

UNIVERSAL INPUT AC TO DC MULTIPLE OUTPUT INTERNAL SWITCH MODE POWER SUPPLIES 50 WATT APS48VI SERIES



FEATURES:

- ACCOMMODATES UNIVERSAL AC SOURCES IN THE WORLD
- SMALL, COMPACT PCB OPEN FRAME OR ENCLOSURE FORMAT
- DESIGNED TO MEET UNIVERSAL SAFETY STANDARDS
- UL/CSA/TUV APPROVALS
- EMI/RFI MEET CISPR PUB.22 CLASS B & FCC CLASS B
- CE MARKING COMPLIANCE

SPECIFICATIONS

INPUT SPECIFICATIONS:

Input Voltage: Typ. 85-264VAC

Input Connector: PCB Format: Molex 5273(vertical)

Box Format: IEC320 AC inlet receptacle & with AC ON/OFF switch

Input Frequency: 47-63Hz (Consult APS for 440Hz operation)

Inrush Current: 40A peak at 264VAC

Input Current: 1.32A @115VAC, 0.65A@230VAC

Dielectric Withstand: Meet IEC950

3,000VAC-Output/Input

1,500VAC-Input/GND

500VAC-Output/GND

EMI/RFI: CISPR PUB. 22 class B & FCC CLASS B

No Load Operation: No damage

Overshoot: No voltage spike

Hold-up Time: 10mS @ 115VAC, 50mS@ 230VAC

Peak-to-Peak Ripple Voltage: 0.2mV @ 230VAC

OUTPUTS SPECIFICATIONS:

Output Voltage: See RATINGS CHARTS

Output Currents: See RATINGS CHARTS

Output Connector: PCB Format: Molex 5273(vertical)

Box Format: Optional in output cord

Line Regulation: VO1 typ. $\pm 0.1\%$, VO2 $\pm 0.5\%$ & VO3 $\pm 0.1\%$ typ.

Load Regulation: Main O/P VO1 typ. $\pm 1.0\%$

Aux.O/P VO2 typ. $\pm 3.0\%$ stacked on; VO3 typ. $\pm 1.0\%$ with PR

Noise & Ripple: VO1 50mV peak to peak max.

VO2 & VO3 typ. 1% peak to peak

OVP: VO1 MAIN O/P only, +6.2V ± 0.4 V

Adj.: VO1 MAIN O/P only, -10% to OVP

Overload Protection: 125-150% max. power

Max. cont. output power:

With fan cooling typ. 50 Watts

Without fan cooling 40 Watts

GENERAL SPECIFICATIONS:

Efficiency: Typ. 75%

Switching Frequency: Fixed frequency 38KHz

Circuit Topology: Fixed frequency flyback circuit

Transient Response: Output voltage returns in less than 3mS following a 50% load change

Safety Standard: UL1950 / EN60950 class I

Operating Temperature: 0-50°C

Storage Temperature: -20 to +85°C

Temperature Coefficient: 0.03% / °C

Cooling: Free air convection for 40W
20CFM fan cooling for 50W

Construction: Open frame format or metal box enclosure



OUTPUT VOLTAGE/CURRENT RATING CHARTS

SINGLE OUTPUT:

MODEL NO.	MAIN O/P VO1 @ ★		
	TYP. VOLT.	FAN	
APS48VI-10	7.0A	5V	9.0A
APS48VI-10B	6.0A	5V	8.0A
APS48VI-11	3.3A	12V	4.0A
APS48VI-12	2.7A	15V	3.4A
APS48VI-13	1.8A	24V	2.1A

DUAL OUTPUT:

MODEL NO.	MAIN O/P VO1 @★ TYP. VOLT. FAN			AUX.+VO2↑tor-VO3• TYP. VOLT. FAN		
APS48VI-20	6.0A	+5V	7.0A	0.5A	-5V	1.0A
APS48VI-21	4.0A	+5V	5.0A	1.5A	+12V	1.7A
APS48VI-22	4.0A	+5V	5.0A	1.2A	+15V	1.3A
APS48VI-23	4.0A	+5V	5.0A	0.8A	+24V	0.9A

TRIPLE OUTPUT:

MODEL NO.	MAIN O/P VO1@★			AUX.O/P VO2 †			AUX.O/P VO3 •		
	TYP.	VOLT.	FAN	TYP.	VOLT.	FAN	TYP.	VOLT.	FAN
APS48VI-30	3.5A	+5V	4.0A	1.5A	+12V	2.0A	0.4A	-12V	0.4A
APS48VI-31	3.5A	+5V	4.0A	1.5A	+12V	2.0A	0.5A	-5V	0.4A
APS48VI-32	3.5A	+5V	4.0A	0.8A	+24V	1.0A	0.4A	-12V	0.4A
APS48VI-33	3.5A	+5V	4.0A	1.2A	+15V	1.4A	0.4A	-15V	0.4A

Symbols: ★ "OVP built-in. "@ "Adjustable. † " Stacked on main O/P. • " Installed with Post Regulator (PR).

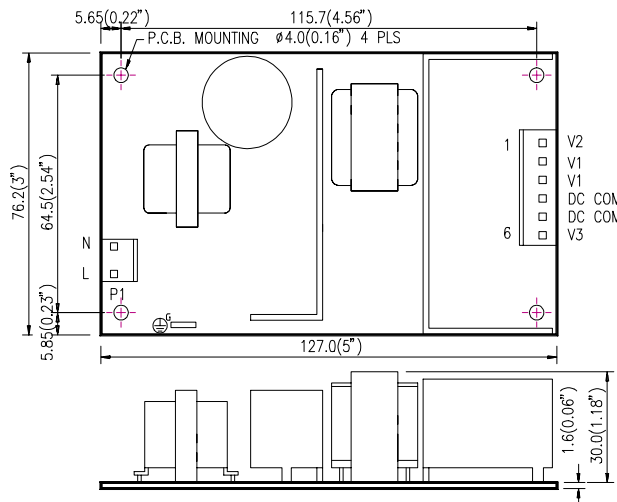
Remark:(1) At least 20% of typical main output current is required to maintain stated regulation.

(2) FAN: Installed with 20 CFM FAN cooling.

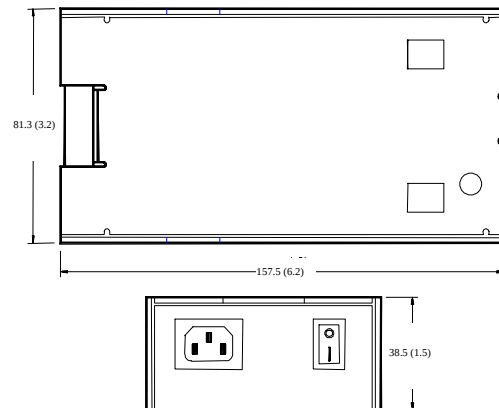
MECHANICAL DIMENSIONS: MM (INCHES)

WEIGHT: PCB 262 g (9.24 Oz.)

BOX 616 g (21.7 Oz.)



PCB FORMAT



BOX FORMAT

INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT FOR PCB VERSION

INPUT CONNECTOR P1

PIN NO	ASSIGNMENT
P1-L	AC-LINE
P1-N	AC-NEUTRAL
FAST-ON	AC-GROUND.

Mating: Molex 5196 or equivalent.

SINGLE OUTPUT CONNECTOR P 2

PIN NO.	ASSIGNMENT
P2-1,2,3	VO1 +
P2-4,5,6	DC COM

Mating: Molex 5196 or equivalent.

DUAL OUTPUT CONNECTOR P 2

PIN NO.	ASSIGNMENT
P2-4,5,6	DC COM
P2-2,3	VO1 +
P2-1	P2-1

Mating: Molex 5196 or equivalent.

**TRIPLE OUTPUT
CONNECTOR P 2**

PIN NO.	ASSIGNMENT
P2-4,5.	DC COM
P2-2,3	VO1 +
P2-1	P2-1
P2-6	VO3 -

Mating: Molex 5196 or equivalent.