

• YOUR
• SMART
• ENERGY



SMILE-G3-T20

RESIDENTIAL SERIES

POWER

20 kW

CAPACITY

8.0 ~ 24.0 kWh with
4.0 kWh Battery Module

9.6 ~ 28.8 kWh with
4.8 kWh Battery Module

19.2 ~ 57.6 kWh with
9.6 kWh Battery Module



3 MPPT for Higher PV Input

Commercial Applications Compatibility

Bypass Function for Series Battery

Safer with Aerosols Inside the Battery

Elegant Design

SMILE-G3-T20



Model	SMILE-G3-T20
System Specifications	
Nominal Output Power	20 kW
Capacity Range	8.0 ~ 57.6 kWh
Battery Chemistry	LFP (LiFePO4)
Warranty	10 Years
Inverter Technical Specifications	
Model	SMILE-G3-T20-INV
Coupling	Hybrid
Max. PV Input Power	40 kW
Max. PV Input Current	18A / 18 A / 18 A
Max. PV Input Voltage	1 kV
MPPT Number / Max. Input Strings Number per MPPT	3 / 1
MPPT Voltage Range	200 ~ 850 V
Max. PV Short-Circuit Current	22.5 A / 22.5 A / 22.5 A
Max. Charging/Discharging Current	60 A
Max. Charging/Discharging Power	20 kW
Rated Frequency	50 / 60 Hz
Rated Voltage	220 V / 380 V, 230 V / 400 V
Phase	Three Phase
Rated Output Power (Grid Port)	20 kW
Rated Output Current (Grid Port)	29 A
Rated Output Power (Backup Port)	20 kW
Rated Input Power (on-grid)	25 kW
Backup	UPS
Communication	Ethernet / WiFi / Modbus / API
Relative Humidity	0 ~ 90% (No Condensation)
Dimensions (W x D x H)	610 x 250x 610 mm
Weight	44 kg
IP Protection	IP65
Safety	IEC 62109-1/-2
EMC	IEC 61000-6-1/-3
Overvoltage Category	DC II
Noise	≤ 50 dB
Grid Regulation	VDE 4105, EN 50549-1, G99
Maximum / European Efficiency	98 % / 97.5 %

Battery Technical Specifications			
Module Model	SMILE-G3-BAT-4.0S	SMILE-G3-BAT-4.8S	SMILE-G3-BAT-9.6S
Rated Capacity	4.0 kWh	4.8 kWh	9.6 kWh
Usable Capacity	3.8 kWh	4.56 kWh	9.3 kWh
Depth of Discharge (DoD)	95 % *	95 % *	95 % *
Nominal Voltage	96 V	96 V	96 V
Max. Charging/Discharging Current	42 A	50 A	52.5 A
Operating Temperature Range	-10°C ~ 60 °C ***	-20°C ~ 50°C ***	-20°C ~ 50°C ***
Battery Modules Quantity	2 ~ 6	2 ~ 6	2 ~ 6
IP Protection	IP65	IP65	IP65
Dimensions (W x D x H)	610 x 212.5 x 435 mm	610 x 212.5 x 435 mm	610 x 210 x 634 mm
Weight	42.5 kg	53 kg	81 kg
Fire-Fighting	N/A	Aerosol + Anti-explosion Valve	Aerosol + Anti-explosion Valve

* Test condition: Max. 0.5C charge/discharge at 25±2°C.

** 50A discharging current sustainable for 30 minutes in off-grid operation.

*** Max. charge/discharge current derating may occur with changes in temperature and SoC.

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