



YOUR  
SMART  
ENERGY



# SMILE-G3-T12/T15/T20

## RESIDENTIAL SERIES

### POWER

12 / 15 / 20 kW

### CAPACITY

- 3.8 kWh Battery Module  
Expandable from 7.7 to 23.0 kWh
- 4.0 kWh Battery Module  
Expandable from 8.0 to 24.0 kWh
- 8.2 kWh Battery Module  
Expandable from 8.2 to 49.2 kWh



reddot design award 2022



GOOD DESIGN AWARD



- 200% PV Input
- All in One Design
- Three Phase Unbalance
- No Additional High Voltage Box
- Support Multiple VPP Applications
- Easy Installation and Maintenance
- Bypass Function for Series Battery
- 3 MPPT Support Multi-Direction Roof
- Safer with Aerosols Inside the Battery
- Commercial Applications Compatibility

# SMILE-G3-T12/T15/T20

Model	SMILE-G3-T12	SMILE-G3-T15	SMILE-G3-T20
<b>System Specifications</b>			
Nominal Output Power	12000 W	15000 W	20000 W
Capacity Range	7.7 ~ 23.0 kWh / 8.0 ~ 24.0 kWh / 8.2 ~ 49.2 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		
Max. PV Input Power	24000 W	30000 W	40000 W
Max. PV Input Current	18 A / 18 A / 18 A		
Max. PV Input Voltage	1000 V		
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	12000 W	15000 W	20000 W
Rated Frequency	50 / 60 Hz		
Rated Voltage	220 V / 380 V, 230 V / 400 V		
Phase	Three Phase		
Rated Output Power (Grid Port)	12000 W	15000 W	20000 W
Rated Output Power (Backup Port)	12000 W	15000 W	20000 W
Rated Input Power (On-Grid)*	17000 W	20000 W	25000 W
Backup	UPS		
Communication	Ethernet / WiFi / Modbus / API		
Relative Humidity	0 ~ 90% (No Condensation)		
Dimensions (W x D x H)	610 x 250 x 610 mm		
Weight	44 kg		
IP Protection	IP65		
Safety	IEC 62109-1/-2		
EMC	IEC 61000-6-1/-3		
Overvoltage Category	DC II		
Grid Regulation	VDE 4105, EN 50549-1		
<b>Battery Technical Specifications</b>			
Module Model	SMILE-G3-BAT-3.8S	SMILE-G3-BAT-4.0S	SMILE-G3-BAT-8.2P
Nominal Capacity	3.8 kWh	4.0 kWh	8.2 kWh
Usable Capacity	3.6 kWh	3.8 kWh	7.8 kWh
Depth of Discharge (DoD)	95%**		
Nominal Voltage	96 V	96 V	256 V
Max. Charging/Discharging Current	40 A***	42 A	32 A****
Max. Charging/Discharging Rate	1 C		
Operating Temperature Range	-10 °C ~ 50 °C*****		
Cycle Life	10000*****		
Battery Modules Connection	2 ~ 6 in Series	2 ~ 6 in Series	1 ~ 6 in Parallel
IP Protection	IP21	IP65	IP21
Dimensions (W x D x H)	610 x 212.5 x 435 mm	610 x 212.5 x 435 mm	610 x 212 x 793 mm
Weight	39.2 kg	42.5 kg	78.3 kg

\* Under specific application

\*\* 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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