

Energier Apollo

ALL-IN-ONE for Solar Hybrid-system



Energier Apollo bi-directional inverter can be used in multiple applications. You can use it to compose power backup system. Or, with a quick setting, you can compose a simple solar hybrid system either with grid or diesel generators.

Energier Apollo is a powerful unit integrated multiple functions, including a high performance true sine wave inverter, a powerful battery charger, a PWM charge controller, a high speed automatic transfer switch and function of load management. Its distinguishing surge capability makes it capable to power most demanding appliances, such as fridge, freezer, water pump etc.

Energier Apollo has some distinguished features designed especially for African, Middle East and South East Asian countries where the grid was not stable and low voltage was frequently encountered. Energier Apollo can maximize the usage of grid and automatically adjust its charging in accordance with the setting.

Cyber



PV extension

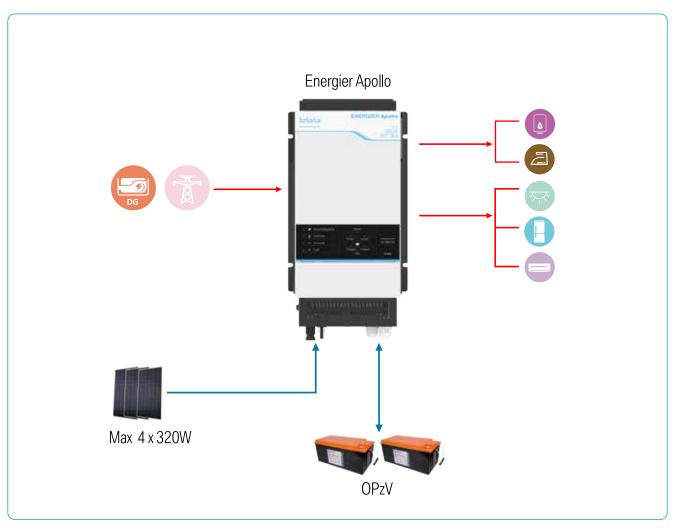


- All in one unit integrating multiple functions.
- Can be applied for solar hybrid and power backup system.
- High efficiency up to 93%.
- Extremely low status consumption power.
- High performance designed for all kinds of home appliances.
- TBB premium II multi stage charging algorithm with built in automatic temperature & voltage compensation charging.
- PWM solar charge controller with built in MC4 terminal.
- Equalization charging program is available for flooded and OPZS battery.
- Lithium Battery charging is available.
- Designed for tropical region.
- Designed to work with weak grid.
- Compatible with majority of low cost generators in the market.
- Built in AEA.



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12 V 1000 VA 35 A | 50A 25 VDC 12 V 1300 VA 50 A | 50A 25 VDC 24 V 1600 VA 30 A | 50A 50 VDC 24 V 2000 VA 40 A | 50A 50 VDC



Model No.	CH1035L	CH1350L	CH1630M	CH2040M
Weak grid mode	yes	yes	yes	yes
Solar Hybrid mode	yes	yes	yes	yes
Solar Energy Storage mode	yes	yes	yes	yes

<u>Inverter</u>

Nominal Voltage		12 VDC		24 VDC		
Power 30mins @25 °C (VA)		1000	1300	1600	2000	
Power 30mins @25 °C (W)		900	1200	1500	1700	
Cont. power @25 C (VA) 【1	1	800	1200	1300	1600	
Cont. power @25 C (W)		750	1100	1200	1300	
Cont. power @40°C (W)		700	1000	1100	1200	
Output voltage		230 VAC / 110 VAC ±2%				
Otput frequency		50/60 Hz ± 0.1%				
Cosφ		0.9-1				
Overland Conshills 72	>125%	60 s				
Overload Capability [2]	>150%	20 s				
Surge		300%				
Efficiency (MAX)		90.5% 93%				
Bypass range	Weak Grid	168 VAC - 276 VAC / 84 VAC - 138 VAC				
, pass range	Standard	184 VAC - 264 VAC / 92 VAC - 132 VAC				
THD [3]		<3%				
Zero load power		10 W	11 W	12 W	13 W	
Zero load power (power save mode)		2.5 W	2.5 W	3 W	3 W	
Overload and overheat protection		auto disconnect with 3 times restart attempt				
Shortcut protection		auto disconnect				

Charger

Nominal Output Voltage		12 VDC		24 VDC		
Max Output current (A) - adjustable		35	50	30	40	
AC Input range	Weak Grid	168 VAC - 264 VAC / 84 VAC - 132 VAC				
	Standard	194 VAC - 250 VAC / 97 VAC-125 VAC				
Battery types		AGM / GEL / OPzV / LFP / Flooded				
Absorption time		variable				
Temperature compensation		-4 mV / ℃ / ce ll				



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Solar Charge Controller

Max PV open circuit voltage (Voc)	25 VDC 50 VDC		
Recommended PV (Vmpp)	16 -19 VDC 32 -37 VDC		
Current max	50 A		
Temperature compensation	Automatic, -4 mV / ℃ / ce ll		
Charging algorithm	TBB Premium II		
PV Fuse	40 A × 2		
PV input terminal	MC4×2		

Other Data

Typical transfer time	Weak Grid	8 ms				
	Standard	8 ms				
Transfer switch		16 A				
Battery connector		M6x2				
DC Fuse		40A x 3	40A x 4	30A x 3	40A x 3	
AC terminal		M3				
Enclosure		Steel with powder paint				
Dimension (mm) (max)		470×233×95				
Net Weight (KGs)		10.5	11.6	11.7	12	
Cooling		Forced fan				
Protection		IP20 / IP40 with optional dust-proof net				

Standard

Safety	EN62109-1,EN62109-2
EMC	EN61000-3-2,EN61000-3-3,EN61000-6-1,EN61000-6-3

[1] Non linear load, crest factor 3:1

[2] Based on Cont. power @25 °C

【3】 Linear load, crest factor 1.4:1

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