

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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MSM40A/B/D Series

40 Watt Triple Output Medical Open Frame Power Supply

- High Efficiency
- Wide Range AC Input
- Fully Regulated DC Output
- Lifetime Expectation >5 years
- Hold-up Time >20ms at full load
- Outputs Floating
- Safety Approval EN60601-1 Class I

Elpac Part Number	V1	11	V2	12	V3	13	Total Regulation	Typical Efficiency
MSM40D	5.1V	4.0A	24.0V	1.0A	-12.0V	0.4A	±5%	74%
MSM40B	5.1V	4.0A	15.0V	2.0A	-15.0V	0.4A	±5%	74%
MSM40A	5.1V	4.0A	12.0V	2.0A	-12.0V	0.4A	±5%	73%

Input	
Input Voltage	85 - 264VAC 100 - 240VAC Nominal
Input Frequency	50 - 60Hz
Input Current	<1.3A rms
Inrush Current	<37A at 230VAC cold start
Zero Load Power Consumption	<7.0W
Earth Leakage Current (Typical)	<25µA @ 132VAC @ 60Hz
	<40μA @ 264VAC @ 60Hz

Output

Output Voltage See Table

Total Regulation +/-5% (each output)

Minimum Load For V2 regulation, V1 current must be min 25% of V2, and <5x V2 current. For V3 regulation, min. load of 0.4A on V'

Start-Up Delay <750ms

Hold-Up Time >20ms at full load, 115VAC

Ripple & Noise <1% pk-pk **

Over Voltage Protection 112-136%

Over Temperature Protection Active - Recoverable

Over Current Protetion 120 - 180%

Short Circuit Protection Pulsing Mode Auto Recovery

General

Efficiency Avg Efficiency 73.6% @ 115VAC; 74% @ 230VAC

MTBF min. 200,000 hours demonstrated

Size 5.0

Weight 0.55 lbs (.25 kg)

Power Density 2.0W/in3

Environmental

Operating Temperature $0-50^{\circ}\text{C}$ (Full load to 50°C , derate linearly to 50% load at 70°C)

Storage Temperature -40°C to +85°C

Relative Humidity 5-95%, non-condensing

Cooling Natural Convection

Vibration All units production tested to 19.6m/s2

EMC & Safety

Emissions FCC class B, CISPR11 class B EN61000-3-2, -3

Immunity EN61000-4-2, -3, -4, -5, -6, -8, -11

Certified by UL to the following: cRUus

c % 3 UL 60601-1

CAN/CSA-22.2 No.601.1-M90

CB per IEC60601-1

CE marked to LVD

Input Configuration	
Connector (P1)	AMP p/n 640445-3
Mating Connector	AMP p/n 640250-3 or equivalent
GND	0.25" Faston Tab

Output Configuration	
Connector (PSU Side)	AMP p/n 640445-6 (or equivalent)
Mating Connector	AMP p/n 640250-6 (or equivalent)

Input Pin Assignments (P1)		
Pin 1	AC Line	
Pin 2	<not assembled=""></not>	
Pin 3	AC Neutral	

Output Pin Assignments (P2)		
Pin 1	V2	
Pin 2	V1	
Pin 3	V1	
Pin 4	Com	
Pin 5	Com	
Pin 6	V3	

