# Radian Series

## A-SERIES 60HZ, 120/240V INVERTER/CHARGERS

## Three Reasons to Choose the Radian Series Inverter/Charger Series from OutBack Power:

### 1. ENGINEERED FOR RELIABILITY

- **Extensive quality and reliability** testing, including Highly Accelerated Life Testing (HALT)
- 15 years of experience manufacturing products for fault-intolerant, mission-critical applications
- Standard 5 year warranty (extended 10 year warranty available)
- Field upgradeable software

### 2. DESIGNED FOR FLEXIBILITY

- **Modular**, **stackable**: up to nine units can be combined for three-phase operation and ten in parallel, single-phase operation
- Seven different programmable operational modes, with generator assist
- Advanced Battery Charging (ABC) programmability accommodates traditional and advanced chemistry batteries
- GridZero operating mode minimizes grid dependence in areas where incentives are changing and utility sell-back is limited
- 8000 and 4000VA of continuous power with dual AC inputs and peak operating efficiency of 96%
- Off-grid and grid-tied functionality in one unit
- Integrates both grid and generator with dual inputs

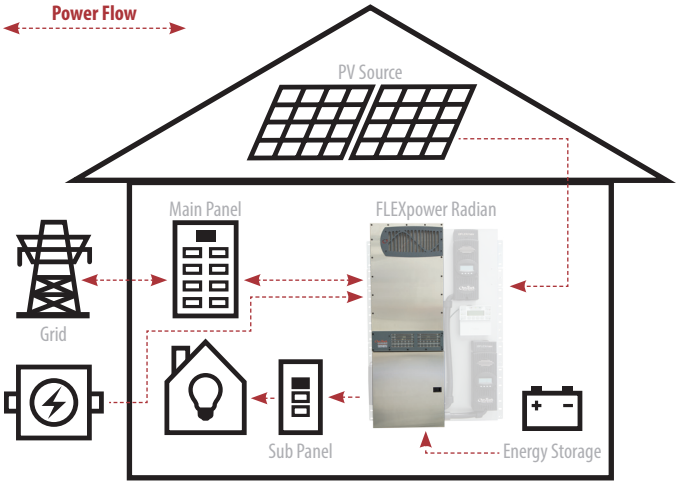
### 3. EASY-TO-INSTALL AND MAINTAIN

- **System configures quickly** with smart programming wizards
- Pre-wired GS load center (GSLC) option allows for quick, easy installation
- Complete balance-of-system components available
- Field-serviceable modular design and global technical support
- Monitor, command and control from any internet-connected device with OPTICS RE

GS8048A/GS4048A

**Optional GS Load Center** (GSLC)

## OutBack FLEXpower Radian Typical System Integration (w/ Radian Inverter/Charger):




**OUTBACK POWER—MASTERS OF THE OFF-GRID. FIRST CHOICE FOR THE NEW GRID.**

### MAKE THE POWER

- FLEXpower Integrated Systems
- Inverter/Chargers & Charge Controllers

### STORE THE ENERGY

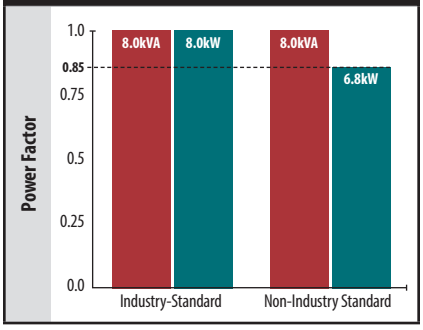
- EnergyCell RE, GH, NC and OPzV Batteries
- Battery Enclosures and Racking

### MANAGE THE SYSTEM

- OPTICS RE System Monitoring and Control
- MATE3 System Display and Communications

| Models: | GS8048A | GS4048A |
|---|---|---|
| **Instantaneous Power** (100ms) | 16970VA | 8500VA |
| **Surge Power** (5 sec) | 12000VA | 6000VA |
| **Peak Power** (30 min) | 9000VA | 4500VA |
| **Continuous Power Rating** (@ 25°C) | 8000VA | 4000VA |
| **Nominal DC Input Voltage** | 48VDC | 48VDC |
| **AC Output Voltage** (selectable) | 120/240VAC (200-260VAC) | 120/240VAC (200-260VAC) |
| **AC Output Frequency** (selectable) | 60Hz (50Hz) | 60Hz (50Hz) |
| **Continuous AC Output Current** (@ 25°C) | 33.3AAC @ 240VAC | 16.7AAC |
| **Idle Power** | **Invert mode, no load**: 34W **Search**: 10W | **Invert mode, no load**: 34W **Search**: 10W |
| **Typical Efficiency** | 93% | 93% |
| **CEC Weighted Efficiency** | 92.5% | 92.5% |
| **Total Harmonic Distortion** | **Typical**: <2% **Maximum**: <5% | **Typical**: <2% **Maximum**: <5% |
| **Output Voltage Regulation** | ±2% | ±2% |
| **AC Input Voltage Range** (MATE3 Adjustable) | **L1-N or L2-N**: 85 to 140VAC | **L1-N or L2-N**: 85 to 140VAC |
| **AC Input Frequency Range** | @ **60Hz**: 54 to 66Hz @ **50Hz**: 45 to 55Hz | — |
| **Grid-Interactive Voltage Range** | **L1-N or L2-N**: 85 to 140VAC | **L1-N or L2-N**: 108 to 132VAC |
| **Grid-Interactive Frequency Range** | 59.3 to 60.5Hz | 59.3 to 60.5Hz |
| **Maximum AC Input Current** | 50AAC @ 240VAC | 50AAC @ 240VAC |
| **Maximum Utility Interactive Current** | 30A | 15A |
| **Continuous Battery Charge Output** | 115ADC | 57.5ADC |
| **Advanced Battery Charging** | Flooded, gel, AGM, lithium-ion and flow chemistry | Flooded, gel, AGM, lithium-ion and flow chemistry |
| **DC Input Voltage Range** | 40 to 64VDC | 40 to 64VDC |
| **Accessory Ports** | Remote temperature sensor (included), MATE3 and HUB communications | Remote temperature sensor (included), MATE3 and HUB communications |
| **Warranty** | Standard 5 year, extended 10 year available | Standard 5 year, extended 10 year available |
| **Weight** (lb/kg) | **Unit**: 125 / 56.7 **Shipping**: 140 / 63.5 | **Unit**: 82 / 37.2 **Shipping**: 94 / 42.6 |
| **Dimensions H x W x L** (in/cm) | **Unit**: 28 x 16 x 8.7 / 71.1 x 40.6 x 22.1 **Shipping**: 34.5 x 21 x 14.5 / 87.6 x 53.3 x 36.8 | **Unit**: 28 x 16 x 8.7 / 71.1 x 40.6 x 22.1 **Shipping**: 34.5 x 21 x 14.5 / 87.6 x 53.3 x 36.8 |
| **Temperature Range** | **Rated**: -20 to 50°C **Maximum**: -40 to 60°C | **Rated**: -20 to 50°C **Maximum**: -40 to 60°C |
| **Listings/Certifications** | ETL listed to UL1741, CE, CSA C22.2 No. 107.1, UL 778 Annex F, IEC 62109-1 ETL, RoHS compliant per directive 2011/65/EU, FCC Class B, IEEE 1574.1, EN61000-6-1, EN61000-6-3, EN61000-3-2, EN61000-3-3 | ETL listed to UL1741, CE, CSA C22.2 No. 107.1, UL 778 Annex F, IEC 62109-1 ETL, RoHS compliant per directive 2011/65/EU, FCC Class B, IEEE 1574.1, EN61000-6-1, EN61000-6-3, EN61000-3-2, EN61000-3-3 |
| **Non-Volatile Memory** | Yes | Yes |
| **Field Upgradeable Firmware** | Yes | Yes |
| **Chassis Type** | Vented | Vented |

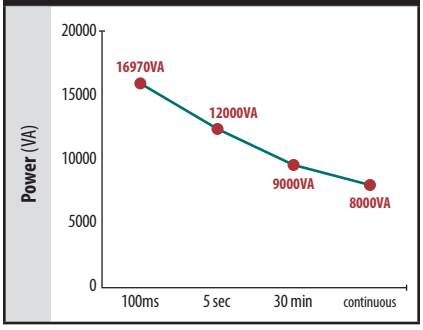
## Radian GS8048A Power Factor Chart




### Power Rating Notes

**Inverters that specify power in VA but do not use the unity standard Power Factor** (PF) **could have misleading power specifications.** Volt-Amps (VA) is a total inverter output, while Watts (W) represent the power consumed by the electrical loads. PF, which varies by types of loads, is the ratio of W to VA, and the difference between the two is power in the circuit that does no useful work. At 1.0PF (unity), all power is used. This is the industry-standard used by OutBack Power.

## Radian GS8048A Power Rating Chart



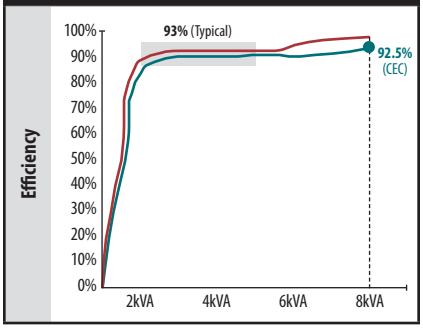

### Instantaneous Power Rating
Most stringent, massive load start **GS8048A**: 16970VA

### Surge Power Rating
Less stringent load start **GS8048A**: 12000VA

### Peak Power Rating
Frequent "heavy duty" load requirements **GS8048A**: 9000VA

### Continuous Power Rating
Sustained "real world" load requirements **GS8048A**: 8000VA

## Radian GS8048A Efficiency Rating Chart




**INVERTING** **SELLING**

### Typical Efficiency Rating
Real world efficiency with variable loads **GS8048A**: 93%

### CEC Efficiency Rating
Most stringent US rating **GS8048A**: 92.5%