

Single Phase Hybrid Storage Inverter

1-6 kW



The Afore AF low voltage series storage Inverters are designed to increase energy independence for homeowners. The power range is from 1kW 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. 1.5	2 MPPT	<10 ms	PARALLEL	INPUT
PV OVERSIZE 1.5 Times PV Oversize	MPPT CHANNELS Up to 2 MPPT Channels	UPS FUNCTION Switch Time < 10ms	PARALLEL Max.6 Parallel Stacking	INPUT Support Generator

Support for Time-of-use Optimization



Build in Anti-feed-in Function



Configurable Operation Modes



Compact Size and Easy Installation



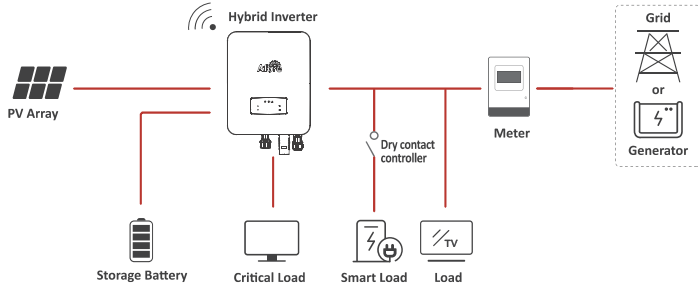
Arc Fault Circuit Interrupter (AFCI) (Optional)



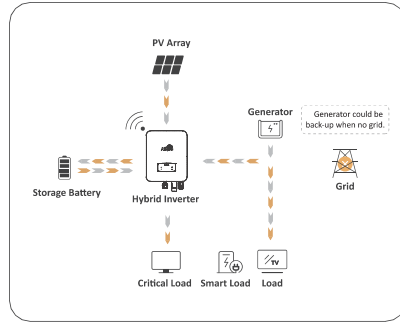
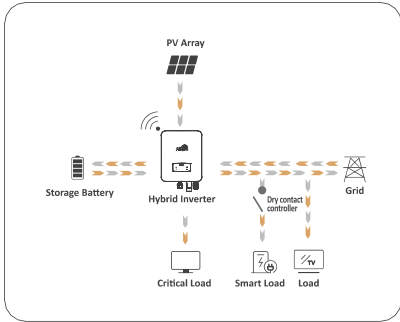
Smart Monitoring & Remote Firmware Upgrade



For New Storage System:

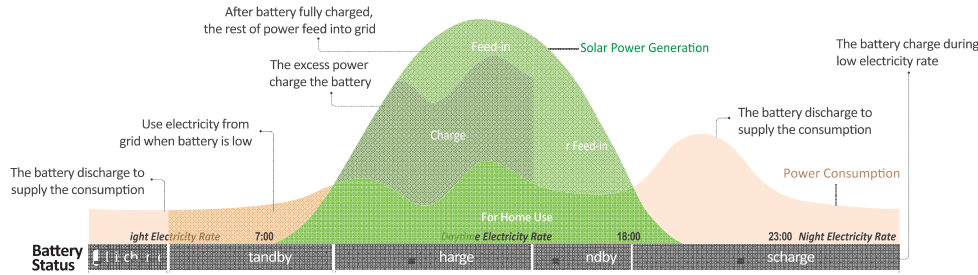


Optimizing Self-Consumption (on-grid) + Emergency Power Supply (off-grid)



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

AF3.6K-SL

PV Input	
Max. Input Power (kW)	5.4
Max. PV Voltage (V)	550
MPPT Range (V)	80 - 500
Full MPPT Range (V)	110 - 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)	3.6
Max. Charge/Discharge Current (A)	80
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)	17.0
Max Continuous Power (kVA)	3.6
Nominal Grid Current (A)	16.4 / 15.7
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)	17.0
Max Continuous Power (kVA)	3.6
Max Peak Current (A) (10min)	24.6 / 23.5
Max Peak Power (kVA) (10min)	5.4
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	NRS097, G98/G99, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, VDE0126, IEC62109-1, IEC62109-2
EMC	EN61000-6-2, EN61000-6-3