



YOUR  
SMART  
ENERGY



# SMILE-G3-T12~20

RESIDENTIAL SERIES

## POWER

12 / 15 / 20 kW

## CAPACITY

7.7 ~ 23.0 kWh with  
3.8 kWh Battery Module

8.2 ~ 49.2 kWh with  
8.2 kWh Battery Module



3 MPPT for Higher PV Input

Commercial Applications Compatibility

Elegant Design



# SMILE-G3-T12~20



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 / 8.2 ~ 49.2 kWh (95% DoD)		
Battery Chemistry	LFP (LiFePO <sub>4</sub> )		
IP Protection	IP21 (Indoor)		
Warranty	5 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	400 V		
Phase	Three Phase		
Rated Output Apparent Power (Grid Port)	12000 W	15000 W	20000 W
Rated Output Apparent Power (Backup Port)	12000 W	15000 W	20000 W
Rated Input Power (Grid Port + Backup Port)	17000 W	20000 W	25000 W
Backup	UPS		
Communication	WIFI / LAN		
Relative Humidity	0 ~ 90% (No Condensation)		
Dimensions (W x D x H)	610 x 250 x 610 mm		
Weight	44 kg		
Safety	IEC 62109-1/-2		
EMC	IEC 61000-6-1/-3		
Overvoltage Category	DC II		
Grid Regulation	VDE-AR-N 4105:2018-11, EN 50549-1:2019		
<b>Battery Technical Specifications</b>			
Module Model	SMILE-G3-BAT-3.8S	SMILE-G3-BAT-8.2P-C	
Module Capacity	3.8 kWh	8.2 kWh	
Usable Capacity	3.6 kWh	7.8 kWh	
Depth of Discharge (DoD)	95%***	95%***	
Nominal Voltage	96 V	256 V	
Max. Charging/Discharging Current	40 A	32 A	
Operating Temperature Range	-10 °C ~ +50 °C****	-10 °C ~ +50 °C****	
Cycle Life	10000*****	10000*****	
Battery Modules Connection	2 ~ 6 in Series	1 ~ 6 in Parallel	
Dimensions (W x D x H)	610 x 212.5 x 435 mm	610 x 212 x 793 mm	
Weight	39.2 kg	72 kg	

\* High wattage PV panel required.

\*\* Only when using SMILE-G3-BAT-3.8S.

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

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

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



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