

# AC-DC POWER SUPPLY

## UNIVERSAL INPUT, DESK TOP, 310 WATTS

### MEDICAL APPLICATIONS

#### MUI310-24SP



#### FEATURES

- Universal Input Range
- 4000Vac Input/Output
- 2 MOPP Isolation
- Class I and Class II Protection
- LED Indication
- Over Current Protection
- Short Circuit Protection
- Over Temperature Protection
- High Efficiency: 87.5% Minimum
- Desktop Package: 7.87" × 3.94" × 1.65"
- Safety meets CEC level VI, UL, CUL, CE, ES60601-1, EN60601-1, and IEC60601-1 3rd Edition
- Power Cord With Push Release Safety Tab

#### SELECTION GUIDE

All specifications are typical at nominal input, rated output current and 25°C, unless otherwise noted.

Input Voltage Range Vac	Output Voltage Vdc	Output Current A	Ripple & Noise mVp-p	Efficiency (at 100% load) %	Model Number
90 - 264	+24	12.5	480	> 87.5	MUI310-24SP

#### Input Specifications

Rated input voltage, Vac	90 - 264	
Voltage range	90 Min., 264 Max.	
Frequency, Hz	50 or 60	
Input current, A	5/115Vac, 2.5/230Vac	
Inrush current, A	< 150	230Vac
Turn on, Rise time	< 3S < 50mS	
Hold-up time, ms	≥ 5	At 100Vac, full load
Total rated watts, W	300	

#### Output Specifications

Output voltage, Vdc	24	
Output rated current, A	12.5	
Line regulation, %	2	
Load regulation, %	5	
Output tolerance, %	5	
Ripple and noise, mVp-p	480 Max.	
OVP (trip voltage), V	< 32	
SCP	Shut down and auto recovery	
Over current protection, %	110 - 160	If remove auto recovery
Over temperature protection, %	Shut down and Cycle AC power to reset	
No load consumption, W	< 0.5	

## MUI310-24SP

### General Specifications

Power factor	> 0.9 at 230Vac	
Insulation resistance, MΩ	> 100 at 500Vdc	Between input and output

### Environmental Specifications

Operating temperature range, °C	0 to 40	
Storage temperature range, °C	-20 to 85	
Cooling	Natural convection	
Operating humidity range, %	5 - 90	Non-condensing
Storage humidity range, %	5 - 90	Non-condensing
Non-operational vibration	With shipping container, shall be 2G's peak, 5-50HZ, 4G's peak 50-500HZ, after test no abnormality to be noted	
Operational vibration	Shall be 0.5G's peak, 10-60HZ, 3 planes, after test no abnormality to be noted	

### Physical Specifications

Design meet safety standard	CEC level VI, UL, CUL, CE, ES60601-1, EN60601-1, and IEC60601-1 3rd Edition
Dimensions, inches (mm)	7.87 × 3.94 × 1.65 (200 × 100 × 42)
Weight, g	1380
MBTF	> 100K hours, MIL-STD-781C

### EMC Specifications

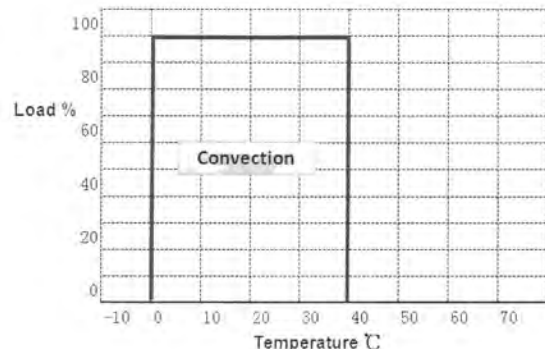
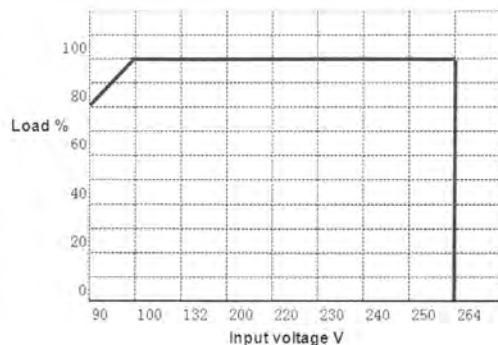
Specifications	Conditions	Level
EMI	EN55011	Class B
	CISPR11	Class B

#### Note:

- Efficiency measurement at full load, 24°C ambient, after unit is thermally stabilized.
- Measured by 20 MHz bandwidth oscilloscope and the output paralleled a 0.1µF ceramic capacitor and a 47µF electrolytic capacitor.
- Meet DOE Level VI requirements.
- Burn-in reliability: Power supply shall be burn-in for 2 hrs under nominal input and 70-80% load at ambient temperature of 35°C±5°C.
- Hi-Pot test: Input to Output.  
The power shall withstand for 60S without breakdown the application of a 50/60Hz 4000Vac for 10mA supply voltage applied between both input line and output.  
The power shall withstand for 60S without breakdown the application of a 50/60Hz 1500Vac for 10mA supply voltage applied between Primary to PE and Secondary to PE.
- For further information, please contact Polytron Devices.

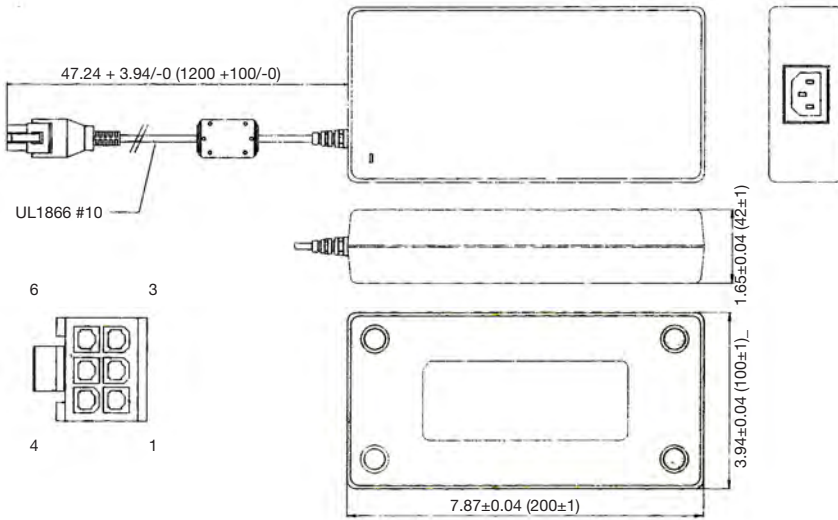
**CAUTION:** This power module is not internally fused. An input line fuse must always be used.

### Temperature Derating Graph



**MUI310-24SP**

**Mechanical Drawing**

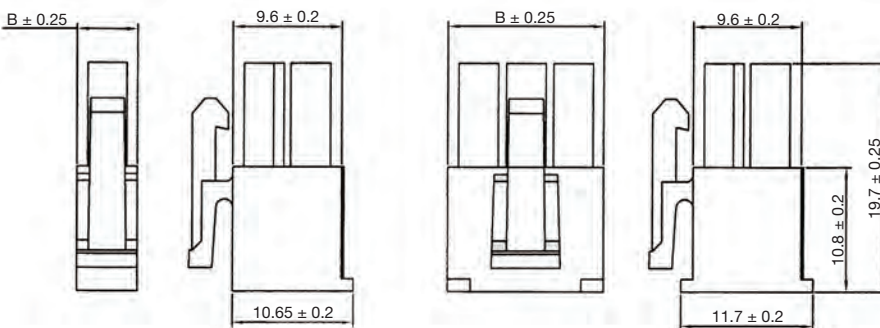
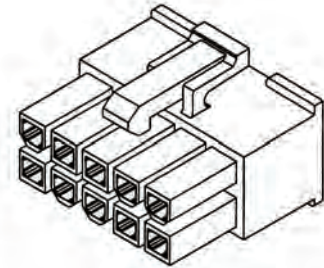
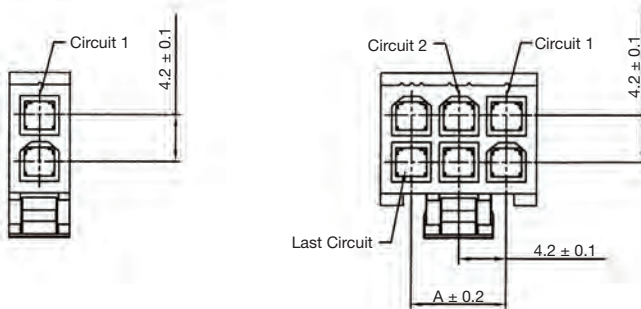


**PIN CONNECTION**

PIN	CONNECTOR
1	RTN
2	RTN
3	RTN
4	VO+
5	VO+
6	VO+

1. All dimensions in inch (mm)
2. All Tolerance: ±0.50
3. DC output connector refer to C4201HF-2 2\*3
4. AC input connector refer to IEC-60320-C14 TYPE

**Safety Tab (C4201HF-2 2\*3)**



**Reference Information:**

1. Material: Nylon 66, UL94V-2 or UL94V-0
2. Suitable CJT C4201F Series Terminal
3. Mates with CJT C4201HM, C4201HMA Series dual row Housing or C4201 Series dual row Wafer
4. Color: Natural