



Meaningful Innovation.

# 30kW Hybrid 3ph Inverter High Voltage

The Afore AF series three phase storage inverters are designed to increase energy independence for homeowners and commercial users. Compatible with high voltage (150-800V) 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), that enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.



**SODIUM METAL CHLORIDE BATTERY**  
Support  
Sodium metal chloride 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

Support for Time-of-use Optimization

Configurable Operation Modes

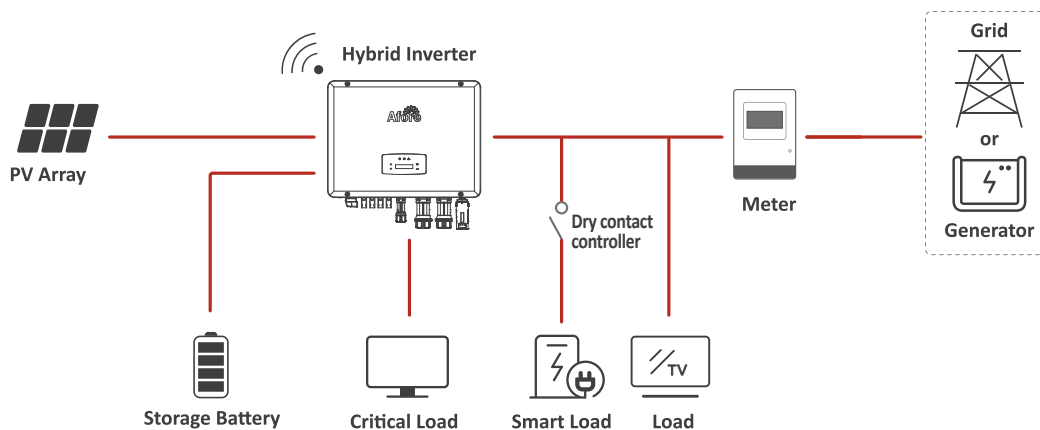
AFCI (Optional) & Rapid Shutdown Ready

 Build in Anti-feed-in Function

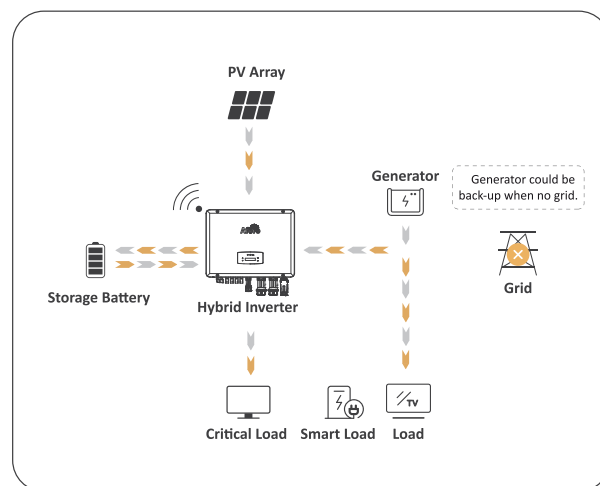
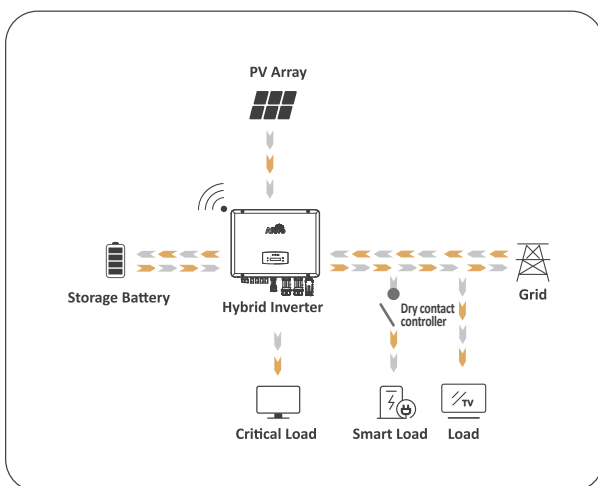
 100% unbalanced output, each phase;  
200% unbalanced output, each phase ( $\leq 10kW$ )

 Smart Monitoring & Remote Firmware Upgrade

## For New Storage System:

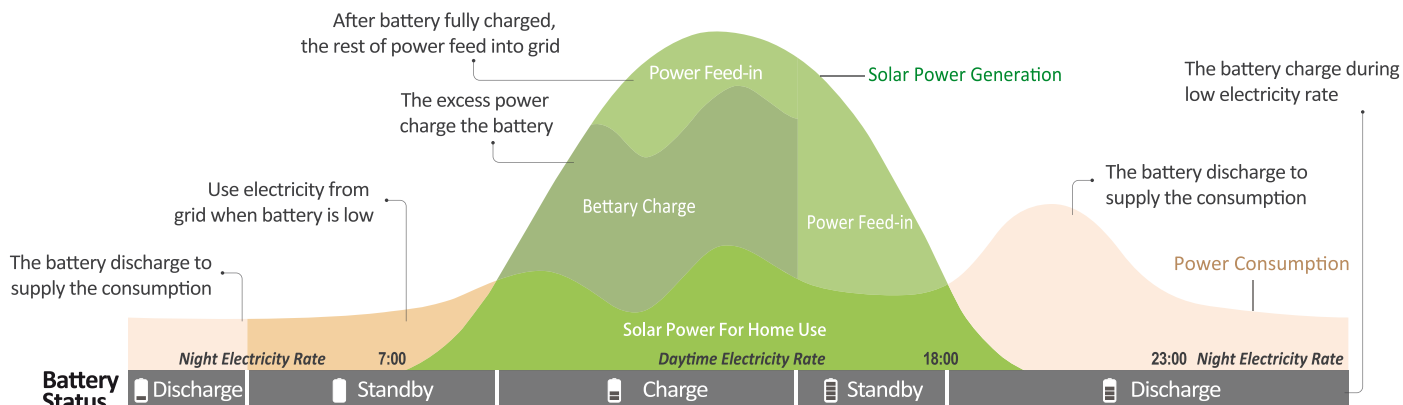


## Optimizing Self-Consumption (on-grid) + Emergency Power Supply (off-grid)



## Optimizing Self-Consumption Mode

With energy storage system installed, users may also be able to change from a flat rate electricity tariff to a time-of-use tariff. For the areas and regions, where peak shaving can be applied.



## ■ Technical Data

SKU: 12312 | Model No:AF30K-TH

PV Input	
Max. DC Input Power (kW)	45
Max. PV Voltage (V)	1000
Rated DC Input Voltage (V)	620
DC Input Voltage Range (V)	150 - 1000
MPPT Voltage Range (V)	150 - 850
Full MPPT Range(V)	500 - 850
Start-up Voltage (V)	160
Max. DC Input Current (A)	40x2
Max. Short Current(A)	60x2
No. of MPPT Tracker / Strings	2/4
Battery Port	
Battery Nominal Voltage (V)	550
Battery Voltage Range (V)	150 - 800
Max. Charge/Discharge Current (A)	60
Max. Charge/Discharge Power (kW)	30
Charging Curve	3 Stages
Compatible Battery Type	Li-ion / Lead-acid / Sodium metal chloride Battery
AC Grid	
Nominal AC Output Power (kW)	30
Max. AC Input/Output Power (kVA)	45 / 33
Max. AC Output Current (A)	48
Nominal AC Voltage (V)	230 / 400
Nominal AC Frequency (Hz)	50 / 60
Power Factor	1 (-0.8-0.8) adjustable
Current THD (%)	< 3 %
AC Load Output (Back-up)	
Nominal Output Power (VA)	30000
Nominal Output Voltage (V)	230 / 400
Nominal Output Frequency (Hz)	50 / 60
Nominal Output Current (A)	43.5
Peak Output Power	33000VA, 60s
THDV (with linear load)	< 3 %
Switching Time (ms)	< 10
Efficiency	
Europe Efficiency	98.10%
Max. Efficiency	98.50%
Battery Charge/Discharge Efficiency	98.00%
Protection	
Reverse Polarity Protection	Yes
Over Current / Voltage Protection	Yes
Anti-islanding Protection	Yes
AC Short-circuit Protection	Yes
Leakage Current Detection	Yes
Ground Fault Monitoring	Yes
Grid Monitoring	Yes
Enclosure Protect Level	IP65
AC/DC surge protection	Type II
General Data	
Dimensions (W x H x D, mm)	558 x 535 x 260 mm
Weight (kg)	36kg
Topology	Transformerless
Cooling Concept	Intelligent Fan
Relatively Humidity	0 - 100 %
Operating Temperature Range (°C)	- 25 to 60 °C
Operating Altitude (m)	< 4000
Noise Emission (dB)	< 40
Standby Consumption (W)	< 5
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G
Certification & Approvals	NRS097, G98/G99, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, VDE0126, IEC62109-1, IEC62109-2
EMC	EN61000-6-2, EN61000-6-3