

Three Phase Hybrid Storage Inverter

36-50 kW



The Afore AF series three phase storage inverters are designed to increase energy independence for homeowners and commercial users. The power range is from 36kW to 50kW, 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. 40Adc
String Current Up To 40A



UPS FUNCTION
Switch Time < 10ms



INPUT
Support Generator

- Support 280AH, 315AH battery system

Support for Time-of-use Optimization

Configurable Operation Modes

AFCI (Optional) & Rapid Shutdown Ready
-  2 times AC Oversize

 Build in Anti-feed-in Function

 100% unbalanced output, each phase

 Smart Monitoring & Remote Firmware Upgrade

■ Technical Data	AF50K-TH
PV Input	
Max. DC Input Power (kW)	75
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)	40×4
Max. Short Current(A)	48×4
No. of MPPT Tracker / Strings	4/8
Battery Port	
Battery Nominal Voltage (V)	500
Battery Voltage Range (V)	150-800
Max. Charge/Discharge Current (A)	120
Max. Charge/Discharge Power (kW)	50
Charging Curve	3 Stages
Compatible Battery Type	Li-ion / Lead-acid / Sodium metal chloride battery
AC Grid	
Nominal AC Output Power (kW)	50
Max. AC Input/Output Power (kVA)	100/ 55
Max. AC Output Current (A)	83.38
Nominal AC Voltage (V)	230 / 400
Nominal AC Frenquency (Hz)	50 / 60
Power Factor	1 (-0.8-0.8)
Current THD (%)	<3%
AC Load Output (Back-up)	
Nominal Output Power (VA)	55000
Nominal Output Voltage (V)	230 / 400
Nominal Output Frequency (Hz)	50 / 60
Nominal Output Current (A)	72.5
Peak Output Power	55000VA, 60s
THDV (with linear load)	3%
Switching Time (ms)	<10
Efficiency	
Europe Efficiency	98.30%
Max. Efficiency	98.60%
Battery Charge/Discharge Efficiency	99.00%
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	IP66
AC/DC surge protection	Type II
General Data	
Dimensions (W x H x D, mm)	979 x 610 x 310mm
Weight (kg)	70kg
Topology	Transformerless
Cooling Concept	Intelligent Fan
Relative Humidity	0-100%
Operating Temperature Range (°C)	-25 to 60 °C
Operating Altitude (m)	<4000
Noise Emission (dB)	<60
Standby Consumption (W)	<100
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