



SPECIFICATION

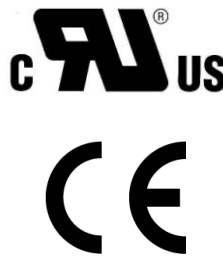
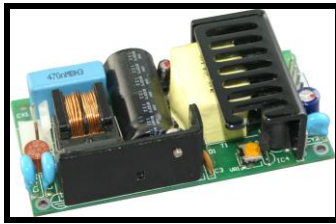
For

Switching power supply

M/N: MPE-F40 series

Revision history

REV.	DATE	DESCRIPTION
	Jan. 28 th 2013	Established.



FEATURES

- Compact Size 40W Output
- Conductive EMI Meets CISPR/FCC Class B
- High Efficiency up to 87%
- 2 x 4" Footprint

1. Description

MPE-F40 series are a compact size 2 x 4", single output power supply for industrial and embedded system application.

Model	Output Voltage	Mini. Output Current	Rated Output Current	Line ^(Note 1) Regulation	Load ^(Note 2) Regulation	Voltage Setting ^(Note 3)	Ripple & Noise p-p ^(Note 4)	Efficiency ^(Note 5)
MPE-F40-3V3	+3.3V	0A	6A	±0.5%	±1%	±1%	50mV	70%
MPE-F40-05	+5V	0A	6A	±0.5%	±1%	±1%	1%	76%
MPE-F40-09	+9V	0A	4.45A	±0.5%	±1%	±1%	1%	84%
MPE-F40-12	+12V	0A	3.34A	±0.5%	±1%	±1%	1%	85%
MPE-F40-138	+13.8V	0A	2.9A	±0.5%	±1%	±1%	1%	83%
MPE-F40-15	+15V	0A	2.67A	±0.5%	±1%	±1%	1%	85%
MPE-F40-24	+24V	0A	1.67A	±0.5%	±1%	±1%	1%	85%
MPE-F40-30	+30V	0A	1.33A	±0.5%	±1%	±1%	1%	86%
MPE-F40-36	+36V	0A	1.11A	±0.5%	±1%	±1%	1%	87%
MPE-F40-48	+48V	0A	0.834A	±0.5%	±1%	±1%	1%	87%

Note: 1) Line regulation is measuring from high line to low line with rated load.

2) Load regulation is measuring from full load to 10% load.

3) The output at 60% rated load and input is nominal 115/230VAC.

4) Measured by a 20MHz bandwidth limited oscilloscope and the each output is connected with a 10µF Electrolytic Capacitor and a 0.1µF Ceramic Capacitor.

5) Measuring at nominal line and rated load.

2. Input Specification

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Input Voltage-AC	Continuous input range.	90	115/230	264	VAC
Input Frequency	AC input.	47	50/60	63	Hz
Hold Up Time	Nominal AC Input Voltage (115VAC), rated load.		8		ms
Input Current	Nominal AC Input Voltage (115VAC/230VAC), rated load.			1.5	A
Inrush Current	Nominal AC Input Voltage (240VAC), cold start, one cycle at 25°C.			50	A
Input Protect	Non-user serviceable internally located AC input line fuse.				

3. Output Specification

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Efficiency	Measuring at nominal line and rated load.				See Chart of Description
Minimum load			0		A
Ripple & Noise	Rated load, 20MHz bandwidth				See Chart of Description
Output Power	Continuous output power.				See Chart of Description
Line Regulation	Line regulation is measuring from high line to low line with rated load.				See Chart of Description
Load Regulation	Load regulation is measuring from full load to 10% load.				See Chart of Description



4. Interface Signals and Internal Protection

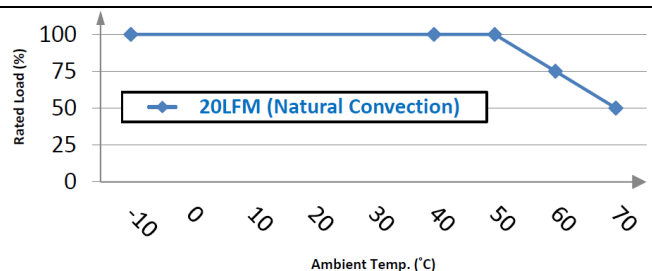
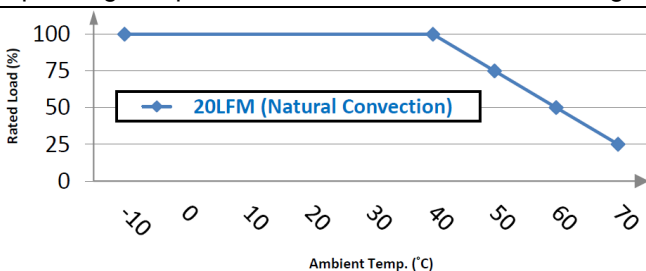
Parameter	Conditions/Description
Over Load Protection	Fully protected against output overload and short circuit. Automatic recovery upon of overload condition and short circuit condition.

5. Safety Approvals, EMI and EMS Specification

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Safety	UL 60950-1, Second Edition				UL approved
	CAN/CSA-C 22.2 No. 60950-1-07, Second Edition				cUL approved
	IEC 60950-1, 2nd edition				Design to meet
	EN 60950-1, 2nd edition				CE declaration
Hi-Pot	Input to output	4242			VDC
Radiation	EN 55022 / CISPR 22 & FCC Part 15	B			Class
Conduction	EN 55022 / CISPR 22 & FCC Part 15	B			
EMS	IEC 61000-4-2, 8KV air discharge and 6KV contact discharge	3			Level
	IEC 61000-4-3, 3V/M	3			
	IEC 61000-4-4, 2KV line & PE	3			
	IEC 61000-4-5, 2KV	3			
	IEC 61000-4-6, 10V	3			
	IEC 61000-4-8, 10A/M	3			
	IEC 61000-4-11	3			

6. Environment Specification

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Operating Temperature	At Rated load see derating curve below.	-10	40/50	70	°C



*) only for MPE-F40-05, MPE-F40-09

For all other models except the left models

Storage Temperature		-20		+85	°C
Relative Humidity	Non-condensing.	5		95	%RH



7. Mechanical

Parameter	Conditions/Description
Dimension	101.6 x 50.8 x 30.48 mm, Tolerance +/- 0.4mm.
Connector	CN1 --- AC input: Molex 5273-03A withdraw 1 pin or equivalent. CN2 --- DC output: Molex 5273-04A or equivalent.

