

Medical Power Supply

MP45S Series

MEGMEET
www.megmeet.com

45W AC-DC OPEN FRAME



FEATURES

- Medical 60601-1 Safety Approvals
- Small 2" x 3" x 0.9" Package
- Class I or Class II Construction Compatible
- Medical F-type Approvals for Class I
- High Efficiency up to 92%
- EN55011 / FCC Part 15J Class B Emissions
- 3-Year Warranty



GENERAL DESCRIPTION

Open-frame medical AC/DC adapter for up to 45 watts. This reliable converter meets all medical compliance requirements including 4th Edition EMC and Level VI efficiency. Available in single output DC voltages from 5V ~ 24V. It is widely used in infusion pump, medical emergency alarm, and other medical applications.

APPLICATIONS



MODELS & RATINGS

MODELS	OUTPUT VOLTAGE	OUTPUT CURRENT	PEAK CURRENT	OUTPUT POWER	RIPPLE& NOISE	TOTAL REGULATION
MP45S-05	5V	6.0A	8.0A	30W	100mV	±3%
MP45S-12	12V	3.75A	4.5A	45W	120mV	±3%
MP45S-15	15V	3.0A	3.6A	45W	150mV	±3%
MP45S-18	18V	2.5A	3.0A	45W	180mV	±3%
MP45S-24	24V	1.875A	2.25A	45W	240mV	±3%

NOTES

1). Derate output power by 2% per VAC for input voltage<90vac.

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MODEL ENCODING

MP45S	-	xx/xxx	-	abcd
OPEN FRAME 45 Watts		OUTPUT VOLTAGE 12: 12V 165: 16.5V		CUSTOMER CODE OR OTHERS

INPUT ELECTRICAL CHARACTERISTICS

Normal voltage range	100-240VAC
Input Voltage Range	90~264Vac (Universal)
Input Frequency	47~63Hz
Input Current	1.0A _{RMS} @100VAC/ 0.5A _{RMS} @240VAC
Inrush Current	<80A @ 230 VAC, Cold start
Input Protection	Internal T2.0A/250V Fuse (Line&Neutral)

Standby Power	≤0.15W@230Vac/50Hz
Earth Leakage Current(NC)	<100μA @ 264VAC(Class I)
Earth Leakage Current (SFC)	<500μA @ 264VAC(Class I)
Touch Current (NC)	<100μA @ 264VAC
Touch Current (SFC)	<300μA @ 264VAC

OUTPUT ELECTRICAL CHARACTERISTICS

Total Regulation	±3%
Line Regulation	±1.5%
Load Regulation	±2%
Minimum Load	None
Transient Response	±5%,5%-50% or 50%-100%, Slew Rate 0.5A/μS

Ripple & Noise	1% pk-pk typical
Turn-On Delay	2 seconds Max @ 115VAC
Hold-Up Time	>10ms @115VAC Full Load

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SAFETY & EMC

Safety	IEC60601-1, 3.2 Edition
	ANSI / AAMI ES60601-1
	CSA C22.2 No. 60601-1
	CE Mark
EMC	IEC60601-1-2 4th Edition
Conduction Emission	EN55011, FCC Part 15 Subpart B
Radiated Emission	EN55011, FCC Part 15 Subpart B
Voltage Fluctuation & Flicker	EN61000-3-3
Harmonic Distortion	EN61000-3-2 Class A
ESD	EN61000-4-2, 8kV contact, 15kV Air Discharge
EFT	EN61000-4-4, Level 3, Criterion A
SURGE	EN61000-4-5 Installation Class 3, Criterion A
DIP ⁽¹⁾	EN61000-4-11
Conducted Immunity	EN61000-4-6, 10Vrms ,Criterion A
Radiated Immunity	EN61000-4-3, 10V/m, Criterion A
Magnetic Fields Immunity	EN61000-4-8, 30A/m, Criterion A

PROTECTION

Over shoot	5%
Over-Voltage	110-140% , Hiccup, Auto-Recovery
Over-Temperature	>70°C , Latching, Recycle input to recovery
Over-Load	Hiccup, Auto-Recovery
Short Circuit	Hiccup, Auto-Recovery

RELIABILITY & ENVIRONMENTAL REQUIREMENTS

Operating Temperature	-10°C to +50°C
Derating	2.5%/°C, > 50°C, up to 70°C max
Storage Temperature	-40°C to +85°C
Operating Humidity	5% to 95% (non-condensing)
Operating Altitude	5000m
Shock	294 m/s ² (30G), 10ms, 6 times on each of 3axes
Vibration	10-500 Hz, 19.6 m/s ² (2G), 20 mins on 3 axes

DIMENSION & PACKING

Efficiency	88%/91%min @ 115/230 VAC, Full Load
Isolation	4000 VAC – Input to Output; 2xMOPP 1500 VAC – Input to Ground; 1xMOPP 1500 VAC – Output to Ground; 1xMOPP
MTBF	200K Hours, Mil-217F @ 25 °C, Full Load
Weight	65g ref
Dimensions	50.8x76.2x22.86mm
	2×3×0.9" inch

(1) Power supply DIP voltage sag requirements table:

Drop	Time	Criterion
0%Ut	0%Ut 0.5cycle	A
0%Ut	1cycle	A
70%Ut	25/30 cycles	B
0%Ut	300 cycles	C

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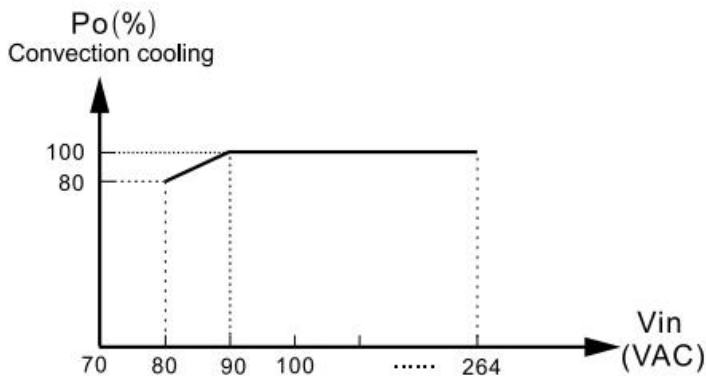
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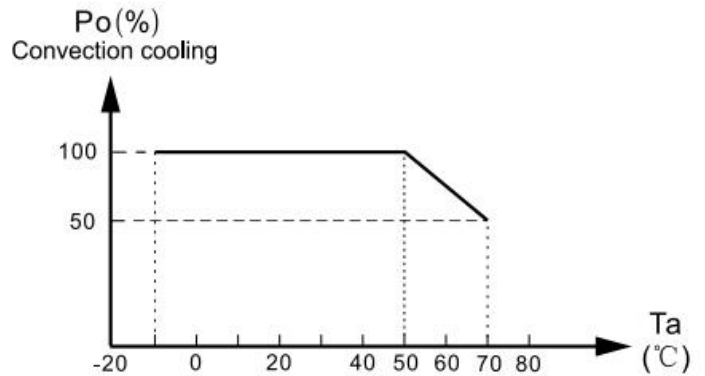
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DERATING CURVE

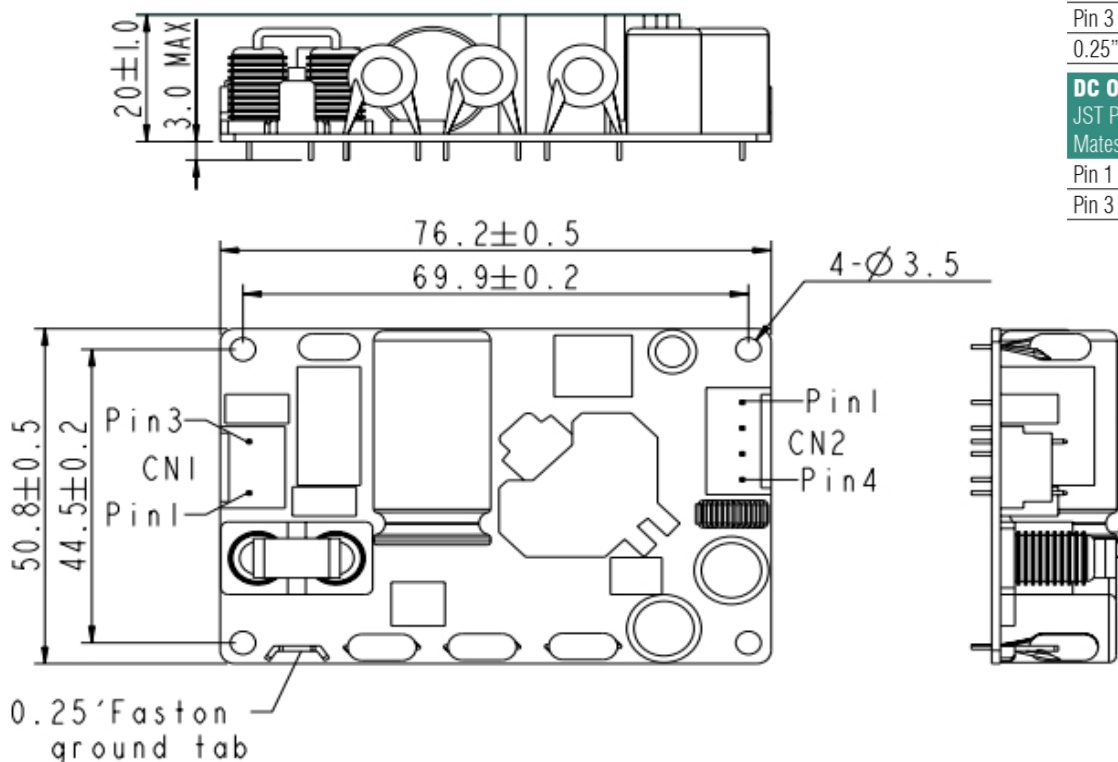
OUTPUT POWER VS INPUT VOLTAGE



OUTPUT POWER VS AMBIENT TEMPERATURE



MECHANICAL AND CONNECTOR INFORMATION



AC INPUT CN1

JST P/N: B2P3 VH (LF)(SN)

Mates With: JST VHR-3N

Pin 1 Neutral

Pin 3 Line

0.25" Faston Earth

DC OUTPUT CN2

JST P/N: B4P-VH (LF)(SN)

Mates With: JST VHR-4N

Pin 1, 2 RTN

Pin 3, 4 +V

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GLOBAL OPERATION AND SERVICE



MANUFACTURER

CHINA

ZHUZHOU MEGMEET ELECTRICAL CO., LTD

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THAILAND

MEGMEET (THAILAND) CO., LTD

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TECHNICAL SUPPORT

CHINA

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