

# 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.

 <b>MAX. 120A</b> Max. Charge/ Discharge Current 120A	 <b>Max. 1.5</b> 1.5 Times PV Oversize	 <b>2</b> MPPT Up to 2 MPPT Channels	 <b>&lt;10</b> ms UPS FUNCTION Switch Time < 10ms	 <b>PARALLEL</b> Max. 6 Parallel Stacking
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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

Technical Data	AF4K-SLP	AF4.6K-SLP	AF5K-SLP	AF5.5K-SLP	AF6K-SLP
<b>PV Input</b>					
Max. Input Power (kW)	6	6.9	7.5	8.3	9
Max. PV Voltage (V)	550				
MPPT Range (V)	80 - 500				
Full MPPT Range (V)	120 - 500	130 - 500	150 - 500	160 - 500	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				
<b>Battery Port</b>					
Max. Charge/Discharge Power (kW)	4.0	4.6	5.0	5.5	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.				
<b>AC Grid</b>					
Max Continuous Current (A)	19.0	22.0	23.0	26.0	28.0
Max Continuous Power (kVA)	4.0	4.6	5.0	5.5	6.0
Nominal Grid Current (A)	18.2 / 17.4	21.0 / 20.0	22.8 / 21.8	25.0 / 24.0	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				
<b>AC Load Output</b>					
Max Continuous Current (A)	19.0	22.0	23.0	26.0	28.0
Max Continuous Power (kVA)	4.0	4.6	5.0	5.5	6.0
Max Peak Current (A) (10min)	27.3 / 26.1	31.4 / 30	34.1 / 32.7	37.8 / 36.1	41.0 / 39.2
Max Peak Power (kVA) (10min)	6.0	6.9	7.5	8.3	9.0
Nominal AC Voltage L-N (V)	220 / 230				
Nominal AC Frequency (Hz)	50 / 60				
Switching Time (ms)	Seamless				
Voltage THD (%)	< 3				
<b>Efficiency</b>					
CEC Efficiency (%)	97.0				
Max. Efficiency (%)	97.6				
PV to Bat. Efficiency (%)	98.1				
Bat. between AC Efficiency (%)	96.8				
<b>Protection</b>					
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				
AC/DC surge protection	Type II				
<b>General Data</b>					
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, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, VDE0126, IEC62109-1, IEC62109-2				
EMC	EN61000-6-2, EN61000-6-3				