

UNV300/B

Auto Ranging 750/1100 Watts
AC-to-DC CONVERTER

Key Features

- **Universal Input**
(85 to 265 VAC)
- **Low profile - 0.40 inch high**
(2.28"L X 2.40"W X 0.40"H)
- **Auto Ranging**
(No Manual Strapping)
- **Up to 1100 Watts Output**
- **97% Efficiency**
- **100°C Operating Temperature**
- **UL (USA, Canada), VDE, CE Marked**



Description

The UNV300/B, an auto ranging AC to DC Converter, interfaces directly with worldwide AC mains at its input, and any DC-to-DC converter with an input range of 200 to 400 VDC at its output.

The UNV300/B senses the input and automatically configures itself into voltage doubler mode (for 85 to 135 VAC input) or bridge rectifier mode (for 170 to 265 VAC input). The internal automatic switch over is at 150 VAC.

The output of UNV300/B can interface with most industry standard 300V input DC-to-DC converters, including various models available from Powercube. Examples of these models from Powercube are:

LPD150 Series (for 25 to 150 Watts output power)
LPD301 Series (for 50 to 150 Watts output power)
PD150 Series (for 150 Watts output power)
PD301 Series (for 200 to 300 Watts output power)

Summary Typical Characteristics

AC Line Input Voltage	85 VAC to 265 VAC
Input Frequency	47 Hz to 440 Hz
Output Voltage	300 VDC (200-400VDC)
Output Power	
85 - 135 VAC Input	750 Watts
170 - 265 VAC Input	1100 Watts
Efficiency	97%
Power Factor	0.65
Operating Temperature	-55°C to +100°C
Input to Output Isolation	None
Input/Output to Baseplate	1500 V _{RMS}
Weight	2.5 oz. (71 gms)



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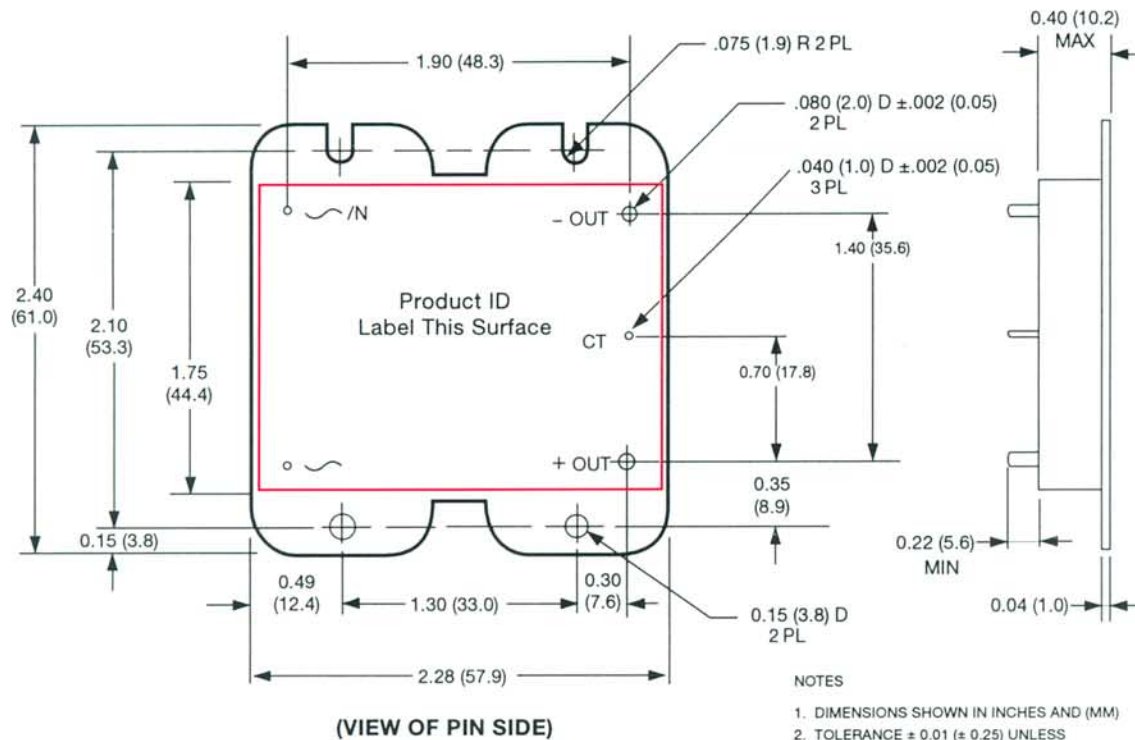
www.powercube.com

ISO 9001

TEL: 1-800-866-3590 • FAX: 1-800-866-3589

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From Outside the U.S.A. Tel: 818-734-6500 • Fax: 818-734-6540

UNV300/B



MECHANICAL OUTLINE

Application

Fusing and appropriate filter capacitors are to be supplied by the user and configured as shown in Figure 1. Aluminum electrolytic capacitors with a minimum working voltage rating of 250 VDC should be selected for C_O . Recommended input fusing and filter capacitor values are shown in the tables below. To comply with regulatory safety agency requirements, the module baseplate must be connected to safety ground.

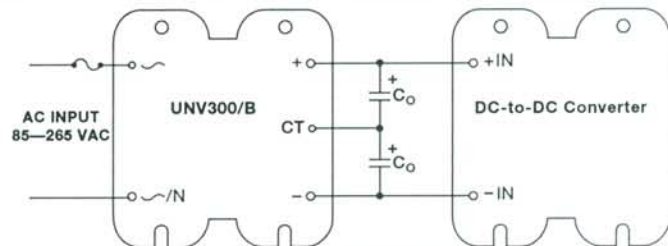


Figure 1

Input Fusing

UNV300/B Output Power	Normal AC Input (VAC)		
	110	220	110 to 220
400 Watts	8A	4A	8A
550 Watts	12A	6A	12A
750 Watts	15A	8A	15A
1100 Watts	N/A	15A	15A

Output Capacitor

Input Line Frequency	AC Input (VAC)	
	85-135 and 170-265	170-265
47-440 Hz	$(4.4 \times W_o^*) \mu f$	$(2.5 \times W_o^*) \mu f$
50 Hz	$(4.4 \times W_o^*) \mu f$	
60 Hz	$(3.4 \times W_o^*) \mu f$	
400 Hz	$(0.5 \times W_o^*) \mu f$	

W_o^* is output power desired from UNV300/B



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