

YOUR
SMART
ENERGY



up to
>12%

Additional
energy use



up to
>20%

Longer
service life



SMILE-G3-T12/T15/T20

HOME SERIES

POWER

12 / 15 / 20 kW

CAPACITY

7.3 kWh modular
expandable up to 43.8 kWh

7.6 kWh modular
expandable up to 22.8 kWh

9.12 kWh modular
expandable up to 27.36 kWh

18.6 kWh modular
expandable up to 111.6 kWh



Munich RE



reddot design award 2022



GOOD DESIGN AWARD



HYBRID BATTERY

Optimal capacity utilization through pack balancing

100% charge/discharge power at 1C

High reliability through Multi-BMS system

Safe lithium iron phosphate (LFP) cells

Performance warranty up to 25 years

5-year all-risk insurance (optional)

HYBRID INVERTER

UPS capability

Price signaling capability

Wall or floor mounting

Anti-shading function

3x MPPTs optimal for flexible roof orientation

Smart Home Ready

SMILE-G3-T12/T15/T20



Model	SMILE-G3-T12	SMILE-G3-T15	SMILE-G3-T20
System Specifications			
Nominal Output Power	12 kW	15 kW	20 kW
Usable Capacity Range	7.3 - 43.8 kWh / 7.6 - 22.8 kWh / 9.12 - 27.36 kWh / 18.6 - 111.6 kWh		
Battery Chemistry	LFP (LiFePO ₄)		
Warranty	10 Years Product Warranty, 10 Years Battery Performance Warranty		

Inverter Technical Specifications			
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	18 A / 18 A / 18 A		
Max.PV Input Voltage	1,000 V		
MPPT Number / Strings 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
Nominal Frequency	50 / 60 Hz		
Nominal Voltage	220 V / 380 V, 230 V / 400 V		
Phase	Three Phase		
Nominal Output Power(Grid Port)	12 kW	15 kW	20 kW
Nominal Output Power(Backup Port)	12 kW	15 kW	20 kW
Nominal 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×D×H)	610 × 250 × 610 mm		
Weight	44 kg		
Ingress Protection	IP65		
Safety	IEC 62109-1/-2		
EMC	IEC 61000-6-1/-2/-3/-4		
Grid Regulation	VDE 4105, EN 50549-1, Tor Erzeuger, NRS 097, C10/11		
Overvoltage Category	DC Type II according to EN / IEC 61643		
Cooling	Controlled Ventilator		
Noise	≤ 50 dB		
Maximum/European Efficiency	98 % / 97.5 %		

Battery Technical Specifications				
Model	SMILE-G3-BAT-3.8S	SMILE-G3-BAT-4.0S	SMILE-G3-BAT-4.5S	SMILE-G3-BAT-9.3S
Nominal Capacity	3.8 kWh	4.0 kWh	4.56 kWh	9.3 kWh
Usable Capacity	3.65 kWh	3.8 kWh	4.56 kWh	9.3 kWh
Depth of Discharge (DoD)	95 % *	95 % *	100 % *	100 % *
Nominal Voltage	96 V	96 V	96 V	96 V
Max. Charging/Discharging Current	40 A	42 A	50 A	52.5 A
Operating Temperature Range	-10°C ~ 50 °C **	-10°C ~ 60 °C **	-20 °C ~ 50 °C **	-20 °C ~ 50 °C **
Cycle Life	10,000 ***	10,000 ***	10,000 ***	10,000 ***
Modular Connection	2 ~ 6,8,10,12 ****	2 ~ 6	2 ~ 6	2 ~ 6,8,10,12 ****
IP Protection	IP21	IP65	IP65	IP65
Dimensions (W x D x H)	610 × 212.5 × 435 mm	610 × 212.5 × 435 mm	610 × 212.5 × 435 mm	610 × 210 × 634 mm
Weight	39.2 kg	42.5 kg	53 kg	81 kg
Noise	≤ 35 dB	≤ 25 dB	≤ 35 dB	≤ 35 dB
Fire-Fighting	Aerosol	N/A	Aerosol	Aerosol

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

** Performance reduction may occur depending on the state of charge and temperature. Optimal operating temperature 15°C ~ 30°C.

*** Under specific test conditions.

**** Maximum 6 Batteries for each cluster in series, up to 2 clusters in parallel.



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