

# APS

## Advanced Power Solutions

### 36-72VDC INPUT RANGE DC-DC OPEN FRAME PCB CONVERTER MULTIPLE OUTPUT 55-60 WATTS INTERNAL SWITCHING POWER SUPPLIES APS55DA SERIES



#### FEATURES:

- PCB OPEN FRAME FORMAT
- LOW PROFILE & COMPACT SIZE
- 36-72VDC NOMINAL 48VDC INPUT
- EMI MEETS EN 55022 / FCC CLASS B
- CE MARKING COMPLIANCE

#### SPECIFICATION

##### INPUT SPECIFICATION

**Input Voltage:** Typ. 36-72VDC, nominal input 48Vdc  
**Input Connector:** Molex V-M  
**Input Current:** 1.5A @ nominal input 48Vdc  
**Dielectric Withstand:** Meets IEC950 regulation  
**EMI:** Meet EN55022 / FCC Class B  
**Overload Protection (OLP):** Fully protected against  
 output overload or short circuit  
 Typical 125-130% Max. load  
 Consult the factory for special OLP setting

##### OUTPUT SPECIFICATION

**Output Voltage:** See Ratings Chart  
**Output Current:** See Ratings Chart  
**Output Wattage:** Typ. 55W continuous  
**Output Connector:** Molex V-M  
**Line Regulation:** Typ. 0.1-0.5%  
**Load Regulation:** Main VO1 typ.  $\pm 1.0-2.0\%$   
 Aux.VO2 typ.  $\pm 3.0-5.0\%$ .(Stacked-on)  
 Aux.VO3 typ.  $\pm 2.0-3.0\%$ .(P.R.)  
**Noise & Ripple:** Typ. 1% peak to peak  
**OVP:** Built-in at main VO1  
**Adjustability:** Available at main VO1

##### GENERAL SPECIFICATION

**Efficiency:** Typ. 78%  
**Switching Frequency:** 40KHz  
**Circuit Topology:** Fixed Frequency Flyback Circuit  
**Transient Response:** Typ. 2 mS following a 25%  
 load change  
**Safety Standard:** IEC 950 / Class I  
**Power Density:** 3.1Watts / 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:**  $\pm 0.03\%/^{\circ}\text{C}$   
**Cooling:** Convection cooling is adequate. Moving air is  
 recommended for operating in a confined area  
**Construction:** PCB open frame format

# OUTPUT VOLTAGE/CURRENT RATINGS CHART

## DUAL OUTPUT

MODEL NO.	MAIN VO1 @★			AUX. VO2 †			
	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Peak
APS55DA-48B-D050I	5.0A	+5.0V	6.0A	2.5A	+12V	3.0A	4.0A
APS55DC-48B-D033E	6.0A	+3.3V	7.0A	5.0A	+5V	6.0A	6.0A

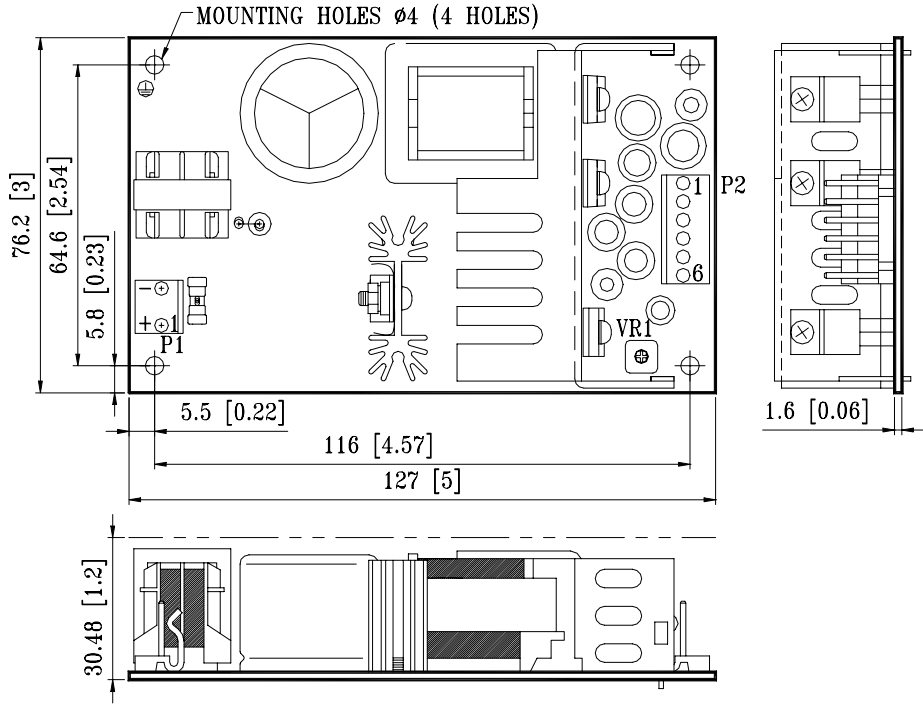
## TRIPLE OUTPUT

MODEL NO.	MAIN VO1 @★			AUX. VO2 †				AUX. VO3 •		
	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Peak	Typ.	Volt.	Max.
APS55DA-48B-T050II	5.0A	+5.0V	6.0A	2.0A	+12V	2.5A	4.0A	0.5A	-12V	1.0A
APS55DC-48B-T033EI	6.0A	+3.3V	7.0A	5.0A	+5V	6.0A	6.0A	0.5A	-12V	1.0A

Symbol: "★" OVP built-in. "@" Adjustable. "†" Stacked on main output. "•" Installed with Post Regulator (PR).

## MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 196.0g (6.90 Oz.)



## INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

ASSIGNMENT	DC INPUT			DUAL/TRIPLE OUTPUT			
	+Vin	-Vin	G.	VO1	VO2	VO3	DC COM
CNTR & PIN#	P1-1	P1-2	G	P2-2,3	P2-1	P2-6	P2-4,5

Mating connector: Molex 5196 series or equivalent.