



Features

- High efficiency and energy saving
- > 90.5% typical efficiency
- Leading power density of up to 31.3 W/in³
- Rugged input voltage range
- Thermal protection
- Hot-swappable
- International standards compliance

Description

These compact converters support up to 7.5 kW in a 1 RU 23" shelf. They are fully compatible with the Guardian power system platform. Rectifiers and converters can be installed in the same shelf for increased flexibility and monitored by a single system controller. Ideal for use in installations where both +24 VDC and -48 VDC equipment is utilized.



*19", 6 RU Dual Voltage System
(-48 VDC / 12.5 kW & +24 VDC / 4.5 kW)
with Controller, Load & Battery Distribution*

Input

Model	FMD15.24
Input Voltage	36 – 72 VDC
Input Current	Maximum: 53.5 A Inrush: <5 Arms (time base 100 ms)
Fuse	2 x 40 A (negative wire)

Output

Output Voltage	22 – 26 VDC
Output Power	Po Max =1500 W
Output Current	Nominal: 62.5 A Maximum: 72 A
Efficiency	90.5% typical
Tolerance	Vout ± 1.0%
Transient Response	±5% at load variation 10-90% or 90-10% recovery time 20 ms
Load Sharing	<5% of nominal current
Ripple	<200 mV p-p (BW 20 MHz)
Psophometric	<2 mV, according to CCITT norms

Standards

Inrush Current	ETSI EN 300 132-1
Harmonics	EN 61000-3-2
EMC	ETSI EN 300 386 V.1.3.2 EN 61000-6-1, EN 61000-6-3 EN55024 performance criterion A EN 61000-6-2, EN 61000-6-4 EN 55022 Class B Telcordia NEBS GR1089
Safety	CSA 60950-1-03 1 st EN 60950-1
Environment	Storage: ETSI EN 300 019-2-1 Transport: ETSI EN 300 019-2-2 Operation: ETSI EN 300 019-2-3 Damp Heat: IEC 60068-2-78, MIL-STD-810D section 507.2 Earthquake: GR 63 Core Zone 4

Note: The FMD15.24 input positive is connected to the output negative.

Mechanical Data

Dimensions	107 x 355 x 41 mm (WxDxH)
Weight	2 kg
Cooling	Fan-cooled, speed controlled
Insulation	Input, output to PE
Enclosure	IP20
Mounting	19in/1U subrack up to 4 modules, or 23in/1U subrack up to 5 modules

Other Technical Data

Protection	Short circuit/arcing protection, automatic current/power limiting, selective shutdown of modules at excessive output, input/output overvoltage protection, thermal protection
Alarms	Fan failure Short circuit/arcing protection High temperature/output voltage Low output voltage Input voltage out of range Low fan speed (warning) Internal communication failure
Indicators	Green LED AC in range Yellow LED Low fan speed, High temperature Flashing Communications failure Red LED Module failure / shutdown
Audible noise (nominal input)	<45 dBA at 25°C (50% load) <60 dBA (100% load)
Temperature	Operating: -40°C to +75°C up to 2000 m Reduced spec -40°C to -20°C Derated output power 55°C to 75°C For 3000 m altitude derate by 5°C Storage: -60°C to +85°C
MTBF	>350,000 hours (without fan) at 25°C to MIL-HDBK-217F-2

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