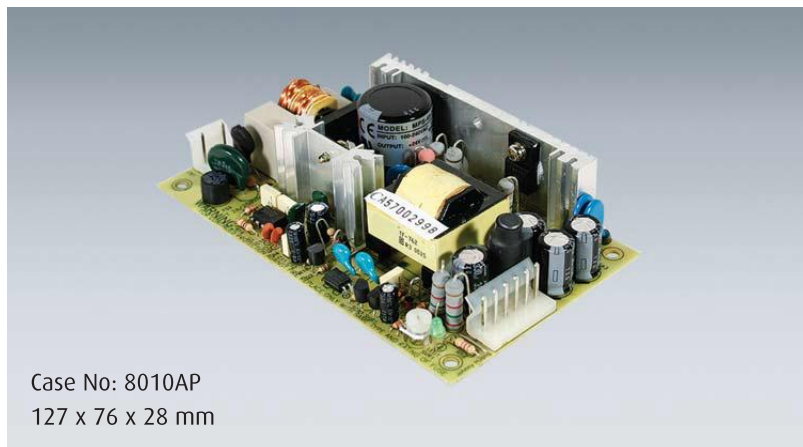


# MPD-45 Series

## 45W Dual Output Medical Type Power Supply



Case No: 8010AP  
127 x 76 x 28 mm

### Features

- Universal AC input/ Full range
- Low leakage current <250µA
- Protections: Short circuit, Overload and Over voltage
- Cooling by free air convection
- Fixed switching frequency at 45KHz
- 100% full load burn-in test



### Specification

<b>INPUT</b>	<b>Voltage</b>	90V ~ 264VAC universal full range or 127V ~ 370VDC.			
	<b>Frequency</b>	47 ----- 440 Hz			
	<b>Current</b>	<1.2A@115VAC; 0.7A@230VAC full load			
	<b>Inrush Current</b>	<15A@115VAC, 30A@230VAC Cold start			
	<b>Leakage Current</b>	Earth leakage current <250µA@264VAC input, Touch leakage current <60µA@264VAC			
<b>OUTPUT</b>	<b>MODEL No.</b>	<b>MPD-45A</b>		<b>MPD-45B</b>	
	<b>Channel</b>	CH1	CH2	CH1	CH2
	<b>Voltage</b>	5V	12V	5V	24V
	<b>Rated Current</b>	3.2A	2A	3.2A	1.2A
	<b>Current Range</b>	0.4~5A	0.2~2.5A	0.4~5A	0.2~1.8A
	<b>Output Tolerance</b>	± 4%	± 7%	± 4%	± 7%
	<b>Line Regulation</b>	± 1%	± 2%	± 1%	± 2%
	<b>Load Regulation</b>	± 3%	± 4%	± 3%	± 4%
	<b>Ripple Noise MAX.</b>	60mV	120mV	60mV	150mV
	<b>Efficiency (TYP.)</b>	76%		78%	
	<b>Rated Power</b>	40W		44.8W	
	<b>PROTECTION</b>	<b>Over Voltage</b>	CH1:5.75~6.75V		CH1:5.75~6.75V
		Hiccup mode, recovers automatically after fault condition is removed			
<b>Over Load</b>		53~75W rated output power Hiccup mode, recovers automatically after fault condition is removed			
<b>ELEC. CHAR.</b>	<b>Rise Time</b>	<20mS@115~230VAC, full load			
	<b>Hold up Time</b>	>50mS@230VAC, 16ms@115VAC, full load			
	<b>Setup Time</b>	<0.8 Sec@115~230VAC, full load			
<b>ENVIRONMENT</b>	<b>Temperature</b>	Operating: -10 ~ +70°C ; Storage: -20~ +85°C			
	<b>Humidity</b>	Operating: 20% ~ 90% RH (non condensing); Storage: 10% ~ 95% RH			
<b>SAFETY</b>	<b>Withstand Voltage</b>	I/P-O/P4KVAC; I/P-FG:2KVAC; O/P-FG:0.5KVAC			
	<b>Isolation Resistance</b>	I/P-O/P, I/P-FG, 100MΩ/500VDC			
	<b>Safety Standard</b>	ANSI/AAMI ES60601-1, TUV EN60601-1, IEC60601-1 Approved			
<b>EMC</b>	<b>EMI</b>	EN55011 (CISPR11), Class B, EN61000-3-2,3			
	<b>EMS</b>	EN61000-4-2,3,4,5,6,8,11; EN60601-1-2, Medical level, criteria A			
<b>OTHERS</b>	<b>Cooling</b>	Cooling by free air convection			
	<b>M.T.B.F.</b>	291.3K hrs min. MIL-HDBK-217F (°C)			
	<b>Packing</b>	0.2Kg; 72pcs/17.4Kg/1.35 CUFT			

1 All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature

2 Ripple & noise are measured at 20MHZ of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor

3 Tolerance: includes set up tolerance, line regulation and load regulation

4 The power supply is considered a component which will be installed into final equipment. The final equipment must be re-confirmed that it still meets EMC directives

5 Mounting holes M1 and M2 should be grounded for EMI purposes

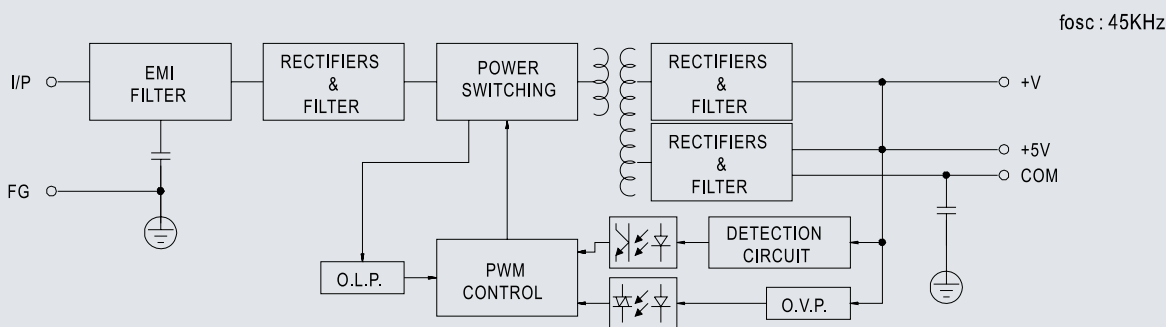
6 Heat sink HS1, HS2 can not be shorted

7 Touch current was measured from primary input to DC output

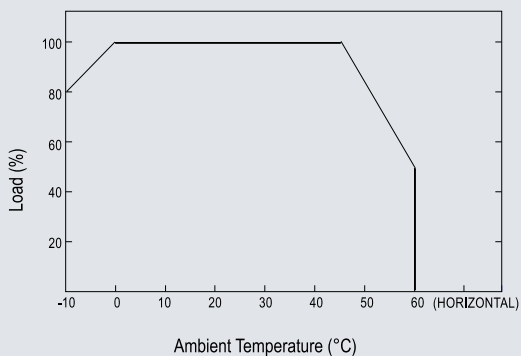
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## 45W Dual Output Medical Type Power Supply

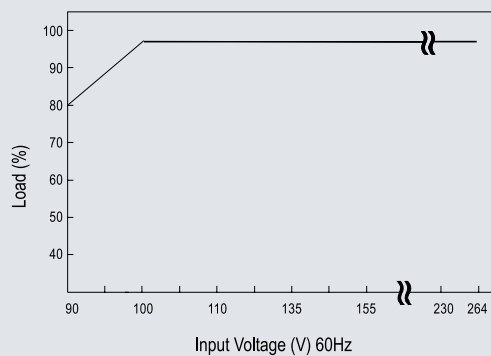
### Block Diagram



### De-Rating Curve



### Static Characteristics



### Dimensions

AC Input Connector (CN1): Molex 5277-02 or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	AC/N	Molex 5195 or equivalent	Molex 5194 or equivalent
2	AC/L	Molex 5195 or equivalent	Molex 5194 or equivalent

DC Input Connector (CN2): Molex 5273-06 or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	+V	Molex 5195 or equivalent	Molex 5194 or equivalent
2,3	+5V	Molex 5195 or equivalent	Molex 5194 or equivalent
4,5	COM	Molex 5195 or equivalent	Molex 5194 or equivalent
6	NC	Molex 5195 or equivalent	Molex 5194 or equivalent

