

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 |

Inverter

| 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】 | | 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% | | | |
| Output frequency | | 50/60 Hz ± 0.1% | | | |
| Cosφ | | 0.9-1 | | | |
| Overload Capability 【2】 | >125% | 60 s | | | |
| | >150% | 20 s | | | |
| Surge | | 300% | | | |
| Efficiency (MAX) | | 90.5% | | 93% | |
| Bypass range | Weak Grid | 168 VAC - 276 VAC / 84 VAC - 138 VAC | | | |
| | 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 / C / cell | | | |



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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 / C / cell | |
| Charging algorithm | TBB Premium II | |
| PV Fuse | 40 A x 2 | |
| PV input terminal | MC4x2 | |

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) | 470x233x95 | | | |
| 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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