

**Description:**

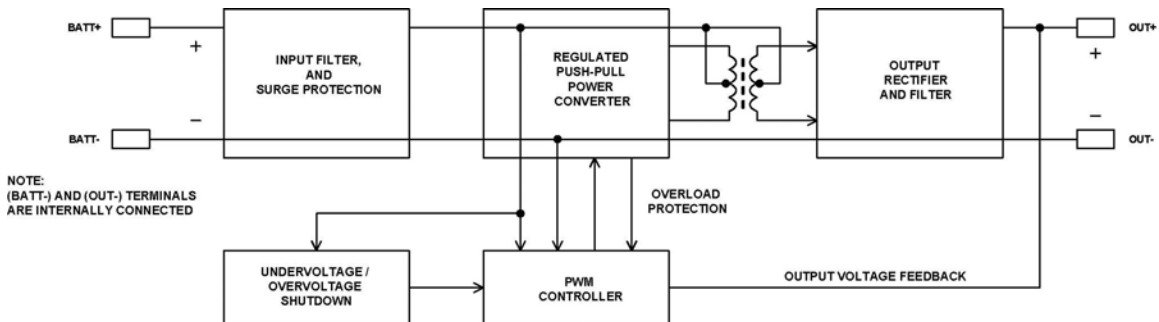
The converter powers devices at 120VDC up to 2 Amps (240 Watts). It accepts 24V DC nominal power input. The unit is packaged for on-engine environments with an IP67 rated enclosure and watertight connector. It is specifically designed with active ripple suppression to handle highly inductive loads such as fuel injectors.



**Applications:**

Specialty diesel or natural gas engine applications, including powering fuel injectors

**Block Diagram**



**Ordering Part Numbers:**

Converter with Wire Harness KIT:

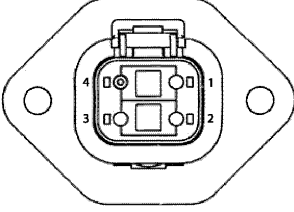
**AX080100K** (KIT AX080100 Converter, WH-DTP06-4S-S-2M Wire Harness)

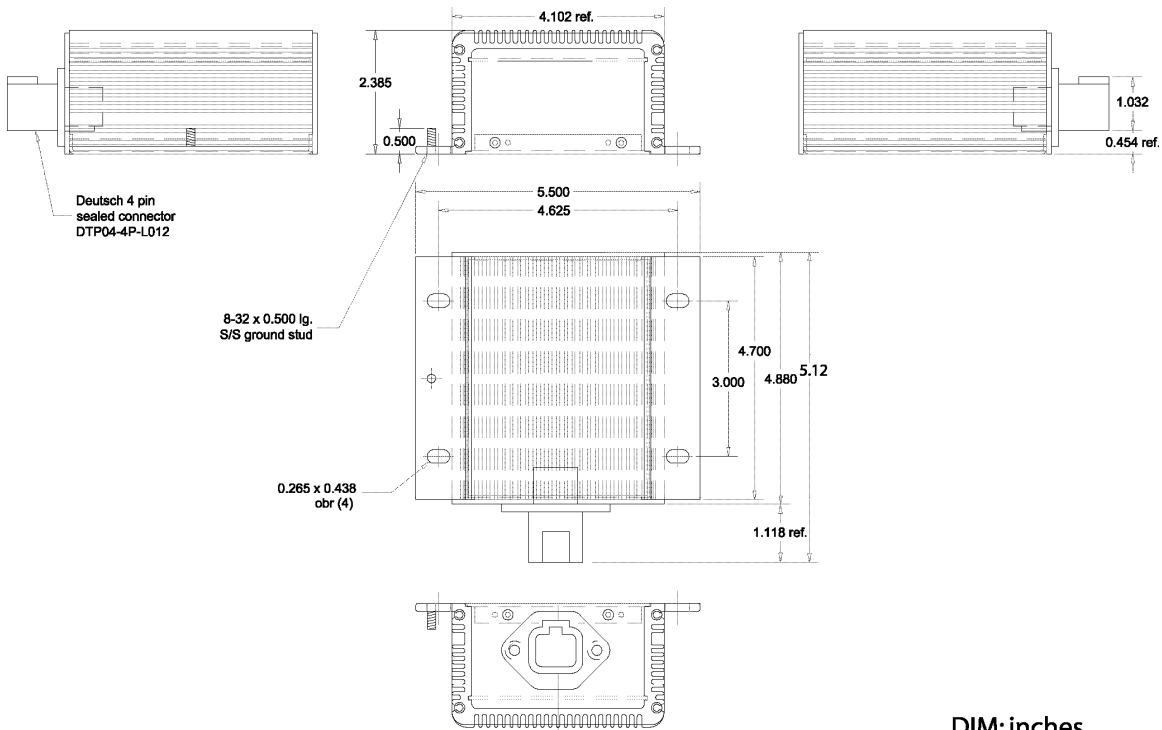
Items can also be ordered individually.

Converter: **AX080100**

Mating Wire Harness, 2 m: **WH-DTP06-4S-S-2M**

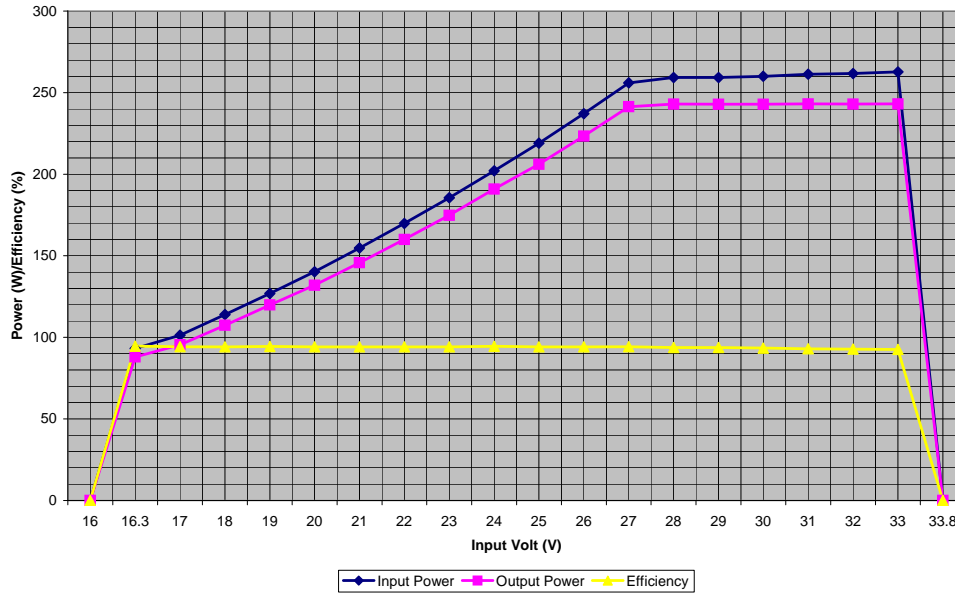
## Technical Specifications:

Power Supply Input	24V DC nominal 16...32VDC Undervoltage Shutdown 16V Overvoltage Shutdown 33V
Output	120V DC regulated, 2A continuous (240 Watts) The device is current limited to 3A.
Average Efficiency	93%
Logic	Below 28V input, the output follows the input using a 4.3 x ratio. At 28V input and above, the output is regulated to 120V DC.
Electrical Connection	4 pin Deutsch IPD P/N: DTP04-4P-L012 Pin 1: Output- Pin 2: Output+ Pin 3: Input+ Pin 4: Input-  A mating wire harness is available and includes 2 meters (6.5 ft.) of unterminated 12 AWG wires as well as the Deutsch IPD mating connector assembly (Deutsch P/N: DTP06-4S, WP4S and four contact sockets 0462-203-12141). Ordering P/N: WH-DTP06-4S-S-2M
Packaging and Dimensions	Extruded Aluminum housing with stainless steel end plates 5.12 x 5.50 x 2.39 inches 130.0 x 139.7 x 60.7 (L x W x H)
Operating Conditions	-40 to 85°C (-40 to 185°F)
Weight	Weight: 0.91 kg (2.0 lbs.)
Vibration	Vibration compliance is suitable for mobile equipment applications.
Protection	IP67, Unit is encapsulated within the housing.



# Power and Efficiency

Input V vs In-Out Power vs Efficiency



Input Voltage	Input Current	Input Power	Output Voltage	Output Current	Output Power	Efficiency
[ V ]	[ A ]	[ W ]	[ V ]	[ A ]	[ W ]	[ % ]
16	0	0	0	0	0	
16.3	5.71	93.073	72.8	1.209	88.0152	94.56577095
17	5.96	101.320	75.5	1.265	95.5075	94.26322542
18	6.33	113.940	80.0	1.342	107.3600	94.22503072
19	6.68	126.920	84.5	1.418	119.8210	94.40671289
20	7.01	140.200	88.7	1.488	131.9856	94.14094151
21	7.37	154.770	93.2	1.564	145.7648	94.18155973
22	7.72	169.840	97.7	1.638	160.0326	94.22550636
23	8.07	185.610	102.1	1.712	174.7952	94.17337428
24	8.42	202.080	106.7	1.789	190.8863	94.46075812
25	8.76	219.000	110.9	1.859	206.1631	94.13840183
26	9.12	237.120	115.5	1.934	223.3770	94.20420040
27	9.48	255.960	120.1	2.010	241.4010	94.31200188
28	9.26	259.280	120.5	2.017	243.0485	93.73977939
29	8.94	259.260	120.5	2.016	242.9280	93.70053228
30	8.67	260.100	120.5	2.016	242.9280	93.39792388
31	8.43	261.330	120.6	2.016	243.1296	93.03547239
32	8.18	261.760	120.6	2.015	243.0090	92.83656785
33	7.96	262.680	120.6	2.016	243.1296	92.55733212
33.8	0	0	0	0	0	

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 [www.axiomatic.com/service.html](http://www.axiomatic.com/service.html).

Form: TDAX080100-11/13/07