

UNIVERSAL INPUT AC TO DC OPEN FRAME MULTIPLE OUTPUT INTERNAL SWITCHING POWER SUPPLIES 19-20 WATT APS19VI SERIES



FEATURES:

- ACCOMMODATES UNIVERSAL AC INPUT
- COMPACT PCB OR L-BRACKET OPEN FRAME
- DESIGNED TO MEET UNIVERSAL SAFETY STANDARDS
- UL/CSA/TUV APPROVALS
- EMI/RFI MEET CISPR PUB .22 B & FCC B
- CE MARKING COMPLIANCE

SPECIFICATIONS

INPUT SPECIFICATIONS:

Input Voltage: Typ. 85-264VAC
Input Connector: Molex 5273(vertical)
Mating Connector: Molex 5196 or equivalent
Input Frequency: 47-63Hz
 (Consult factory for 440Hz operation)
Inrush Current: 20A peak at 264VAC
Input Current: 0.7A @ 115VAC, 0.3A @ 230VAC
Dielectric Withstand: Meets IEC950
 3,000VAC - Output/Input
 1,500VAC - Input/GND
 500VAC - Output/GND
EMI/RFI: Meets CISPR PUB. 22 class B
 & FCC Class B
Hold-up Time: 40mS @ 110VAC, 200mS @ 230VAC
Earth Leakage: less than 0.3mA @ 230VAC

OUTPUTS SPECIFICATIONS:

Output Voltage: See RATINGS CHARTS
Output Currents: See RATINGS CHARTS
Output Connector: Molex 5273 or 41671
Mating Connector: Molex 5196 or 3069
Line Regulation: $\pm 0.1\%$ typical
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 P.R
Noise & Ripple: VO1 typ. 1% peak to peak
 VO2 & VO3 typ. 1% peak to peak
OVP: VO1 MAIN O/P only @ +6.2V $\pm 0.4V$
Adj.: VO1 MAIN O/P only, -10% to OVP
Overload Protection: 125-150% max. power
Max. continuous output power:
 PCB format 19W, L-Bracket format 25W

GENERAL SPECIFICATIONS:

Efficiency: Typ. 70%
Switching Frequency: 40-150KHz
Circuit Topology: Free-running flyback circuit
Transient Response: Output voltage returns in
 less than 3ms following a 50% load change
Operating Temperature: 0-50%
Storage Temperature: -20 to +85%
Temperature Coefficient: 0.04 • per °C
Cooling: Free air convection.
Safety Standard: UL1950/EN60950 Class I
Construction: PCB or L-Bracket format



OUTPUT VOLTAGE/CURRENT RATING CHARTS

SINGLE OUTPUT:

MODEL NO.	MAIN O/P VO1 @ ★	TYP.	VOLT.	MAX.
APS19VI-10	4.0A	5V	5.0A	
APS19VI-10(L-B)	4.6A	5V	5.0A	
APS19VI-11	1.5A	12V	1.5A	
APS19VI-11(L-B)	2.0A	12V	2.5A	
APS19VI-12	1.2A	15V	1.3A	
APS19VI-12(L-B)	1.6A	15V	1.7A	
APS19VI-13	0.8A	24V	1.0A	
APS19VI-13(L-B)	1.0A	24V	1.2A	

DUAL OUTPUT:

MODEL NO.	MAIN O/P VO1 @ ★	TYP.	VOLT.	MAX.	AUX. +VO2 tor -VO3 •	TYP.	VOLT.	MAX.
APS19VI-20	3.0A	+5V	4.0A		0.2A	-5V	1.0A	
APS19VI-20(L-B)	4.0A	+5V	5.0A		0.5A	-5V	1.0A	
APS19VI-21	2.6A	+5V	3.0A		0.5A	+/-12V	1.0A	
APS19VI-21(L-B)	4.0A	+5V	5.0A		0.5A	+/-12V	1.0A	
APS19VI-22	2.6A	+5V	3.0A		0.4A	+/-15V	0.8A	
APS19VI-22(L-B)	4.0A	+5V	5.0A		0.4A	+/-15V	0.8A	
APS19VI-23	2.6A	+5V	3.0A		0.25A	+24V	0.5A	
APS19VI-23(L-B)	4.0A	+5V	5.0A		0.25A	+24V	0.5A	

TRIPLE OUTPUT:

MODEL NO.	MAIN O/P VO1 @ ★	TYP.	VOLT.	MAX.	AUX. O/P VO2 †	TYP.	VOLT.	MAX.	AUX. O/P VO3 •	TYP.	VOLT.	MAX.
APS19VI-30	2.2A	+5V	3.0A		0.5A	+12V	1.0A		0.2A	-12V	0.5A	
APS19VI-30(L-B)	3.0A	+5V	4.0A		0.5A	+12V	1.0A		0.4A	-12V	0.8A	
APS19VI-31	2.0A	+5V	3.0A		0.5A	+12V	1.0A		0.2A	-5V	0.5A	
APS19VI-31(L-B)	3.0A	+5V	4.0A		0.7A	+12V	1.5A		0.3A	-5V	0.6A	
APS19VI-32	2.0A	+5V	3.0A		0.3A	+24V	0.5A		0.2A	-12V	0.5A	
APS19VI-32(L-B)	3.0A	+5V	4.0A		0.3A	+24V	0.5A		0.3A	-12V	0.6A	
APS19VI-33	2.0A	+5V	3.0A		0.3A	+15V	0.6A		0.2A	-15V	0.5A	
APS19VI-33(L-B)	3.0A	+5V	4.0A		0.4A	+15V	0.8A		0.3A	-15V	0.6A	

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

(2)Peak output,less than 60 Sec.Peak current can't be drawn from all output at the same time.

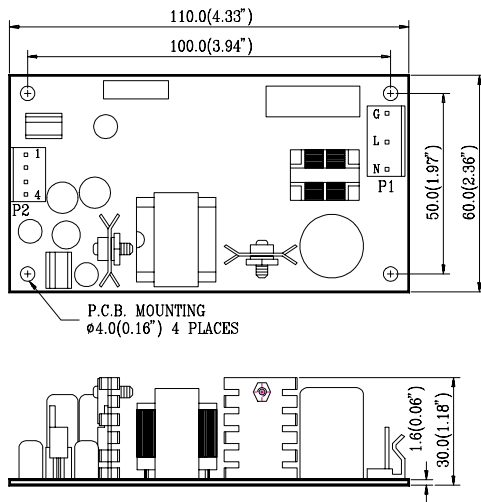
Symbols:★ "OVP built-in. " @ "Adjustable. " † " Stacked on main O/P. " • " Installed with Post Regulator(PR).

MECHANICAL DIMENSIONS: MM (INCHES)

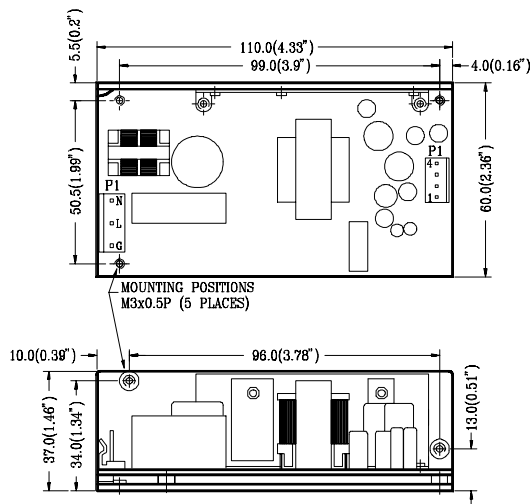
WEIGHT: PCB VERSION 148 g (5.2 Oz.)

POWER DENSITY: 1.26-1.58 W/Cubic Inch

L -B VERSION 223 g (7.9 Oz.)



PCB FORMAT



L-B FORMAT

INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

INPUT CONNECTOR P1

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

Mating: Molex 5196 or equivalent

OUTPUT CONNECTOR P2

PIN NO.	ASSIGNMENT
P2-1	DC COM.
P2-2	VO1 +
P2-3	VO2 +
P2-4	VO3 -

Mating: Molex 5196 or 3069 or equivalent