

Cabinet Solution For Air-colding Photovoltaic Energy Storage

Efficient Conversion

High energy density,
can support battery transportation.

Smart and Friendly

Real-time status monitoring and fault recording. Multi-energy complementation of solar, storage, diesel-generator, and grid power, utilizing resources reasonably

Safe and Reliable

Multi-level battery protection system, ensuring impeccable safety. With grid power supply and backup power supply interface to ensure uninterrupted important loads

Flexible Configuration

Equipped with device black start function, it can quickly establish voltage support and integrate multiple MPPT channels with multiple photovoltaic interfaces

FOR SOLAR + ENERGY STORAGE SYSTEM

POWER 36 / 40 / 45 / 50 / 60 kW

CAPACITY 14.336 - 43.008kWh Battery Capacity

Technical Data	AF36K-TH	AF40K-TH	AF45K-TH	AF50K-TH	AF60K-TH
PV Input					
Max. DC Input Power (kW)	54	60	67.5	75	90
Max. PV Voltage (V)			1000		
Rated DC Input Voltage (V)			620		
DC Input Voltage Range (V)			150-1000		
MPPT Voltage Range (V)			150-850		
Full MPPT Range(V)			500-850		
Start-up Voltage (V)			160		
Max. DC Input Current (A)			40x4		
Max. Short Current(A)			48x4		
No. of MPPT Tracker / Strings			4/8		
Battery Port					
Battery Nominal Voltage (V)			500		
Battery Voltage Range (V)			150-800		
Max. Charge/Discharge Current (A)			120		
Max. Charge/Discharge Power (kW)	36	40	45	50	60
Charging Curve			3 Stages		
Compatible Battery Type			Li-ion / Lead-acid / Sodium metal chloride battery		
AC Grid					
Nominal AC Output Power (kW)	36	40	45	50	60
Max. AC Input/Output Power (kVA)	54 / 39.6	60 / 44	67.5 / 49.5	75 / 55	90 / 66
Max. AC Output Current (A)	60.5	67	75.5	83.5	96
Nominal AC Voltage (V)			230/400		
Nominal AC Frenquency (Hz)			50/60		
Power Factor			1（-0.8-0.8 adjustable）		
Current THD (%)			<3%		
AC Load Output (Back-up)					
Nominal Output Power (kVA)	36	40	45	50	60
Nominal Output Voltage (V)			230/400		
Nominal Output Frequency (Hz)			50/60		
Max. AC Output Current (A)	60.5	67	75.5	83.5	96
Peak Output Power	39.6kVA, 60s	44kVA, 60s	49.5kVA, 60s	55kVA, 60s	66kVA, 60s
THDV (with linear load)			3%		
Switching Time (ms)			<10		
Efficiency					
Europe Efficiency	98.20%	98.30%	98.30%	98.30%	98.30%
Max. Efficiency			98.60%		
Battery Charge/Discharge Efficiency			99.00%		
Protection					
Reverse Polarity Protection			Yes		
Over Current / Voltage Protection			Yes		
Anti-islanding Protection			Yes		
AC Short-ciruit Protection			Yes		
Leakage Current Detection			Yes		
Ground Fault Monitoring			Yes		
Grid Monitoring			Yes		
Enclosure Protect Level			IP66		
AC/DC surge protection			Type II		
General Data					
Dimensions (W x H x D, mm)			867 x 715 x 306 mm		
Weight (kg)			81kg		
Topology			Transformerless		
Cooling Concept			Intelligent Fan		
Relative Humidity			0-100%		
Operating Temperature Range (°C)			-25 to 60 °C		
Operating Altitude (m)			<4000		
Standby Consumption (W)			<100		
Display & Communication Interfaces			LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G, Sunspec		
Certification & Approvals			NRS097, G99, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, VDE0126, IEC62109-1, IEC62109-2		
EMC			EN61000-6-2, EN61000-6-4		

Model	AF100000W-HA1	AF215000W-HA2
Parameter		
Battery Type	LiFePO4	LiFePO4
Cell Specification	3.2V/280Ah	3.2V/280Ah
Battery module capacity	14.336kWh	43.008kWh
Battery string configuration	1P112S	1P240S
Number of battery strings	1	1
Rated capacity	100.352kWh	215.04kWh
Nominal Voltage	358.4V	768V
Voltage range	302.4V~403.2V	648V~864V
System		
Dimension(W*D*H)	1355*1300*2300mm (Includes air conditioner and inverter)	1350*1350*2300mm (Includes inverter)
Weight	1.55T	2.45T
IP Rating	IP54	IP54
Cooling Method	Air cooling	Liquid Cooling
Fire Safety Configuration	Aerosol	Aerosol
Operating Temperature	-20~55°C (>45°C power reduction)	-20~55°C (>45°C power reduction)
Humidity	0-95% (no condensation)	0-95% (no condensation)
Maximum working altitude	2000m	2000m
Communication Interface	Ethernet/RS485	Ethernet/RS485
Compliant with standards	UN38.3	UN38.3

This product sheet is as comprehensive and detailed as possible based on existing information.
The company reserves the right to modify data, parameters and other information.