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Preliminary Datasheet

SMILE-M10-S

RESIDENTIAL SERIES

POWER

10 kW Hybrid Inverter
Single Phase

CAPACITY

13.99 kwh - 27.98 kwh



KEY FEATURES

All-in-One System Design

Fully compatible with VPP platforms and Australian DER standards

Fast-Suppression Aerosol Fire Defense

Boost Profits with 200% PV Oversizing

SMILE-M10-S

Model	SMILE-M10-S
System Specifications	
Coupling	Hybrid
Battery Chemistry	LFP (LiFePO ₄)
Battery Capacity Range	13.99 ~ 27.98 kWh
Warranty	10 Years
Inverter Technical Specifications	
PV Input	
Max. PV Input Power	20 kW
Max. PV Input Voltage	600 V
PV Start-up Voltage	70 V
MPPT Voltage Range	60 ~ 550 V
MPPT Number / Strings per MPPT	4 / 1
Short-Circuit Current per MPPT	20 / 20 / 20 / 20 A
Max. Short-Circuit Current	30 / 30 / 30 / 30 A
Max. Efficiency	97.26%
AC Input & Output (Grid Side)	
Nominal Charge / Discharge Power	10 kW / 9.99 kW
Nominal Voltage	230 V
Nominal Frequency	50 Hz
Max.Charging/Discharging Current	45.5 A / 43.5 A
Power Factor	>0.99 (0.8 leading to 0.8 lagging)
Max. Total Harmonic Distortion	<3% @ Rated Output Power
AC Input & Output (Backup Side)	
Rated / Max Output Power	10 kW
Rated / Max Output Current	43.5 A
On / Off-grid Switching Time	< 20 ms
Peak Output Apparent Power	150% for 10 sec; 200% for 2 sec
Voltage Harmonic Distortion	<3% @ Linear Load
General Parameter	
Dimension (W x D x H)	435 x 239.5 x 570 mm
Weight	35 kg
Ingress Protection	IP65
Operating Temperature Range	-25 ~ 60 °C
Relative Humidity	0 ~ 100%
Operating Altitude	2000 m (>2000 m derating)
Noise Level	<45 dB
Protection	Insulation Resistance Protection, Surge Protection (DC Type II / AC Type II) , Over-Temperature Protection , Islanding Protection , AC Over-Volt-Age Protection , Overload Protection , AC Short-Circuit Protection
Over Voltage Category	DC II AC III
Communication	CAN, RS485, DRM / RRCR, Wi-Fi / LAN (Optional)
Compliance	IEC / EN 62109, IEC / EN 61000, AS4777.2:2024
Battery Technical Specifications	
Module Model	SMILE-M-BAT-13.9P
Nominal Capacity	13.99 kWh
Depth of Discharge (DoD)	100%
Usable Capacity	13.99 kWh
Nominal Voltage	48 V
Module Connection	1 ~ 2 in Parallel
Max. Charging / Discharging Current	105 / 105 A
Operating Temperature Range	0 ~ 50 °C (Charging) ; -10 ~ 50 °C (Discharging)
Dimension (W x D x H)	620 x 240 x 710 mm
Weight	115 KG