

9-36Vdc to 12Vdc, 18W, Isolated Power Converter

P/N: AX082300

Features:

- 12 Vdc or 24 Vdc (9 to 36 Vdc) to 12 Vdc, 18W Converter
- Isolated
- Operates from 9 Vdc to 36 Vdc
- Typical efficiency of 87% @ 12 Vdc input or 88% @ 24 Vdc input
- Thermal protection for over temperature
- Reverse battery, over and under-voltage protection
- Short circuit and overcurrent protection
- Protected against 205 Vdc load dump
- -40 to 70°C (-40 to 158°F) operating temperature
- Compact, laser welded enclosure
- 4-pin TE Deutsch type connector
- IP67
- EMI/EMC compliant



Applications:

- Suitable for application on vehicles
- Off-highway Equipment
- Fire trucks and municipal vehicles

Ordering Part Number:

9-36Vdc/12Vdc, 18W, Isolated Power Converter P/N: **AX082300**

Accessories:

Mating Plug Kit P/N: **AX070106** (includes 1 DT06-4S, 1W4S, 4 0462-201-16141)

Technical Specifications:

Specifications are indicative and subject to change. Actual performance will vary depending on the application and operating conditions. Users should satisfy themselves that the product is suitable for use in the intended application. All our products carry a limited warranty against defects in material and workmanship. Please refer to our Warranty, Application Approvals/Limitations and Return Materials Process as described on <https://www.axiomatic.com/service/>.

All specifications are typical at nominal input voltage and 25 degrees Celsius unless otherwise specified.

Input

Power Supply	12 Vdc nominal, 24 Vdc nominal (9...30VDC power supply range)
Operating Voltage Range	Minimum 12V to start 9 Vdc to 36 Vdc provides output 12 V regulated to 2% @ 1.5 A load
Maximum Input Current	1.5 A @ 12 Vdc
Protections	Reverse polarity protection is provided. Input overvoltage (40 Vdc typical) and input undervoltage (7 Vdc typical) protection is provided. The unit is designed for 205 Vdc based load dump.

Output

Nameplate Rating (Output Power)	18 VA nominal
Output Current (DC)	1.5 A continuous
Output Voltage	12 Vdc \pm 0.24 V
Output Voltage Ripple	$V_{O(RIPPLE)} \leq 80$ mVpp
Turn-on time (at full load)	100 ms typical
Stability	Stable at all loads (no minimum load requirement)
Transient Response	700 mV / 1 ms (25%-75% Load)
Short Circuit Current	Protection provided self-recovery 1.8 A current limit

General Specifications

Efficiency	87% @ 12 Vdc input, typical; 88% @ 24 Vdc input, typical										
Vibration	Pending										
Shock	Pending										
Operating Conditions	-40 to 70 °C (-40 to 158 °F)										
Weight	0.28 lb. (0.125kg)										
Enclosure and Dimensions	Molded Enclosure, integral connector Nylon 6/6, 30% glass, Laser Welded 4.24 in x 3.69 in x 1.41 in (107.5 mm x 94 mm x 36 mm) Note: L x W x H including integral connector Flammability rating: UL 94 HB Refer to the dimensional drawing.										
Electrical Connections	Integral 4-pin receptacle (equivalent to the TE Deutsch P/N: DT04-04P) 18 AWG wire is recommended for use with contacts 0462-201-16141. <table border="1"><thead><tr><th>PIN #</th><th>FUNCTION</th></tr></thead><tbody><tr><td>1</td><td>V Output +</td></tr><tr><td>2</td><td>V In +</td></tr><tr><td>3</td><td>V In -</td></tr><tr><td>4</td><td>V Output -</td></tr></tbody></table>	PIN #	FUNCTION	1	V Output +	2	V In +	3	V In -	4	V Output -
PIN #	FUNCTION										
1	V Output +										
2	V In +										
3	V In -										
4	V Output -										
Mating Connectors	A mating plug kit is available. Ordering P/N: AX070106 (includes 1 DT06-4S, 1W4S, 4 0462-201-16141)										
Mounting	Mounting holes are sized for #10 or M5 bolts. The bolt length will be determined by the end-user's mounting plate thickness. The mounting flange of the controller is 0.47 inches (12 mm) thick. It should be mounted with connectors facing left or right to reduce likelihood of moisture entry. All field wiring should be suitable for the operating temperature range. Install the unit with appropriate space available for servicing and for adequate wire harness access (6 inches or 15 cm) and strain relief (12 inches or 30 cm).										

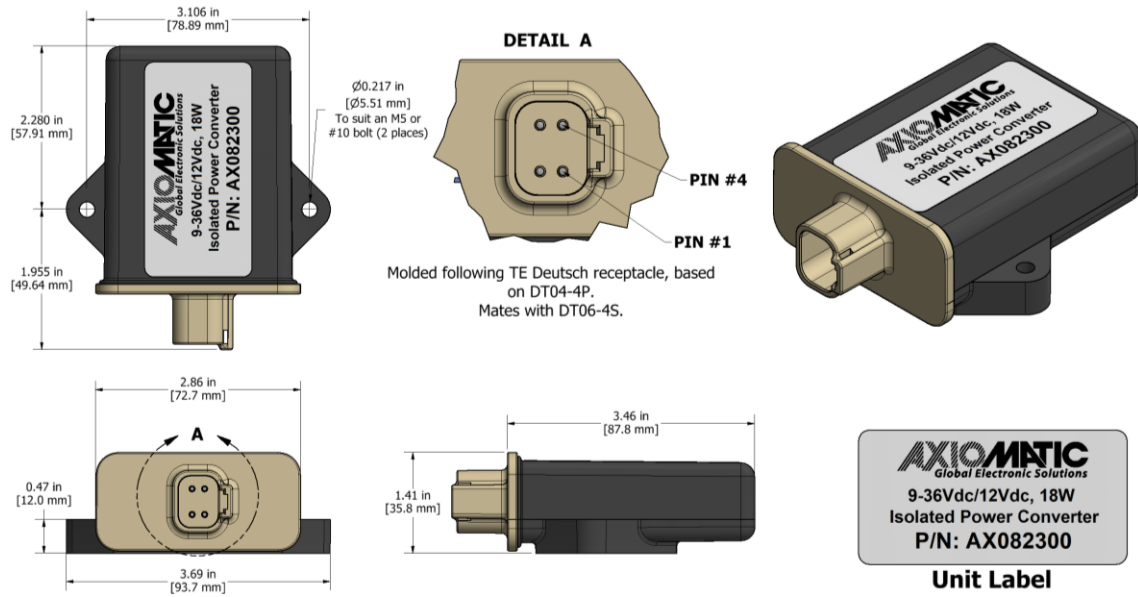


Figure 1.0 – Dimensional Drawing

Form: TDAX082300-08/11/23