

TECHNICAL DATASHEET #TDAX083500 **DC/DC Step Up Converter** 12 or 24 Vdc / 120 Vdc, 30 W

P/N: AX083500, AX083501

Features:

- Powers devices at 120Vdc up to 0.25 Amps (30 W)
- Isolation
- 12V or 24Vdc nominal voltage input
- Reverse polarity protection
- Operational from -40 to 70°C
- IP20 protection
- DIN rail mount
- Connection options: Spring clamps or screw terminals



Ordering Part Numbers:

24Vdc/120Vdc, 30W Step Up Converter, Spring Clamp Connectors P/N: **AX083500**

24Vdc/120Vdc, 30W Step Up Converter, Screw Terminal Connectors P/N: **AX083501**

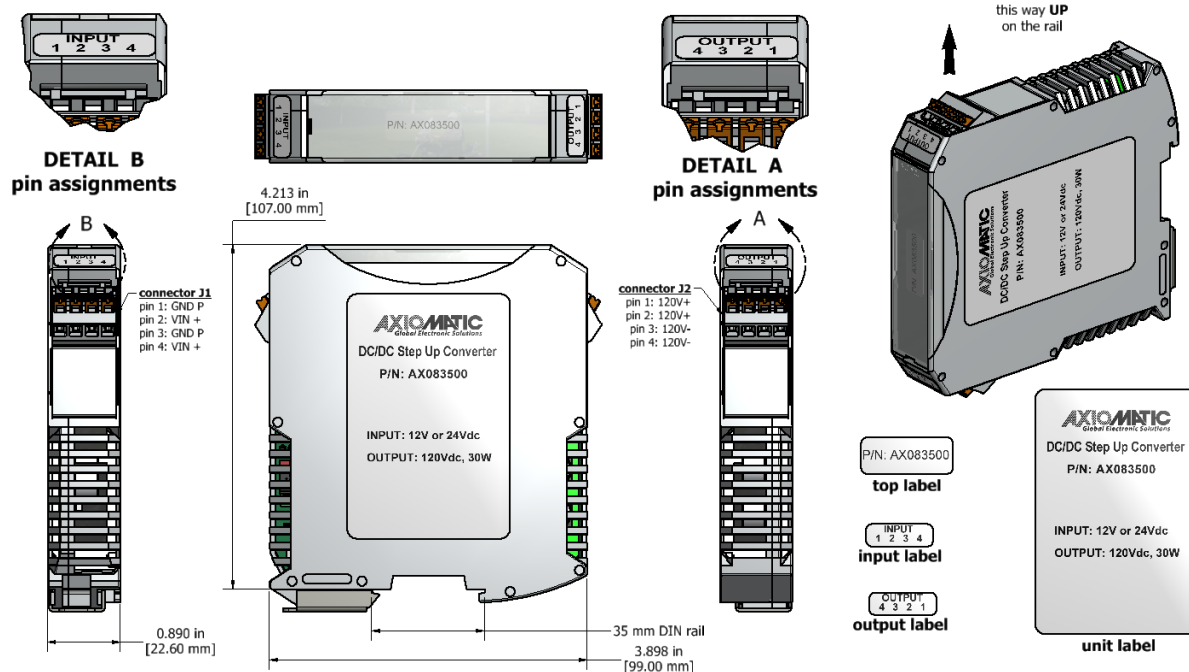


Figure 1.0 – Model AX083500 with spring clamp connectors

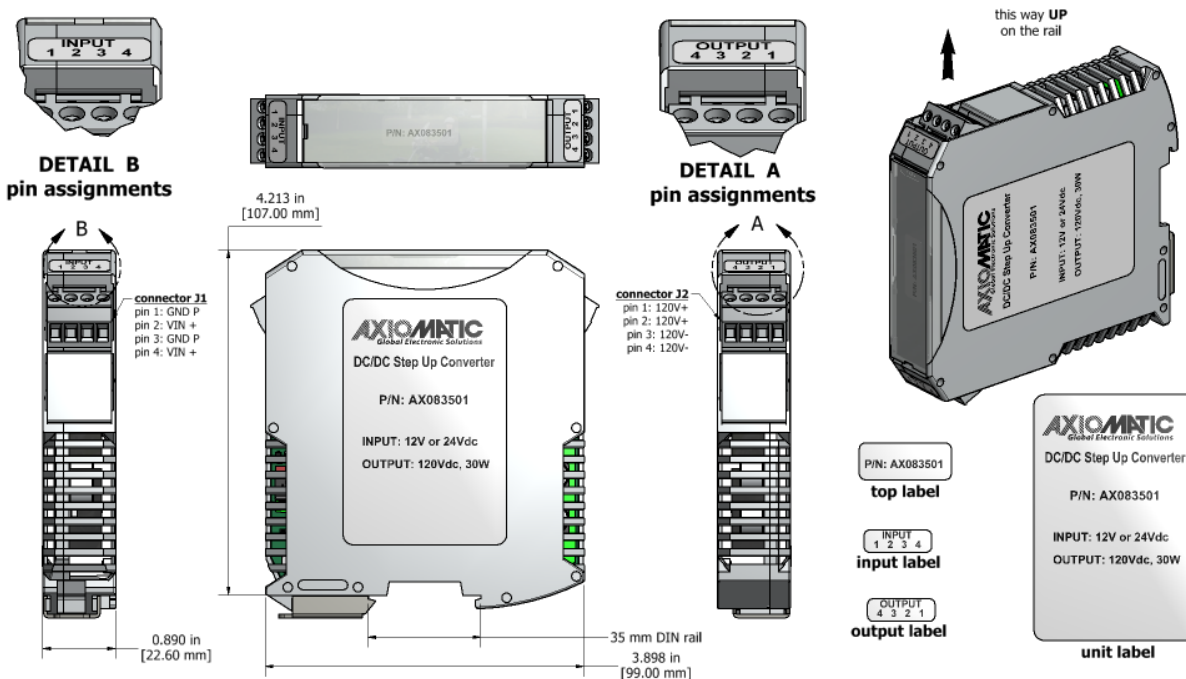
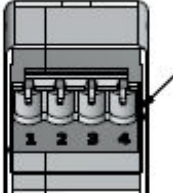
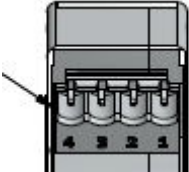


Figure 2.0 – Model AX083501 with screw terminals

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/>.

Input Specifications		Output Specifications	
Power Source	12V or 24Vdc nominal	Nameplate Rating (Output Power)	30 Watts nominal
Operating Voltage Range	9-36 Vdc continuous	Output Current	0.25 Amps continuous Current limited to 0.3A typical
Reverse Voltage and Inrush Current Protection	Provided	Output Voltage	120Vdc \pm 2%
Over-voltage Shutdown	41 Vdc typical	Line Regulation	\pm 0.5% max.
Under-voltage Shutdown	8 Vdc typical	Output Voltage Ripple	1% maximum
		Turn-on Time (with full load)	0.5 sec @ 9-36Vdc
		Stability	Stable at all loads (no minimum load requirement)
		Over-voltage Shutdown and Latched	145 Vdc max.
		Short Circuit Current	Protection provided Hiccup Self-recovery

General Specifications		
Isolation	700Vdc Input to output is isolated.	Model AX083500 Electrical Connections: 4 Phoenix Contact PSPT 2,5/ 4-ST KMGY spring clamp connectors Accepts 24-14 AWG wire. Input: Vin+(Pin2&4), Vin-(Pin1&3) 
Average Efficiency	91% Typical Refer to Figures 3 and 4.	
Operating Temperature	-40 to 70°C (-40 to 158°F)	
Storage Temperature	-40 to 85°C (-40 to 185°F)	
Humidity	5-95% relative humidity (non-condensing)	
Protection rating	IP20	
Enclosure and Dimensions	Phoenix Contact: PHO ME MAX 22.5 2-2 KMGY – 2713625 (vented) Polyamide, UL94V0, cULus recognized, China RoHS DIN rail TH 35-7.5 99 x 114.5 x 22.5 x 99 mm (L x H x W x D) Refer to Figures 1 and 2.	
Weight	0.35 lb. (0.158 kg)	Output: +120V(Pin1&2), -120V(Pin3&4) 
		Model AX083501 Electrical Connections: 4 Phoenix Contact MSTBT 2,5 HC/ 4-STP GY7035 screw terminal connectors Accepts 12-24 AWG wire. The pin out shown above is the same for the screw terminals.

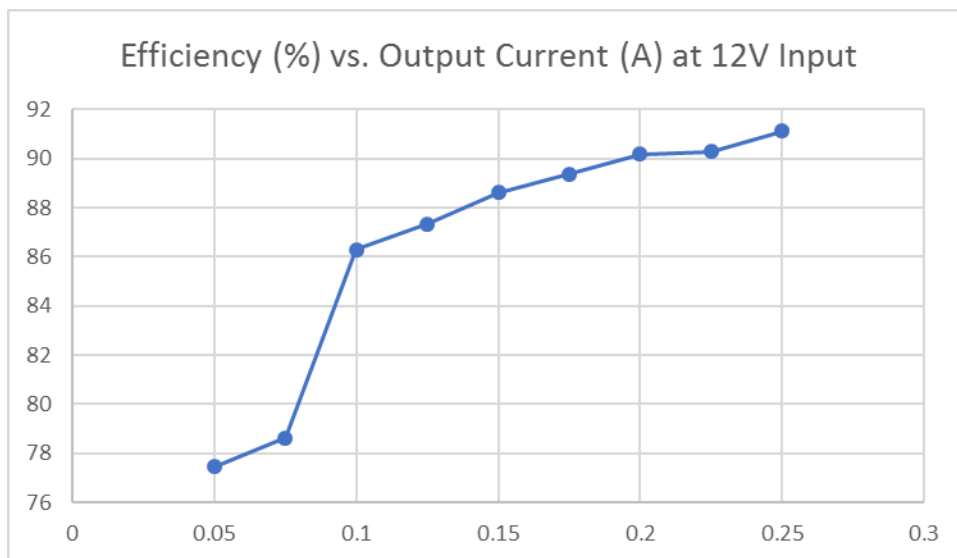


Figure 3.0 – Efficiency at 12Vdc Input

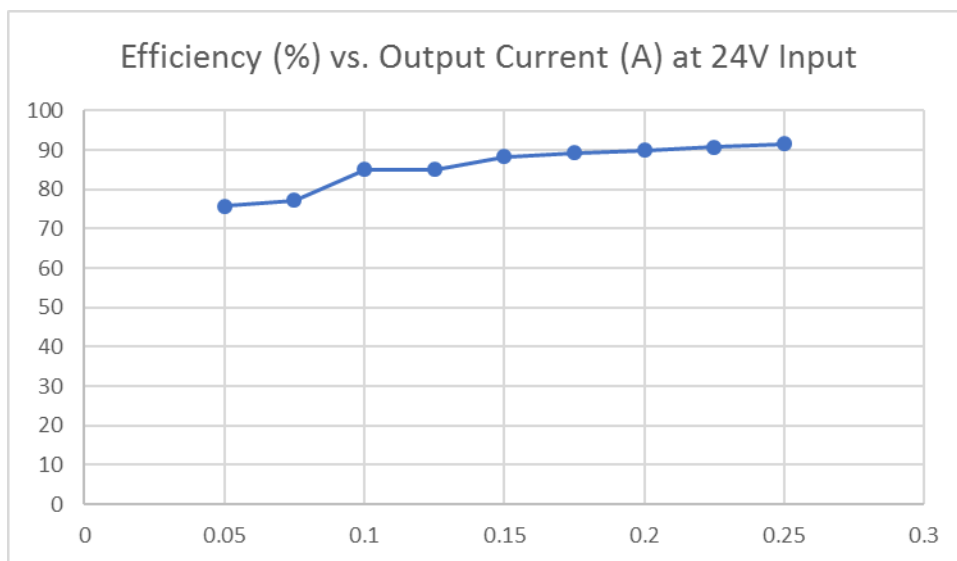


Figure 4.0 – Efficiency at 24Vdc Input

Form: TDAX083500-06/22/23