

UNIVERSAL INPUT AC TO DC PCB OPEN FRAME SINGLE & DUAL OUTPUT 13-15 WATTS INTERNAL SWITCHING POWER SUPPLIES APS13VI SERIES



FEATURES:

- ACCOMMODATE UNIVERSAL AC SOURCES
- LOW-PROFILE & COMPACT PCB FORMAT
- MEETS UNIVERSAL SAFETY STANDARDS
- EMI MEETS CISPR PUB.22 / FCC CLASS B
- CE MARKING COMPLIANCE

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: Range typ. 90-264Vac
Rating 100 to 240Vac

Input Connector: Molex # 5045

Input Frequency: 47-63Hz

Inrush Current: Typ. 26.0A @230Vac

Input Current: Typ. 0.30A @115Vac/ 0.15A@230Vac

Dielectric Withstand: Meets IEC950

EMI: Meet CISPR PUB.22/ FCC Class B

Hold-up Time: Typ. 10mS @115Vac/ 40mS @230Vac

Earth Leakage: Typ. 0.25mA @230Vac

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart

Output Current: See Ratings Chart

Output Wattage: Typ. 13-15watts

Output Connector: Molex # 5045

Line Regulation: Typ. 0.1%

Load Regulation: Main VO1 typ. $\pm 2.0\%$
Aux. VO2 typ. $\pm 5.0\%$ (stacked on)

Noise & Ripple: Typ. 1.0% peak to peak

OVP: Built-in at VO1 (Zener diode)

Adjustability: Available at VO1

Overload Protection(OLP): Fully protected against output overload and short circuit
Consult the factory for OLP setting

GENERAL SPECIFICATION

Efficiency: Typ. 70-80%

Switching Frequency: 40 KHz

Circuit Topology: Fixed Frequency Flyback Circuit

Transient Response: Output voltage returns in less than 3mS following a 25% load change

Safety Standard: IEC950/UL1950 Class II.

Operating Temperature: 0 to +50°C.

Storage Temperature: -20 to +85°C.

Temperature Coefficient: Typ. 0.04%/°C.

Cooling: Free air convection.

Construction: PCB open frame format.

Power Density: 2.12 Watts / Cubic Inch.



OUTPUT VOLTAGE/CURRENT RATINGS CHART

SINGLE OUTPUT

MODEL NO.	MAIN VO1 ★		
	Typ.	Volt	Peak
APS13VI-033030	3.0A	3.3V	3.7A
APS13VI-050028	2.8A	5.0V	3.4A
APS13VI-012012	1.2A	12.0V	1.5A
APS13VI-015010	1.0A	15.0V	1.2A
APS13VI-024006	0.6A	24.0V	0.8A
APS13VI-048003	0.3A	48.0V	0.4A

DUAL OUTPUT

MODEL NO.	MAIN VO1 ★			AUX. VO2 †		
	Typ.	Volt.	Max.	Typ.	Volt.	Max.
APS13VID-033I	2.5A	+3.3V	3.5A	0.4A	+12V	0.5A
APS13VID-033K	2.5A	+3.3V	3.5A	0.3A	+15V	0.4A
APS13VID-033M	2.5A	+3.3V	3.5A	0.2A	+24V	0.2A
APS13VID-050I	2.0A	+5.0V	2.5A	0.4A	+12V	0.5A
APS13VID-050K	2.0A	+5.0V	2.5A	0.3A	+15V	0.4A
APS13VID-050M	2.0A	+5.0V	2.5A	0.2A	+24V	0.2A

Symbol: "★" OVP built-in. "†" Stacked on main output.

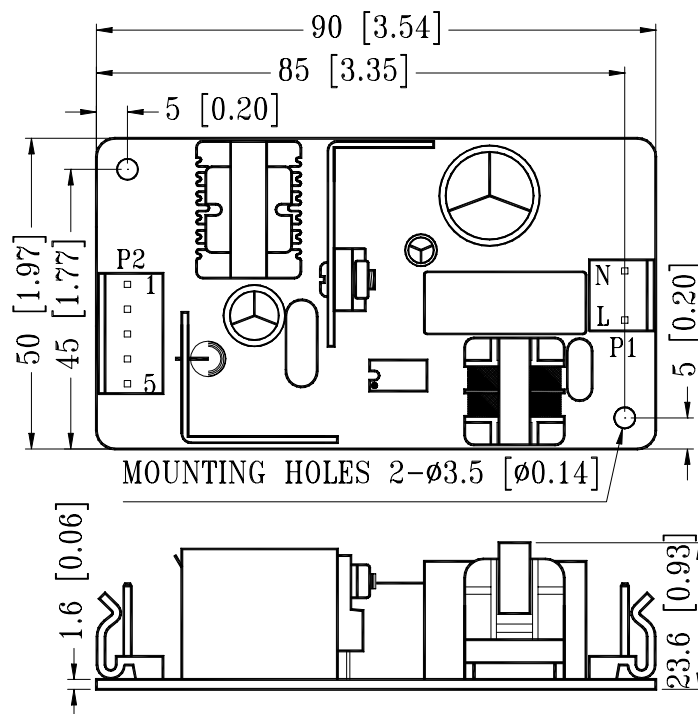
Remark: (1) At least 20% of typical main output current is required to maintain stated regulation.

(2) Peak output, less than 60 Sec. with 10% duty cycle.

(3) Max. current can't be drawn from all output at the same time.

MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 62.0g (2.19 Oz.)



INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

ASSIGNMENT CONNECTOR & PIN #	AC INPUT		SINGLE OUTPUT		DUAL OUTPUT		
	AC-LINE	AC-NEUTRAL	+VO1	DC-COM.	+VO1	+VO2	DC-COM
	P1-L	P1-N	P2-3,4	P2-1,2	P2-3,4	P2-5	P2-1,2

Mating connector: Molex 5264-N/JST XHP-8 or equivalent.