

14 Years Dedicated  
Inverter Manufacturing



# WHY CHOOSE AFORE?



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




**About Afore**





- 
- **14+** years PV Inverter Manufacturing Experiences;
  - Top **10** String inverter factory in China;
  - **8GW+** Shipped Globally;
  - Flexible cooperation modes;
  - **230+** Solar Inverter Patents;
  - Stocks in China, Poland, Netherlands, Japan, Mexico etc.



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

Afore is the world's leading manufacturer of PV string inverter and energy storage inverter, with a history of 14 years.

**A Future Of Renewable Energy**



**Production Area: 8000m<sup>2</sup>**

360000 sets of annual production capacity.

**R&D: 60**

Over 60 professional engineers and one independent R&D lab.

**Employee: 300**

Highly efficient and complete departments including R&D, Production, QC, warehouse, marketing and sales etc.

# Top-Brand Components

## CAPACITOR



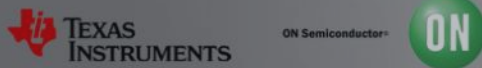
China/Japan

## CURRENT TRANSDUCER



Germany/Switzerland

## IC



America

## MCU



Netherlands/Italy&France

## DC SWITCH



China

## IGBT



America/Germany/Italy&France

## DIODE



America

## COOLING FAN



Japan/Taiwan

## RELAY



China/Japan



# What We Have Achieved?

We offer not just good products, but also high-efficient local support to our partners and users throughout the inverter life span. Make sure the customers receive reliable returns by choosing Afore!



**800** thousand of sold inverters around the world.



Top **10** String inverter brand in China.



# Global Market



Over **80** countries and areas installed Afore inverters, total installation capacity is **8GW**. Among them, Afore inverters have a market share of about **10-15%** in some markets.

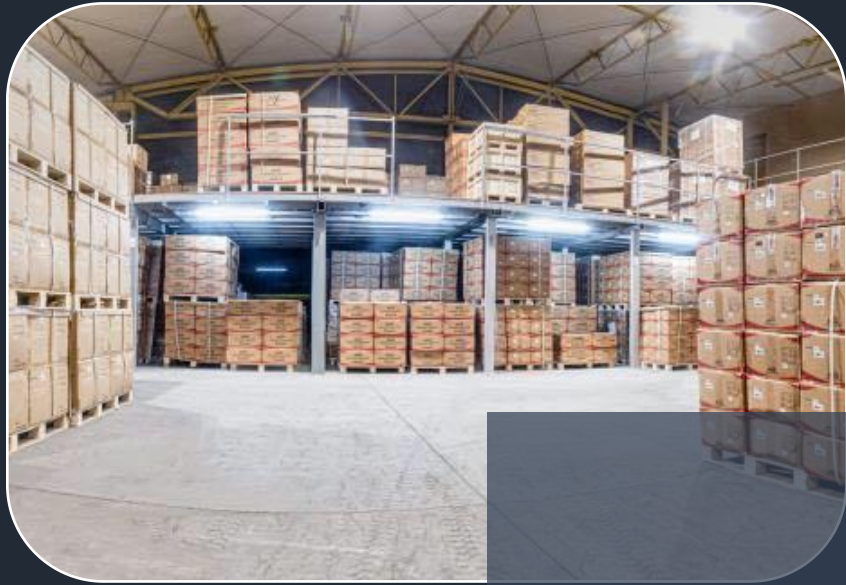
# After Sales

Over **15** local Professional After-sales Service Teams in different countries.

**20+** overseas branch offices.

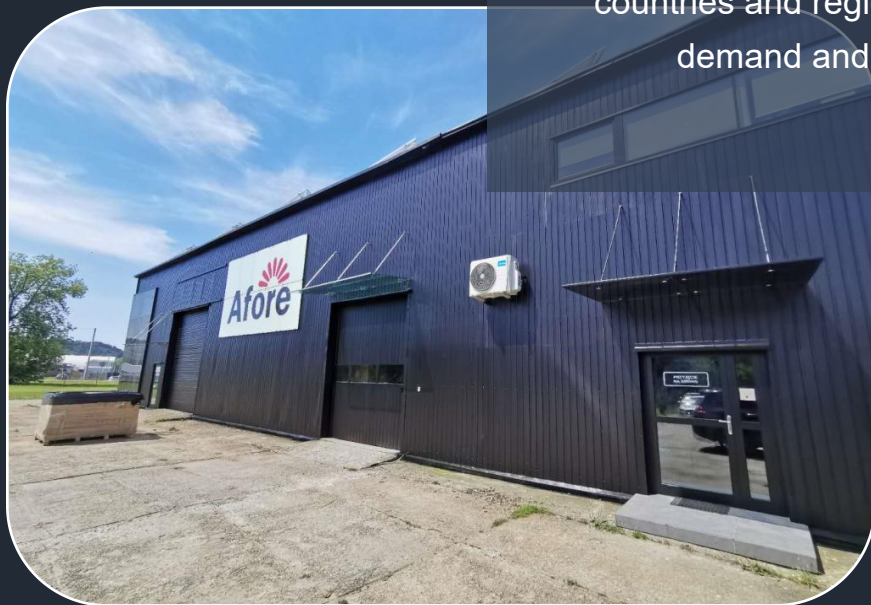






## After Sales

Afore has set up local warehouses and distribution services in many countries and regions. That ensures quicker responses to customer demand and commitment to three working days delivery.





**Product Series**

# PV String Inverter & PV Storage Inverter



# Residential HNS Solar Inverters

The Afore HNS Series Single-phase inverters are designed for residential PV system applications, rating from 1kW to 10kW.



Single phase (1-3kW)



Single phase (3-6kW)



Single phase (7-10kW)

## Residential HNS Solar Inverters

The Afore BNT Series Three-phase string inverters are designed for commercial and power plant PV system applications, rating from 3kW to 110kW.



Three phase (3-25kW)



Three phase (30kW)



Three phase (36-60kW)



Three phase (70-110kW)



Three phase (3-12/15-30kW)



Three phase (36-50kW)



Three phase Plus Series (3-12kW)



Delta Voltage Series(3-17kW)



Three Phase AC Coupled (3-30kW)



Three Phase AC Coupled Plus Series 3-12kW

# Energy Storage Hybrid Inverter

The Afore energy storage hybrid inverters are designed to increase energy independence for homeowners and commercial users. The power range is from 1.0kW to 50kW.



Single Phase (1-6kW)



Single Phase (4-6kW) Plus Series



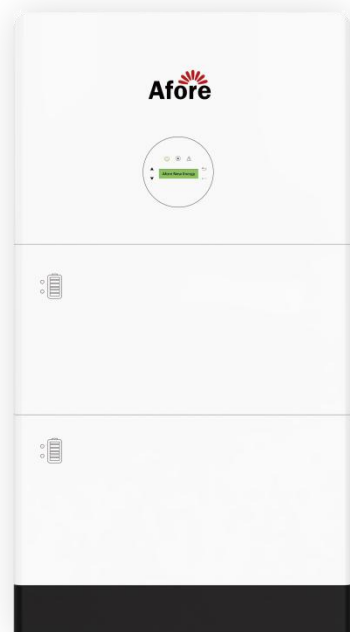
Single Phase AC Coupled (1-6kW)



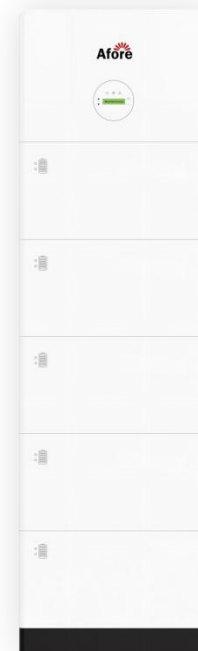
Split Phase (3-9.6kW)

# All In One Energy Storage System

Afore ATH Series is an all-in-one solar and storage solution that integrates the inverter, battery charger, UPS-level switching, and battery enclosure into a pre-wired modular system for easier and faster installation.



Single Phase Home Storage Solution (LV)



Three Phase Storage Solution (HV)



**Three Phase PV StringInverter 3-25kW / 70-110kW**



# ATON Series PV String Inverter 3-25kW



**MPPT RANGE**  
Wide MPPT Range



**PROTECTION**  
Build-in SPD Type II



**PV OVERSIZE**  
1.5 Times PV Oversize



**SMART**  
Smart IV Curve Scanning



**DC 1100V**  
Max. DC 1100V



**UPDATE**  
Remote Firmware Update



**UNIBODY**  
One-piece Aluminum Housing

# ATON Series PV String Inverter 3-25kW



## Compatible with bifacial modules

High DC input current&strong overload ability.



## Quick Arc Fault circuit interruption (Optional)

Equipped with mature series arc detection and can shut down the inverter rapidly, which can prevent arc hazards in rooftop PV systems in complex environments.



## Thin film capacitor design, higher reliability

Thin film capacitor has 5 times of longer life than the electrolytic capacitor((under the same conditions of use, and the temperature is less than 70 degrees).



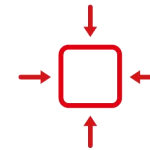
## IP68 fan design

Control the fan according to the ambient temperature, good heat dissipation makes the inverter life longer.



## String level monitoring

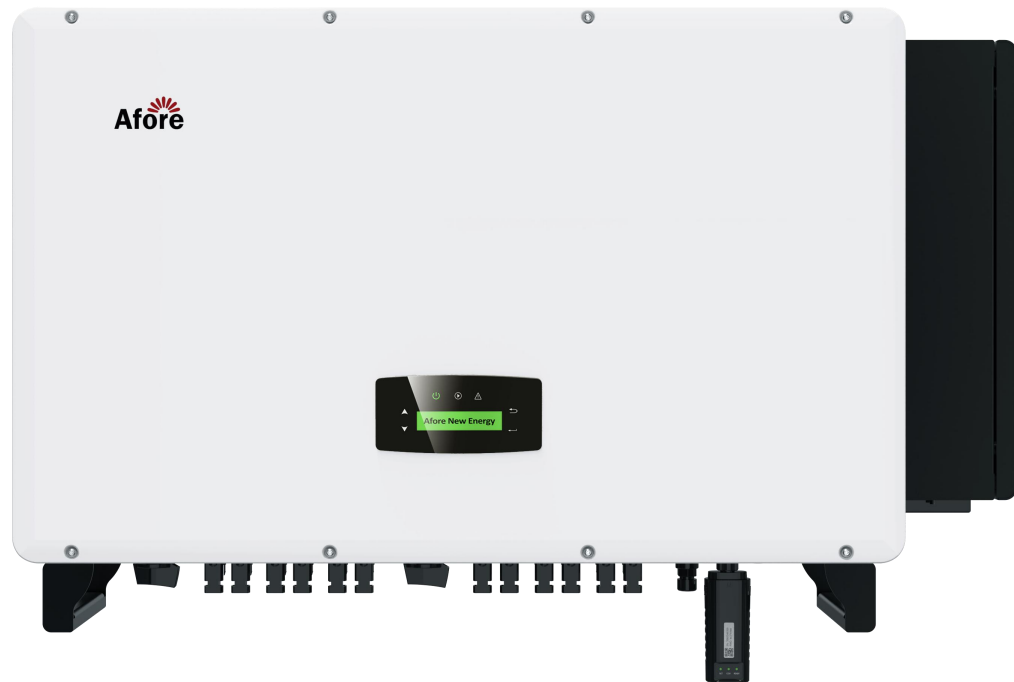
Find the early issues of the PV panels timely and analyze whether there is a fault. Quickly determine its type when fault happens and precisely locate the failed PV string.



## Smaller & lighter

Transportation cost down, and easy to install.

# Three Phase PV String Inverter 70-110kW



## SMART

Intelligent string monitoring,  
Smart I-V curve scan



## PROTECTION

Type II DC & AC Lightning Protection



## MAX. 38A<sub>dc</sub>

String Current Up To 38A



## PV OVERSIZE

>1.5 Time PV Oversize Input



## POWER FACTOR

Active and Reactive Power Compensation



## ANTI-FLOW

Anti-Feed-in Function



**Hybrid Inverter**

## All In One Energy Storage System Single Phase Home Storage Solution (LV)



IP65 outdoor design



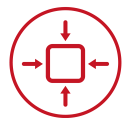
All-in-one modularized  
design Pre-wired components



AC retrofit & easy installation



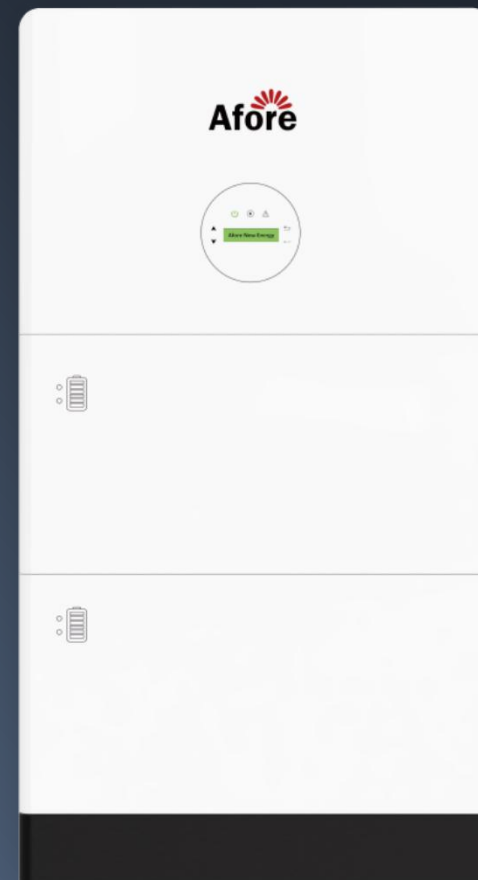
Modular design and  
expandable up to 20.48kWh



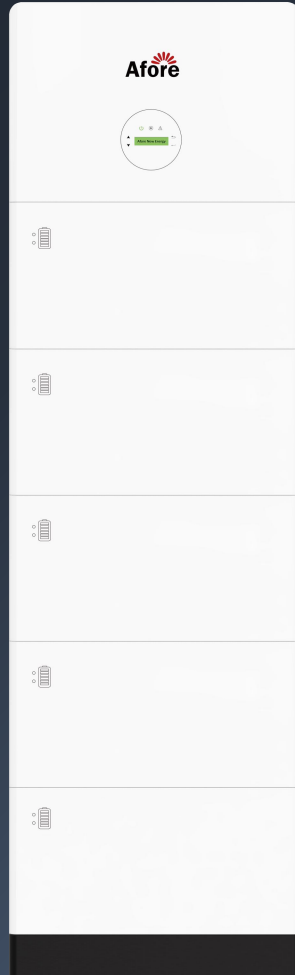
Space saving



UPS function switch time  $\leq 10\text{ms}$



# All In One Energy Storage System Three Phase Storage Solution (HV)



IP65 outdoor design



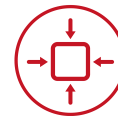
All-in-one modularized design Pre-wired components



AC retrofit & easy installation



Modular design and expandable up to 25.6kWh



Space saving



UPS function switch time  $\leq 10\text{ms}$

## Single Phase Hybrid Inverter (1-6kW)

Max.  
**1.5**

### PV OVERSIZE

1.5 Times PV Oversize

**2**  
MPPT

### MPPT CHANNELS

Up to 2 MPPT Channels

**<10**  
ms

### UPS FUNCTION

Switch Time < 10ms



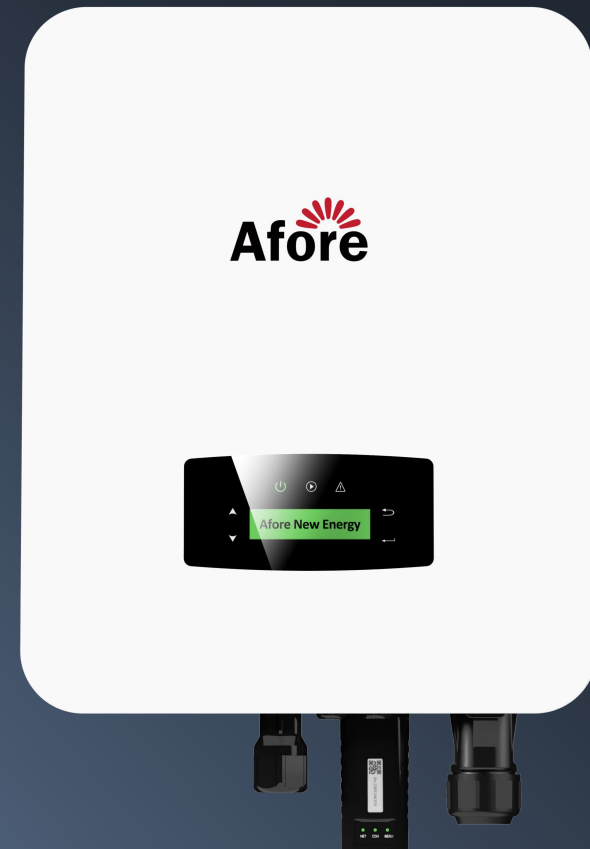
### PARALLEL

Max.6 Parallel Stacking



### INPUT

Support Generator





## Single Phase Hybrid Inverter Plus Series (4-6kW)



### MAX. 120A

Max. Charge/Discharge Current 120A



### Max. 1.5 PV OVERSIZE

1.5 Times PV Oversize



### 2 MPPT CHANNELS

Up to 2 MPPT Channels



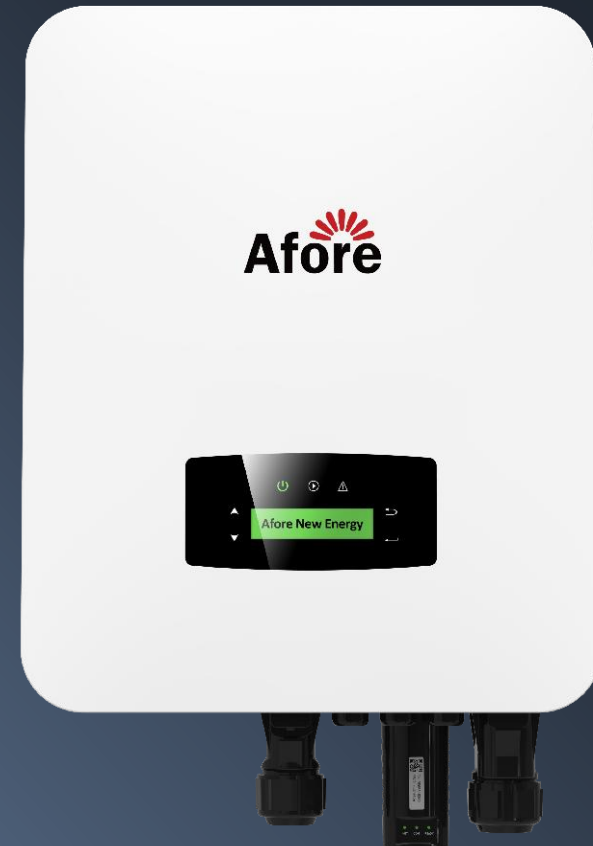
### <10 ms UPS FUNCTION

Switch Time < 10ms



### PARALLEL

Max.6 Parallel Stacking



## Three phase Hybrid Inverter (3-12/15-30kW)



### SODIUM-ION BATTERY

Support sodium-ion battery



### WIDE RANGE

Voltage Range (150-800V)



### 100% UNBALANCE

Support Unbalance Load



### PV OVERSIZE

1.5 Times PV Oversize



### MAX. 40A<sub>dc</sub>

String Current Up To 40A



### UPS FUNCTION

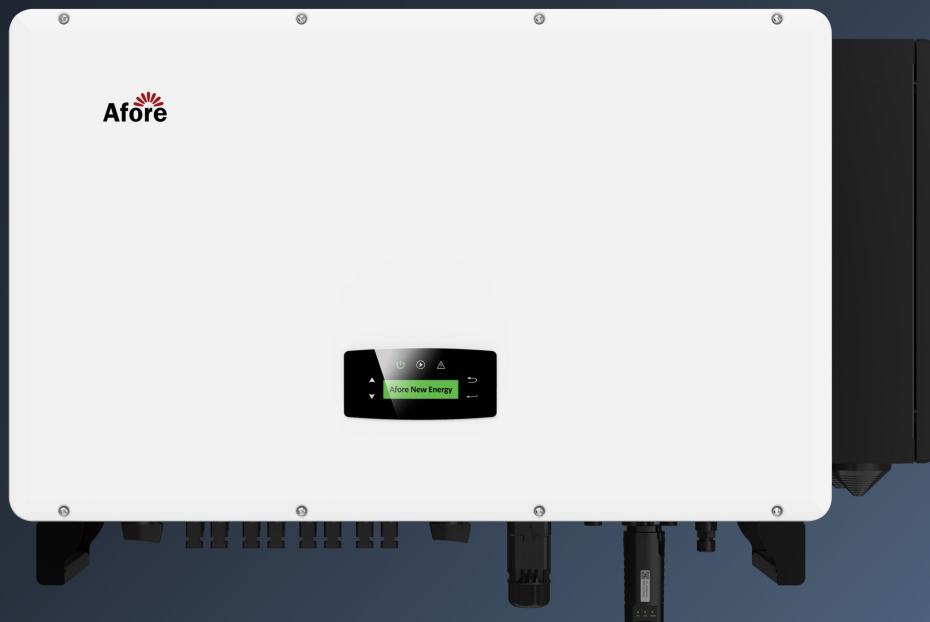
Switch Time < 10ms



### INPUT

Support Generator

## Three phase Hybrid Inverter (36-50kW)



### SODIUM-ION BATTERY

Support sodium-ion battery



### WIDE RANGE

Voltage Range (150-800V)



### 100% UNBALANCE

Support Unbalance Load



### PV OVERSIZE

1.5 Times PV Oversize



### MAX. 40A<sub>dc</sub>

String Current Up To 40A



### UPS FUNCTION

Switch Time < 10ms



### INPUT

Support Generator

## Three Phase Hybrid Inverter Plus Series (3-12kW)



### SODIUM-ION BATTERY

Support sodium-ion battery



### MIN. 80V

Battery Voltage Minimum 80V



### MAX. 50A

Max. Charge/Discharge Current 50A



### 100% UNBALANCE

Support Unbalance Load



### PV OVERSIZE

1.5 Times PV Oversize



### MAX. 20A<sub>dc</sub>

String Current Up To 20A



### UPS FUNCTION

Switch Time < 10ms

## Single Phase AC Coupled (1-6kW)



### SEAMLESSLY SWITCH

Seamlessly Switch Time  
between EPS with Grid



### SMART

Smart EMS/BMS



### UNIBODY

One-piece Aluminum Housing



### SAFETY

Proven Safety



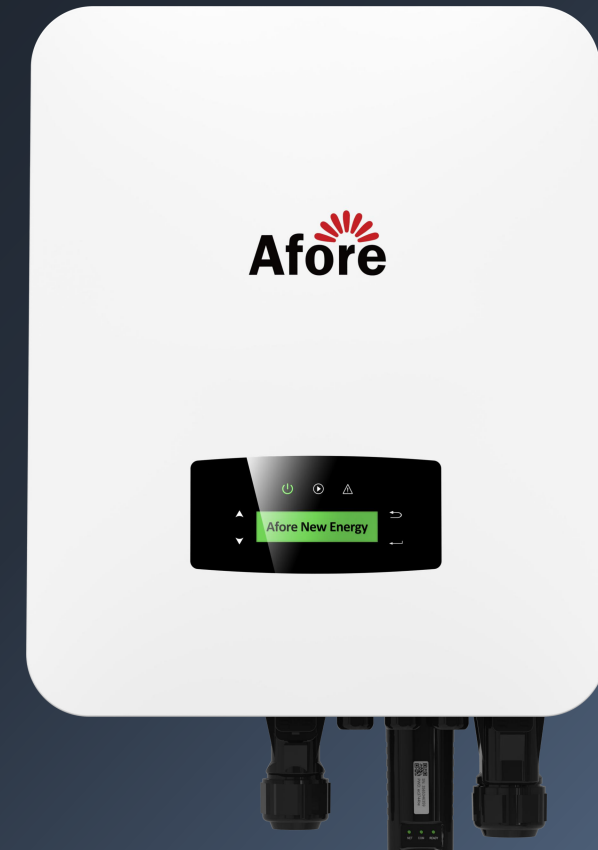
### MAX. 80A

Max. 80A Battery Charge  
and Discharge Current

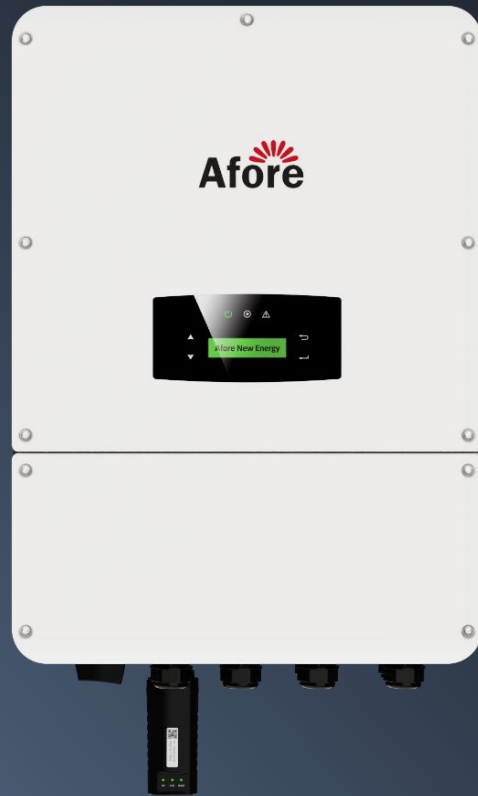


### SUPPORT

Island support

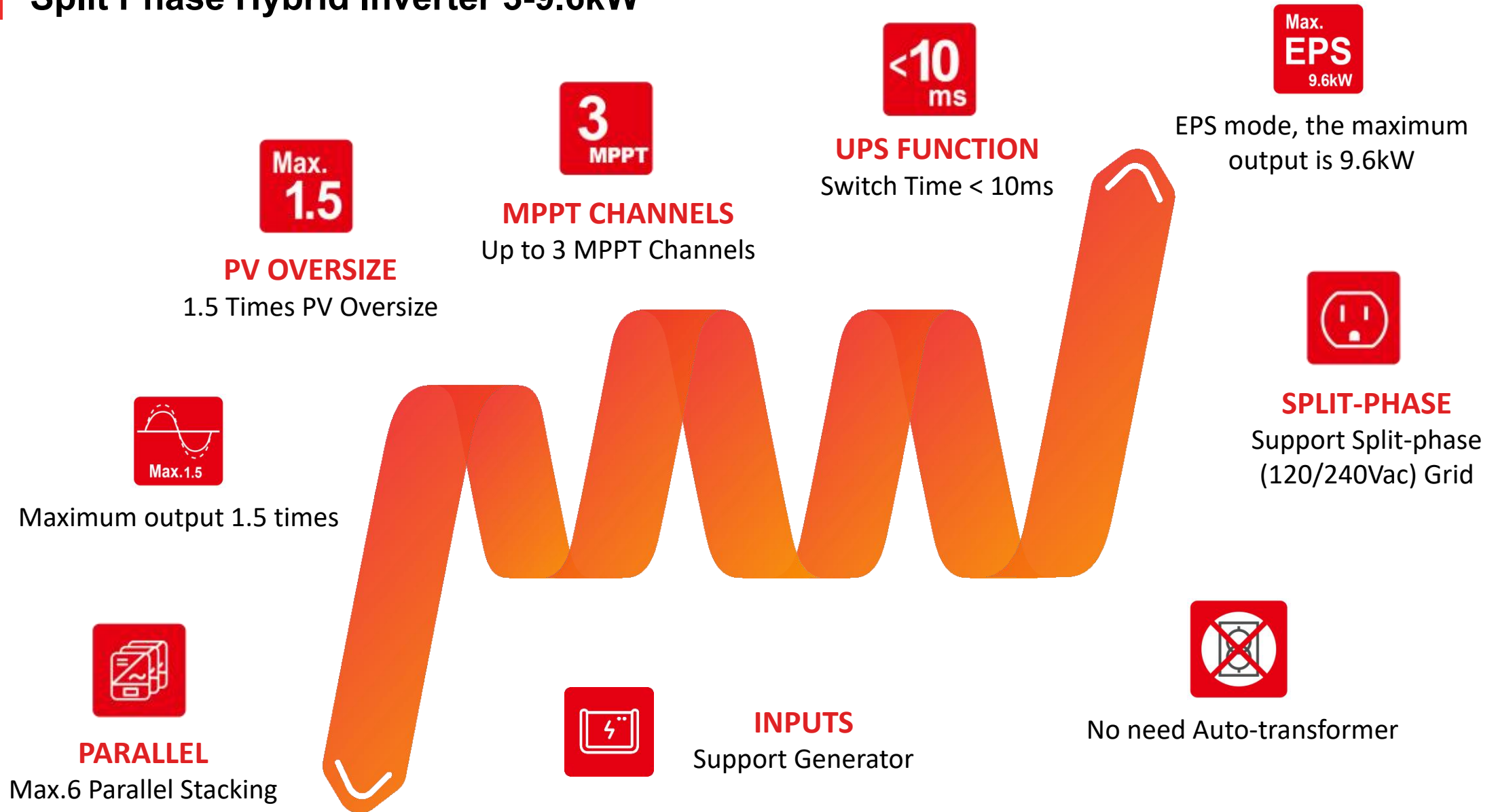


## Split Phase Hybrid Inverter 3-9.6kW



- The Afore AF Series storage Inverters are designed to increase energy independence for homeowners. The power range is from 3.0kW to 9.6kW, compatible with high voltage (80-495V) batteries.
- Energy management is based on time-of-use and demand charge rate structures, significantly reduce the amount of energy purchased from public grid.
- Thanks for the UPS function (switch time < 10ms), enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.
- The AF Series storage inverters meet the US safety regulations, integrated with Arc Fault Circuit Interrupter (AFCI) and Rapid Shutdown.

# Split Phase Hybrid Inverter 3-9.6kW



Max.  
**1.5**

### PV OVERSIZE

1.5 Times PV Oversize



Maximum output 1.5 times

**3**  
MPPT

### MPPT CHANNELS

Up to 3 MPPT Channels

**<10**  
ms

### UPS FUNCTION

Switch Time < 10ms

Max.  
**EPS**  
9.6kW

EPS mode, the maximum output is 9.6kW



### SPLIT-PHASE

Support Split-phase (120/240Vac) Grid



### PARALLEL

Max.6 Parallel Stacking



### INPUTS

Support Generator



No need Auto-transformer

**Certification**

**05**



# Certifications And Standards

## EMC Standard

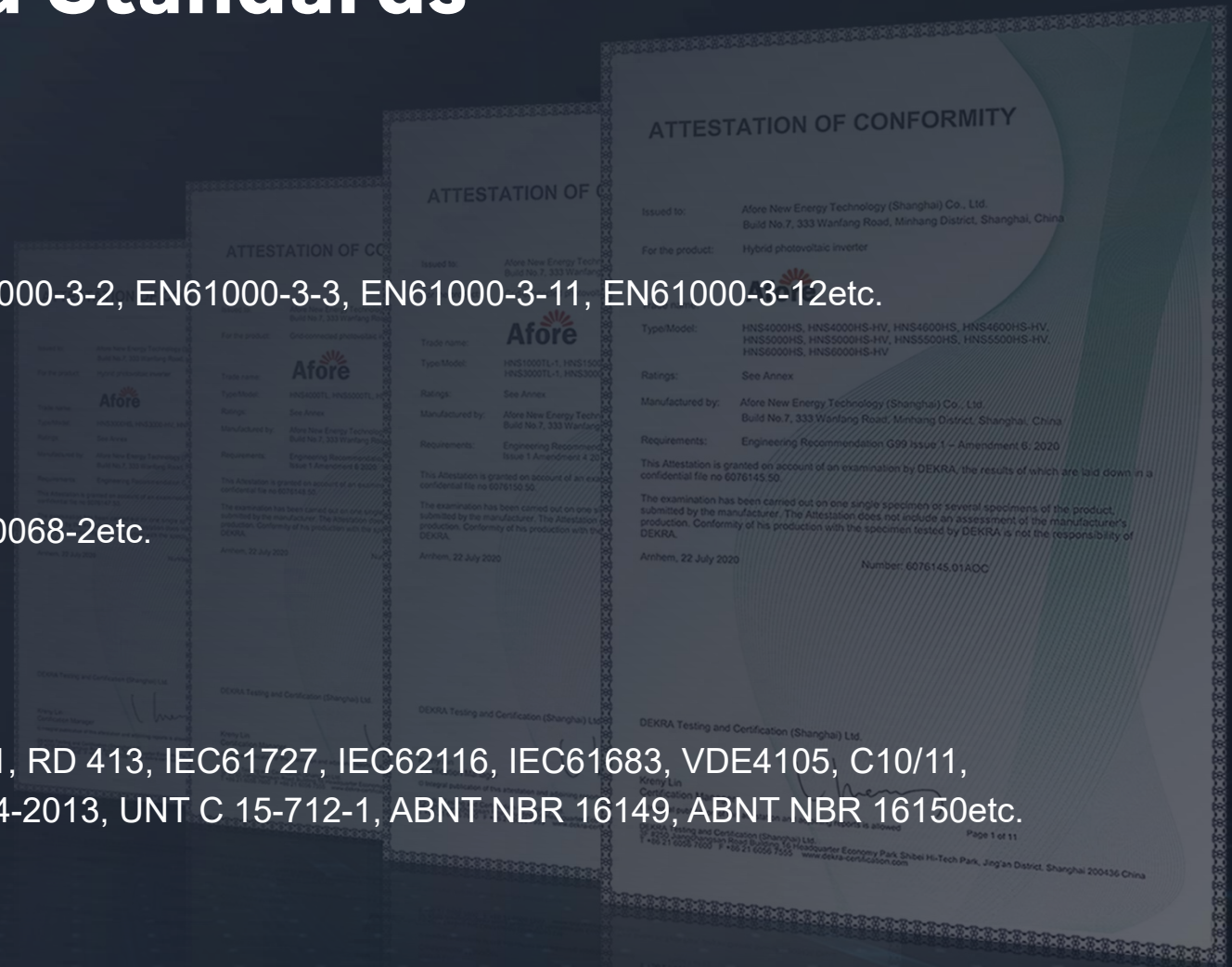
EN/IEC 61000-6-2, EN/IEC 61000-6-3, EN61000-3-2, EN61000-3-3, EN61000-3-11, EN61000-3-12etc.

## Safety Standard

IEC/EN62109-1, EN62109-2, UL1741, IEC 60068-2etc.

## Grid-Connection

EN50549-1, EN50438, RD 1699,UNE 217001, RD 413, IEC61727, IEC62116, IEC61683, VDE4105, C10/11, IEEE1547, VDE0126, AS4777.2, NB/T 32004-2013, UNT C 15-712-1, ABNT NBR 16149, ABNT NBR 16150etc.





# Production Line And QC



Strict Quality Control and Quality Assurance System



Inside the high temperature chamber, every inverter goes through up to 8Hrs Aging Test without power degrade.



Over 70 Performance and Functional Tests Before Packing



# Global Marketing



- 20+ QC Points During Whole Process of Production



Production capacity extended by **4** times after upgrading



**8GW+** Shipped Globally

# Technical Training

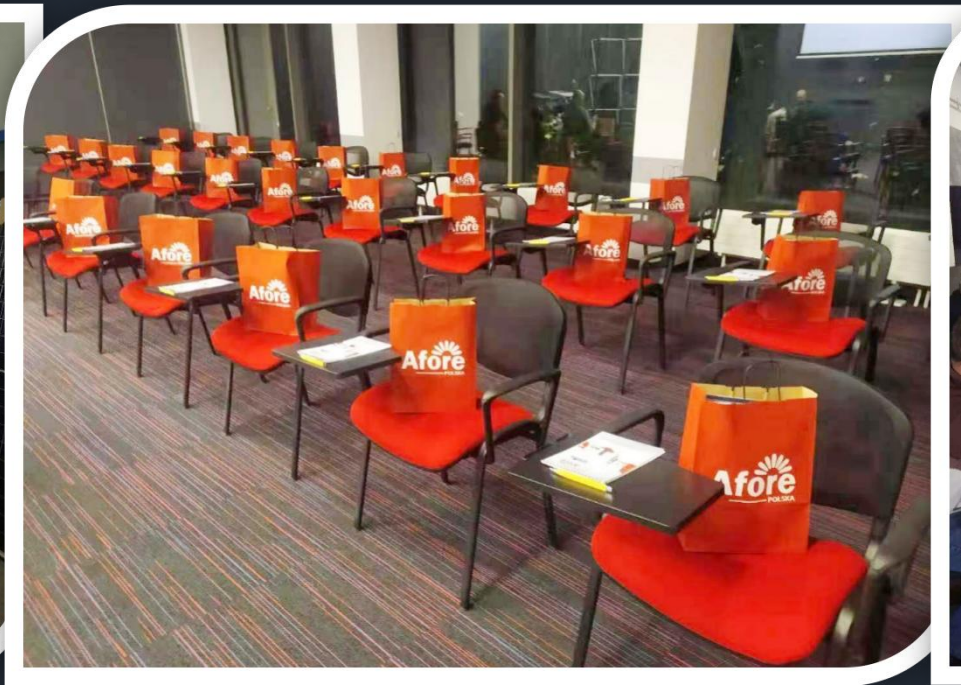


## Product & installation training

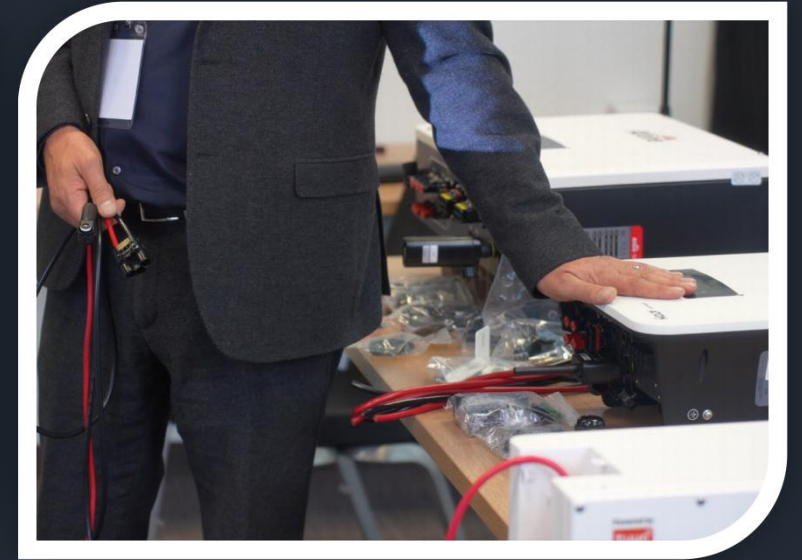
Every two months a large number of clients join the regular technical training held around many countries.



# Technical Training



# **| Technical Training**



**Afore Technical Training Conference in  
Frankfurt, Germany**



# Boxing Match





## Corporate Team Building



# Racing Rally





**Key Energy 2023**



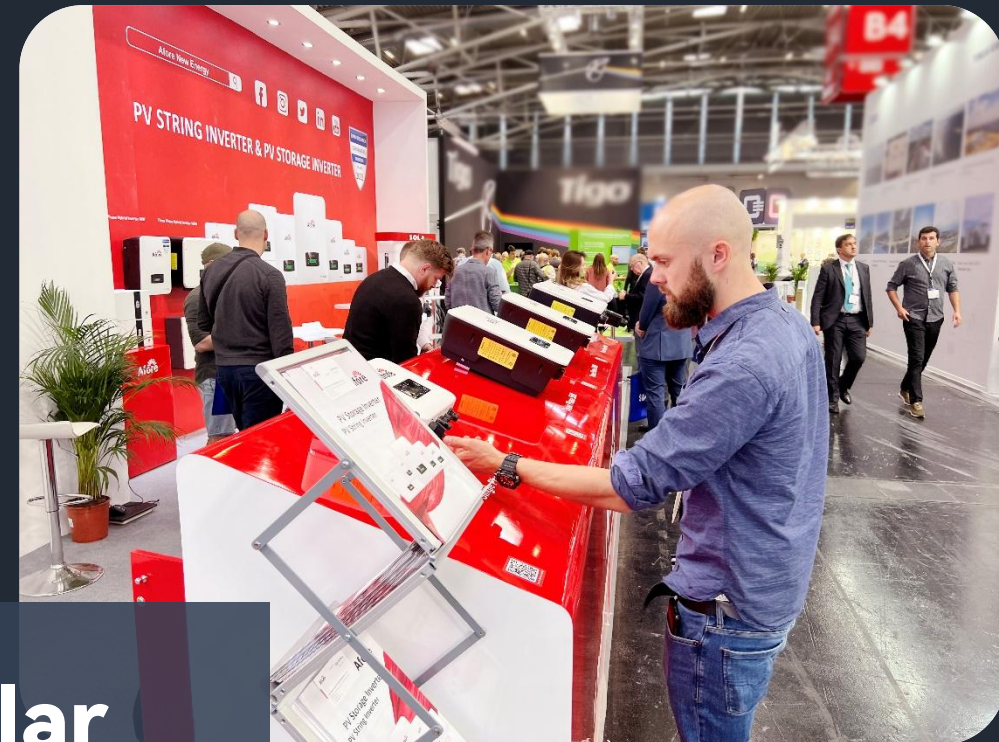
**Solar Solutions International 2023**



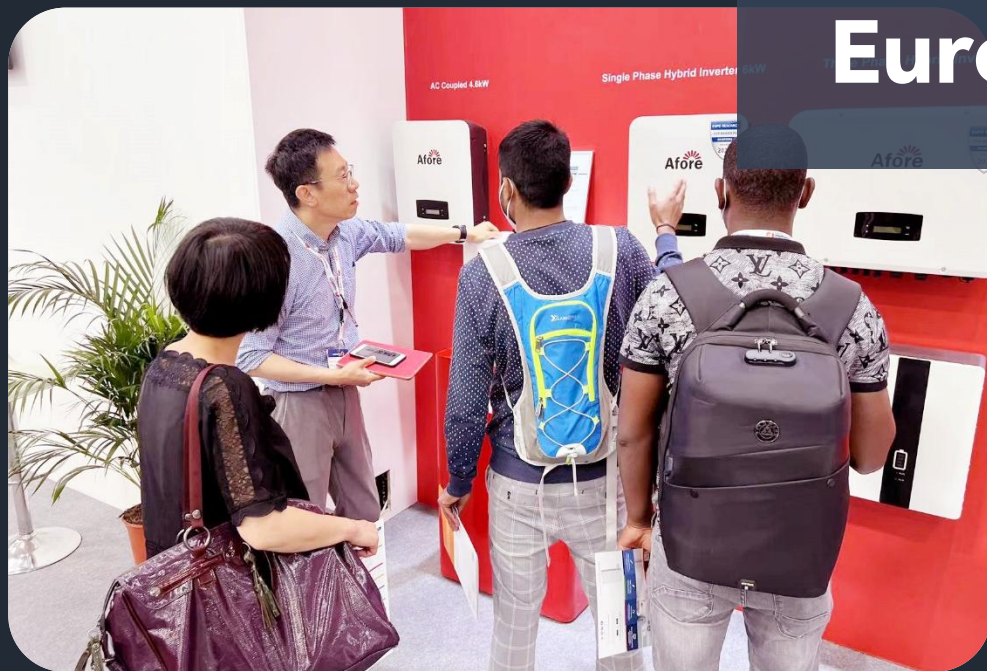
**GENERA 2023**



**The Solar Show Africa 2023**



# Intersolar Europe 2022

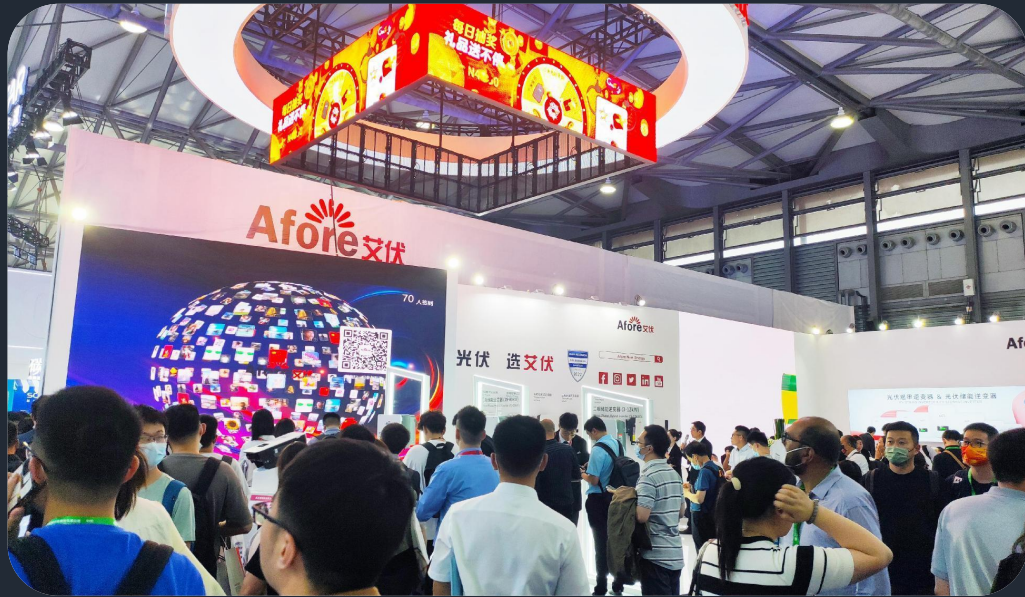




# RE+ 2023







SNEC 2023





# CISOLAR 2022



ATON SERIES

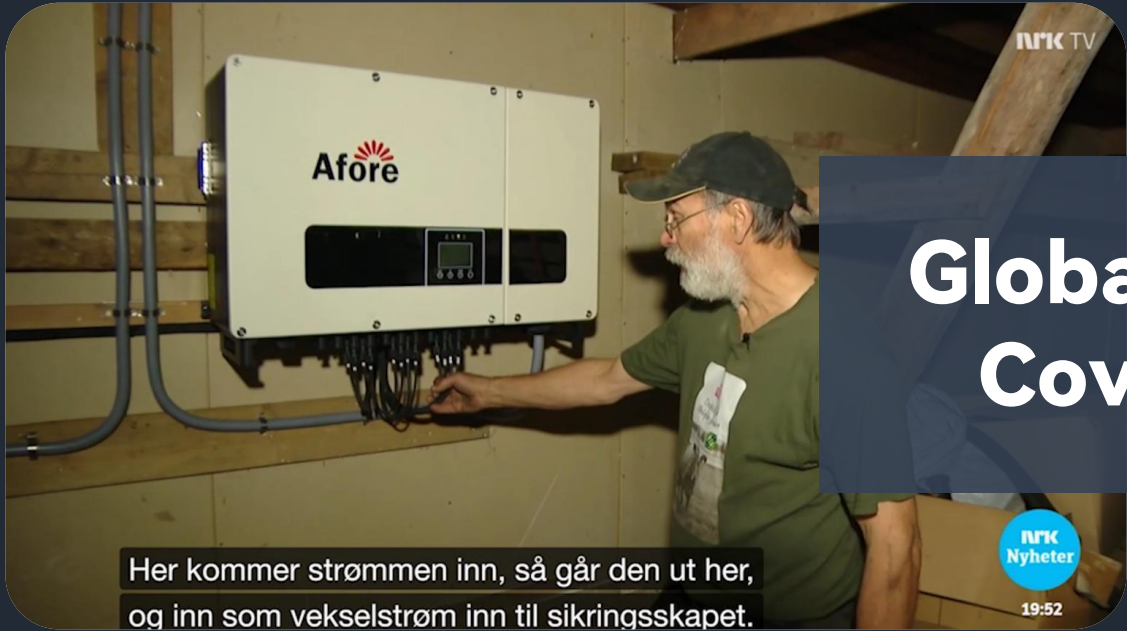
- ⚡ ФУНКЦІЯ AFCI ЗАПОБІГАННЯ УТВОРЕННЮ ЕЛЕКТРИЧОЇ ДУГИ
- 🔧 ЕФЕКТИВНИЙ ПРОЦЕСОР TEXAS INSTRUMENTS ЗВІЙШАНА ОБЧИСЛЮВАЛЬНА ПОТУЖИСТЬ
- 🔄 ВИДАЛЕННЯ СНОВЛЕННЯ ПРОГРАМНОГО ЗАБЕСПЕЧЕННЯ ЗАВЖДИ АКТУАЛЬНІ ДАНІ
- ⚡ ТОНКОПЛІВКОВІ КОНДЕНСАТОРИ РОБОТА ПОНАД 25 РОКІВ
- 🌿 СУЧАСНИЙ ДИЗАЙН НОВИЙ ФУНКЦІОНАЛЬНИЙ КОРПУС ТИПУ UNIBODY
- 🔌 SMART GRID READY УЗМОЖЛИТЬ ІНВЕРТОРІ НАСОСІДУКІТЬСЯ ВИРОБАМ ВИРОБИТИ ЕНЕРГІЮ
- 🌐 ГЛОБАЛЬНИЙ МОНИТОРИНГ ЕРЕКТОР ВАШІ ДАНІ ТА ЄВРОПЕЙСЬКІ СЕРВЕРИ

Afore

ATON

3-25кВт

NOVITRI RISH SONIACHNOR



Her kommer strømmen inn, så går den ut her, og inn som vekselstrøm inn til sikringsskapet.

NRK TV

NRK Nyheter

19:52

# Global Media Coverage



JORNAL VANGUARDA

EXPORTAÇÕES CAEM 33% EM 2020

PANDEMIA PREJUDICOU NEGÓCIOS DE EMPRESAS DA REGIÃO NO EXTERIOR



CCTV 2

CNTN

一个教授的“新能源”实验

刘浩





# Global Installation Case



Country: China  
Product: Three-phase 60kW  
Project Size: 0.5MW



Country: Ukraine  
Product: Three-phase 30kW  
Project Size: 30 kW



Country : Norway  
Product : Three-phase 15kW  
Project Size : 15kW

## Applications



Afore inverters have been installed in Europe, Australia, China, Indian, Japan, North America and South America, satisfying hundreds of thousand users globally.

Country: Japan  
Product:  
Single-phase 5.5kW  
Project Size: 49.5kW





Country: Jamaica  
Product:  
Split Phase Hybrid Inverter 9.6kW  
Battery: 52kW·h



## Energy storage applications

Country: UK  
Product: Single Phase  
Hybrid Inverter 6kW  
Battery: 8kW·h



Country: South Africa  
Product: Single Phase  
Hybrid Inverter 6kW  
Battery: 11kW·h



Country: Japan  
Product: Three Phase  
Hybrid Inverter 9.9kW  
Battery: 85.2kW·h



Country: Japan  
Product: Split Phase  
Hybrid Inverter 8.25kW  
Battery: 10kW·h



# BAHRAIN F1



Afore Inverter Power BAHRAIN F1  
Grand Prix To Go Green!

Country: Bahrain  
Project Size: 3883kW





Country: Poland  
Product: Single-phase 5kW  
Project Size: 5kW



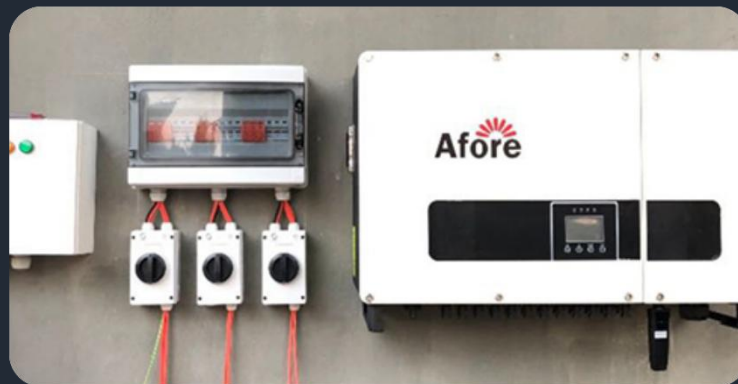
Country: Japan  
Product: Hybrid Inverter 6kW  
Project Size: 6kW



Country: Pakistan  
Product: Three-phase 6kW  
Project Size: 6kW



Country : Iran  
Product : Single-phase 5kW  
Project Size : 200kW residential  
community project



Country: Vietnam  
Product: Three-phase 60kW  
Project Size: 266kW

## » Applications





Country: Malaysia  
Product: Three-phase 60kW  
Project Size: 85kW



Country: Japan  
Product: Single-phase 5.5kW  
Project Size: 49.5kW



## Applications



Country: Brazil  
Product: Three-phase 60kW  
Project Size: 5MW

Country: Ukraine  
Product: Three-phase 30kW  
Project Size: 30kW





Product: Three-phase 30kW  
Project Size: 1MW



Product: Three-phase 30kW  
Project Size: 1.2MW



Product: Three-phase 20kW  
Project Size: 200kW



Product: Three-phase 30kW  
Project Size: 0.8MW



Product: Three-phase 60kW  
Project Size: 500kW



Product: Three-phase 30kW  
Project Size: 1.5MW



Product: Three-phase 20kW  
Project Size: 0.6MW



Product: Three-phase 30kW  
Project Size: 2.0MW

» China Series



**Company Honors**

AC Coupled 4.6kW

Single Phase Hybrid Inverter 6kW

Single Phase Hybrid Inverter 10kW

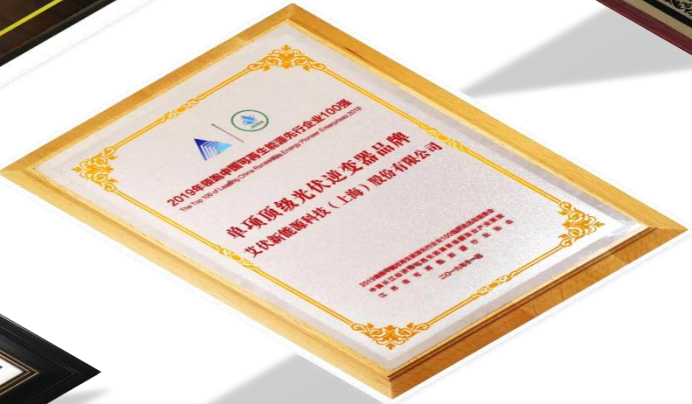
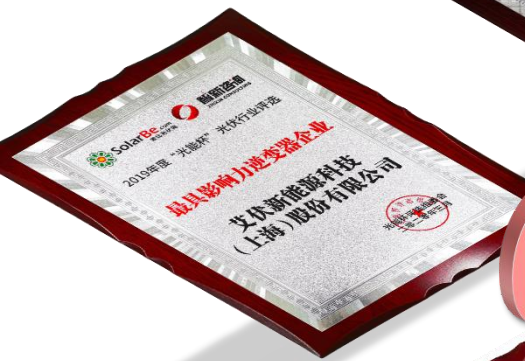
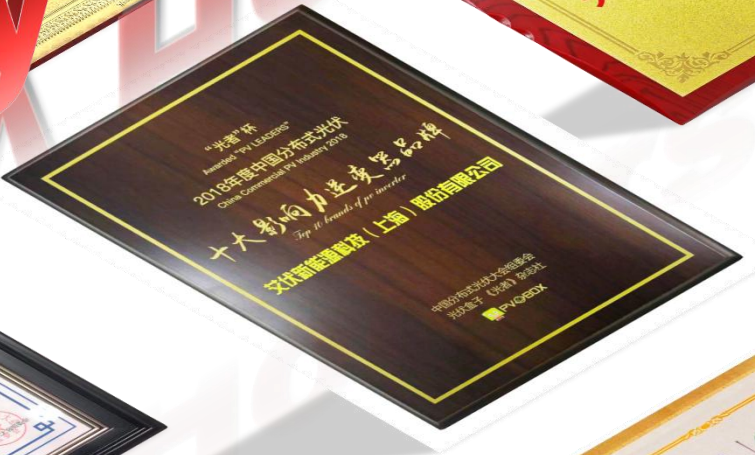
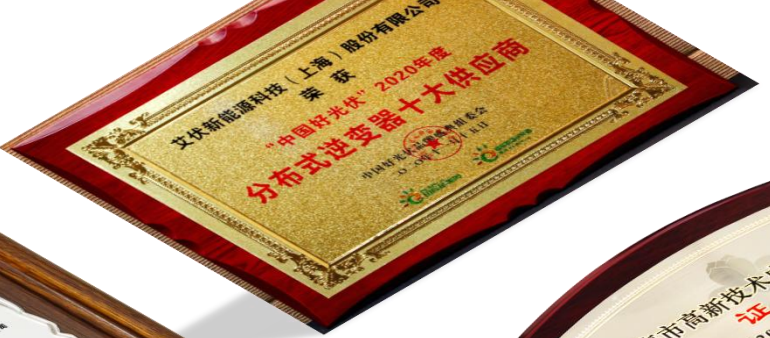
Afore

Afore

Afore



# Company Honors





# THANK YOU!

