



**Features :**

- . Universal AC input range / full range
- . Medical safety approved
- . Fix switching frequency at 45 KHz
- . Short circuit, over-load, over-voltage protected
- . Approvals : UL / CUL / TUV / CB / CE
- . Free air cooling convection
- . 100% full load burn-in test
- . Built-in EMI filter, low ripple noise
- . Low leakage current  $\leq 0.3A$

. 3 years warranty



Specifications	Model	MPT45-A			MPT45-B			MPT45-C		
		CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3
DC output voltage		5V	12V	-5V	5V	12V	-12V	5V	15V	-15V
Output voltage tolerance		$\pm 4\%$	$\pm 7\%$	$\pm 5\%$	$\pm 4\%$	$\pm 7\%$	$\pm 5\%$	$\pm 4\%$	$\pm 7\%$	$\pm 5\%$
Output rated current		3A	2A	0.3A	3A	2A	0.3A	3A	1.6A	0.3A
Output min. current		0A	0A	0A	0A	0A	0A	0A	0A	0A
Output max. current		5A	2.5A	0.5A	5A	2.5A	0.5A	5A	2.3A	0.5A
Ripple & noise		60mV	120mV	60mV	60mV	120mV	100mV	60mV	120mV	100mV
Line regulation		$\pm 1\%$	$\pm 2\%$	$\pm 1\%$	$\pm 1\%$	$\pm 2\%$	$\pm 1\%$	$\pm 1\%$	$\pm 2\%$	$\pm 1\%$
Load regulation		$\pm 3\%$	$\pm 4\%$	$\pm 1\%$	$\pm 3\%$	$\pm 4\%$	$\pm 1\%$	$\pm 3\%$	$\pm 4\%$	$\pm 1\%$
Rated output power		40.5W			42.6W			43.5W		
Maximum output power		52W with 18 CFM min. forced air convection								
Efficiency		73%			75%			75%		
DC voltage adj.		CH1 : $\pm 10\%$			CH1 : $\pm 10\%$			CH1 : $\pm 10\%$		
Input voltage range		90~264VAC 47~440Hz ; 120~370VDC								
AC current		1.2A/115V ; 0.7A/230V								
Inrush current		Cold start 20A/115VAC 40A/230V								
Leakage current		<0.3mA/264VAC								
Over-load protection		53~75V (3.3V / 36~55W) Type : pulsing hiccup shutdown Reset : auto-recovery								
Over-voltage protection		5.75~6.75 VDC on CH1								
Temperature coefficient		$\pm 0.04\%/^{\circ}C$ (0~50°C)								
Set-up, Rise, Hold-up time		800ms, 20ms, 12ms, /115VAC 800ms, 20ms, 20ms/230VAC								
Vibration		10~500Hz, 2G 10min./1cycle, period for 60min. Each axes								
Withstand voltage		I/P-O/P: 4KVAC I/P-FG: 1.5KVAC O/P-FG: short								
Isolation resistance		I/P-O/P, I/P-FG, O/P-FG: 500VDC / 100M $\Omega$								
Working temp. & humidity		-10°C~+60°C (refer to output derating curve), 20%~90% R.H.								
Storage temp. & humidity		-20°C~+85°C, 10%~95% R.H. ( non-condensing )								
Dimensions		127 x 76.2 x 30 mm ( Length x Width x Height ) PCB only								
Weight		230 gr								
Safety standards		UL2601-1, EN6060-1 approved								
EMC standards		CISPR11 (EN55011); IEC61000-4-2,3,4,5,6,8,11; IEC61000-3-2,3 EN60601-1-2 verification								

Notes:

- All parameters are specified at 230VAC input, rated load, 25°C & 70% R.H. ambient.
- Tolerance include set-up tolerance, line regulation, load regulation.
- Ripple & Noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1yF & 47uF capacitor.
- Line regulation is measured from low line to high line at rated load.
- Mounting holes M1 & M2 should be grounded for EMI purposes

**Models available :****◆ Single output**

Stock n°	Type	Output	Tolerance	Ripple~Noise	Efficiency	P.P.
12381	MPS45-3.3	3.3V/8A	+3%	80mV	65%	42
12382	MPS45-5	5V/8A	+3%	100mV	72%	42
12383	MPS45-7.5	7.5V/5.4A	+3%	100mV	75%	42
12384	MPS45-12	12V/3.7A	+2%	100mV	76%	42
12385	MPS45-13.5	13.5V/3.3A	+2%	100mV	76%	42
12386	MPS45-15	15V/3A	+2%	100mV	77%	42
12387	MPS45-24	24V/1.9A	+2%	100mV	78%	42
12388	MPS45-27	27V/1.7A	+2%	100mV	78%	42
12389	MPS45-48	48V/1A	+2%	100mV	78%	42

**◆ Dual output**

Stock n°	Type	Output	Tolerance	Ripple~Noise	Efficiency	P.P.
12401	MPD45-A	+5V/0.4~5A +12V/0.2~2.5A	+4% +7%	60mV 120mV	76%	46
12402	MPD45-B	+5V/0.4~5A +24V/0.2~1.8A	+4% +7%	60mV 150mV	78%	46

**◆ Triple output**

Stock n°	Type	Output	Tolerance	Ripple~Noise	Efficiency	P.P.
12411	MPT45-A	+5V/0.4~5A +12V/0.2~2.5A -5V/0.0~0.5A	+4% +7% +5%	60mV 120mV 60mV	73%	49
12411	MPT45-B	+5V/0.4~5A +12V/0.2~2.5A -12V/0.0~0.5A	+4% +7% +5%	60mV 120mV 100mV	75%	49
12413	MPT45-C	+5V/0.4~5 +15V/0.2~2.3 -15V/0.0~0.5	+4% +7% +5%	60mV 120mV 100mV	75%	49

