

All In One Energy Storage System Single Phase Home Storage Solution (LV)

Afore ASL Series is an all-in-one solar and storage solution that integrates the inverter, battery charger, UPS-level switching, and battery enclosure into a pre-wired modular system for easier and faster installation. The compact, elegantly designed, and robust unit is IP66 rated, so it can be mounted either inside or outside withstanding all weather conditions and brings a reduction of installation time of up to 50%.



IP66 Outdoor Design



Modular Design
Plug & Play



AFCI Standard



Scalable Design
Up To 30.72kWh



150% Backup
Overloading for 10 mins



RSD Ready
VPP Ready

FOR SOLAR + ENERGY STORAGE SYSTEM

POWER 3 / 3.6 / 4 / 4.6 / 5 / 5.5 / 6 kW

CAPACITY 5.12kWh - 30.72kWh Battery Capacity

Technical Data AF3K-ASL AF3.6K-ASL AF4K-ASL AF4.6K-ASL AF5K-ASL AF5.5K-ASL AF6K-ASL

PV Input							
Max. Input Power (kW)	4.5	5.4	6.0	6.9	7.5	8.3	9.0
Max. PV Voltage (V)	550						
MPPT Range (V)	80 - 500						
Full MPPT Range (V)	90 - 500	110 - 500	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						

Battery Port							
Max. Charge/Discharge Power (kW)	3.0	3.6	4.0	4.6	5.0	5.5	6.0
Max. Charge/Discharge Current (A)	80		120				
Battery Normal Voltage (V)	51.2						
Battery Voltage Range (V)	40 - 60						
Battery Type	Li-ion / Lead-acid etc.						

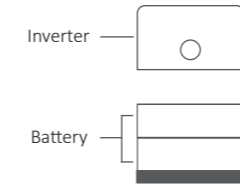
AC Grid							
Max Continuous Current (A)	14.0	17.0	19.0	22.0	23.0	26.0	28.0
Max Continuous Power (kVA)	3.0	3.6	4.0	4.6	5.0	5.5	6.0
Nominal Grid Current (A)	13.7 / 13.1	16.4 / 15.7	18.2 / 17.4	21.0 / 20.0	22.8 / 21.8	25.0 / 24.0	27.3 / 26.1
Nominal Grid Voltage (V)	198 to 242 @ 220 / 207 to 253 @ 230						
Nominal Grid Frequency (Hz)	50 / 60						
Power Factor	0.999 (Adjustable from 0.8 overexcited to 0.8 underexcited)						
Current THD (%)	< 3						

AC Load Output (Back-up)							
Max Continuous Current (A)	14.0	17.0	19.0	22.0	23.0	26.0	28.0
Max Continuous Power (kVA)	3.0	3.6	4.0	4.6	5.0	5.5	6.0
Max Peak Current (A) (10min)	20.5 / 19.6	24.6 / 23.5	27.3 / 26.1	31.4 / 30	34.1 / 32.7	37.8 / 36.1	41.0 / 39.2
Max Peak Power (kVA) (10min)	4.5	5.4	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)	< 10						
Voltage THD (%)	< 3						

Efficiency							
CEC Efficiency (%)	97.0		98.1				
Max. Efficiency (%)	97.6		98.1				
PV to Bat. Efficiency (%)	98.1		98.1				
Bat. between AC Efficiency (%)	96.8		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	IP66 / NEMA4X						
AC/DC surge protection	Type II						

General Data							
Dimensions (W x H x D, mm)	600 x 430 x 210						
Weight (kg)	25						
Topology	Transformerless						
Cooling	Intelligent Fan						
Relatively 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						



1 Packs	2 Packs	3 Packs	4 Packs	5 Packs	6 Packs
5.12kWh	10.24kWh	15.36kWh	20.48kWh	25.6kWh	30.72kWh

Model AF5000W-LH

Parameter	
Nominal Voltage(Vdc)	51.2
Nominal Capacity(Wh)	5120
Working Voltage Range(Vdc)	44.8-56.16
Charge Voltage(Vdc)	58.4
Nominal Charge/Discharge Current(A)	50
Max.Charge/Discharge Current(A)	100
Peak Current(A)	200@3sec
Parallel Connection	≤ 6 pcs
Cycle Life	6000 @ 80% DOD, 25°C / 0.5C

Structure	
Dimension(mm)	600*210*300
Weight(kg)	50.5
IP Rating	IP65
Installation	Stacked

Working Environment	
Charge Working Temperature(°C)	0-55
Discharge Working Temperature(°C)	-20~60
Altitude(M)	<2500
Humidity(RH)	5-95% (w/o condensing)

Communication	
Communication Port	RS485, CAN
Display	SOC status indicator, LED indicator

Certification	
CB, IEC62619; CE-EMC, CE-GPDS, UKCA; UN38.3, MSDS	