Energizer
SOLAR INVERTERS


# Force HS-AS Series

Single Phase Hybrid Inverters
**Also available in AC coupled.**

**3kW ~ 6kW**

EUROPEAN VERSION

The Energizer® Force HS Series inverter range offers advanced features and is compatible with high-voltage batteries. With the hybrid inverter range, your able to expand your solar system by adding extra batteries.

There are 5 inverter size options and it can connect to our Powerstack with up to seven battery modules connected in series, allowing for flexible storage capacity.


## High Performance Single Phase Hybrid Inverters

- **Dual-MPPT design with precise MPPT algorithm**
- **97.08% maximum efficiency**
- **IP65 rated**
- **Optional export control**
- **Compact & lightweight**
- **RS485, Wi-Fi, LAN, GPRS (optional) communications**
- **Wide voltage range/low start-up voltage**
- **Android and iPhone apps available**
- **10 years warranty**

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Small & Compact | High Performance | IP65 Rated | Remote Monitoring

| MODEL INPUT | Force 3.0HS<br>Force 3.0AS | Force 3.7HS<br>Force 3.7AS | Force 4.6HS<br>Force 4.6AS | Force 5.0HS<br>Force 5.0AS | Force 6.0HS<br>Force 6.0AS |
|---|---|---|---|---|---|
| **PV INPUT [ONLY FOR HYBRID]** | | | | | |
| Max. Input Power [W] | 4500<br>A: 2250 B: 2250 | 5500<br>A: 2750 B: 2750 | 6900<br>A: 3450 B: 3450 | 7500<br>A: 3750 B: 3750 | 9000<br>A: 4500 B: 4500 |
| Max. Input Voltage [V] | | | 600 | | |
| Start-up Input Voltage [V] | | | 75 | | |
| Rated Input Voltage [V] | | | 360 | | |
| MPPT Operating Voltage Range [V] | | | 80~550 | | |
| Max. Input Current [A] | | | 16/16 | | |
| Max. Short-circuit Current [A] | | | 20/20 | | |
| No. of Independent MPP Trackers | | | 2 | | |
| No. of Strings Per MPP Tracker | | | 1 | | |
| BATTERY CONNECTION | | | | | |
| Battery Type | | | Lithium Battery (LFP) | | |
| Battery Voltage [V] | | | 80~480 | | |
| Max. Charge/Discharge Current [A] | | | 40 | | |
| Communication Interface | | | CAN (Communicate with Inverter), RS485 (Upgrade BMS) | | |
| **AC INPUT AND OUTPUT [GRID]** | | | | | |
| Max. AC Input Power [VA] | 6000 | 7680 | 9200 | 10000 | 12000 |
| Max. AC Input Current (per phase)[A] | 27.3 | 34.9 | 41.8 | 45.5 | 54.5 |
| Rated Output Power [W] | 3000 | 3680 | 4600 | 5000 | 6000 |
| Max. Output Apparent Power [VA] | 3300 | 4048/3680[1] | 5060 | 5500 | 6600 |
| Rated Output Current (per phase)[A] | 13..6 | 16..7/16[1] | 20.9 | 22.7 | 27.3 |
| Rated Output Current (per phase)[A](For AUS) | 13.0 | 16.0 | 20.0 | 21.7 | 26.1 |
| Max. Output Current [A] | 15.0 | 18.4 | 23.0 | 25.0 | 30.0 |
| Rated Grid Voltage [V] | | | 220/230/240 | | |
| Rated Grid Frequency [Hz] | | | 50/60 | | |
| Power Factor | | | 1 (adjustable from 0.8 leading to 0.8 lagging) | | |
| THDi | | | <3% @rated power | | |
| **EPS OUTPUT [WITH BATTERY]** | | | | | |
| Max. Output Apparent Power [VA] | 3000 | 3680 | 4600 | 5000 | 6000 |
| Peak Output Apparent Power [60s][VA] | 3600 | 4400 | 5500 | 6000 | 7200 |
| Max. Current (per phase)[A] | 13.6 | 16.7 | 20.9 | 22.7 | 27.3 |
| Rated Output Voltage [V] | | | 220/230/240 | | |
| Rated Output Frequency [Hz] | | | 50/60 | | |
| Power Factor | | | 1 (adjustable from 0.8 leading to 0.8 lagging) | | |
| THDi (linear load) | | | <2% @rated power | | |
| Parallel Operation [PCS] | | | 10 | | |
| SwitchTime [ms] | | | <20 | | |
| **EFFICIENCY** | | | | | |
| Euro Efficiency | 95.26% | 95.70% | 96.23% | 96.30% | 96.33% |
| Max. Efficiency | 97.01% | 97.08% | 97.04% | 97.08% | 97.08% |
| Max. Battery Charge Efficiency (PV to BAT)(@full load) | | | 98.50% | | |
| Max. Battery Discharge Efficiency (PV to BAT)(@full load) | | | 97.00% | | |
| **PROTECTION** | | | | | |
| Insulation Monitoring | | | YES | | |
| Residual Current Monitoring | | | YES | | |
| DC Reverse Polarity Protection | | | YES | | |
| Anti-islanding Protection | | | YES | | |
| AC Short-circuit Protection | | | YES | | |
| AC Overcurrent/Overvoltage Protection | | | YES | | |
| DC Switch | | | YES | | |
| SFD | | | DC: Type II / AC: Type III | | |
| AFCI | | | Optional | | |
| **STANDARD** | | | | | |
| Safety | | | EN 62109-1, EN 62109-2 | | |
| EMC | | | EN 61000-6-2, EN 61000-6-3 | | |
| Certification | | | EN50549-1, C10/11, VDE-AR-N 4105, G98, G99, CEI 0-21, NRS 097-2-1, AS / NZS 4777.2 | | |
| **PROTECTION** | | | | | |
| Dimensions (WxHxD)[mm] | | | 434*418*185 | | |
| Weight [kg] | | | 22 | | |
| Installation | | | Wall Mounted | | |
| Topology | | | Non-Isolated | | |
| Cooling Method | | | Natural | | |
| Noise Emission [dB] | | | 35 | | |
| Max. Operating Altitude [m] | | | 2000 | | |
| Operating Temperature Range [°C] | | | -25~60 | | |
| Humidity [No Condensation] | | | 0%~100% | | |
| Protection Degree | | | IP65 | | |
| Standby Consumption [W] | | | <15 | | |
| Monitoring Module | | | Wi-Fi, LAN, 4G, GPRS (optional) | | |
| Communication | | | 2*RS485, DRM, Ripple Control, USB | | |
| Display | | | LCD, App, Website | | |
| Country of Manufacturer | | | China | | |
| Warranty | | | 10 Years | | |

[1]. 3680 for G98