

# Single-Phase Hybrid Inverter



## MODEL 12



### High-efficiency

- 200% PV oversized and up to 110% AC output
- 200% peak EPS apparent power, 10 s
- Built-in shadow tracking



### Intelligent

- Single unit UPS-level switcting time < 4 ms
- CT compatible, loads respond within 0.3 s
- Smart loads management
- Max. 10pcs parallel for on-grid and off-grid operation<sup>①</sup>
- Max. charging / discharging current of 250 A
- Generator compatible<sup>②</sup>



### Safe

- Battery terminal temperature detection
- IP65 protection degree
- Integrated SPD
- AFCI protection (optional)



### Economical

- Max. DC input current 16A, support for high power solar panel
- Low start up voltage brings longer operation time

## MODEL 12

DC INPUT	
Max. PV Input Power [Wp]	20000
Max. PV Input Voltage [V] <sup>③</sup>	600
Start Output Voltage [V]	110
Nominal Input Voltage [V]	360
Operating Voltage Range [V] <sup>④</sup>	50 ~ 550
MPPT Voltage Range [V]	50 ~ 550
No. of MPPT / Strings per MPPT	2 (2 / 2)
Max. Input Current [A] <sup>⑤</sup>	32 / 32
Max. Short Circuit Current [A]	40 / 40
AC INPUT & OUTPUT	
Nominal AC Output Power [W]	10000
Max. AC Output Apparent Power [VA]	11000
Max. AC Output Current [A]	50
Max. AC Input Apparent Power [VA]	14950
Max. AC Input Current [A]	65
Nominal AC voltage [V], Frequency [Hz]	L / N / PE, 220 / 230 / 240, 50 / 60
Displacement Power Factor	0.8 leading to 0.8 lagging
THDi (rated power) [%]	< 3
BATTERY DATA	
Battery Type	Lithium / Lead-Acid
Battery Voltage Range [V]	40 ~ 60
Nominal Battery Voltage [V]	48
Max. Charging / Discharging Current [A]	220
EPS OUTPUT (WITH BATTERY)	
Nominal Output Apparent Power [VA]	10000
Peak Apparent Power [VA, s] <sup>⑥</sup>	20000, 10
Nominal Output Current [A]	45.5
Nominal Voltage [V], Frequency [Hz]	230, 50 / 60
Switch Time [ms]	< 4
THDv (linear load) [%]	< 2
SYSTEM DATA	
MPPT Efficiency [%]	> 99.9
Max. Efficiency [%]	97.6
Euro. Efficiency [%]	97.0
ENVIRONMENT LIMIT	
Degree of Protection	IP65
Operating Temperature Range [°C]	-25 ~ +60 (derating above +45)
Relative Humidity [%]	4 ~ 100 (condensing)
Max. Operation Altitude [m]	< 3000
Storage Temperature range [°C]	-25 ~ +70
Noise Emission (typical) [dB]	< 45
GENERAL	
Dimensions (W x H x D) [mm]	652.5 x 462.5 x 259.8
Net Weight [kg]	37.4
Cooling Concept	Smart Cooling
Topology	Transformerless for PV Side / HF for Battery Side
HMI / Communication Interfaces	LED + LCD / CAN, RS485, CT, Meter, USB, NTC, WiFi+Lan
Warranty [years]	5
STANDARD	
Safety	EN IEC 62109-1 / -2
EMC	BS EN 50065-1
Certification	NRS 097-2-1, IEC 61727, IEC 62116, PEA, MEA, BIS

① To be released in Q2 2024.    ② To be released in Q3 2024.

③ The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage inverter.

④ Input voltage exceeding the operating voltage range may triggers inverter protection.

⑤ When two or three strings are connected to a single MPPT, the maximum output current for each string is 18A. When only one string is connected to an MPPT, the maximum output current for that string is 20A.

⑥ Depend on PV and battery capacity.