

# Switchbox PM25 Series

25 - 28 W MULTIPLE OUTPUT MEDICAL POWER SUPPLY

## Features

- Low safety ground leakage current
- 100% burn-in
- Wide input range 85 to 264VAC
- Input surge current protection
- Overvoltage protection
- Overcurrent protection
- Open PCB construction
- Compliant with RoHS requirements



## Specifications

### INPUT

Voltage	85-264VAC.
Frequency	47-63Hz.
Input current	0.7A (rms) @ 115VAC. 0.4A (rms) @ 230VAC.
Leakage current	90uA max @ 115VAC, 60Hz. 150uA max @ 230VAC, 50Hz.
Inrush current	10 @ 115VAC or 25A @ 230VAC.
Withstand voltage	4000VAC from input to output. 1500VAC from input to ground. 500VAC from output to ground

### OUTPUT

Power	See table.
Voltage/current	See table.
Ripple and noise	1% peak to peak max.
Over voltage protection	Provided on output 1# only; set at 112-132% of its nominal output voltage.
Over current protection	All outputs protected to short circuit conditions.
Temperature coefficient	0.04%/°C all outputs.
Transient response	Max excursion of 4% or better on all models, recovering to 1% of final value within 500us after a 25% step load change.
Line regulation	±0.5% max at full load.

### ENVIRONMENTAL

Operating temperature	0°C to +70°C.
Storage temperature	-40°C to +85°C.
Humidity	5-95% non-condensing.
Derating	Derate from 100% at 50°C linearly to 50% at 70°C.

### GENERAL

Switching frequency	42KHz ±5KHz.
Efficiency	70% min at single output model with $V_o \geq 12V$ , 68% min on the other models.
Hold-up time	10msec min at 110VAC.
MTBF	500,000 hours min at full load at 25°C ambient, calculated per MIL-HDBK-217F.
Dimensions	See drawing.

### STANDARDS

Safety standards	UL2601-1, CSA C22.2 No 601.1, TUV EN60601-1.
EMC performance	EN60601-1-2. EN55011 Class B conducted, Class B radiated. FCC Class B conducted, Class B radiated. VCCI Class B conducted, Class B radiated. EN61000-3-2 Harmonic distortion Class A and D EN61000-3-3 Line flicker. EN61000-4-2 ESD, ±8KV air and ±6KV contact. EN61000-4-3 Radiated immunity, 3V/m. EN61000-4-4 Fast transient/burst, ±2KV. EN61000-4-5 Surge, ±1KV diff., ±2KV com. EN61000-4-6 Conducted immunity, 3Vrms. EN6100-4-8 Magnetic field immunity, 3A/m. EN61000-4-11 Voltage dips, 30% reduction for 500ms and >95% reduction for 10ms.

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MODEL NUMBER	OUTPUT #1				OUTPUT #2				OUTPUT #3				MAX OUTPUT POWER
	Vnom	Imin	I <sub>max</sub>	Tol.	Vnom	Imin	I <sub>max</sub>	Tol.	Vnom	Imin	I <sub>max</sub>	Tol.	
PM25-10A	5.1V	0A	5.5A	2%	(N/A)				(N/A)				28W
PM25-12A	12V	0A	2.3A	1%	(N/A)				(N/A)				28W
PM25-13A	15V	0A	1.9A	1%	(N/A)				(N/A)				28W
PM25-14A	24V	0A	1.2A	1%	(N/A)				(N/A)				28W
PM25-15A	28V	0A	1.0A	1%	(N/A)				(N/A)				28W
PM25-23A	+5.1V	0.4A	2.5A	3%	+12V	0.2A	1.5A	5%	(N/A)				25W
PM25-25A	+5.1V	0.4A	2.5A	3%	+24V	0.1A	0.8A	5%	(N/A)				25W
PM25-31A	+5.1V	0.4A	2.5A	3%	+12V	0.2A	1.5A	5%	-12V	0.05A	0.2A	4%	25W
PM25-32A	+5.1V	0.4A	2.5A	3%	+15V	0.1A	1.0A	5%	-15V	0.05A	0.2A	4%	25W
PM25-39A	+5.1V	0.4A	2.5A	3%	+24V	0.1A	0.8A	5%	-12V	0.05A	0.2A	4%	25W

**Notes:**

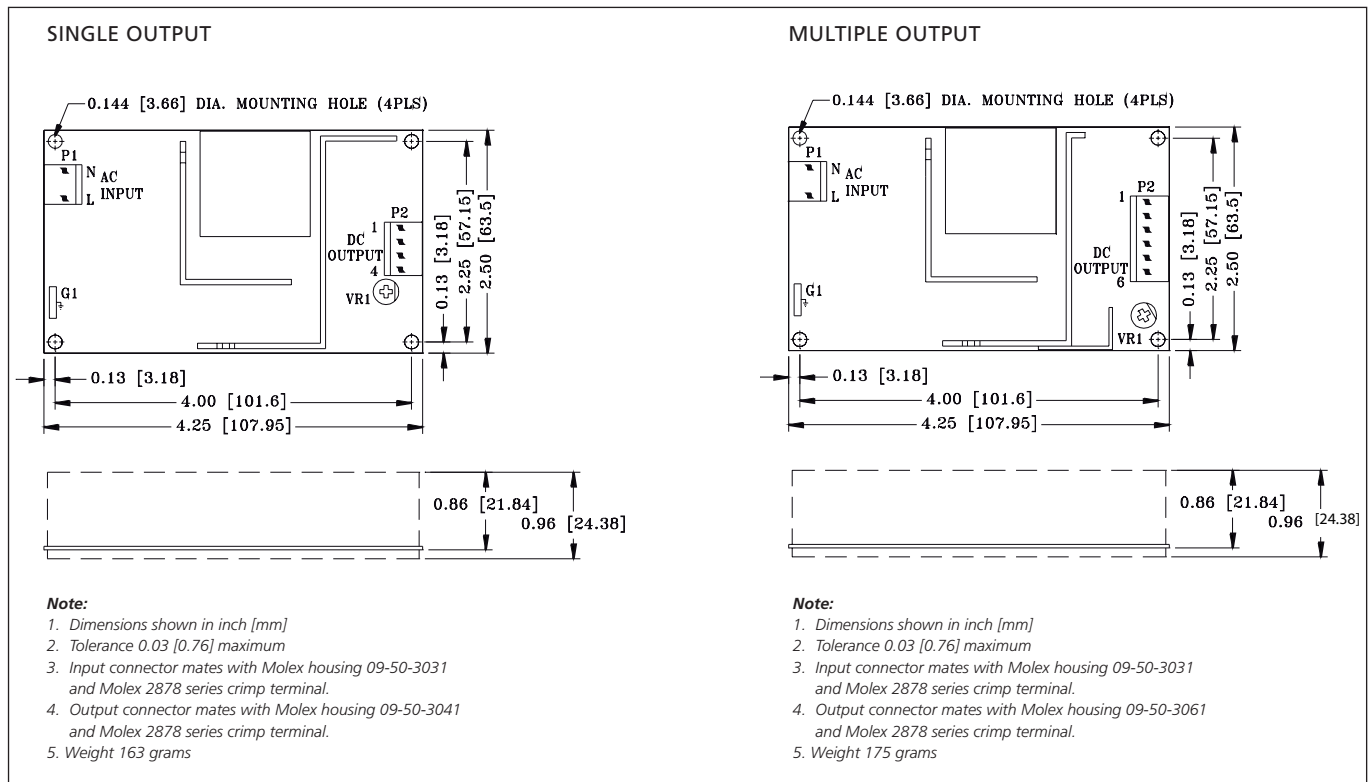
- All multiple output models may be operated at no-load without damage. At no-load, output voltage tolerance increases to 10%.
- Ripple and noise: Peak-to-peak with 20MHz bandwidth and 10uF in parallel with a 0.1uF capacitor at rated line voltage and load ranges.
- Safety agency approvals are for the above listed models in PCB format. To order a model with a metallic L-bracket or box, change suffix "A" to "B" for L-bracket format, to "C" for enclosed format to the model number, e.g. PM25-31C.

**SINGLE OUTPUT**

CONNECTOR MODEL	1	2	3	4
PM25-10A	PM25-12A			
PM25-13A	PM25-14A	Return	Return	Output #1
PM25-15A				Output #1

**MULTIPLE OUTPUT**

CONNECTOR MODEL	1	2	3	4	5	6
PM25-23A	PM25-25A	Output #2	Output #1	Output #1	Common Return	Common Return
PM25-31A	PM25-32A	Output #2	Output #1	Output #1	Common Return	Common Return
PM25-39A						Output #3



Specifications are subject to change without notice.