

7.5kW Rugged, Industrial Quality Rack-mount AC-DC Power System with PFC 1500W Plug-in Modules PFC 619F-7K5-6U19 Series

- Electronic power factor correction (PFC)
- Rugged industrial quality
- Up to 7500W per 19" shelf
- Up to 1500W per plug-in module
- Full electronic protection
- Cooling by high quality built-in fans
- Field-proven design topology
- Hot swappable, N+1 redundancy



PFC 619F-EH plug-in module (1500W)
6U x 16HP x 304mm + plus connector



PFC 619F-7.5K-6U19 system 4U x 19" x 17"
can be loaded with up to 5 plug-in modules

This is a modular, industrial quality AC-DC power supply system with power factor corrected input. The system can be built with up to five, 1500W plug-in modules assembled in a 6U x 19" card-frame. It delivers a maximum of 7500W or 6000W with N+1 redundancy. Each hot-insertable module has a built-in redundancy diode which allows for parallel connection and N+1 redundant operation. This feature also makes the system suitable for battery charging. This mature design has large design headroom and is rated for operation over the specified temperature range without de-rating. Each plug-in module is cooled by two high quality built-in fans. Full electronic protection and the use of components with established reliability results in a high demonstrated MTBF confirmed by a track record in numerous applications. The system is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

Universal 95 ... 264VAC
47 – 63Hz
Power Factor is better than 0.97 at full load for the entire input range.
Meets EN61000-3-2
Consult factory for other inputs

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 60950-1 and corresponding UL and CSA standards

EMI

EN55032 Class A minimum

Hold Up Time

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

Switching Frequency

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

Output Voltage/Current (per plug-in module)

24VDC/60A or 48VDC/30A
Max output 1500W per module
Max output 7500W per shelf
Consult factory for other outputs

Redundancy Diode

Installed on each plug-in module
Hot insertion allowed

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

Double regulator loop

Efficiency

Output voltage dependent
Typically 80% at full load

Operating Temperature Range

0°C to 50°C for full specification without derating
Extended temperature ranges available

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Each plug-in module has two high quality built in fans

Environmental Protection

Basic ruggedizing
Heavy ruggedizing and conformal coating as option

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5 - 95% non-condensing

MTBF

135,000 hours @ 45°C (fans excluded) for each plug-in module
Demonstrated MTBF is significantly higher.

Indicators

Green "Output ON" LED on the front panel of each plug-in module

Alarm Output

Module Fail Alarm
Opto-coupler on the plug-in module
(C-E opens on alarm)
Form C on the shelf

Package/Dimensions (H x W x D)

Shelf: 6U x 19" x 17"
Plug-in modules:
6U x 16HP x 304mm

Weight

Empty frame: 6.1 kg; 13.4 lb
Each plug-in module: 3.5 kg; 7.8 lb
Fully loaded shelf: 23.6 kg; 52.4 lb

Connections

H15 Connector on plug-in module
Terminal blocks on the shelf

RoHS Compliance

Compliant

Warranty

Two years subject to application within good engineering practice

Enhancements to these general specifications can be accommodated upon request. 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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