



Radian™ Series

GS7048E Inverter/Charger

- **230V/50Hz Grid/Hybrid™ (Full-Flexibility Grid-Interactive/Off-Grid)**
- **7,000 Watts of Continuous Power**
- **Unsurpassed Surge Capacity**
- **Dual AC Inputs**
- **100 Amp DC Charger**
- **Field Upgradable Firmware**
- **Field Serviceable Modular Design**
- **Simplified Parallel Design**
- **Allows Easy Installation of Systems from 7 to 70kW and 21kW Three-phase Systems**
- **GS Load Center Option Allows for Quick and Easy Installation**
- **Advanced Front Venting for Optimum Cooling and Zero-Clearance Installations**



OutBack's new Radian Series inverter/charger is engineered from the ground up to make system design and installation easier and faster. A fully-integrated solution compatible in both off-grid and grid-interactive applications, the Radian delivers 7,000 Watts of pure sinewave continuous power with unsurpassed surge capacity. A true multi-country design featuring field-adjustable input/output voltage and frequency boundaries of 50/60Hz and 220-240V nominal, the GS7048E Radian is the latest expression of OutBack's on-going commitment to delivering clean, reliable power to homes, businesses and other facilities around the world.

The Grid/Hybrid™ Radian incorporates OutBack's FLEXgrid™ technology for full operational flexibility. The Radian's dual AC inputs automatically switch between an active grid and generator input without the need for a costly external transfer switch. In regions where the ability to sell energy back to the grid may be restricted or limited, the Radian's offset function enables users to manage their energy consumption by switching between PV, grid and battery energy sources and "off-setting" their dependence on the grid. Advanced technology allows the Radian to manage power from multiple sources and direct battery functions at the same time. In areas where the grid is inconsistent or unreliable, the Radian seamlessly switches between grid-interactive and off-grid operation.

The Radian's high surge power capability will start the most demanding appliances, while its modular system architecture and simplified parallel design supports system scaling from 7 to 70kW. A unique dual-power module design ensures high efficiency in both low and full power operation as well as redundancy in mission-critical applications. Programming and commissioning of the Radian is made simple through the MATE3 configuration wizard. Advanced front-vented layout provides optimum cooling in zero-clearance installations (where units are stacked next to each other, for example). A field-serviceable design simplifies maintenance and firmware updates without the addition of specialized equipment. Superior and prompt technical support is available at www.outbackpower.com.

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Radian Series Specifications

| | | GS7048E |
|---|--|--|
| Nominal DC Input Voltage | | 48 VDC |
| Continuous Output Power at 25°C | | 7000 VA |
| AC Output Voltage (selectable) | | 230 VAC (210 - 250 VAC) |
| AC Output Frequency (selectable) | | 50 or 60 Hz |
| Continuous AC RMS Output Current at 25°C | | 30 AAC |
| Idle Power | Full | 34 W |
| | Search | 10 W |
| Typical Efficiency | | 92% |
| Total Harmonic Distortion | Total harmonic current | <5% |
| | Maximum single voltage harmonic | <2% |
| Output Voltage Regulation | | ± 2% |
| Maximum Output Current | 1 ms peak | 100 AAC |
| | 100 ms RMS | 70.7 AAC |
| AC Overload Capability | 100 ms surge | 16.3 kVA |
| | 5 seconds | 11.5 kVA |
| | 30 minute | 7.9 kVA |
| Maximum AC Input Current | | 50 AAC |
| AC Input Voltage Range (adjustable) | | 170 to 290 VAC |
| AC Input Frequency Range | | 45 to 65 Hz |
| DC Input Voltage Range | | 40 to 68 VDC |
| Continuous Battery Charge Output | | 100 ADC |
| Temperature Range | Rated | -20 to 50°C (power derated above 25°C) |
| | Maximum* | -40 to 60°C |
| Warranty | | Standard 5 year Warranty |
| Weight | Unit | 125 lbs / 56.7 kg |
| | Shipping | 140 lbs / 63.5 kg |
| Dimensions H x W x D | Unit | 28 x 16 x 8.7" / 71.1 x 40.6 x 22.1 cm |
| | Shipping | 14.5 x 34.5 x 21" / 36.8 x 87.6 x 53.3 cm |
| Accessory Ports | | Remote Temperature Sensor and MATE3/HUB Communications |
| Non-volatile Memory | | Yes |
| Field Upgradable Firmware | | Yes |
| Chassis Type | | Vented |
| Certifications | | IEC 62477-1 AS4777.2 and AS4777.3, EN 61000-6-1, EN 61000-6-3, EN 61000-3-3, CE, RoHS compliant per directive 2011/65/EU, IEC 61000-3-2, AS3100 IEC 61000-3-2, AS3100 |

*Functions, but does not necessarily meet all component specifications.



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