

## 800W, 1RU High, Rugged, Modular Industrial Power Supply Shelf with PFC-Input PFL 800F-1U Series

- Low-profile 1U rack-mount enclosure
- Electronic power factor correction (PFC)
- Adjustable single output
- Full electronic protection
- Industrial quality
- Field-proven design topology
- N+1 redundancy as an option



The PFL 800F-1U Series is a low-profile AC/DC power supply with power factor corrected (PFC) input designed for operation in demanding applications. The unit utilizes variable frequency topology for the PFC-input stage and half-bridge topology after the input stage to deliver up to 800W. An optional built-in redundancy diode allows for the outputs to be connected in parallel for 1+1 redundancy, or increased power. Additional ruggedizing and conformal coating are available for operation in extreme environments. The unit features full electronic protection and low output noise. This chassis-mount design is optimized for low component count and high efficiency. The use of components with established reliability results in high MTBF. The unit is manufactured at our plant under strict quality control.

### SPECIFICATIONS

#### Input Voltage

Universal 90 ... 264Vac  
47 - 420Hz  
Input current 14Arms max.

#### Power Factor

Min. 0.97 at full load for the entire input range. Meets EN61000-3-2

#### Input Protection

Inrush current limiting  
Varistor  
Internal safety fuse  
Lower voltage than the specified minimum input will not damage the unit

#### Isolation

2250VDC input to chassis  
4300VDC input to output;  
8mm spacing  
500VDC output to chassis

#### Standards

Designed to meet EN 60950 and corresponding UL and CSA standards

#### EMI

EN55022 Class A minimum

#### Switching Frequency

50-150KHz Boost section  
(dependent on the load)  
55 KHz +/-3KHz for the DC/DC (half-bridge) section

#### Hold Up Time

Min. 10ms at any input for 5% drop in the output voltage

#### Output Voltage/Current

24Vdc/34A, 48Vdc/17A and 110Vdc/8A are standard.  
Consult factory for other voltages

#### Redundancy Diode

Optional

#### Line/Load Regulation

+/- 1% combined from zero load to full load

#### Dynamic Response

Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time

#### Output Ripple / Noise

Less than 1% peak-to-peak or 0.2% RMS of the output voltage (20MHZ BW)

#### Overload Protection

Rectangular current limiting with short circuit protection (no hiccup)  
Thermal shutdown with automatic reset in case of insufficient cooling

#### Output Over-voltage Protection

Second regulator loop.

#### Efficiency

Output voltage dependent .  
Typically 80% at full load

#### Operating Temperature Range

0 to+50°C for full specification,  
Extended temp. range available

#### Temperature Drift

0.03% per °C over operating temperature range

#### Cooling

Forced air by internal fans

#### Environmental Protection

Basic ruggedizing  
Heavy ruggedizing and conformal coating as option

#### MTBF

Min. 150,000 hours @45°C (fans excluded)  
Demonstrated MTBF is significantly higher.  
Fans excluded

#### Indicators

None

#### Metering (optional)

Digital meters for output voltage and current on front-panel

#### Control Input

None

#### Alarm Outputs

None  
Available as option

#### Package / Dimensions

45 x 483 x 508 mm  
1U (1.75") x 19" x 20"  
1.8" x 19" x 20"

#### Weight

5.4 kg (12 lbs)

#### Connections

Compression-type terminal block

#### RoHS Compliance

Fully compliant

#### Warranty:

Two years subject to application within good engineering practice

**Enhancements to these general specifications and customizing can be accommodated upon request. Specifications subject to change.**

*Designer and manufacturer of quality converters, inverters, UPS systems, complete rack mount systems and DC-input fluorescent lamp inverters since 1982. Custom or standard. Absopulse is a BABT-approved facility*



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