

• YOUR  
• SMART  
• ENERGY



# SMILE-G3-T12/T15/T20

RESIDENTIAL SERIES

## POWER

12 / 15 / 20 kW

## CAPACITY

7.7 ~ 46.0 kWh with  
3.8 kWh Battery Module

8.0 ~ 24.0 kWh with  
4.0 kWh Battery Module



reddot design award 2022

GOOD DESIGN AWARD



**3 MPPT for Higher PV Input**

**Commercial Applications Compatibility**

**Bypass Function for Series Battery**

**Safer with Aerosols Inside the Battery**

**Elegant Design**

# SMILE-G3-T12/T15/T20

Model	SMILE-G3-T12	SMILE-G3-T15	SMILE-G3-T20
<b>System Specifications</b>			
Nominal Output Power	12 kW	15 kW	20 kW
Capacity Range	7.7 ~ 46.0 / 8.0 ~ 24.0 kWh (95% DoD)		
Battery Chemistry	LFP (LiFePO4)		
Warranty	10 Years Product Warranty, 10 Years Battery Performance Warranty		
<b>Inverter Technical Specifications</b>			
Model	SMILE-G3-T12-INV	SMILE-G3-T15-INV	SMILE-G3-T20-INV
Coupling	Hybrid	Hybrid	Hybrid
Max. PV Input Power	24 kW	30 kW	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	12 kW	15 kW	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)	12 kW	15 kW	20 kW
Rated Output Current (Grid Port)	17.4 A	21.7 A	29 A
Rated Output Power (Backup Port)	12 kW	15 kW	20 kW
Rated Input Power (on-grid)	17 kW	20 kW	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		
Maximum / European Efficiency	98 % / 97.5 %		

<b>Battery Technical Specifications</b>			
Module Model	SMILE-G3-BAT-3.8S	SMILE-G3-BAT-4.0S	
Module Capacity	3.8 kWh	4.0 kWh	
Usable Capacity	3.65 kWh	3.8 kWh	
Depth of Discharge (DoD)	95 %*	95 %*	
Nominal Voltage	96 V	96 V	
Max. Charging/Discharging Current	40 A**	42 A	
Operating Temperature Range	-10°C ~ 50 °C****	-10°C ~ 60 °C****	
Cycle Life	10000*****	10000*****	
Battery Modules Connection	2 ~ 12 in Series	2 ~ 6 in Series	
IP Protection	IP21	IP65	
Dimensions (W x D x H)	610 x 212.5 x 435 mm	610 x 212.5 x 435 mm	
Weight	39.2 kg	42.5 kg	
Noise	≤35 dB	≤25 dB	
Fire-Fighting	Aerosol	N/A	

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

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

\*\*\* 40A discharging current sustainable for 30 minutes in off-grid operation.

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

\*\*\*\*\* Under specific test conditions.



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