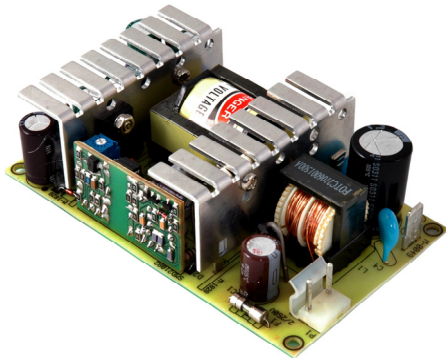


# **HiTRON**

## **36-72VDC INPUT RANGE DC-DC PCB OPEN FRAME MULTI-OUTPUT 40-50 WATTS INTERNAL SWITCHING POWER CONVERTERS HDA41 SERIES**



### **FEATURES:**

- PCB OPEN FRAME FORMAT
- LOW PROFILE & COMPACT SIZE
- 36-72VDC NOMINAL 48VDC INPUT
- EMI MEET 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:** 1.4A @ nominal input 48Vdc.

**Dielectric Withstand:** Meet IEC 60950-1 regulation.

**EMI:** Meet EN 55022 & FCC Class B.

#### **OUTPUT SPECIFICATION**

**Output Voltage:** See Ratings Chart.

**Output Current:** See Ratings Chart.

**Output Wattage:** Typ. 45W continuous.

**Output Connector:** Molex V-M.

**Line Regulation:** Typ. 0.1-0.5%.

**Load Regulation:** Main VO1 typ.  $\pm 1.0\%$ .  
Aux. VO2 typ.  $\pm 2.0-3.0\%$  (Stacked)  
Aux. VO3 typ.  $\pm 1.0-2.0\%$  (P.R.)

**Noise & Ripple:** Typ. 1% peak to peak.

**OVP:** Built-in at main VO1.

**Adjustability:** Available at main VO1.

**Overload Protection (OLP):**  
Fully protected against output overload or short circuit.  
Typical 125-130% max. load.  
Consult the factory for special OLP setting

#### **GENERAL SPECIFICATION**

**Efficiency:** Typ. 75%.

**Switching Frequency:** 55K Hz.

**Circuit Topology:** Fixed Frequency Flyback Circuit.

**Transient Response:** Typ. 2mS following a 25% load change.

**Safety Standard:** IEC 60950-1 Class I.

**Power Density:** 3.1Watts / Cubic Inch.

**Operating Temperature:** 0 to +50°C at full load,  
derating to half @ +70°C.

**Storage Temperature:** -40°C to +85°C.

**Temperature Coefficient:**  $\pm 0.04\%/^{\circ}\text{C}$ .

**Cooling:** Convection cooling is adequate. Moving air is recommended for operating in a confined area.

**Construction:** PCB open frame format.

Note: Due to requests in market and advances in technology, specifications subject to change without notification.

## OUTPUT VOLTAGE / CURRENT RATINGS CHART

### DUAL OUTPUT

MODEL NO.	MAIN VO1 @★			AUX. VO2 †			
	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Peak
HDA41-48B-D050I	4.0A	+5.0V	5.0A	2.0A	+12V	3.0A	4.0A
HDA41-48B-D033E	5.0A	+3.3V	6.0A	5.0A	+5V	6.0A	6.0A

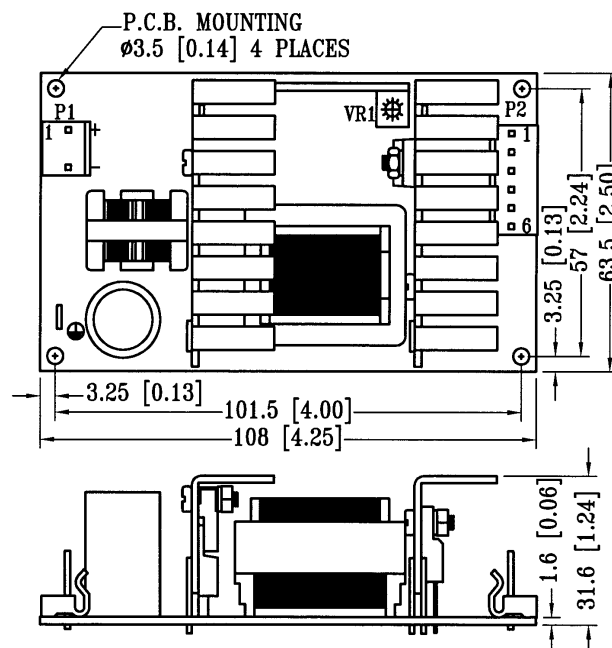
### TRIPLE OUTPUT

MODEL NO.	MAIN VO1 @★			AUX. VO2 †				AUX. VO3 •		
	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Peak	Typ.	Volt.	Max.
HDA41-48B-T050II	4.0A	+5.0V	5.0A	2.0A	+12V	3.0A	4.0A	0.2A	-12V	1.0A
HDA41-48B-T033EI	5.0A	+3.3V	6.0A	5.0A	+5V	6.0A	6.0A	0.2A	-12V	1.0A

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

**MECHANICAL DIMENSIONS: MM [INCHES]**

**WEIGHT: 170.0g (6.00 Oz.)**



### INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

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

Mating connector: Molex 5195 or 5239 series.