

# 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: AF1K-SL-1, AF1.5K-SL-1, AF2K-SL-1, AF2.5K-SL-1, AF3K-SL-1, AF3.6K-SL-1,  
Riferimento modello: AF3K-SL, AF3.6K-SL, AF4K-SL, AF4.6K-SL, AF5K-SL, AF5.5K-SL, AF6K-SL,  
AF4K-SLP, AF4.6K-SLP, AF5K-SLP, AF5.5K-SLP, AF6K-SLP,  
AF1K-SL-0, AF1.5K-SL-0, AF2K-SL-0, AF2.5K-SL-0, AF3K-SL-0, AF3.6K-SL-0,  
AF4K-SL-0, AF4.6K-SL-0, AF5K-SL-0, AF5.5K-SL-0, AF6K-SL-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 0-21:2022-03+V1:2022-11+V2:2024-01  
Requisiti: *Regola tecnica di riferimento per la connessione di Utenti attivi e passivi alle reti BT delle imprese distributrici di energia elettrica*

The tested models are suitable for installation in systems with a total power greater than 11.08 kW.  
*I modelli testati sono adatti per l'installazione in sistemi con potenza di uscita maggiore di 11.08 kW.*  
This Test Certificate is granted on account of an examination by DEKRA, the results of which are laid down in a confidential file no. 6235262.51  
*Il presente certificato è rilasciato a causa di un esame da parte di DEKRA, i cui risultati sono riportati in un file riservato n. 6235262.51*

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.*  
This Test Certificate expires at the latest on 2030-07-25 or expires upon withdrawal of one of the above mentioned standards.  
*Il presente certificato di prova scade al più tardi il 2030-07-25 o scade al momento del ritiro di uno dei suddetti standard.*

Shanghai, 25 July 2025

Certificate Number: 6235262.02COC

DEKRA Testing and Certification (Shanghai) Ltd.

Kreny Lin  
Certification Manager

© Integral publication of this certificate and adjoining reports is allowed

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ESA-CER-F021 v4.1



PCA-141

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## Ratings of the testing Hybrid Inverter:

Valutazioni dell'invertitore ibrido di prova:

| Models                                | AF1K-SL-1                                       | AF1.5K-SL-1 | AF2K-SL-1 | AF2.5K-SL-1 | AF3K-SL-1 | AF3.6K-SL-1 |
|---------------------------------------|-------------------------------------------------|-------------|-----------|-------------|-----------|-------------|
| PV input:                             |                                                 |             |           |             |           |             |
| Max PV voltage (V)                    | 550                                             |             |           |             |           |             |
| MPPT voltage range (V)                | 80-500                                          |             |           |             |           |             |
| Max PV current (A)                    | 18.5                                            |             |           |             |           |             |
| Isc PV (A)                            | 26                                              |             |           |             |           |             |
| Max PV power (W)                      | 1500                                            | 2300        | 3000      | 3800        | 4500      | 5400        |
| Battery port:                         |                                                 |             |           |             |           |             |
| Battery type                          | Rechargeable Li-ion Battery/ LiFePO4/ Lead-acid |             |           |             |           |             |
| Battery normal voltage (range) (Vdc)  | 51.2 (40-60)                                    |             |           |             |           |             |
| Max charge/discharge current (A)      | 25                                              | 40          | 50        | 63          | 80        | 80          |
| Max charge/discharge power (W)        | 1000                                            | 1500        | 2000      | 2500        | 3000      | 3600        |
| AC grid (input and output):           |                                                 |             |           |             |           |             |
| Rated voltage (V)                     | L/N/PE, 230Vac                                  |             |           |             |           |             |
| Rated frequency (Hz)                  | 50                                              |             |           |             |           |             |
| Max AC current (A)                    | 5                                               | 7           | 10        | 12          | 14        | 17          |
| Rated AC power (W)                    | 1000                                            | 1500        | 2000      | 2500        | 3000      | 3600        |
| Max AC apparent power (VA)            | 1000                                            | 1500        | 2000      | 2500        | 3000      | 3600        |
| Power factor range                    | 1.0 (-0.8 ~ +0.8 adjustable)                    |             |           |             |           |             |
| AC load output (stand alone):         |                                                 |             |           |             |           |             |
| Rated voltage (V)                     | L/N/PE, 230Vac                                  |             |           |             |           |             |
| Rated frequency (Hz)                  | 50                                              |             |           |             |           |             |
| Max AC current (A)                    | 5                                               | 7           | 10        | 12          | 14        | 17          |
| Rated continuous AC power (W)         | 1000                                            | 1500        | 2000      | 2500        | 3000      | 3600        |
| Max continuous AC apparent power (VA) | 1000                                            | 1500        | 2000      | 2500        | 3000      | 3600        |
| General:                              |                                                 |             |           |             |           |             |
| Protection class                      | I                                               |             |           |             |           |             |
| Degree of protection                  | IP65                                            |             |           |             |           |             |
| Overvoltage category                  | II(DC), III(AC)                                 |             |           |             |           |             |
| Ambient temperature                   | -25...+60°C (Derating > 45°C)                   |             |           |             |           |             |

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| Models                                | AF3K-SL                                         | AF3.6K-SL | AF4K-SL | AF4.6K-SL | AF5K-SL | AF5.5K-SL | AF6K-SL |
|---------------------------------------|-------------------------------------------------|-----------|---------|-----------|---------|-----------|---------|
| PV input:                             |                                                 |           |         |           |         |           |         |
| Max PV voltage (V)                    | 550                                             |           |         |           |         |           |         |
| MPPT voltage range (V)                | 80-500                                          |           |         |           |         |           |         |
| Max PV current (A)                    | 18.5 x 2                                        |           |         |           |         |           |         |
| Isc PV (A)                            | 26 x 2                                          |           |         |           |         |           |         |
| Max PV power (W)                      | 4500                                            | 5400      | 6000    | 6900      | 7500    | 8300      | 9000    |
| Battery port:                         |                                                 |           |         |           |         |           |         |
| Battery type                          | Rechargeable Li-ion Battery/ LiFePO4/ Lead-acid |           |         |           |         |           |         |
| Battery normal voltage (range) (Vdc)  | 51.2 (40-60)                                    |           |         |           |         |           |         |
| Max charge/ discharge current (A)     | 80                                              |           |         |           |         |           |         |
| Max charge/ discharge power (W)       | 3000                                            | 3600      | 4000    | 4600      | 4800    | 4800      | 4800    |
| AC grid (input and output):           |                                                 |           |         |           |         |           |         |
| Rated voltage (V)                     | L/N/PE, 230Vac                                  |           |         |           |         |           |         |
| Rated frequency (Hz)                  | 50                                              |           |         |           |         |           |         |
| Max AC current (A)                    | 14                                              | 17        | 19      | 22        | 23      | 26        | 28      |
| Rated AC power (W)                    | 3000                                            | 3600      | 4000    | 4600      | 5000    | 5500      | 6000    |
| Max AC apparent power (VA)            | 3000                                            | 3600      | 4000    | 4600      | 5000    | 5500      | 6000    |
| Power factor range                    | 1.0 (-0.8 ~ +0.8 adjustable)                    |           |         |           |         |           |         |
| AC load output (stand alone):         |                                                 |           |         |           |         |           |         |
| Rated voltage (V)                     | L/N/PE, 230Vac                                  |           |         |           |         |           |         |
| Rated frequency (Hz)                  | 50                                              |           |         |           |         |           |         |
| Max AC current (A)                    | 14                                              | 17        | 19      | 22        | 23      | 26        | 28      |
| Rated continuous AC power (W)         | 3000                                            | 3600      | 4000    | 4600      | 5000    | 5500      | 6000    |
| Max continuous AC apparent power (VA) | 3000                                            | 3600      | 4000    | 4600      | 5000    | 5500      | 6000    |
| General:                              |                                                 |           |         |           |         |           |         |
| Protection class                      | I                                               |           |         |           |         |           |         |
| Degree of protection                  | IP65                                            |           |         |           |         |           |         |
| Overvoltage category                  | II(DC), III(AC)                                 |           |         |           |         |           |         |
| Ambient temperature                   | -25...+60°C (Derating > 45°C)                   |           |         |           |         |           |         |

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| Models                                | AF4K-SLP                                        | AF4.6K-SLP | AF5K-SLP | AF5.5K-SLP | AF6K-SLP |
|---------------------------------------|-------------------------------------------------|------------|----------|------------|----------|
| PV input:                             |                                                 |            |          |            |          |
| Max PV voltage (V)                    | 550                                             |            |          |            |          |
| MPPT voltage range (V)                | 80-500                                          |            |          |            |          |
| Max PV current (A)                    | 18.5 x 2                                        |            |          |            |          |
| Isc PV (A)                            | 26 x 2                                          |            |          |            |          |
| Max PV power (W)                      | 6000                                            | 6900       | 7500     | 8300       | 9000     |
| Battery port:                         |                                                 |            |          |            |          |
| Battery type                          | Rechargeable Li-ion Battery/ LiFePO4/ Lead-acid |            |          |            |          |
| Battery normal voltage (range) (Vdc)  | 51.2 (40-60)                                    |            |          |            |          |
| Max charge/ discharge current (A)     | 120                                             |            |          |            |          |
| Max charge/ discharge power (W)       | 4000                                            | 4600       | 5000     | 5500       | 6000     |
| AC grid (input and output):           |                                                 |            |          |            |          |
| Rated voltage (V)                     | L/N/PE, 230Vac                                  |            |          |            |          |
| Rated frequency (Hz)                  | 50                                              |            |          |            |          |
| Max AC current (A)                    | 19                                              | 22         | 23       | 26         | 28       |
| Rated AC power (W)                    | 4000                                            | 4600       | 5000     | 5500       | 6000     |
| Max AC apparent power (VA)            | 4000                                            | 4600       | 5000     | 5500       | 6000     |
| Power factor range                    | 1.0 (-0.8~ +0.8 adjustable)                     |            |          |            |          |
| AC load output (stand alone):         |                                                 |            |          |            |          |
| Rated voltage (V)                     | L/N/PE, 230Vac                                  |            |          |            |          |
| Rated frequency (Hz)                  | 50                                              |            |          |            |          |
| Max AC current (A)                    | 19                                              | 22         | 23       | 26         | 28       |
| Rated continuous AC power (W)         | 4000                                            | 4600       | 5000     | 5500       | 6000     |
| Max continuous AC apparent power (VA) | 4000                                            | 4600       | 5000     | 5500       | 6000     |
| General:                              |                                                 |            |          |            |          |
| Protection class                      | I                                               |            |          |            |          |
| Degree of protection                  | IP65                                            |            |          |            |          |
| Overvoltage category                  | II(DC), III(AC)                                 |            |          |            |          |
| Ambient temperature                   | -25...+60°C (Derating > 45°C)                   |            |          |            |          |

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| Models                                | AF1K-SL-0                                       | AF1.5K-SL-0 | AF2K-SL-0 | AF2.5K-SL-0 | AF3K-SL-0 | AF3.6K-SL-0 |
|---------------------------------------|-------------------------------------------------|-------------|-----------|-------------|-----------|-------------|
| Battery port:                         |                                                 |             |           |             |           |             |
| Battery type                          | Rechargeable Li-ion Battery/ LiFePO4/ Lead-acid |             |           |             |           |             |
| Battery normal voltage (range) (Vdc)  | 51.2 (40-60)                                    |             |           |             |           |             |
| Max charge/discharge current (A)      | 25                                              | 40          | 50        | 63          | 80        | 80          |
| Max charge/discharge power (W)        | 1000                                            | 1500        | 2000      | 2500        | 3000      | 3600        |
| AC grid (input and output):           |                                                 |             |           |             |           |             |
| Rated voltage (V)                     | L/N/PE, 230Vac                                  |             |           |             |           |             |
| Rated frequency (Hz)                  | 50                                              |             |           |             |           |             |
| Max AC current (A)                    | 5                                               | 7           | 10        | 12          | 14        | 17          |
| Rated AC power (W)                    | 1000                                            | 1500        | 2000      | 2500        | 3000      | 3600        |
| Max AC apparent power (VA)            | 1000                                            | 1500        | 2000      | 2500        | 3000      | 3600        |
| Power factor range                    | 1.0 (-0.8 ~ +0.8 adjustable)                    |             |           |             |           |             |
| AC load output (stand alone):         |                                                 |             |           |             |           |             |
| Rated voltage (V)                     | L/N/PE, 230Vac                                  |             |           |             |           |             |
| Rated frequency (Hz)                  | 50                                              |             |           |             |           |             |
| Max AC current (A)                    | 5                                               | 7           | 10        | 12          | 14        | 17          |
| Rated continuous AC power (W)         | 1000                                            | 1500        | 2000      | 2500        | 3000      | 3600        |
| Max continuous AC apparent power (VA) | 1000                                            | 1500        | 2000      | 2500        | 3000      | 3600        |
| General:                              |                                                 |             |           |             |           |             |
| Protection class                      | I                                               |             |           |             |           |             |
| Degree of protection                  | IP65                                            |             |           |             |           |             |
| Overvoltage category                  | II(DC), III(AC)                                 |             |           |             |           |             |
| Ambient temperature                   | -25...+60°C (Derating > 45°C)                   |             |           |             |           |             |

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| Models                                | AF4K-SL-0                                       | AF4.6K-SL-0 | AF5K-SL-0 | AF5.5K-SL-0 | AF6K-SL-0 |
|---------------------------------------|-------------------------------------------------|-------------|-----------|-------------|-----------|
| Battery port:                         |                                                 |             |           |             |           |
| Battery type                          | Rechargeable Li-ion Battery/ LiFePO4/ Lead-acid |             |           |             |           |
| Battery normal voltage (range) (Vdc)  | 51.2 (40-60)                                    |             |           |             |           |
| Max charge/discharge current (A)      | 120                                             | 120         | 120       | 120         | 120       |
| Max charge/discharge power (W)        | 4000                                            | 4600        | 5000      | 5500        | 6000      |
| AC grid (input and output):           |                                                 |             |           |             |           |
| Rated voltage (V)                     | L/N/PE, 230Vac                                  |             |           |             |           |
| Rated frequency (Hz)                  | 50                                              |             |           |             |           |
| Max AC current (A)                    | 19                                              | 22          | 23        | 26          | 28        |
| Rated AC power (W)                    | 4000                                            | 4600        | 5000      | 5500        | 6000      |
| Max AC apparent power (VA)            | 4000                                            | 4600        | 5000      | 5500        | 6000      |
| Power factor range                    | 1.0 (-0.8 ~ +0.8 adjustable)                    |             |           |             |           |
| AC load output (stand alone):         |                                                 |             |           |             |           |
| Rated voltage (V)                     | L/N/PE, 230Vac                                  |             |           |             |           |
| Rated frequency (Hz)                  | 50                                              |             |           |             |           |
| Max AC current (A)                    | 19                                              | 22          | 23        | 26          | 28        |
| Rated continuous AC power (W)         | 4000                                            | 4600        | 5000      | 5500        | 6000      |
| Max continuous AC apparent power (VA) | 4000                                            | 4600        | 5000      | 5500        | 6000      |
| General:                              |                                                 |             |           |             |           |
| Protection class                      | I                                               |             |           |             |           |
| Degree of protection                  | IP65                                            |             |           |             |           |
| Overvoltage category                  | II(DC), III(AC)                                 |             |           |             |           |
| Ambient temperature                   | -25...+60°C (Derating > 45°C)                   |             |           |             |           |

Type of generating unit:

*Tipologia di apparato:*

| Static Conversion Device<br><i>Dispositivo di conversione statica</i> | Interface Protection<br><i>Protezione di interfaccia</i> | Interface Protection Device<br><i>Dispositivo di interfaccia</i> | Rotating Generator Device<br><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

Firmware release (SW): V02

Revisione firmware (SW): V02

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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:*

| Battery Models                                                                                                                                                                                                                                                                                                                                                           | W15-5A                                   |             |             |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|-------------|-------------|
| Manufacturer                                                                                                                                                                                                                                                                                                                                                             | Dongguan Lithium Valley Energy Co., Ltd. |             |             |             |
| Number of battery module in parallel                                                                                                                                                                                                                                                                                                                                     | 1                                        | 2           | 3           | 4           |
| Nominal Voltage                                                                                                                                                                                                                                                                                                                                                          | 51.2 V                                   |             |             |             |
| Nominal capacity                                                                                                                                                                                                                                                                                                                                                         | 280 Ah                                   | 560 Ah      | 840 Ah      | 1120 Ah     |
| Battery System Capacity                                                                                                                                                                                                                                                                                                                                                  | 14.336 kWh                               | 28.672 kWh  | 43.008 kWh  | 57.344 kWh  |
| Number of battery module in parallel                                                                                                                                                                                                                                                                                                                                     | 5                                        | 6           | 7           | 8           |
| Nominal Voltage                                                                                                                                                                                                                                                                                                                                                          | 51.2 V                                   |             |             |             |
| Nominal capacity                                                                                                                                                                                                                                                                                                                                                         | 1400 Ah                                  | 1680 Ah     | 1960 Ah     | 2240 Ah     |
| Battery System Capacity                                                                                                                                                                                                                                                                                                                                                  | 71.68 kWh                                | 86.016 kWh  | 100.352 kWh | 114.688 kWh |
| Number of battery module in parallel                                                                                                                                                                                                                                                                                                                                     | 9                                        | 10          | 11          | 12          |
| Nominal Voltage                                                                                                                                                                                                                                                                                                                                                          | 51.2 V                                   |             |             |             |
| Nominal capacity                                                                                                                                                                                                                                                                                                                                                         | 2520 Ah                                  | 2800 Ah     | 3080 Ah     | 3360 Ah     |
| Battery System Capacity                                                                                                                                                                                                                                                                                                                                                  | 129.024 kWh                              | 143.36 kWh  | 157.696 kWh | 172.032 kWh |
| Number of battery module in parallel                                                                                                                                                                                                                                                                                                                                     | 13                                       | 14          | 15          | --          |
| Nominal Voltage                                                                                                                                                                                                                                                                                                                                                          | 51.2 V                                   |             |             |             |
| Nominal capacity                                                                                                                                                                                                                                                                                                                                                         | 3640 Ah                                  | 3920 Ah     | 4200 Ah     | --          |
| Battery System Capacity                                                                                                                                                                                                                                                                                                                                                  | 186.368 kWh                              | 200.704 kWh | 215.04 kWh  | --          |
| Remark:<br>The CB test certificate No. of the battery: FR_721395<br>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.<br>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+V1:2022-11+V2:2024-01

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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