

750W, Rugged, Industrial Quality AC/DC Power Supply with PFC-Input PFC 319F-FT Series

- Electronic power factor correction (PFC)
- Rugged, industrial quality
- Field-proven design
- Full electronic protection
- N+1 redundancy as an option



**FF4W chassis:
internal side fans**



**FF4 chassis:
external side fans**

The PFC 319F Series rugged, industrial quality AC/DC power supply with power factor corrected input utilizes a field proven technology to generate the required output power. It is a mature design with a track record in numerous applications. Cooling is by three high quality fans and additional conduction via the baseplate. The fans are either enclosed within the chassis (FF4W) or are attached to the outside of the chassis (FF4). The fans draw air into the unit. Both mechanical formats have the same total footprint. An optional built-in redundancy diode allows for parallel and N+1 operation. Additional ruggedizing and conformal coating are available on request for applications that require immunity to high levels of shock, vibration and humidity. Full electronic protection, low component count, large design headroom, and the exclusive use of components with established reliability contribute to a high MTBF. All of our products are manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

90-264Vac, 47... 63Hz
Input current 4.7A max at 90V
Power Factor is better than 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
5000VDC input to output
10mm spacing
500VDC output to chassis

Standards

Designed to meet EN 60950-1 and corresponding UL and CSA standards

EMI

EN55022 Class A with margins

Switching Frequency

50-150kHz Boost section (dependent on the load)
55kHz +/-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

24V/31A, 48V/16A or 125V/6A are standard.
The output is floating, either terminal can be grounded
Other outputs on request

Redundancy Diode

Not installed
Available as option

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)

Output Overload Protection

Rectangular current limiting with short-circuit protection (no hiccup)
Thermal shutdown in case of insufficient cooling (self resetting)

Output Over-voltage Protection

Second regulator loop.
Typically set at 120% of nominal output voltage

Efficiency

Output voltage dependent.
Typically 80% at full load

Operating Temperature Range

0°C to 50°C cold plate temperature for full specification
Extended temperature range available

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Forced air by high quality built-in fans and conduction to customer heat sink or chassis
Fans draw air into the unit

Environmental Protection

Basic ruggedizing
Heavy ruggedizing and conformal coating available as an option

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5 - 95% non-condensing

MTBF

130,000 hours @ 45 °C (fans excluded)
Demonstrated MTBF is significantly higher

Indicators

Internal 'Output ON' LED visible through cooling slots

Control Input

None on standard version
Available as option

Alarm Outputs

None on standard version
Available as option

Package/Dimensions (W x H x L)

FF4: 156 x 62 x 356 mm (6.2" x 2.4" x 14") or
FF4W: 156 x 65 x 356 mm
6.2" x 2.5" x 14" including terminal block, flanges and fans.
Mounting holes are clear

Weight

2.5 kg (5.5 lb)

Connections

12-pole barrier type terminal block with 3/8" spacing

RoHS Compliance

Fully compliant

Warranty

Two years subject to application within good engineering practice

Please note that ABSOPULSE power supplies are designed and built to customer specifications. The specifications on this data sheet are generic and will vary depending on input/output configuration and other customer requirements. Generic specifications are 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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