

Off-Grid Inverter

Single Phase / 6 kW



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

The Afore energy storage inverter features Smart Electricity Pricing & Automation, an energy management tool based on real-time electricity pricing strategies. It continuously monitors electricity price fluctuations and dynamically adjusts device operation accordingly. Operating 24/7 fully automatically without the need for manual intervention, it helps users optimize their electricity usage and reduce energy costs.



AI EMS
Electricity Pricing
& Automation



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



PV OVERSIZE
2 Times PV Oversize



MPPT CHANNELS
Up to 2 MPPT Channels



BATTERY
Support
Li-ion / Lead-acid

Technical Data	AF6K-1L
PV Input	
Max. PV Access Power (kW)	12
Max. PV Voltage (V)	550
MPPT Range (V)	80 - 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
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 Charge (Grid and Generator)	
Max. Continuous Current (A)	28
Max. Continuous Power (kVA)	6
Nominal Grid Current (A)	26.1
Nominal Grid Voltage (V)	L/N/PE, 220Vac, 230Vac
Nominal Grid Frequency (Hz)	50 / 60
Power Factor	1
AC Output	
Nominal Current (A)	26.1
Max. Continuous Current (A)	28
Max. Continuous Power (kVA)	6
Max. Continuous Apparent Power (kVA)	6
Nominal AC Voltage (V)	L/N/PE, 220Vac, 230Vac
Nominal AC Frequency (Hz)	50 / 60
Power Factor	1
Output Voltage Waveform	Pure Sine Wave
Overload Capacity	1.5 times / 10S
THDV	3%
Max Parallel Nr.	6
Efficiency	
CEC Efficiency (%)	97.0
Max. Efficiency (%)	97.6
Protection	
PV Reverse Polarity Protection	Yes
Over Current/Voltage Protection	Yes
AC Short Circuit Protection	Yes
Residual Current Detection	Yes
Ground Fault Monitoring	Yes
Insulation Resister Detection	Yes
PV Arc Detection	Optional
Ingress protection (IP)	IP66
Protective Class	Class I
Inverter Isolation	Non-isolated (PV - AC - BAT)
Overvoltage Category	OVC III (AC Main), OVC II (DC)
Surge protection	Surge III
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 (Derating 45)
Operating Altitude (m)	< 4000
Standby Consumption (W)	< 10
Mounting	Wall Bracket
Communication with RSD	SUNSPEC
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G, Sunspec