

# Unity Rectifier System

The Unity Rectifier System comprises a low profile 1.75" (1 RU) shelf which accommodates up to three 150 watt, -48 or +24 volt hot-swap rectifiers, plus an optional distribution panel which contains five individually fuse-protected circuits. The system is scalable/adaptable for N, N+1 or N+2 configurations. Front panel test points and voltage adjustment pot are provided for fine-tuning output to the requirements of sensitive loads and to optimize load sharing. Form C status contacts enable remote alarms for the rectifiers and fuse distribution circuits. Front panel OK/FAIL LED's allow monitoring status of each rectifier individually. The optional power distribution module employs industry standard GMT fuses, configured with alarm contacts and a front panel "BLOWN FUSE" LED indicator.



## Features

- 150 watt rectifier units, 48 or 24 volt, slide and lock into the Unity Shelf
- Shelf accommodates up to three rectifiers—450 watts total—plus an optional five-position GMT fuse panel
- Scalable/adaptable hot swap configuration: N, N+1, N+2
- Front panel status indicators, output voltage test points and adjustment potentiometers
- Individual or summary rectifier alarm contacts; Form C
- Summary fuse panel alarm contacts; Form C
- Forced air cooling of rectifiers for extended component life
- 115/230 VAC shelf/rectifier input—easily adapts to available site power
- GMT fuse panel: Five positions, easy rear panel wiring to loads, fuse access at front
- Shelf adapts for 19" or 23" rack; center or flush mount (four-point cabinet mount optional)

## Unity Rectifiers

**Models:** UR48-3, UR24-6

**Input Voltage/Frequency:** 85-264 VAC\* / 47-63 Hz.

**Input Amperage:** 2.2 amps @ 115V and full load, 1.1 amps @ 230V and full load

**Input Frequency:** 47-63 HZ.

**Power Factor:** .96-.98

**Output Voltage/Amperage\*:**

UR48-3: -54.4 VDC, adjustable 42-56 VDC, 3 amps continuous  
UR24-6: +27.2 VDC, adjustable 21-28 VDC, 6 amps continuous

\*100 % output power available from 105 to 264 VAC; Derate output linearly from 100% @ 105 VAC to 80% @ 85 VAC

**Regulation:** +/- 2 %

**Ripple:** UR24-6: 150 mV

UR48-3: 250 mV

**Protection:** Over-voltage, current limiting, over-temp, forced air cooling

**Alarms/Indicators:** Output failure contacts; Form C

**Front panel LED indications:** "DC OK/DC FAIL"

Front panel voltage test points and adjustment

**Operating Temperature:** -10°C to +60°C; 100 % load to +50°C; Derate linearly to 80 % load @ 60°C

**Weight:** 1.9 lbs.

**Design Standards:** EN55022 Class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3, UL 1950

**Approvals:** UL Recognized 60950

## Unity Rectifier Shelf

**Model:** URS

**Input:** 115/230 VAC nominal

**Capacity:** Up to Three Unity Rectifiers, -48 or +24 volt and one GMT Fuse Panel (UFP-5)

**Mounting:** 19" or 23" rack; center or flush mount (four-point cabinet mount optional)

**Weight:** 6.7 lbs.

## Unity Fuse Distribution Panel

**Model:** UFP-5

**Voltage:** -48 VDC or +24 VDC nominal (selectable by jumper)

**Current:** 20 amps max. total

**Capacity:** Five GMT fuses, 10 amps max. per individual fuse

**Available Amperages:** 1, 3, 5 10 amps

**Alarms/Indicators:**

Output failure summary alarm contacts; Form C

Front panel blown fuse summary LED indicator

Individual visual blown fuse indication

**Weight:** .9 lb.

## Unity Stand-Alone Rectifier

For applications that do not require rack-mounting or redundancy, the Unity is available as a stand-alone rectifier. A versatile flange permits a myriad of mounting options, such as on the side of rack rails, inside cabinets, on walls or under shelves, maximizing use of restricted spaces.

The unit comes with a 6' power cord and a rear-mounted terminal block for easy wiring. Performance specifications are identical to single Unity Rectifiers detailed on this page.



**Models:** USAR48-3 and USAR24-6