



The FR 2000 Rectifier



Description:

The FR 2000 rectifier is a single phase, hot-pluggable, fan-cooled rectifier. The constant output power characteristic supplies the specified power over the full output voltage range. The benefit is an optimised modular system design (fewer number of modules) and matches the supply requirements for state-of-the-art telecom equipment. This performance as well as the extended temperature range, wide input voltage range, high power density and advanced technology are the key factors of the success of this rectifier and it offers a cost effective and reliable solution.

The rectifier meets the requirements set by the telecommunications standards.

Features

- Efficiency $\geq 91\%$
- Compact (500 W / l) and light (4.4 kg)
- Hot pluggable, all connectors at the rear
- Fan cooled with air flow monitoring
- Wide input voltage range: 88 - 276 V_{rms}
- Power factor ~ 1.0 (sinusoidal input current)
- Constant output power characteristic
- Analogue system bus
- Operating temperature range up to 70°C

Specification

General

Product name	FR 48 V - 2000 W - E
Efficiency	$\geq 91\%$
Losses, max.	200 W
Safety	EN 60 950, class I UL 60 950 CAN / CSA – C22.2
EMI, radiated compliant with	EN 55 022, class B EN 300 386-2
Cooling	Fan cooled
Power density	500 W / l 8.2 W / in ³

Input

Voltage range	88 ... 276 V _{rms}
Volt. range, red. power	88 ... 184 V _{rms}
Current maximum	12 A _{rms}
Line current	Meets IEC 1000-3-2
THD	< 5 %
EMI, conducted	EN 55 022, class B

Output

Voltage, nominal	53.5 V _{dc}
Voltage adjust range	42 ... 58 V _{dc}
Voltage error, static	± 250 mV _{dc}
EMI, conducted compliant with	EN 55 022, class A
Current limit, nominal	46.5 A _{dc}
Limit adjustment range	0 ... 46.5 A _{dc}
Load sharing	$< \pm 3$ A _{dc}
Power limit	2000 W, fixed

Mechanics

Width, overall	2.6" / 65 mm
Depth, overall	13.6" / 346 mm
Height, body	7.9" / 200 mm
Weight	9.7 lb / 4.4 kg

Environment

Ambient temperature	-25 ... + 70 °C
Reduced power	60 ... + 70 °C
Relative humidity	95 % max, non cond.

Accessories

Single back plane	P/N: D0100298
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