

Single Phase Hybrid Storage Inverter

4-6 kW Plus Series



The Afore AF low voltage series storage Inverters are designed to increase energy independence for homeowners. The power range is from 4kW to 6kW, compatible with low voltage (40-60V) batteries.

Energy management is based on time-of-use and demand charge rate structures, which significantly reduce the amount of energy purchased from the 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.

The AF low voltage series storage inverters are integrated with Arc Fault Circuit Interrupter (AFCI) and rapid shutdown.



MAX. 120A
Max. Charge/
Discharge Current 120A



PV OVERSIZE
1.5 Times PV Oversize



MPPT CHANNELS
Up to 2 MPPT Channels



UPS FUNCTION
Switch Time < 10ms



PARALLEL
Max.6 Parallel Stacking

Support for Time-of-use Optimization

Configurable Operation Modes

Arc Fault Circuit Interrupter (AFCI) (Optional)

The charging and discharging power of the battery is greater

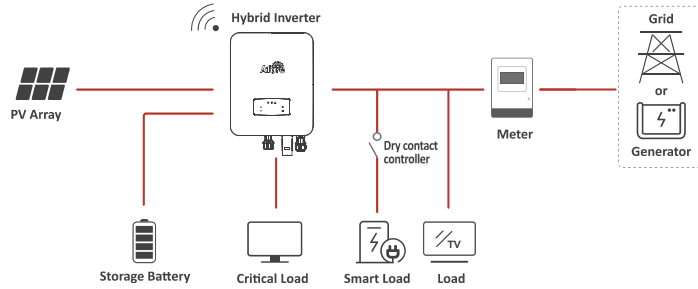
Build in Anti-feed-in Function

Compact Size and Easy Installation

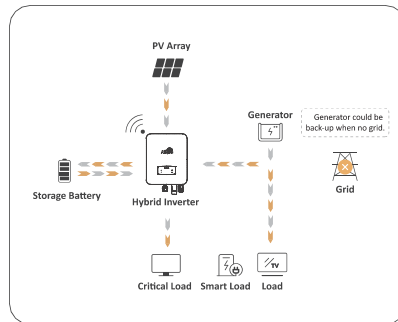
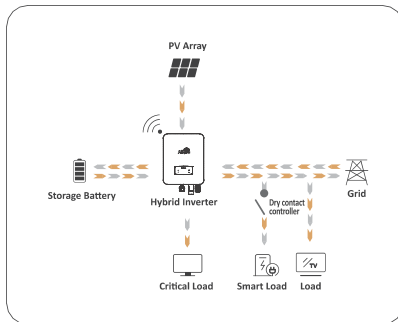
Smart Monitoring & Remote Firmware Upgrade

Off-grid mode, with a larger load capacity, the maximum load can be 6KVA

For New Storage System:

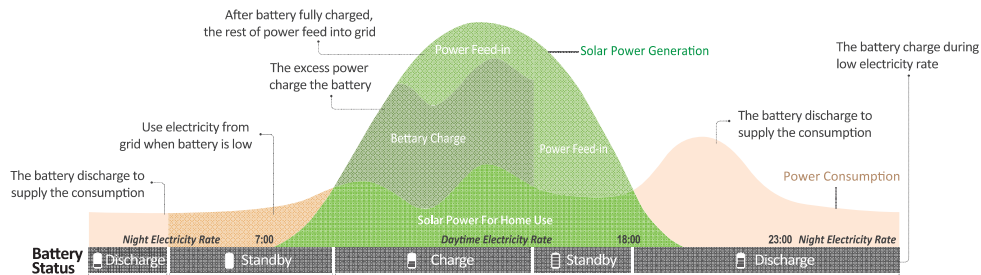


Optimizing Self-Consumption (on-grid) + Emergency Power Supply (off-grid)



Optimizing Self-Consumption Mode

With home energy storage installed, home owners 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

AF6K-SLP

PV Input	
Max. Input Power (kW)	9
Max. PV Voltage (V)	550
MPPT Range (V)	80 - 500
Full MPPT Range (V)	170 - 500
Normal Voltage (V)	360
Startup Voltage (V)	100
Max. Input Current (A)	18.5 x 2
Max. Short Current (A)	26 x 2
No. of MPP Tracker / No. of PV String	2 / 2
Battery Port	
Max. Charge/Discharge Power (kW)	6.0
Max. Charge/Discharge Current (A)	120
Battery Normal Voltage (V)	51.2
Battery Voltage Range (V)	40 - 60
Battery Type	Li-ion / Lead-acid etc.
AC Grid	
Max Continuous Current (A)	28.0
Max Continuous Power (kVA)	6.0
Nominal Grid Current (A)	27.3 / 26.1
Nominal Grid Voltage (V)	198 to 242 @ 220 / 207 to 253 @ 230
Nominal Grid Frequency (Hz)	50 / 60
Power Factor	0.999 (Adjustable from 0.8 overexcited to 0.8 underexcited)
Current THD (%)	< 3
AC Load Output	
Max Continuous Current (A)	28.0
Max Continuous Power (kVA)	6.0
Max Peak Current (A) (10min)	41.0 / 39.2
Max Peak Power (kVA) (10min)	9.0
Nominal AC Voltage L-N (V)	220 / 230
Nominal AC Frequency (Hz)	50 / 60
Switching Time (ms)	Seamless
Voltage THD (%)	< 3
Efficiency	
CEC Efficiency (%)	97.0
Max. Efficiency (%)	97.6
PV to Bat. Efficiency (%)	98.1
Bat. between AC Efficiency (%)	96.8
Protection	
PV Reverse Polarity Protection	Yes
Over Current/Voltage Protection	Yes
Anti-Islanding Protection	Yes
AC Short Circuit Protection	Yes
Residual Current Detection	Yes
Ground Fault Monitoring	Yes
Insulation Resister Detection	Yes
PV Arc Detection	Yes
Enclosure Protect Level	IP65 / NEMA4X
General Data	
Dimensions (W x H x D, mm)	370 x 535 x 192
Weight (kg)	20.5
Topology	Transformerless
Cooling	Intelligent Fan
Relative Humidity	0 - 100 %
Operating Temperature Range (°C)	- 25 to 60
Operating Altitude (m)	< 4000
Noise Emission (dB)	< 25
Standby Consumption (W)	< 10
Mounting	Wall Bracket
Communication with RSD	SUNSPEC
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G
Certification & Approvals	NR5097, G98, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, IEC62109-1, IEC62109-2
EMC	EN61000-6-2, EN61000-6-3