SHABANG SOLAR

# HYBRID SOLAR INVERTER

6.3 kW

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## Technical parameters

| | |
|---|---|
| Rated output power | 6,300 W |
| Technical model reference | HFP 63248 |
| **PV input** | |
| Maximum PV input power | 7,000 W |
| MPPT tracking voltage range | 80-450 VDC |
| Rated PV voltage | 240 VDC |
| Maximum PV open-circuit voltage (Voc) | 500 VDC (at lowest temperature) |
| Maximum PV input current | 27 A |
| MPPT tracking / input channels | 1 |
| **Battery & charging** | |
| Battery types / settings | Lead-acid / lithium; configurable charge/discharge settings |
| Rated battery voltage | 48 VDC |
| Battery voltage range | 42-60 VDC (default) |
| Maximum PV charging current | 120 A |
| Maximum AC charging current | 80 A |
| Maximum total charging current | 120 A |
| **AC operation** | |
| Rated AC input / output voltage | 230 VAC (220 or 240 VAC selectable) |
| Rated AC frequency | 50 / 60 Hz |
| Output waveform | Pure sine wave |
| Off-grid AC input voltage range | 165-280 VAC or 120-280 VAC (configurable) |
| Off-grid input frequency range | 45-55 Hz at 50 Hz / 55-65 Hz at 60 Hz |
| Off-grid output accuracy: voltage / frequency | ±2% / ±1% |
| Hybrid input / on-grid voltage range | 187-264 VAC |
| Hybrid input / on-grid frequency range | 47-52 Hz at 50 Hz / 57-62 Hz at 60 Hz |
| Hybrid / on-grid output current | 27.4 A |
| On-grid power factor | >0.98 at rated power |
| **General parameters** | |
| Conversion efficiency (battery discharge) | 94% peak |
| No-load loss (battery discharge) | 1% of rated power (typical) |
| MPPT tracking efficiency | ≥99.9% |
| Transfer time | 10 ms (typical) |
| Display | LCD + LED |
| Cooling method | Intelligently controlled cooling fan |
| Communication / monitoring | RS485 / mobile app; Wi-Fi or GPRS monitoring optional |
| **Protection** | |
| Battery low-voltage alarm | 44 VDC (default) |
| Battery low-voltage protection | 42 VDC (default) |
| Anti-islanding protection | ≤2 seconds |
| Overload / output short-circuit protection | Automatic in battery mode; AC circuit protection |
| Temperature protection | >90°C: inverter and charging shut down |
| **Environment & installation** | |
| Protection degree / installation | IP20 / wall-mounted |
| Operating temperature | -10 to +50°C |
| Storage temperature | -15 to +60°C |
| Noise | ≤55 dB |
| Altitude | 2,000 m; derating above 2,000 m |
| Humidity | 0-95%, non-condensing |
| **Dimensions & weight** | |
| Unit dimensions (L x W x H) | 390 x 320 x 112 mm |
| Package dimensions (L x W x H) | 465 x 375 x 187 mm |
| Net / gross weight | 8 kg / 9.5 kg |

Functions: lithium BMS communication, battery-free operation, grid-current setting, output and charging priorities. PV and AC charging share the total charging-current limit. Optional functions depend on the ordered configuration. Specifications are subject to change without prior notice.