

FM-PWR-AXM-82

Isolated (12Vdc)24Vdc/48Vdc, 144W Converter

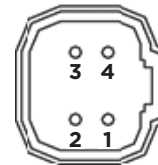
Rugged, isolated 48 Vdc for machine electronics. The DC/DC converter is suitable for application on charging/cranking battery based systems.

- Off-highway Equipment
- Power generator set control systems
- Oilfield equipment



FEATURES

- 12Vdc or 24Vdc input, 48Vdc output, 144 Watts
- Isolated
- Operates from 9Vdc-36Vdc, some derating for input voltage lower than 13V Dc
- Typical efficiency of 92% (for 13Vdc input) or 93% (for 24Vdc input)
- No minimum load requirement
- Switch mode operation delivers high efficiency
- Input inrush current limit
- Thermal protection for over temperature
- Reverse battery, over and under-voltage protection
- Short circuit and overcurrent protection
- -40 to 85 °C (-40 to 185 °F) operating temperature
- IP67
- 1 Deutsch IPD DT13-4P connector
- Compact: 5.35 x 6.82 x 2.38 inches (136.00 x 173.41 x 60.58 mm)
- EMI/EMC compliant
- SAE J1455 and SAE J1113 compliant
- Suitable for engine cranking and load dump
- Supports multiple radios per truck



Connector pin out

1. Output + (red/white)
2. Output - (black/white)
3. Power - (black)
4. Power + (red)

INPUT SPECIFICATIONS

Power source	24 Vdc nominal
Operating voltage range	13 to 36 Vdc provides output regulated to 1% @ 3 A load Below 13 Vdc input down to 9 Vdc, output current derates due to the rating of connector and operating temperature 85°C
Maximum input current	13 ADC @ 12Vdc
Engine cranking and load dump	Designed to meet engine cranking and load dump conditions
Reverse voltage protection	Provided
Under-voltage shutdown	8.8 Vdc typical
Over-voltage shutdown	38 Vdc typical
Inrush current	Max. 13A for 50 mSec

OUTPUT SPECIFICATIONS

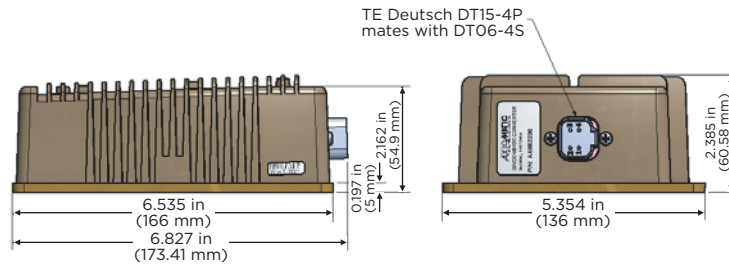
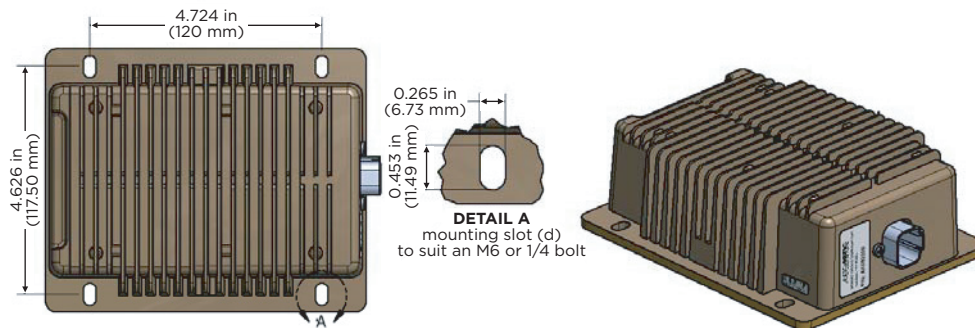
Nameplate rating (output power)	144 VA nominal
Output current (DC)	3A continuous (at input >13Vdc)
Output voltage	48 Vdc \pm 1%
Output voltage ripple	$V_{O(RIPPLE)} \leq 250$ mVpp
Turn-on time (at full load)	250 ms typical
Stability	Stable at all loads (no minimum load requirement)
Transient response	300 mV/1 ms (1A - 4A load)
Short circuit current	Protection provided Self-recovery 3.5A current limit

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GENERAL SPECIFICATIONS

EMI and environmental compliance	Designed to meet the requirements of the following standards: DIN EN 13309
Efficiency	92% (for 12Vdc input) or 93% (for 24Vdc input)
Isolation	500 Vdc minimum
Quiescent current	65mA @ 24Vdc input
Enclosure	Aluminum enclosure Encapsulated 5.35 x 6.82 x 2.38 inches 136.0 x 173.41 x 60.58 mm (W x L x H including connector)
Protection	IP67
Vibration	MIL-STD-202G, test 204D and 214A (sine and random) 10 g peak (sine); 7.86 Grms peak (random)
Shock	MIL-STD-202G, test 213B, 50 g
Weight	3.35 lb. (1.52 kg) Converter plus wire harness: contact axiomatic
Temperature rating	Operating: -40 to 85°C (-40 to 185°F) Storage: -50 to 90°C (-58 to 194°F)
Humidity	0-99% relative humidity (non-condensing)



Fluidmesh Networks products are installed locally by professional System Integrators and are available worldwide through a network of Authorized Dealers. For additional information please call +1.617.209.6080 or visit us at fluidmesh.com



HEADQUARTERS.
81 PROSPECT ST.
BROOKLYN
NY 11201, USA

TELEPHONE.
+1.617.209.6080
FAX.
+1.866.458.1522

EMAIL.
INFO@FLUIDMESH.COM
WEB.
FLUIDMESH.COM