trackers	2	2		
Number input strings	2/2	2/2		
Max. PV input current (A)	18.5*2	18.5*2		
MPPT voltage range (Vdc)	100-550	100-550		
Vdc range @ full power (Vdc)	250-550	300-550		
Battery (charge/discharge)				
Battery type	/		d-acid etc.	
Battery Normal Voltage Range (Vdc)		-450(Field adapt b	pattery voltage range)	
Max charge/discharge Current(A)	30	30		
Max charge/discharge Power(kW)	6	7		
AC Grid (input and output)				
Normal AC Voltage (VAC)		3P+PE/3	P 133/230	
Frequency (Hz)		5	50	
Normal AC Current (A)	15.1	17.6		
Max. cont. input/output current (A)	32 / 21.5	32 / 25		
Rated Power (kW)	6	7		
Rated Apparent Power (kVA)	6	7		
Max. cont. input/output Power (kW)	9 / 6.6	10.5 / 7.7		
Max. cont. Apparent input/output Power	9 / 6.6	10.5 / 7.7	//	
(kVA)	0, 0.0			
Power factor(adjustable)	1.0( -0.8~ +0.8)			
AC Load output (stand-alone)	OD DE (OD 400 (000			
Normal Voltage (VAC)	3P+PE/3P 133/230 50			
Frequency (Hz)  Nominal Current (A)	15.1	17.6	I I	
Max. cont. current (A)	21.5	25		
Max. cont. Power (kW)	6	7		
Rated Apparent Power (kVA)	6	7		
Max. cont. Apparent Power (kVA)	6	7		
Power factor	1.0			
Others	1.0			
Ingress protection (IP)		ID	66	
	IP66			
Protective class	Class I			
Temperature (°C)	-25°C to +60°C (Derating 45°C)			
Inverter Isolation	Non-isolated (PV - AC - BAT)			
Overvoltage category	OVC III (AC Main), OVC II (DC)			
Firmware version	1.01			



This is an Appendix to Test Verification of Conformity Number: 240100596SHA-V2

Specifications table				
Model	AF3K-ATHA-0	AF4K-ATHA-0	AF4.99K- ATHA-0	AF5K-ATHA-0
Battery (charge/discharge)				
Battery type		Li-ion/Lead		
Battery Normal Voltage Range (Vdc)	80	-450(Field adapt b	attery voltage ran	
Max charge/discharge Current(A)	30*2	30*2	30*2	30*2
Max charge/discharge Power(kW)	3 / 3.3	4 / 4.4	4.99	5 / 5.5
AC Grid (input and output)				
Normal AC Voltage (VAC)	// 1	3P+PE/3F	P 133/230	
Frequency (Hz)	/	5	0	
Normal AC Current (A)	7.6	10.1	12.6	12.6
Max. cont. input/output current (A)	16 / 10.5	20 / 13.5	26 / 17	26 / 17
Rated Power (kW)	3	4	4.99	5
Rated Apparent Power (kVA)	3	4	4.99	5
Max. cont. input/output Power (kW)	4.5 / 3.3	6 / 4.4	7.5 / 4.99	7.5 / 5.5
Max. cont. Apparent input/output Power (kVA)	4.5 / 3.3	6 / 4.4	7.5 / 4.99	7.5 / 5.5
Power factor(adjustable)	1.0( -0.8~ +0.8)			
AC Load output (stand-alone)				
Normal Voltage (VAC)	3P+PE/3P 133/230			
Frequency (Hz)		5		
Nominal Current (A)	7.6	10.1	12.6	12.6
Max. cont. current (A)	10.5	13.5	17	17
Max. cont. Power (kW)	3	4	4.99	5
Rated Apparent Power (kVA)	3	4	4.99	5
Max. cont. Apparent Power (kVA)	3	4	4.99	5
Power factor	1.0			
Others				
Ingress protection (IP)	IP66			
Protective class	Class I			
Temperature (°C)	-25°C to +60°C (Derating 45°C)			
Inverter Isolation	Non-isolated (AC - BAT)			
Overvoltage category	OVC III (AC Main), OVC II (DC)			
Firmware version	1.01			

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This is an Appendix to Test Verification of Conformity Number: 240100596SHA-V2

Specifications table					
Model	AF6K-ATHA-0 AF7K-ATHA-0				
Battery (charge/discharge)					
Battery type		Li-ion/Le	ead-acid etc.		
Battery Normal Voltage Range (Vdc)	80-450(Field adapt battery voltage range)				
Max charge/discharge Current(A)	30*2	30*2			
Max charge/discharge Power(kW)	6 / 6.6	7 / 7.7			
AC Grid (input and output)					
Normal AC Voltage (VAC)		3P+PE	/3P 133/230		
Frequency (Hz)			50		
Normal AC Current (A)	15.1	17.6			
Max. cont. input/output current (A)	32 / 21.5	32 / 25			
Rated Power (kW)	6	7			
Rated Apparent Power (kVA)	6	7			
Max. cont. input/output Power (kW)	9 / 6.6	10.5 / 7.7			
Max. cont. Apparent input/output Power (kVA)	9 / 6.6	10.5 / 7.7			
Power factor(adjustable)	1.0( -0.8~ +0.8)				
AC Load output (stand-alone)					
Normal Voltage (VAC)	3P+PE/3P 133/230				
Frequency (Hz)	50				
Nominal Current (A)	15.1	17.6			
Max. cont. current (A)	21.5	25			
Max. cont. Power (kW)	6	7			
Rated Apparent Power (kVA)	6	7	<del>                                     </del>		
Max. cont. Apparent Power (kVA)	6	7			
Power factor			1.0		
Others					
Ingress protection (IP)			IP66		
Protective class	Class I				
Temperature (°C)	-25°C to +60°C (Derating 45°C)				
Inverter Isolation	Non-isolated (AC - BAT)				
Overvoltage category	OVC III (AC Main), OVC II (DC)				
Firmware version	- 0	1.01			

Signature

Name: Max Jin

**Position: General Manager** 

Cleans.

Date: 2024-05-14