



# **GFS Power**

**Space Critical Power Solutions**

## **Unity DC-DC Converter System 19" 1U 100-370 VDC to 48 VDC or 24 VDC**



The Unity DC-DC Converter System comprises a low profile 1.75" (1 RU) shelf which accommodates up to 3 x 150 watt, -48 or +24 volt hot-swap DC-DC converter modules, 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.

The optional power distribution module employs industry standard GMT fuses configured with alarm contacts and a front panel "BLOWN FUSE" LED indicator.

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 DC-DC converters and fuse distribution circuits. Front panel OK/FAIL LED's, allow monitoring status of each converter individually.

### **Features**

- § 150 watt DC-DC converter units, 48 or 24 volt output, slide and lock into the Unity Shelf
- § Shelf accommodates up to three converters—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 converter alarm contacts; Form C
- § Summary fuse panel alarm contacts; Form C
- § Forced air cooling of converters for extended component life
- § 100-370 VDC shelf / converter 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)

**GFS Power** PO Box 724, Castle Hill, NSW 2154, Australia  
**Phone: 0407 899 538**  
**Fax: 02 9899 5383**  
**Email: [sales@gfspower.com.au](mailto:sales@gfspower.com.au)**  
**Web: [www.gfspower.com.au](http://www.gfspower.com.au)**

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## Specifications

### Unity DC-DC Converters

Models: UR-48-3 and UR-24-6

- § Input Voltage/Frequency: 100-370 VDC
- § Input Amperage: 2.0 amps @ 100V and full load, .75 amps @ 370V and full load
- § 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 120 to 370 VDC;  
Derate output linearly from 100% @ 120 VDC to 90 % @ 100 VDC
- § Regulation: +/- 2 %
- § Ripple: UR-24-6: 150 mV  
UR-48-3: 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.
- § Designed to: EN55022 Class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3, UL 1950

### Unity Converter Shelf

Model: URS

- § Input: 120 VDC nominal
- § Capacity: Up to Three Unity Converters, -48 or +24 volt and One GMT Fuse Panel (UFP-5)
- § Mounting: 19" or 23" rack; center or flush mount (four-point cabinet mounting 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.

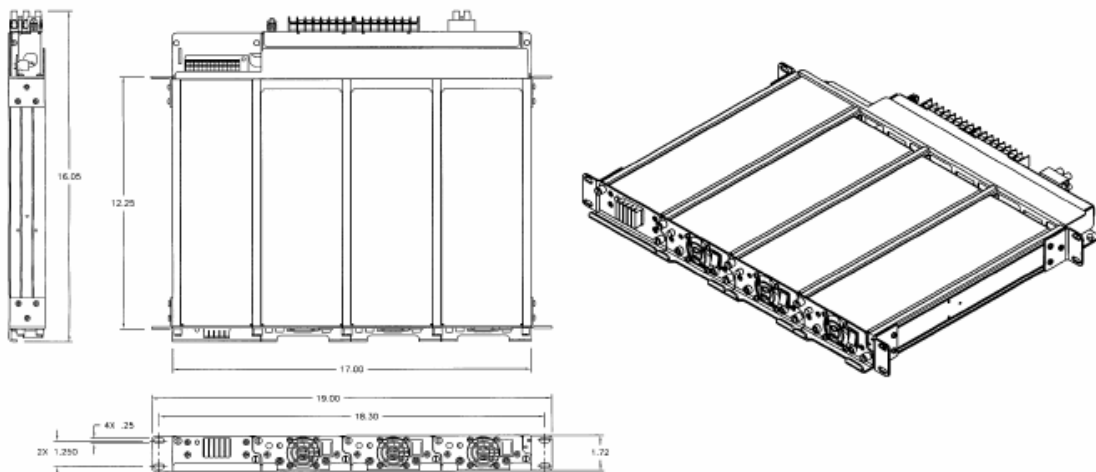
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## Dimensional Diagrams



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