

RESIDENTIAL SERIES

10.3 kWh modular
expandable to 61.8 kWh



SMILE5

with SMILE-BAT-10.3P



Battery		SMILE-BAT-10.3P	
Specification			
Battery Type	LFP (LiFePO4)	Battery Weight	97 kg
Dimension (W x D x H)	610 x 236 x 737 mm	IP Protection	IP65
Warranty	5 Year Product Warranty, 10 Year Performance Warranty, ≥ 8000 Cycle Life		
BS Model	SMILE-BAT-10.3P / SMILE-BAT-10.3Px2 / SMILE-BAT-10.3Px3 / SMILE-BAT-10.3Px4 / SMILE-BAT-10.3Px5 /SMILE-BAT-10.3Px6		
Electrical			
Energy Capacity	10.3 kWh/unit, Maximum 6 Unit	Nominal Voltage	51.2 V
Usable Capacity	9.3 kWh/unit	Operating Voltage Range	48 ~ 57.6 V
Depth of Discharge (DoD)	90%	Internal Resistance	≤ 15 mΩ
Operation			
Max. Charging Current	100 A (0.5C)	Operating Temperature Range	-10 °C ~ 50 °C*
Max. Discharging Current	100 A (0.5C)	Humidity	0% ~ 95%
BMS			
Modules Connection	1 ~ 6 in parallel	Capacity	10.3 / 20.7 / 31.0 / 41.4 / 51.7 / 62.1 kWh
Communication	CAN and RS-485 compatible	Usable Capacity	9.3 / 18.6 / 27.9 / 37.2 / 46.5 / 55.8 kWh
Monitoring Parameters	System voltage, current, cell voltage,cell temperature, PCBA temperature		
Certificate			
Safety	IEC 62619 (Cell)		
Inverter		Smile5 INV	
PV String Input Data			
Max. DC Input Power	6660 W	Max. DC Voltage	580 V
MPPT Voltage Range	125 ~ 550 V	Starting Voltage	125 V
Max. DC Current	12 A / 12 A	No. of DC Connectors	2
No. of MPPTs	2	DC Connector	MC4
The maximum DC input power for STC (Small-scale Technology Certificates)			6660 W
Battery Input Data			
Nominal Voltage	51.2 V	Max. Charging Current	100 A
Max. Charging Voltage	57.6 V	Max. Discharging Current	100 A
AC Output Data (On Grid)			
Nominal AC Power	5000 VA	Nominal Output Voltage	230 V
Max. AC Power	5000 VA	Nominal Output Frequency	50 Hz / 60 Hz
Max. AC Current	21.7 A	THDi	< 3%
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)		
AC Output Data (Buck-Up)			
Nominal AC Power	4600 VA	Nominal Output Voltage	230 V
Peak AC Power	5200 VA, 2 sec	Nominal Output Frequency	50 Hz / 60 Hz
Efficiency			
Max. Efficiency	97.60 %	Europe Efficiency	97.00 %
MPPT Adaptation Efficiency	99.90 %		
Protection			
Residual Current Monitoring Unit	Integrated	AC Over Current Protection	Integrated
Anti-islanding Protection	Integrated	Insulation Monitoring	Integrated
General Data			
Dimensions (W x H x D)	610 x 615 x 236 mm	Topology	High Frequency Isolation
Weight	132 kg	Standby Losses	< 13 W
Ambient Temperature Range	-10 ~ 50°C	Cooling	Nature Convection
Relative Humidity	0 ~ 95 %	Monitoring	RS485; CAN
Protection Degree	IP65	Noise Emission	< 25 dB
Standard Warranty	5 Year		
Certificates & Standards			
Grid Regulation	VDE-AR-N 4105, VDE 0126-1-1, AS 4777.2/3, CEI 0-21, G59/3, RD 1699, NRS 097-2-1		
EMC	EN 61000-6-1/2/3/4		
Safety Regulation	IEC 62109-1&-2, IEC 62477-1, IEC 62040.1.1, IEC 62116		

* When the temperature is below 0 °C or above 40 °C, the performance will be limited.



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