



# Three Phase Hybrid Inverter 12 kw



- 100%** 100% unbalanced output, each phase  
Max. output up to **50%** rated power
- 48** 48V low voltage battery, transformer isolation design
- 6** 6 time periods for battery charging/discharging
- 240** Max. charging/discharging current of 240A
- 16** Frequency droop control, Max.16pcs parallel
-  DC couple and AC couple to retrofit existing solar system
-  Support storing energy from diesel generator

Circle Power for you

Model	12kw
<b>Battery Input Data</b>	
Battery Type	Lead-acid or Li-Ion
Battery Voltage Range (V)	40~60
Max. Charging Current (A)	240
Max. Discharging Current (A)	240
Charging Curve	3 Stages / Equalization
External Temperature Sensor	Yes
Charging Strategy for Li-Ion Battery	Self-adaption to BMS
<b>PV String Input Data</b>	
Max. DC Input Power (W)	15600
PV Input Voltage (V)	550 (150~800)
MPPT Range (V)	200-650
Start-up Voltage (V)	160
PV Input Current (A)	26+13
Max. PV ISC (A)	34+17
No.of MPPT Trackers	2
No.of Strings Per MPPT Tracker	2+1
<b>AC Output Data</b>	
Rated AC Output and UPS Power (W)	12000
Max. AC Output Power (W)	13200
Peak Power (off grid)	2 times of rated power, 10 S
AC Output Rated Current (A)	18
Max. AC Current (A)	27
Max. Continuous AC Passthrough (A)	50
Output Frequency and Voltage	50/60Hz; 230/400Vac (Three phase)
Grid Type	Three Phase
Current Harmonic Distortion	THD<3% (Linear load<1.5%)
<b>Efficiency</b>	
Max. Efficiency	97.60%
Euro Efficiency	97.00%
MPPT Efficiency	99.90%
<b>Protection</b>	
PV Input Lightning Protection	Integrated
Anti-islanding Protection	Integrated
PV String Input Reverse Polarity Protection	Integrated
Insulation Resistor Detection	Integrated
Residual Current Monitoring Unit	Integrated
Output Over Current Protection	Integrated
Output Shorted Protection	Integrated
Output Over Voltage Protection	Integrated
Surge protection	DC Type II / AC Type II
<b>Certifications and Standards</b>	
Grid Regulation	IEC61727, IEC62116, IEC60068, IEC61683, NRS 097-2-1
Safety EMC / Standard	IEC62109-1/-2, IEC61000-6-1, IEC61000-6-3, IEC61000-3-11, IEC61000-3-12
<b>General Data</b>	
Operating Temperature Range (°C)	-25~60°C, >45°C Derating
Cooling	Smart cooling
Noise (dB)	<45 dB
Communication with BMS	RS485; CAN
Weight (kg)	34.5
Size (mm)	422W×658H×281D
Protection Degree	IP65
Installation Style	Wall-mounted
Warranty	5 years