

UNIVERSAL INPUT HARMONIC CORRECTION AC-DC SINGLE & MULTIPLE OUTPUT INTERNAL SWITCHING POWER SUPPLIES 100 WATT APS101VP SERIES



FEATURES:

- ACCOMMODATE UNIVERSAL AC SOURCES
- MEET IEC1000-3-2 HARMONIC CORRECTION
- MEET UNIVERSAL SAFETY STANDARDS
- EMI MEET CISPR PUB. 22 / FCC CLASS B
- CE MARKING COMPLIANCE

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: Typ. 90-264Vac with PFC
Input Connector: V-M connector & GND tag
Input Frequency: 47-63Hz
Inrush Current: Typ. 29A@230Vac
Input Current: Typ. 1.3A @115Vac /0.65 @230Vac
Dielectric Withstand: Meets IEC950
EMI: Meet CISPR EN55022 B / FCC Class B
Hold-up Time: Typ. 18-25mS @ 115Vac/230Vac
Power Factor & Harmonic Correction:
 Meet IEC1000-3-2, PF typ. 0.97-0.99 @ full load
Power OK: Installed in VO1 & VO2
Over Temp. Protection (OTP): By NTC at quad
 output only
Earth Leakage: Less than 0.75mA @230Vac

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart
Output Current: See Ratings Chart
Output Connector: V-M connector
Output Wattage: Typ. 100 Watts
Line Regulation: Typ. 0.1%
Load Regulation: Main VO1 typ. $\pm 1-2\%$
 Aux. VO2 typ. $\pm 1-2\%$ (Magnetic Amp.)
 Aux. VO3 typ. $\pm 1-2\%$ (Magnetic Amp.)
 Aux. VO4 typ. $\pm 2-3\%$ (P.R.)
Noise & Ripple: Typ. 1% peak to peak
OVP: Built-in on main VO1 & Aux. VO2 & VO3 (latch)
Remote Sensing: Available at VO1 & VO2
Adjustability: Available at VO1, VO2 & VO3
Over Current Protection: Built-in at all output
Overload Protection (OLP): Fully protected against
 output overload and short circuit at any output
 Consult the factory for OLP setting

GENERAL SPECIFICATION

Efficiency: Typ. 75-80%
Switching Frequency: PFC ckt. 75KHz
 PWM ckt. 170-180K Hz
Circuit Topology: Fixed frequency forward circuit
Transient Response: Output voltage returns in
 less than 0.3mS following
 a 25% load change
Safety Standard: IEC950/UL1950 Class I
Operating Temperature: 0 to +50°C under forced air
 flow for full load
Storage Temperature: -20 to +85°C
Temperature Coefficient: Typ. 0.04% /°C
Cooling: At least 30 CFM direct forward air flow is
 required to achieve full rating power
Construction: PCB format
Power Density: 5.6 Watts / Cubic Inch



OUTPUT VOLTAGE / CURRENT RATINGS CHART

SINGLE OUTPUT (Under forced air flow)

MODEL NO.	MAIN VO1 •@#		
	Typ.	Volt.	Peak
APS101VP-033200	20.0A	3.3V	25.0A
APS101VP-050160	16.0A	5.0V	20.0A
APS101VP-120085	8.5A	12.0V	9.0A
APS101VP-150068	6.8A	15.0V	7.0A
APS101VP-240042	4.2A	24.0V	6.0A
APS101VP-280036	3.6A	28.0V	5.0A
APS101VP-360028	2.8A	36.0V	4.0A
APS101VP-480021	2.1A	48.0V	3.0A

DUAL OUTPUT (Under forced air flow)

MODEL NO.	MAIN VO1 •@#		AUX. +VO2 ▲#	
	Typ.	Volt.	Typ.	Volt.
APS101VPD-050E	12.0A	5.0V	6.0A	+5.0V
APS101VPD-050I	12.0A	5.0V	4.0A	+12.0V
APS101VPD-050K	12.0A	5.0V	3.0A	+15.0V
APS101VPD-050D	12.0A	5.0V	8.0A	+3.3V
APS101VPD-033I	15.0A	3.3V	4.0A	+12.0V
APS101VPD-033K	15.0A	3.3V	3.0A	+15.0V

QUAD OUTPUT (Under forced air flow)

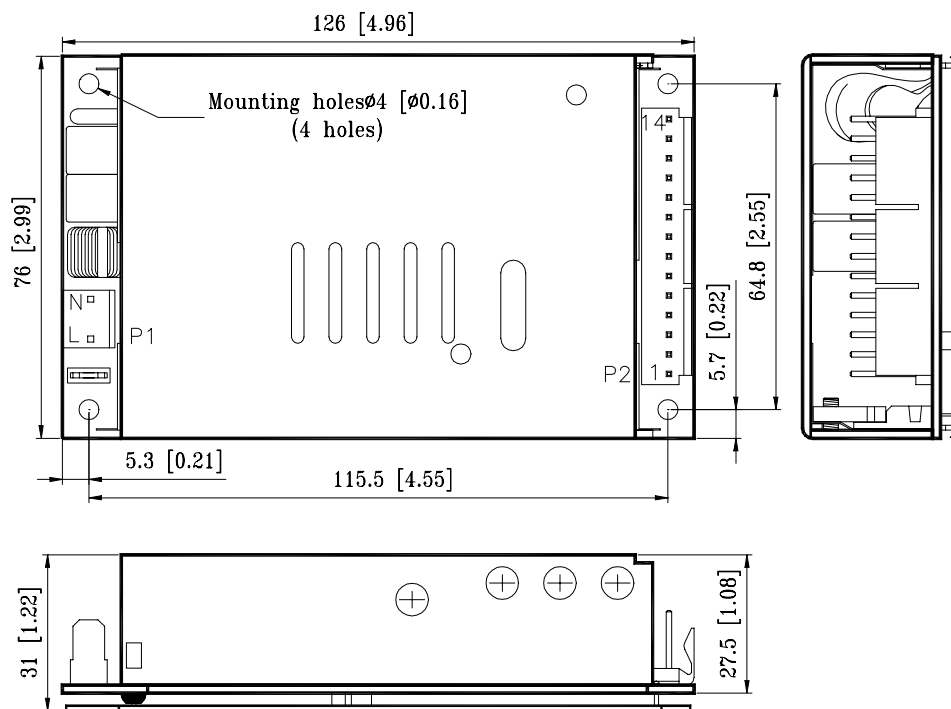
MODEL NO.	MAIN +VO1 •@#		AUX. +VO2 •@▲#		AUX. +VO3 •@▲		AUX. -VO4 •	
	Typ.	Volt	Typ.	Volt	Typ.	Volt	Typ.	Volt
APS101VPQ-050DII	12.0A	+5.0V	6.0A	+ 3.3V	1.5A	+12V	0.5A	-12V
APS101VPQ-050DIE	12.0A	+5.0V	7.0A	+ 3.3V	1.5A	+12V	0.5A	- 5V
APS101VPQ-050MII	10.0A	+5.0V	1.5A	+24.0V	1.5A	+12V	0.2A	-12V
APS101VPQ-050KIE	10.0A	+5.0V	2.5A	+15.0V	1.5A	+12V	0.4A	- 5V
APS101VPQ-050KII	8.0A	+5.0V	2.5A	+15.0V	2.0A	+12V	0.2A	-12V

Symbol: "•" OVP built-in. "@" Adjustable. "#" Remote sense. "●" Post Regulator. "▲" Installed with magnetic amplifier.

Remark: (1) Peak output, less than 60 Sec. with 10% duty cycle.

MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 368.0g(12.97 Oz.)



INPUT & OUTPUT CONNECTORS PIN ASSIGNMENTS

	AC INPUT			SINGLE OUTPUT				DUAL OUTPUT						QUAD OUTPUT								
ASSIGNMENT	L	N	GND	VO1	DC COM	+VO1#	P.OK	VO1	VO2	DC COM	+VO1 #	+VO2 #	P.OK	VO1	DC COM	VO2	VO3	VO4	+VO1 #	+VO2 #	-VO1,2 #	P. OK
CONNECTOR & PIN #	P1-3	P1-1	Tab	P2-6,7,8,9,10,11	P2-1,2,3,4,5	P2-13	P2-12	P2-9,10,11	P2-6,7,8	P2-1,2,3,4	P2-13	P2-12	P2-14	P2-1,2,3,4	P2-5,6,7,8	P2-9,10	P2-11	P2-12	P3-3	P3-4	P3-1	P3-2

Mating connector: Molex 5196 or equivalent.