FUTURE-PERFECT SYSTEM DESIGN
BEGINS WITH AN OUTBACK RADIAN SERIES INVERTER/CHARGER

With all the hallmark features you’ve come to expect from the Radian inverter/charger, the expanded Radian family includes four models, seven operating modes and two advanced technologies, all adding up to unmatched performance, reliability, value and system flexibility.

### Radian Series Models

<table>
<thead>
<tr>
<th>Model Name</th>
<th>System Power</th>
<th>Market</th>
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</thead>
<tbody>
<tr>
<td>GS8048A</td>
<td>8kW, 120/240V</td>
<td>For Selected North, Central and Latin American Countries</td>
</tr>
<tr>
<td>GS4048A</td>
<td>4kW, 120/240V</td>
<td></td>
</tr>
<tr>
<td>GS7048E</td>
<td>7kW, 230V</td>
<td>For Asia and other Global Countries</td>
</tr>
<tr>
<td>GS3548E</td>
<td>3.5kW, 230V</td>
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</table>

### Radian Series Operating Modes

1. **MINI GRID OPERATING MODE**
   Ideal for sites where sufficient renewable energy enables mostly off-grid operation.

2. **GRID-TIED OPERATING MODE**
   Ideal for systems in regions with Feed-in-Tarrif (FiT), net-metering or other incentive programs. Control use features include grid use timers.

3. **GRIDZERO OPERATING MODE**
   Ideal in areas where incentives are subject to change and utility sell-back options may be limited. Control use features include grid use timers.

4. **SUPPORT OPERATING MODE**
   Ideal for sites with small generators or inadequate grid power. Control use features include system-level high battery transfer (HBX) programming, prioritizing batteries as primary source.

5. **BACKUP OPERATING MODE**
   Ideal for systems where computers and other sensitive loads are present. Control use features include system-level high battery transfer (HBX) programming, prioritizing batteries as primary source.

6. **UPS OPERATING MODE**
   Ideal for commercial applications where uninterrupted power is mission-critical.

7. **GENERATOR OPERATING MODE**
   Ideal for systems with undersized or low power quality generators.
The newest of the Grid/Hybrid Radian’s seven input modes, GridZero provides the perfect balance between utility power and stored renewable energy. By allowing a home or business to satisfy most of its power needs with renewable sources, grid supplied power is only tapped when load demand exceeds a pre-set threshold. While the Radian is still grid-connected, grid dependence can be reduced to zero whenever possible. GridZero technology offers four critical advantages compared to typical systems:

**Higher System Economics**: By maximizing the contribution of renewables to total energy consumption, selling back to the grid is no longer required for system Return on Investment (ROI).

**Lower Cost-of-Entry**: Through seamless blending of grid power and renewable energy sources, a smaller system can perform like a much larger one, reducing equipment and installation costs.

**Greater Simplicity**: Because the Radian Series remains connected and synchronized to the grid, no destabilizing transfer is required when grid power is needed.

**“Best Case Scenario” Design**: As energy policies and incentives change, GridZero technology can prioritize self-consumption and offset over sell-back to always deliver the best renewable energy value possible.

**ADVANCED BATTERY CHARGING**
OutBack built its reputation on legendary off-grid reliability and battery backup expertise. That background is thoroughly built into the new Radians. In addition to GridZero Technology, the new Radians also feature an Advanced Battery Charging (ABC) profile option. Advanced Battery Charging offers expanded charging voltage and time parameters, enabling system designers to accommodate the specific charging profiles and algorithms of newer energy storage technologies including:

- **Lithium Ion** Batteries
- **Aqueous Ion** Batteries
- **Flow Chemistry** Batteries

OutBack’s Radian Series inverter/charger support both standard and advanced energy storage platforms.

Ready for Today, Designed for Tomorrow

Incorporating the same attention to detail you’ve come to expect from OutBack, the new Radian Family is built on proven technology and forward-looking features designed to offer performance and peace of mind. No matter what energy technology is in place tomorrow, you can design for it today with an OutBack Grid/Hybrid Radian Series inverter/charger. For more information, please visit [www.outbackpower.com](http://www.outbackpower.com).
# Radian Series Specifications

## Nominal DC Input Voltage
- **GS8048A**: 48VDC
- **GS4048A**: 48VDC
- **GS7048E**: 48VDC
- **GS3548E**: 48VDC

## Continuous Output Power (at 25°C)
- **GS8048A**: 8000VA
- **GS4048A**: 4000VA
- **GS7048E**: 7000VA
- **GS3548E**: 3500VA

## AC Output Voltage (Selectables)
- **GS8048A**: 120/240VAC
- **GS4048A**: 120/240VAC (200-260VAC)
- **GS7048E**: 230VAC (210-250VAC)
- **GS3548E**: 230VAC (210-250VAC)

## AC Output Frequency (Selectables)
- **GS8048A**: 60Hz (50Hz)
- **GS4048A**: 60Hz (50Hz)
- **GS7048E**: 50Hz (60Hz)
- **GS3548E**: 50Hz (60Hz)

## Continuous AC Output Current
- **GS8048A**: 33.3AAC @ 240VAC
- **GS4048A**: 16.7AAC
- **GS7048E**: 30AAC
- **GS3548E**: 15.2AAC

## AC Input Voltage Range
- **GS8048A**: 40 to 64VDC
- **GS4048A**: 40 to 64VDC
- **GS7048E**: 40 to 64VDC
- **GS3548E**: 40 to 64VDC

## AC Input Frequency Range
- **GS8048A**: 59.3 to 60.5Hz
- **GS4048A**: 59.3 to 60.5Hz
- **GS7048E**: 57.0 to 61.0Hz (EN50438)
- **GS3548E**: 57.0 to 61.0Hz, default 50Hz (60Hz)

## AC Output Frequency
- **GS8048A**: Selectable
- **GS4048A**: Selectable
- **GS7048E**: Fixed 50Hz (60Hz)
- **GS3548E**: Fixed 50Hz (60Hz)

## AC Input Voltage Range (Adjustable)
- **GS8048A**: (L1 or L2) 70 to 210VAC
- **GS4048A**: (L1 or L2) 70 to 210VAC
- **GS7048E**: (L1 or L2) 70 to 210VAC
- **GS3548E**: (L1 or L2) 70 to 210VAC

## Grid-Interactive Voltage Range
- **GS8048A**: (L1-L or L2-N) 106 to 132VAC
- **GS4048A**: (L1-L or L2-N) 106 to 132VAC
- **GS7048E**: (L1-L or L2-N) 106 to 132VAC
- **GS3548E**: (L1-L or L2-N) 106 to 132VAC

## Grid-Interactive Frequency Range
- **GS8048A**: 59.3 to 60.5Hz
- **GS4048A**: 59.3 to 60.5Hz
- **GS7048E**: 57.0 to 61.0Hz
- **GS3548E**: 57.0 to 61.0Hz

## Maximum AC Input Current
- **GS8048A**: 150AAC
- **GS4048A**: 150AAC
- **GS7048E**: 50AAC
- **GS3548E**: 50AAC

## Continuous Battery Charge Output
- **GS8048A**: 115.0AAC
- **GS4048A**: 115.0AAC
- **GS7048E**: 50AAC
- **GS3548E**: 50AAC

## Overload Capacity
- **GS8048A**: 70.7AAC @ 240VAC
- **GS4048A**: 70.7AAC @ 240VAC
- **GS7048E**: 50AAC @ 240VAC
- **GS3548E**: 50AAC @ 240VAC

## Weight (lb/kg)
- **GS8048A**: 325 / 147.5
- **GS4048A**: 140 / 63.5
- **GS7048E**: 810 / 367
- **GS3548E**: 930 / 421

### Dimensions H x W x D (in/cm)
- **GS8048A**: 34.5 x 21 x 14.5 / 87.6 x 53.3 x 36.8
- **GS4048A**: 34.5 x 21 x 14.5 / 87.6 x 53.3 x 36.8
- **GS7048E**: 34.5 x 21 x 14.5 / 87.6 x 53.3 x 36.8
- **GS3548E**: 34.5 x 21 x 14.5 / 87.6 x 53.3 x 36.8

## Energy Storage Solutions

OutBack also provides a wide range of energy storage solutions for keeping systems UL1741 rated end-to-end.

- **EnergyCell GH** (Front Terminal Battery)
- **EnergyCell RE** (Front Terminal Battery)
- **EnergyCell RE** (Top Terminal Battery)
- **Integrated Battery Racks** (2 & 3 Shelf Options)

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