

RW748U 700W 48V DC Wall Mount Rectifier

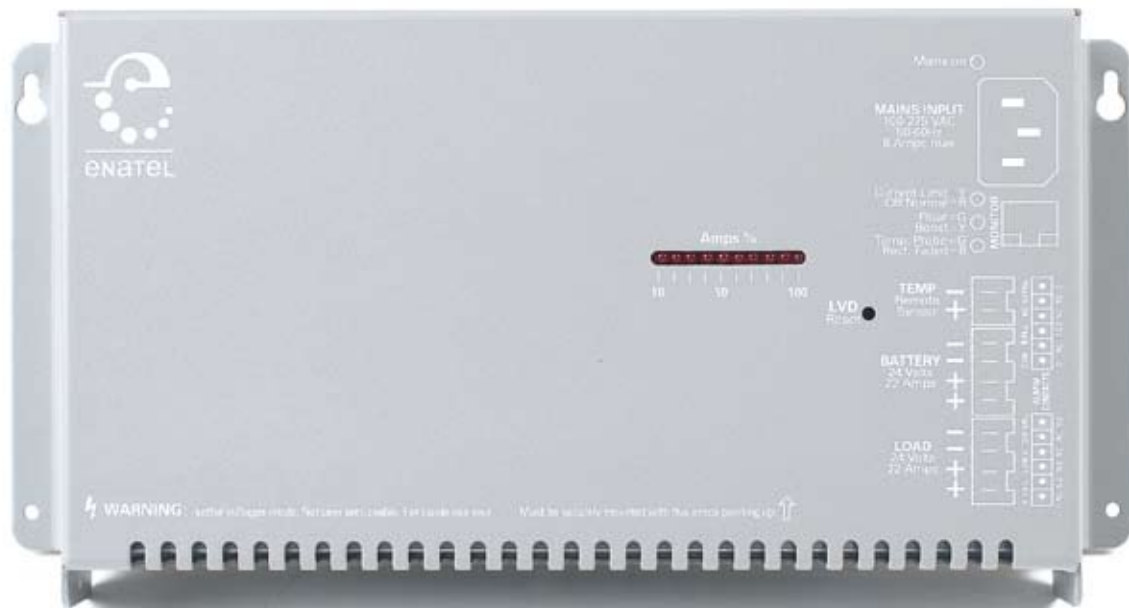
These highly efficient rectifiers offer a range of output voltages and power levels.

Easy to install and compact, these robust, reliable rectifiers are convection cooled and are available with temperature compensation, and options for internal low voltage disconnect (LVD) and alarm card with relay outputs.

They can be used as standalone power sources or can be operated in parallel to provide redundancy or higher output ratings.

Choose from a range of internal options including load disconnect, current indicators, alarm and control interface and auto float/boost. Custom configurations can be specified and additional features can be added.

- Convection cooled.
- Thermally protected.
- Power factor corrected.
- Input/output voltage and current protected.
- Automatic float/boost charge cycle.
- Alarm and control interface with active load sharing.
- Temperature compensation.
- Output current indicator.
- Optional built-in low voltage disconnect.
- Optional internal alarm card with relay outputs.



Specifications



| | |
|-----------------------------------|---|
| AC Input | |
| Nominal: | 110/220V, 50/60Hz |
| Voltage Range: | 100-275V AC, 85-100V AC |
| Frequency Range: | 45-66Hz |
| Power Factor: | >0.99 (full load) |
| Efficiency: | 88% |
| Input Fuses: | HRC Fuses in phase & neutral |
| Maximum Input Current: | 8.5A |
| Protection: | |
| Input Voltage: | Automatic shutdown, restarts automatically when correct voltage restored. |
| Input Rush: | <2x maximum input current. |
| DC Output | |
| Nominal Voltage: | 48V |
| Rated Voltage: | 58V |
| Voltage Range: | 45-60V |
| Maximum Current: | 12A |
| Regulation: | |
| Line: | ±0.1% |
| Load: | ±0.5% (no load to full load) |
| Hold-up Time: | >15ms for 20% output voltage drop. |
| Start-up Time: | Walk-in delay 2 seconds (depends on AC input voltage) |
| Protection: | |
| Current Limit: | Adjustable to 50-100% of maximum rated current |
| Over Temp: | Automatic current turndown, backup shutdown protection |
| Polarity Reversal: | Output fuse with crowbar diode |
| Over Voltage: | Adjustable limit |
| Noise: (under nominal conditions) | |
| Ripple <100Hz: | <10mV rms unweighted |
| Voice Band 100Hz to 5KHz: | <2mV rms psophometric |
| Wide Band 5kHz to 1 MHz: | <10mV rms unweighted |
| Peak to Peak 0 to 20MHz: | <50mV p-p unweighted |
| Isolation: | |
| Input to Output: | 3000V AC |
| Input to Chassis: | 2500V AC (VDR to chassis removed.) |
| Output to Chassis: | 1500V AC |
| Environmental Requirements | |
| Nominal Ambient Temperature: | 25+/-5°C |
| Range: | -10 to +50°C |
| Humidity: | 5-95% RH (non-condensing) |
| Altitude: | <2500m de-rate maximum ambient temperature by +4° per 1000m above sea level |
| Mechanical | |
| Dimensions, W, H, D: | 311mm, 163mm, 62mm |
| Weight: | 1.5kg |
| Shipping Dimensions, W, H, D: | 377mm, 235mm, 122mm |
| Shipping Weight: | 2.4kg |
| Cooling: | Convection cooled |
| Connections: | |
| Mains: | IEC 320 universal connection |
| Output to Load: | 4 way lumberg macromodule |
| Output to batteries: | 4 way lumberg macromodule |
| Temperature Sensor: | 2 way lumberg macromodule |
| Monitor Connection: | RJ45 |
| Internal Alarm Card: | Mini combicon |
| Standard Features | |
| Output Current Indicator: | Ten segment red LED "dot" display (standard) |
| Temperature Compensation: | Output voltage slope adjustable 0.1 to 0.2%/°C (standard) |
| Auto Float/Boost: | Rectifier enters boost mode at power up. When battery current reduces to float threshold limit (adjustable from 0.1A to 40% MRC), unit reverts to float voltage setting. When in boost but out of current limit, rectifier will automatically switch back to float after approximately four hours. If battery current exceeds the float threshold limit when the rectifier is in float mode it will automatically switch to boost mode. |
| Alarm and Indicator Controls: | Positive V out, Load share signal (in/out), External shutdown, Open collector 'off normal' alarm (OSVD, over temp. limit), LVD synchronisation signal (in/out) Temperature compensation input signal, Open collector rectifier fail (via 4k7 resistor), Open collector mains fail, Negative V out |
| Options | |
| Low Voltage Disconnect: | |
| Voltage Adjustment Range: | 38-48V |
| Maximum Load Current: | 12A |
| Internal Alarm Card: | 4x N.O or N.C (selectable) relay contacts with single common for rectifier fail, off normal, float low, float high. 1x VF changeover relay contact for mains fail. Relay contacts rated at 100V DC 1A. Connections via "mini combicon" connector accepts 1.5mm dia wire. |
| Maintenance | |
| LED Indicators: | Green - Mains on. (primary converter operating) Green - Temperature probe connected and within normal limits. Red - Rectifier 'failed'. Green - Rectifier in 'float' mode. Yellow - Rectifier in 'boost' mode. Yellow - Rectifier in 'current' limit. Red - Rectifier 'off normal'. (over temp., OVSD, low output volts) |
| Internal Adjustments: | Float voltage, Boost voltage, Over voltage shut down, Current limit, Temperature compensation slope, Auto boost to float threshold limit, Load disconnect voltage (if fitted), Load disconnect hysteresis voltage (if fitted) |
| Compliances | |
| Safety: | EN60950, Electrostatic Discharge: CISPR24, Radiated Radio Frequency: CISPR22, AC Harmonics: EN61000-3-2, AC Flicker and Fluctuation: EN61000-3-3 |
| Ordering Information | |
| RW748U-10: | Standard with temperature compensation, Auto float boost, Alarm and control I/F |
| RW748U-11: | Standard with temperature compensation, Auto float boost, Alarm and control I/F, Low volts disconnect |
| RW748U-20: | Standard with temperature compensation, Auto float boost, Alarm and control I/F, Alarm card |
| RW748U-21: | Standard with temperature compensation, Auto float boost, Alarm and control I/F, Low volts disconnect, Alarm card |
| Standard Accessories | |
| | 1x 2m AC lead, 2x DC output connectors and an operating manual |