

# GCL Hybrid Inverter

## EVO INV-3.6/5/6K-P1



Colorful touch LCD, IP65 protection degree



DC couple and AC couple to retrofit existing solar system



Max. 16 pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel



Max. charging/discharging current of 135A



6 time periods for battery charging/discharging



Support storing energy from diesel generator

## Technical Data

Model	EVO INV-3.6K-P1	EVO INV-5K-P1	EVO INV-6K-P1
<b>Battery Input Data</b>			
Battery Type	Lead-acid or Li-Ion		
Battery Voltage Range (V)	40~60		
Max. Charging Current (A)	90	120	135
Max. Discharging Current (A)	90	120	135
External Temperature Sensor	Yes		
Charging Curve	3 Stages / Equalization		
Charging Strategy for Li-Ion Battery	Self-adaption to BMS		
<b>PV String Input Data</b>			
Max. DC Input Power (W)	4680	6500	7800
Rated PV Input Voltage (V)	370 (125~500)		
Start-up Voltage (V)	125		
MPPT Voltage Range (V)	150~425		
Full Load DC Voltage Range (V)	300~425		
PV Input Current (A)	13+13		
Max. PV I <sub>SC</sub> (A)	17+17		
No.of MPP Trackers	2		
No.of Strings per MPP Tracker	1		
<b>AC Output Data</b>			
Rated AC Output and UPS Power (W)	3600	5000	6000
Max. AC Output Power (W)	3690	5500	6600
AC Output Rated Current (A)	16.4/15.7	22.7/21.7	27.3/26.1
Max. AC Current (A)	18/17.2	25/23.9	30/28.7
Max. Continuous AC Passthrough (A)	35		40
Peak Power (off grid)	2 time of rated power, 10 S		
Power Factor	0.8 leading to 0.8 lagging		
Output Frequency and Voltage	50/60Hz; L/N/PE 220/230Vac (single phase)		
Grid Type	Single Phase		
Total Harmonic Distortion (THD)	<3% (of nominal power)		
DC current injection	<0.5% I <sub>n</sub>		
<b>Efficiency</b>			
Max. Efficiency	97.60%		
Euro Efficiency	96.50%		
MPPT Efficiency	99.90%		
<b>Protection</b>			
Integrated	PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection		
Output Over Voltage Protection	DC Type II/AC Type III		
<b>Certifications and Standards</b>			
Grid Regulation	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150		
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2		
<b>General Data</b>			
Operating Temperature Range (°C)	-40~60°C, >45°C derating		
Cooling	Natural cooling		
Noise (dB)	<30 dB		
Communication with BMS	RS485; CAN		
Weight (kg)	20.5		
Size (mm)	330W x 580H x232D		
Protection Degree	IP65		
Installation Style	Wall-mounted		
Warranty	5 years		