

MVA100 Series 100 Watts Medical Switch Mode Power Supply

ТΜ

-)E Elpac Power Systems

HIGHER EFFICIENCY, HIGHER POWER DENSITY, UNCOMPROMISED RELIABILITY

TECHNICAL SUPPORT

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5-YEAR LIMITED WARRANTY*

- High Efficiency: Level V
- Up to 120W with Forced Air
- High Power Density 8.7W/in³
- Hold-up Time >24ms at full load
- EISA & CEC Compliant
- Output Floating
- Medical Approval EN60601-1 Class I

Input	
Input Voltage	85 – 264VAC 100 – 240VAC Nominal
Input Frequency	47 – 63Hz
Input Current	<2A rms
Inrush Current	<37A at 230VAC cold start
Zero Load Power Consumption	<0.5W
Touch Current / Leakage Current	<125µA @ 132VAC @ 60Hz
	<175µA @ 264VAC @ 60Hz
Patient Leakage Current	<50µA @ 132VAC @ 60Hz
	<80µA @ 264VAC @ 60Hz

Output	
Output Voltage	See Table
Total Regulation	+/-5%
Minimum Load	No minimum load required
Start-Up Delay	<750ms
Hold-Up Time	>24ms at any input voltage
Ripple & Noise	<1% pk-pk **
Over Voltage Protection	110 – 135%
Over Temperature Protection	Active - Recoverable; plus Passive - Non Recoverable
Over Current Protection	120 – 180%
Short Circuit Protection	Shutdown, auto-restart (hiccup mode)

Notes

*visit www.iccus.com for complete details **Ripple and noise measured with 20MHz bandwidth; 10μF tantalum capacitor in parallel with a 0.1μF ceramic capacitor.

CEC





International Components Corporation

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TM

Model Number	Output Voltage	Output Current ¹	Forced Air Current ²	Total Regulation ³	Typical Efficiency ⁴
MVA100012A	12.0V	8.3A	10.0A	±5%	90%
MVA100015A	15.0V	6.7A	8.0A	±5%	90%
MVA100018A	18.0V	5.6A	6.7A	±5%	91%
MVA100024A	24.0V	4.2A	5.0A	±5%	92%

Notes

With convection cooling. Peak load (120W) lasting 500ms with a maximum 10% duty cycle.
Sustained output current with minimum 100 LFM.
Includes initial setting, line regulation, load regulation, and thermal drift.
Typical at 115VAC and full load.

General	
Efficiency	Avg Efficiency 88.6% @ 115VAC; 89.5% @ 230VAC
MTBF	min. 200,000 hours demonstrated
Size	4.50" (114mm) x 2.5" (63.5mm) x 1.22" (30.9mm)
Weight	0.45 lbs (0.20Kg)
Power Density	8.7W/in ³ (at 120W)

Environmental		
Operating Temperature	0 – 70°C (Full load to 50°C, derate linearly to 50% load at 70°C)	
Storage Temperature	-40°C to +85°	
Relative Humidity	5-95%, non-condensing	
Cooling	Natural Convection (100W) or Forced Air (120W)	
Vibration	All units production tested to 19.6m/s ²	

EMC & Safety	
Emissions	FCC class B, CISPR11 class B EN61000-3-2, -3
Immunity	EN61000-4-2, -3, -4, -5, -6, -8, -11
	cTUVus
Certified by TUV to the	UL 60601-1
following:	CAN/CSA-22.2 No.601.1-M90
(SV Research B)	CB per IEC60601-1
c amount us	CE marked to LVD

Output Pin Assignments

+V1

+V1

+V1

+V1

Return

Pin 1

Pin 2

Pin 3

Pin 4

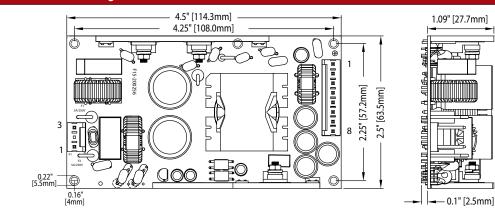
Pin 5

Pin 3

Input Configuration		
Standard Input Cable	Not provided	
Connection on Power Supply Body	AMP 640445-3	
Mating Connector	AMP 640250-3 or Equivalent	

Output Configuration		
Standard Output Cable	Not provided	
Connector (PSU side)	AMP 640445-8	
Mating Connector	AMP 640250-8 or equivalent	

Mechanical	Drawing	



Pin 6	Return
Pin 7	Return
Pin 8	Return
Input Pin <i>I</i>	Assignments
Input Pin / Pin 1	Assignments AC Line

AC Neutral

Ordering Options Available		
Cooling	Cable Harness	
Grounded Output	Load Share	
Chassis Mount		

