

APS

Advanced Power Solutions

18-36VDC INPUT RANGE DC-DC CONVERTER QUAD OUTPUT 50 WATTS INTERNAL SWITCHING POWER SUPPLIES APS49DB SERIES



FEATURES:

- PCB OPEN FRAME FORMAT
- 18-36VDC NOMINAL 24VDC INPUT
- EMI MEETS EN 55022 / FCC CLASS B
- CE MARKING COMPLIANCE

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: Typ. 18-36Vdc, nominal input 24Vdc
Input Connector: Molex V-M connector
Inrush Current: 36A @ nominal input 24Vdc
Input Current: 3.1A @ nominal input 24Vdc & full load
Dielectric Withstand: Meets IEC950 regulation
EMI: Meets EN55022 / FCC Class A
Overload Protection (OLP): Fully protected against
 output overload or short circuit
 Typical 120-150% max. load
 Consult the factory for special OLP setting

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart
Output Current: See Ratings Chart
Output Wattage: Typ. 50W continuous
Output Connector: Molex V-M connector
Line Regulation: Typ. 0.5%
Load Regulation: Main VO1 typ. $\pm 1.0\%$
 Aux. VO2 typ. $\pm 2.0-3.0\%$.(PR)
 Aux. VO3 typ $\pm 2.0-3.0\%$.(PR)
 Aux. VO4 typ $\pm 2.0-3.0\%$.(PR)
Noise & Ripple: Typ. 1% peak to peak
OVP: Built-in at main VO1
Adjustability: Available at main VO1

GENERAL SPECIFICATION

Efficiency: Typ. 70%
Switching Frequency: 56KHz
Circuit Topology: Push-pull Circuit
Transient Response: Typ. 2 mS following a 25%
 load change
Safety Standard: IEC 60950 / Class I
Power Density: 1.0Watts / Cubic Inch

Operating Temperature: 0 to +50°C at full load,
 De-rating to half @+ 70°C
Storage Temperature: -40°C to +85°C
Temperature Coefficient: $\pm 0.04\%/^{\circ}\text{C}$
Cooling: Convection cooling is adequate
Construction: PCB open-frame format

OUTPUT VOLTAGE/CURRENT RATINGS CHART

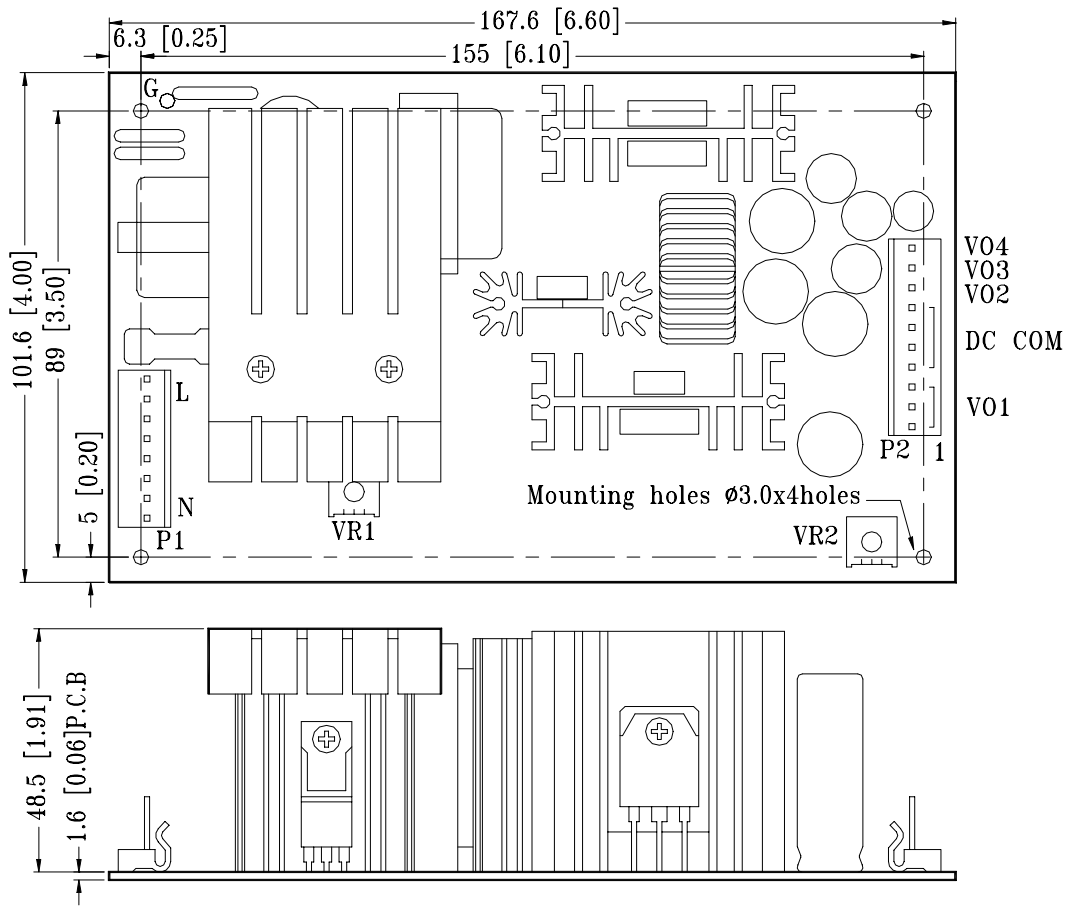
QUAD OUTPUT

MODEL NO.	MAIN +VO1 @★			AUX. VO2●■			AUX. VO3 ●■			AUX. -VO4 ●■		
	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Typ.	Volt.	Max.
APS49DB-24B-Q056IIE	4.2A	+5.6V	7.0A	1.4A	+12V	2.0A	0.6A	-12V	1.2A	0.6A	-5V	1.2A
APS49DB-24B-Q033IIE	5.0A	+3.3V	6.0A	1.4A	+12V	2.0A	0.6A	-12V	1.2A	0.6A	-5V	1.2A

Symbol: "★" OVP built-in. "@" Adjustable. "■" Coupled common choke. "●" Installed with Post Regulator (PR).

MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 480.0g (16.90 Oz.)



INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

ASSIGNMENT	DC INPUT			QUAD OUTPUT				
	+Vin	-Vin	Gnd.	VO1	VO2	VO3	VO4	DC COM
CNTR & PIN#	P1-1-4	P1-5-8	GND	P2-1-3	P2-8	P2-9	P2-10	P2-4-7

Mating connector: Molex 5196 series or equivalent.