

# GCL Hybrid Inverter

## Honor INV RY-5 / 6 / 8 / 10 / 12 K-AUP3



100

100% unbalanced output, each phase; Max. output up to 50% rated power



DC couple and AC couple to retrofit existing solar system

16

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

240

Max. charging/discharging current of 240A

48

48V low voltage battery, transformer isolation design

6

6 time periods for battery charging/discharging



Support storing energy from diesel generator

## Technical Data

Model	RY-5K-AUP3	RY-6K-AUP3	RY-8K-AUP3	RY-10K-AUP3	RY-12K-AUP3
<b>Battery Input Data</b>	Lead-acid or Li-Ion				
Battery Type	40~60				
Battery Voltage Range (V)	120	150	190	210	240
Max. Charging Current (A)	120	150	190	210	240
Max. Discharging Current (A)			Yes		
External Temperature Sensor	3 Stages / Equalization				
Charging Curve	Self-adaption to BMS				
Charging Strategy for Li-Ion Battery					
<b>PV String Input Data</b>					
Max. DC Input Power (W)	6500	7800	10400	13000	15600
Rated PV Input Voltage (V)	550 (160~800)				
Start-up Voltage (V)	160				
MPPT Voltage Range (V)	200-650				
Full Load DC Voltage Range (V)	350-650				
PV Input Current (A)	13+13			26+13	
Max. PV ISC (A)	19.5+19.5			39+19.5	
Number of MPPT / Strings per MPPT	2/1+1			2/2+1	
<b>AC Output Data</b>					
Rated AC Output and UPS Power (VA)	5000	6000	8000	10000	12000
Rated Apparent Output Power (W)	5000	6000	8000	10000	12000
Max. AC Output Power (W)	5000	6000	8000	10000	12000
Rated AC Output Current(A)	7.2	8.7	11.6	14.5	17.4
Max AC Output Current(A)	7.2	8.7	11.6	14.5	17.4
Max. AC Current (A)	10.9	13	17.4	21.7	26.1
Max. Continuous AC Passthrough (A)	45				
Peak Power (off grid)	2 time of rated power, 10 S				
Power Factor	0.8 leading to 0.8 lagging				
Output Frequency and Voltage	50Hz; 3L/N/PE 400V/340V-440V 415V/353V-456.5V				
Grid Type	Three Phase				
Total harmonic Distortion(THD)	< 3% ( of nominal power )				
DC current injection	<0.5% In				
<b>Efficiency</b>					
Max. Efficiency	97.60%				
Euro Efficiency	97.00%				
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	AS/NZS 4777.2				
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	Smart cooling				
Noise (dB)	<45 dB				
Communication with BMS	RS485; CAN				
Weight (kg)	33.6				
Size (mm)	422W x 702H x 281D				
Protection Degree	IP65				
Installation Style	Wall-mounted				
Warranty	5/10 years				
Inverter Topology	Transformerless				
Protective Class	Class I				
Backfeed Short-circuit Currents for Each Port	PV 0A				
Maximum Short Circuit Current Value available from the Energy Source for Each input (PV, Mains, Battery Ports)	PV17+17A GRID75A Battery120A	PV17+17A GRID75A Battery150A	PV17+17A GRID75A Battery190A	PV17+17A GRID75A Battery210A	PV17+17A GRID75A Battery240A