

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: AF36K-TH, AF40K-TH, AF45K-TH, AF50K-TH, AF60K-TH,
Riferimento modello: AF36K-TH-0, AF40K-TH-0, AF45K-TH-0, AF50K-TH-0, AF60K-TH-0;

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 0-16:2022-03+ V1:2022-11+ V2:2023-05+ V3:2024-01+ V4:2025-02+ V5:2025-10
Requisiti: *Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti AT ed MT 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. 6261248.50
Il presente certificato è rilasciato a causa di un esame da parte di DEKRA, i cui risultati sono riportati in un file riservato n. 6261248.50

The examination has been carried out on one single specimen of the product. 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.

L'esame è stato effettuato su un unico esemplare del prodotto. 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.

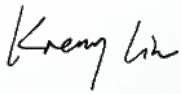
This Test Certificate expires at the latest on 2031-03-16 or expires upon withdrawal of one of the above mentioned standards.

Il presente certificato di prova scade al più tardi il 2031-03-16 o scade al momento del ritiro di uno dei suddetti standard.

Shanghai, 16 March 2026

Certificate Number: 6261248.01COC

DEKRA Testing and Certification (Shanghai) Ltd.



Kreny Lin
Certification Manager



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DEKRA Testing and Certification (Shanghai) Ltd.
No.250, Jiangchangsan Road, Jing'an District, Shanghai, 200436 People's Republic of China
T +86 21 6056 7600 F +86 21 6056 7555 www.dekra-product-safety.com
ESA-CER-F021 v4.1

PCA-141

Document no. : 6261248.01COC

Ratings:

Dati di targa:

Model	AF36K-TH	AF40K-TH	AF45K-TH	AF50K-TH	AF60K-TH
PV input					
P _{pv} Max (kW)	72	80	90	100	100
V _{max} PV (Vdc) (absolute Max.)	1000				
I _{sc} PV (absolute Max.) (A)	48*4				
Number MPP trackers	4				
Number input strings	2/2/2/2				
Max. PV input current (A)	40*4				
MPPT voltage range (Vdc)	150-850				
Vdc range @ full power (Vdc)	500-850				
Battery (charge/discharge)					
Battery type	Rechargeable Li-ion Battery/ LiFePO4/ Lead-acid				
Battery Normal Voltage Range (Vdc)	150-800 (Field adapt battery voltage range)				
Max charge/discharge Current(A)	120				
Max charge/discharge Power(kW)	36	40	45	50	60
AC Grid (input and output)					
Normal AC Voltage (Vac)	3P+N+PE/3P+PE 230/400				
Frequency (Hz)	50 / 60				
Normal AC Current (A)	52.2	58	65.3	72.5	87
Max. cont. input/output current (A)	81.9 / 60.5	91.1 / 67	102.3 / 75.5	113.7 / 83.5	136.5 / 96
Rated Power (kW)	36	40	45	50	60
Rated Apparent Power (kVA)	36	40	45	50	60
Max. cont. input/output Power (kW)	54 / 39.6	60 / 44	67.5 / 49.5	75 / 55	90 / 66
Max. cont. Apparent input/output Power (kVA)	54 / 39.6	60 / 44	67.5 / 49.5	75 / 55	90 / 66
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)	52.2	58	65.3	72.5	87
Max. cont. current (A)	60.5	67	75.5	83.5	96
Rated Apparent Power (kVA)	36	40	45	50	60
Max. cont. Power (kW)	36	40	45	50	60
Max. cont. Apparent Power (kVA)	36	40	45	50	60
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)				

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Model	AF36K-TH-0	AF40K-TH-0	AF45K-TH-0	AF50K-TH-0	AF60K-TH-0
Battery (charge/discharge)					
Battery type	Rechargeable Li-ion Battery/ LiFePO4/ Lead-acid				
Battery Normal Voltage Range (Vdc)	150-800 (Field adapt battery voltage range)				
Max charge/discharge Current(A)	120				
Max charge/discharge Power(kW)	36 / 39.6	40 / 44	45 / 49.5	50 / 55	60 / 66
AC Grid (input and output)					
Normal AC Voltage (Vac)	3P+N+PE/3P+PE 230/400				
Frequency (Hz)	50 / 60				
Normal AC Current (A)	52.2	58	65.3	72.5	87
Max. cont. input/output current (A)	81.9 / 60.5	91.1 / 67	102.3 / 75.5	113.7 / 83.5	136.5 / 96
Rated Power (kW)	36	40	45	50	60
Rated Apparent Power (kVA)	36	40	45	50	60
Max. cont. input/output Power (kW)	54 / 36	60 / 40	67.5 / 45	75 / 50	90 / 60
Max. cont. Apparent input/output Power (kVA)	54 / 36	60 / 40	67.5 / 45	75 / 50	90 / 60
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)	52.2	58	65.3	72.5	87
Max. cont. current (A)	60.5	67	75.5	83.5	96
Rated Apparent Power (kVA)	36	40	45	50	60
Max. cont. Power (kW)	36	40	45	50	60
Max. cont. Apparent Power (kVA)	36	40	45	50	60
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)				
Oversvoltage category	OVC III (AC Main), OVC II (DC)				

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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	ATOM HS-15.36	ATOM HS-20.48	ATOM HS-25.6
Number of battery module in serials	3	4	5
Nominal Voltage	153.6 V	204.8 V	256.0 V
Nominal capacity	100 Ah		
Battery System Capacity	15.36 kWh	20.48 kWh	25.60 kWh
Battery Models	ATOM HS-30.72	ATOM HS-35.84	ATOM HS-40.96
Number of battery module in serials	6	7	8
Nominal Voltage	307.2 V	358.4 V	409.6 V
Nominal capacity	100 Ah		
Battery System Capacity	30.72 kWh	35.84 kWh	40.96 kWh
Remark:	<p>The CB test certificate No. of the battery: NL-114519 When the batteries are connected in parallel, 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.</p>		

Type of generating unit:

Tipologia di apparato:

Static Conversion Device <i>Dipositivo 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/Sì	No	No	No

Firmware: 1.03

Testing Laboratory:

Laboratorio prove:

Testing Laboratory for CEI 0-16:2022-03
 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)

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