



Afore New Energy Technology (Shanghai) Co., Ltd
Building 7, No.333 Wanfang Rd, Minhang District, Shanghai, China
Phone: +86-21-54326236 Fax: +86-21-54326136 Email: info@aforeenergy.com

Dichiarazione di Conformita' CEI-021

1. Tipologia di apparecchiatura cui si riferisce la dichiarazione												
Costruttore:	Afore New Energy Technology (Shanghai) Co., Ltd. Building 7, No.333 Wanfang Rd, Minhang District, Shanghai, China											
Tipo apparecchiatura:	DISPOSITIVO DI INTERFACCIA			PROTEZIONE DI INTERFACCIA			DISPOSITIVO DI CONVERSIONE STATICA			DISPOSITIVO DI GENERAZIONE ROTANTE		
	SI			SI			SI			NO		
Modello:	AF3K-TH AF3K-THP	AF4K-TH AF4K-THP	AF5K-TH AF5K-THP	AF6K-TH AF6K-THP	AF8K-TH AF8K-THP	AF10K-TH AF10K-THP	AF12K-TH AF12K-THP	AF15K-TH	AF17K-TH	AF20K-TH	AF25K-TH	AF30K-TH
Potenza attiva nominale:	3000 W	4000 W	5000 W	6000 W	8000 W	10000 W	12000 W	15000 W	17000 W	20000 W	25000 W	30000 W
Versione FW non inferiore a:	1.01											
Numero di fasi:	3P+N+PE (trifase)											
Nota:	Il dispositivo è in grado di limitare la I _{dc} allo 0,5% della corrente nominale.											

2. Sistemi d'accumulo associabili				
Costruttore Modulo Batteria:	Shenzhen Hailei New Energy Co., Ltd			
Modello Modulo Batteria:	Hero-HV7.68	Hero-HV10.24	Hero-HV12.8	Hero-HV15.36
Tensione Nominale:	153.6 V	204.8 V	256.0 V	307.2 V
Numero di Moduli Installabili:	4	4	4	4
CUS (Capacita' Nominale):	7.68 kWh	10.24 kWh	12.8 kWh	15.36 kWh
PSN (Potenza di Scarica Nominale):	3840 W	5120 W	6400 W	7680 W
PCN (Potenza di Carica Nominale):	3840 W	5120 W	6400 W	7680 W
PSmax (Massima Potenza di Scarica):	7680 W	10240 W	12800 W	15360 W
PCmax (Massima Potenza di Carica):	3840 W	5120 W	6400 W	7680 W
Tecnologia:	elettrochimica al Litio (Lithium-ion)			





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3. Riferimenti del laboratorio che ha eseguito le prove e dei relativi fascicoli di prova:

Fascicolo di prova n.:	6165944.50
Emesso da:	DEKRA Testing and Certification (Suzhou) Co., Ltd. No. 99, Hongye Road, Suzhou Industrial Park Suzhou, 215006, P.R. China
Accreditamento:	L5313 (CNAS-ILAC)

4. Dichiarazione di conformità alle prescrizioni CEI-021

Con la presente dichiarazione, resa ai sensi degli artt. 46 e 47 DPR 28 dicembre 2000, n. 445, consapevole delle responsabilità e delle sanzioni penali previste dall'art. 76 del citato DPR per false attestazioni e dichiarazioni mendaci, il sottoscritto **Xinghe Chen**, in qualità di legale rappresentante della società Afore New Energy Technology (Shanghai) Co., Ltd. con sede in Building 7, No.333 Wanfang Rd, Minhang District, Shanghai, China, con P.IVA **91310000561932991K**, iscritta al registro delle imprese della pretura di **None** (Cina) con numero di registrazione **00000000202009040020**.

DICHIARA

che gli inverter di propria costruzione di cui al precedente punto 1, sono conformi alle prescrizioni contenute nelle Norme CEI 0-21:2022-03.

Shanghai, 28/09/2023

Afore New Energy Technology (Shanghai) Co., Ltd.

Xinghe Chen

Informativa ai sensi dell'art.13 D. Lgs. 196/2003: i dati sopra riportati sono previsti dalle disposizioni vigenti ai fini del procedimento amministrativo per il quale sono richiesti e verranno utilizzati solo per tale scopo.

*The Ministry of Foreign Affairs of
the People's Republic of China
requests all civil and military
authorities of foreign countries to
allow the bearer of this passport to
pass freely and afford assistance in
case of need.*

国家码/Country Code
CHN

护照号码/Passport No.

EM5232998

姓名/Name

陈星和
CHEN, XINGHE

性别 / Sex

国籍/Nationality

出生日期 / Date of birth

男/M

中國/CHINESE

20 DEC 1966

出生地点/Place of birth

浙江/ZHEJIANG

签发日期/Date of issue

22 5月/MAY 2024

签发地点/Place of issue

上海 / SHANGHAI

有效期至 / Date of expiry

21 5月/MAY 2034

签发机关/Authority

中华人民共和国国家移民管理局
National Immigration Administration, PRC

持照人签名/Bearer's signature

1. 和

2185580469

**POCHNCHEN<<XINGHE<<<<<<<<<<<<<<<<<<<<<<<<<<<<
EM52329982CHN6612201M3405215LDMCNAMHLKMNA932**

CERTIFICATE OF CONFORMITY

CERTIFICATO DI CONFORMITÀ

Issued to: Afore New Energy Technology (Shanghai) Co., Ltd.
Rilasciato a: Building 7, No.333 Wanfang Rd, Minhang District, Shanghai, China

For the product: Hybrid Inverter
Tipo prodotto:

Trade name:
Marchio:



Type/Model: AF3K-TH, AF4K-TH, AF5K-TH, AF6K-TH, AF8K-TH, AF10K-TH, AF12K-TH
Riferimento modello: AF15K-TH, AF17K-TH, AF20K-TH, AF25K-TH, AF30K-TH
AF3K-THP, AF4K-THP, AF5K-THP, AF6K-THP, AF8K-THP, AF10K-THP, AF12K-THP

Ratings: See Annex
Dati di targa:

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

Requirements: CEI 0-21:2022-03
Requisiti: Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti BT delle imprese distributrici di energia elettrica

This Test Certificate is granted on account of an examination by DEKRA, the results of which are laid down in a confidential file no. 6165944.50

Il presente certificato è rilasciato a causa di un esame da parte di DEKRA, i cui risultati sono riportati in un file riservato n. 6165944.50

The examination has been carried out on one single specimen or several specimens of the product, submitted by the manufacturer. The certificate does not include an assessment of the manufacturer's production.

Conformity of his production with the specimen tested by DEKRA is not the responsibility of DEKRA.

Il sottoscritto dichiara che il prodotto di cui sopra è conforme ai requisiti tecnici menzionati. Questo attestato di conformità è rilasciato sulla base dei risultati di prova riferiti nel rapporto sopra menzionato.

La valutazione non include una verifica della produzione di serie né del luogo di produzione.

Shanghai, 25 September 2023

Certificate Number: 6165944.01COC

It expires at the latest on: 25 September 2028

DEKRA Testing and Certification (Shanghai) Ltd.


Cliff Lin
Certification Manager

© Integral publication of this certificate and adjoining reports is allowed

Accreditation of the certification body by IAS according to ISO/IEC 17065 for products.
Accreditation is valid in the areas of certification mentioned in the certificate.

DEKRA Testing and Certification (Shanghai) Ltd.
3F #250 Jiangchangsang Road Shibei Hi-Tech Park, 200436 Jing'an District, Shanghai, China
T +86 21 6056 7666 F +86 21 6056 7555 www.dekra-product-safety.com



PCA-141

Document no. : 6165944.01COC

Ratings of the testing Hybrid Inverter:

Valutazioni dell'invertitore ibrido di prova:

Model list / Ratings of the test product				
Model	AF3K-TH	AF4K-TH	AF5K-TH	AF6K-TH
PV input				
P pv Max(kW)	5	6	7.5	9
Vmax PV (Vdc) (absolute Max.)	1000	1000	1000	1000
Isc PV (absolute Max.) (A)	30*2	30*2	30*2	30*2
Number MPP trackers	2	2	2	2
Number input strings	1/1	1/1	1/1	1/1
Max. PV input current (A)	20*2	20*2	20*2	20*2
MPPT voltage range (Vdc)	150-850	150-850	150-850	150-850
Vdc range @ full power (Vdc)	200-850	200-850	200-850	250-850
Battery (charge/discharge)				
Battery type	Li-ion/Lead-acid			
Battery Normal Voltage Range (Vdc)	150-800(Field adapt battery voltage range)			
Max charge/discharge Current(A)	30	30	30	30
Max charge/discharge Power(kW)	3	4	5	6
AC Grid (input and output)				
Normal AC Voltage (VAC)	3P+N+PE/3P+PE 230/400			
Frequency (Hz)	50 / 60			
Normal AC Current (A)	4.4	5.8	7.3	8.7
Max. cont. input/output current (A)	8 / 5.3	10.5 / 7	13 / 8.5	16 / 10.5
Rated Power (kW)	3	4	5	6
Rated Apparent Power (kVA)	3	4	5	6
Max. cont. input/output Power (kW)	4.5 / 3.3	6 / 4.4	7.5 / 5.5	9 / 6.6
Max. cont. Apparent input/output Power (kVA)	4.5 / 3.3	6 / 4.4	7.5 / 5.5	9 / 6.6
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 / 60			
Nominal Current (A)	4.4	5.8	7.3	8.7
Max. cont. current (A)	5.3	7	8.5	10.5
Max. cont. Power (kW)	3	4	5	6
Rated Apparent Power (kVA)	3	4	5	6
Max. cont. Apparent Power (kVA)	3	4	5	6
Power factor	1.0			
Others				
Ingress protection (IP)	IP65			
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 (PV)			

Document no. : 6165944.01COC

Model	AF8K-TH	AF10K-TH	AF12K-TH	AF15K-TH
PV input				
P pv Max(kW)	12	15	18	22.5
Vmax PV (Vdc) (absolute Max.)	1000	1000	1000	1000
Isc PV (absolute Max.) (A)	30*2	30*2	30*2	30+48
Number MPP trackers	2	2	2	2
Number input strings	1/1	1/1	1/1	1/2
Max. PV input current (A)	20*2	20*2	20*2	20+32
MPPT voltage range (Vdc)	150-850	150-850	150-850	150-850
Vdc range @ full power (Vdc)	300-850	500-850	500-850	500-850
Battery (charge/discharge)				
Battery type	Li-ion/Lead-acid			
Battery Normal Voltage Range (Vdc)	150-800(Field adapt battery voltage range)			
Max charge/discharge Current(A)	30	30	30	50
Max charge/discharge Power(kW)	8	10	12	15
AC Grid (input and output)				
Normal AC Voltage (VAC)	3P+N+PE/3P+PE 230/400			
Frequency (Hz)	50 / 60			
Normal AC Current (A)	11.6	14.5	17.4	21.8
Max. cont. input/output current (A)	20 / 13.5	26 / 17	32 / 21.5	40.5 / 27
Rated Power (kW)	8	10	12	15
Rated Apparent Power (kVA)	8	10	12	15
Max. cont. input/output Power (kW)	12 / 8.8	15 / 11	18 / 13.2	22.5 / 16.5
Max. cont. Apparent input/output Power (kVA)	12 / 8.8	15 / 11	18 / 13.2	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 / 60			
Nominal Current (A)	11.6	14.5	17.4	21.8
Max. cont. current (A)	13.5	17	21.5	27
Max. cont. Power (kW)	8	10	12	15
Rated Apparent Power (kVA)	8	10	12	15
Max. cont. Apparent Power (kVA)	8	10	12	15
Power factor	1.0			
Others				
Ingress protection (IP)	IP65			
Protective class	Class I			
Temperature (°C)	-25℃ to +60℃ (Derating 45℃)			
Inverter Isolation	Non-isolated (PV - AC - BAT)			
Overvoltage category	OVC III (AC Main), OVC II (PV)			

Document no. : 6165944.01COC

Model	AF17K-TH	AF20K-TH	AF25K-TH	AF30K-TH
PV input				
P pv Max(kW)	25.5	30	37.5	45
Vmax PV (Vdc) (absolute Max.)	1000	1000	1000	1000
Isc PV (absolute Max.) (A)	48*2	48*2	60*2	60*2
Number MPP trackers	2	2	2	2
Number input strings	2/2	2/2	2/2	2/2
Max. PV input current (A)	32*2	32*2	40*2	40*2
MPPT voltage range (Vdc)	150-850	150-850	150-850	150-850
Vdc range @ full power (Vdc)	500-850	500-850	500-850	500-850
Battery (charge/discharge)				
Battery type	Li-ion/Lead-acid			
Battery Normal Voltage Range (Vdc)	150-800(Field adapt battery voltage range)			
Max charge/discharge Current(A)	50	50	60	60
Max charge/discharge Power(kW)	17	20	25	30
AC Grid (input and output)				
Normal AC Voltage (VAC)	3P+N+PE/3P+PE 230/400			
Frequency (Hz)	50 / 60			
Normal AC Current (A)	24.7	29	36.3	43.5
Max. cont. input/output current (A)	45 / 30	48 / 32	60 / 40	72 / 48
Rated Power (kW)	17	20	25	30
Rated Apparent Power (kVA)	17	20	25	30
Max. cont. input/output Power (kW)	25.5 / 18.7	30 / 22	37.5 / 27.5	45 / 33
Max. cont. Apparent input/output Power (kVA)	25.5 / 18.7	30 / 22	37.5 / 27.5	45 / 33
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 / 60			
Nominal Current (A)	24.7	29	36.3	43.5
Max. cont. current (A)	30	32	40	48
Max. cont. Power (kW)	17	20	25	30
Rated Apparent Power (kVA)	17	20	25	30
Max. cont. Apparent Power (kVA)	17	20	25	30
Power factor	1.0			
Others				
Ingress protection (IP)	IP65			
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 (PV)			

Document no. : 6165944.01COC

Model	AF3K-THP	AF4K-THP	AF5K-THP	AF6K-THP
PV input				
P pv Max(kW)	5	6	7.5	9
Vmax PV (Vdc) (absolute Max.)	1000	1000	1000	1000
Isc PV (absolute Max.) (A)	30*2	30*2	30*2	30*2
Number MPP trackers	2	2	2	2
Number input strings	1/1	1/1	1/1	1/1
Max. PV input current (A)	20*2	20*2	20*2	20*2
MPPT voltage range (Vdc)	150-850	150-850	150-850	150-850
Vdc range @ full power (Vdc)	200-850	200-850	200-850	250-850
Battery (charge/discharge)				
Battery type	Li-ion/Lead-acid			
Battery Normal Voltage Range (Vdc)	80-600(Field adapt battery voltage range)			
Max charge/discharge Current(A)	50	50	50	50
Max charge/discharge Power(kW)	3	4	5	6
AC Grid (input and output)				
Normal AC Voltage (VAC)	3P+N+PE/3P+PE 230/400			
Frequency (Hz)	50 / 60			
Normal AC Current (A)	4.4	5.8	7.3	8.7
Max. cont. input/output current (A)	8 / 5.3	10.5 / 7	13 / 8.5	16 / 10.5
Rated Power (kW)	3	4	5	6
Rated Apparent Power (kVA)	3	4	5	6
Max. cont. input/output Power (kW)	4.5 / 3.3	6 / 4.4	7.5 / 5.5	9 / 6.6
Max. cont. Apparent input/output Power (kVA)	4.5 / 3.3	6 / 4.4	7.5 / 5.5	9 / 6.6
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 / 60			
Nominal Current (A)	4.4	5.8	7.3	8.7
Max. cont. current (A)	5.3	7	8.5	10.5
Max. cont. Power (kW)	3	4	5	6
Rated Apparent Power (kVA)	3	4	5	6
Max. cont. Apparent Power (kVA)	3	4	5	6
Power factor	1.0			
Others				
Ingress protection (IP)	IP65			
Protective class	Class I			
Temperature (°C)	-25℃ to +60℃ (Derating 45℃)			
Inverter Isolation	Non-isolated (PV - AC - BAT)			
Overvoltage category	OVC III (AC Main), OVC II (PV)			

Document no. : 6165944.01COC

Model	AF8K-THP	AF10K-THP	AF12K-THP
PV input			
P pv Max(kW)	12	15	18
Vmax PV (Vdc) (absolute Max.)	1000	1000	1000
Isc PV (absolute Max.) (A)	30*2	30*2	30*2
Number MPP trackers	2	2	2
Number input strings	1/1	1/1	1/1
Max. PV input current (A)	20*2	20*2	20*2
MPPT voltage range (Vdc)	150-850	150-850	150-850
Vdc range @ full power (Vdc)	300-850	500-850	500-850
Battery (charge/discharge)			
Battery type	Li-ion/Lead-acid		
Battery Normal Voltage Range (Vdc)	80-600	120-650	
Max charge/discharge Current(A)	50	50	50
Max charge/discharge Power(kW)	8	10	12
AC Grid (input and output)			
Normal AC Voltage (VAC)	3P+N+PE/3P+PE 230/400		
Frequency (Hz)	50 / 60		
Normal AC Current (A)	11.6	14.5	17.4
Max. cont. input/output current (A)	20 / 13.5	26 / 17	32 / 21.5
Rated Power (kW)	8	10	12
Rated Apparent Power (kVA)	8	10	12
Max. cont. input/output Power (kW)	12 / 8.8	15 / 11	18 / 13.2
Max. cont. Apparent input/output Power (kVA)	12 / 8.8	15 / 11	18 / 13.2
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 / 60		
Nominal Current (A)	11.6	14.5	17.4
Max. cont. current (A)	13.5	17	21.5
Max. cont. Power (kW)	8	10	12
Rated Apparent Power (kVA)	8	10	12
Max. cont. Apparent Power (kVA)	8	10	12
Power factor	1.0		
Others			
Ingress protection (IP)	IP65		
Protective class	Class I		
Temperature (°C)	-25℃ to +60℃ (Derating 45℃)		
Inverter Isolation	Non-isolated (PV - AC - BAT)		
Overvoltage category	OVC III (AC Main), OVC II (PV)		

Document no. : 6165944.01COC

Type of generating unit:

Tipologia di apparato:

Static Conversion Device <i>Dispositivo di conversione statica</i>	Interface Protection <i>Protezione di interfaccia</i>	Interface Protection Device <i>Dispositivo di interfaccia</i>	Rotating Generator Device <i>Dispositivo di generazione rotante</i>
Yes/Si	Yes/Si	Yes/Si	No

REMARK: the device is capable to limit the I_{dc} to 0,5% of the nominal current

NOTA: Il dispositivo è in grado di limitare la I_{dc} allo 0,5% della corrente nominale

Hardware version: 1.01

Versione hardware: 1.01

Software version: V01

Versione software: V01

The battery used for testing with the Hybrid Inverter covered by this certificate:

La batteria utilizzata per i test con l'invertitore ibrido coperto dal presente certificato:

Manufacturer	Shenzhen Hailei New Energy Co , Ltd	
Battery Models	HERO-HV15.36	HERO-HV12.8
Nominal Voltage	307.2V	256V
Nominal capacity	50Ah	50Ah
CUS (Storage system useful capacity)	15.36kWh	12.80kWh
Battery Models	HERO-HV10.24	HERO-HV7.68
Nominal Voltage	204.8V	153.6V
Nominal capacity	50Ah	50Ah
CUS (Storage system useful capacity)	10.24kWh	7.68kWh
Remark: The CB test certificate No. of the battery: JPTUV-145019 If the battery module supports parallel connection, the charge/ discharge current is superimposed and is limited by the maximum current of the battery port of the Hybrid Inverter. The batteries are not integrated into the Hybrid Inverter and must be installed according to the local regulations.		

Testing Laboratory:

Laboratorio prove:

Testing Laboratory for CEI 0-21:2022-03

DEKRA Testing and Certification (Suzhou) Co., Ltd.

No. 99, Hongye Road, Suzhou Industrial Park Suzhou, 215006, P.R. China

Accreditation Number: L5313 (CNAS-ILAC)

Testing Laboratory for EMC:

1. Intertek Testing Services Shanghai

Building No.86, 1198 Qinzhou Road (North), Caohejing Development Zone, Shanghai 200233, China

Accreditation Number: 3309.02 (A2LA-ILAC)

2. Shanghai Inspection and Testing Institute of Instruments and Automation Systems Co., Ltd.

No.103, Caobao Road, Xuhui District, Shanghai, China

Accreditation Number: L0130 (CNAS-ILAC)

--- End ---