

# Single Phase Hybrid Storage Inverter

## 8-12 kW



The Afore AF low voltage series storage Inverters are designed to increase energy independence for homeowners. The power range is from 8kW to 12kW, 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. 240A**

Max. Charge/  
Discharge Current 240A



**PV OVERSIZE**

1.5 Times PV Oversize



**MPPT CHANNELS**

Up to 3 MPPT Channels



**UPS FUNCTION**

Switch Time < 10ms



**PARALLEL**


Max.6 Parallel Stacking



**INPUT**


Support Generator

Higher Yields 


Support for Time-of-use Optimization 


Configurable Operation Modes 

Arc Fault Circuit Interrupter (AFCI) (Optional) 

 Colorful touch LCD, User-friendly

 Build in Anti-feed-in Function

 Compact Size and Easy Installation

 Smart Monitoring & Remote Firmware Upgrade

■ Technical Data	AF8K-SLP	AF9K-SLP	AF10K-SLP	AF11K-SLP	AF12K-SLP
<b>PV Input</b>					
Max. Input Power (kW)	12	13.5	15	16.5	18
Max. PV Voltage (V)	550				
MPPT Range (V)	80 - 500				
Full MPPT Range (V)	150 - 500	160 - 500	130 - 500	150 - 500	160 - 500
Normal Voltage (V)	360				
Startup Voltage (V)	100				
Max. Input Current (A)	18.5 x 3				
Max. Short Current (A)	26 x 3				
No. of MPP Tracker / No. of PV String	3 / 1+1+2				
<b>Battery Port</b>					
Max. Charge/Discharge Power (kW)	8.0	9.0	10	11	12
Max. Charge/Discharge Current (A)	200	240	240	240	240
Battery Normal Voltage (V)	51.2				
Battery Voltage Range (V)	40 - 60				
Battery Type	Li-ion / Lead-acid etc.				
<b>AC Grid &amp; Diesel Gen (Optional)</b>					
Max Continuous Current (A)	37	41	46	50	55
Max Continuous Power (kVA)	8.0	9.0	10	11	12
Nominal Grid Current (A)	37 / 35	41 / 39	46 / 44	50 / 48	55 / 52
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)	37	41	46	50	55
Max Continuous Power (kVA)	8	9	10	11	12
Max Peak Current (A) (10min)	55.5 / 52.5	61.5 / 58.5	69 / 66	75 / 72	82.5 / 78
Max Peak Power (kVA) (10min)	12	13.5	15	16.5	18
Nominal AC Voltage L-N (V)	220 / 230				
Nominal AC Frequency (Hz)	50 / 60				
Switching Time (ms)	Seamless				
Voltage THD (%)	< 3				
<b>Efficiency</b>					
European Efficiency (%)	98.1				
Max. Efficiency (%)	96.8				
<b>Protection</b>					
PV Reverse Polarity Protection	Yes				
Bat. 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				
PV Arc Detection	Yes				
Enclosure Protect Level	IP65 / NEMA4X				
<b>General Data</b>					
Dimensions (W x H x D, mm)	785 x 614 x 258				
Weight (kg)	43				
Topology	Transformerless				
Cooling	Intelligent Fan				
Relative Humidity	0 - 100 %				
Operating Temperature Range (°C)	- 25 to 60 (Derating 45)				
Operating Altitude (m)	< 2000				
Standby Consumption (W)	< 30				
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				