YOUR
SMART
ENERGY

AlphaESS

SMILE-M8/9/10-S

RESIDENTIAL SERIES



POWER

8 / 9 / 10 kW

CAPACITY

13.99 kWh Battery Module, Up to 27.98 kWh

COBALT-FREE
COBALT-FREE

KEY FEATURES

- Expert in All-in-One System
- Perfectly aligned with CHBP
- Boost Profits with 200% PV Oversizing
- Fast-Suppression Aerosol Fire Defense
- Fully compatible with VPP platforms and Australian DER standards

SMILE-M8/9/10-S

Model	SMILE-M8-S	SMILE-M9-S	SMILE-M10-S
System Specifications			
Nominal Output Power	8 kW	9 kW	10 kW
Capacity Range	13.99 ~ 27.98 kWh (100% DoD)		
IP Protection	IP65		
Country Of Manufacture	China		
Warranty	10 Years Product Warranty, 10 Years Battery Performance Warranty		
Inverter Technical Specifications			
Model	SMILE-M8-S-INV	SMILE-M9-S-INV	SMILE-M10-S-INV
Phase	single-phase		
Max. PV Input Power	16 kW	18 kW	20 kW
Max. PV Input Current per MPPT	20 / 20 / 20 / 20 A		
Max. PV Input Voltage	600 Vd.c.		
MPPT Number / Max. Input Strings Number per MPPT	4 / 1		
MPPT Voltage Range	60 - 550 Vd.c.		
Start-up Voltage	70 Vd.c.		
Max. PV Short-Circuit Current per MPPT	30 / 30 / 30 / 30 A		
Max. Charging / Discharging Current	210 / 210 A		
Max. Charging / Discharging Power	8.8 kW	9.9 kW	11 kW
DC Voltage Range for Battery Port	40 - 60 Vd.c.		
Rated Voltage	220 / 230 V, L / N / PE		
Rated Frequency	50 / 60 Hz		
Rated Output Apparent Power(Grid Port)	8 kVA	9 kVA	10 kVA*
Rated Output Apparent Power (Backup Port)	8 kVA	9 kVA	10 kVA
Max. AC Input Apparent Power (Grid Port)	8 kVA	9 kVA	10 kVA*
Rated Output Current (Grid Port)	34.7 A	39.1 A	43.4 A
Max. Output Current (Grid Port)	34.7 A	39.1 A	43.4 A
Rated Output Current (Backup Port)	34.7 A	39.1 A	43.4 A
Max. AC Output Current (Backup Port)	34.7 A	39.1 A	43.4 A
Max. Inverter Efficiency	97.47%		
Communication	LAN, Wi-Fi, Bluetooth		
Relative Humidity	0 ~ 100% (No Condensation)		
Dimensions (W x D x H)	620 x 239.5 x 570 mm		
Maximum Altitude	2000 m		
Weight	35.5 kg		
Certification	IEC62109-1/-2, AS 4777.2, IEC 61000-6-1/3		
Battery Technical Specifications			
Module Model	SMILE-M-BAT-13.9P		
Battery Type	LFP ($LiFePO_4$)		
Modules Connection	1 ~ 2		
Usable Capacity	13.99 ~ 27.98 kWh		
Nominal Voltage	48 V		
Max. Charging / Discharging Current	105 A		
Operating Voltage Range	45 ~ 54 V		
Operating Temperature Range	-10 ~ +50°C		
IP Protection	IP65		
Dimensions (W x D x H)	620 x 240 x 710 mm		
Weight	108 kg		

*9.999 kVA for Australia.
**Performance reduction may occur depending on the state of charge and temperature.Optimal operating temperature 15°C ~ 30°C.

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