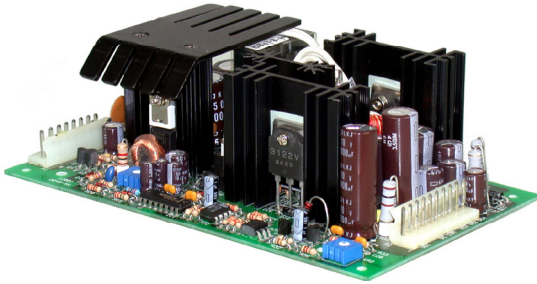


# HiTRON

## **18-36VDC INPUT RANGE DC-DC PCB OPEN FRAME QUAD OUTPUT 50 WATTS INTERNAL SWITCHING POWER CONVERTERS HDB49 SERIES**



### **FEATURES:**

- PCB OPRN FRAME FORMAT
- 18-36VDC NOMINAL 24VDC INPUT
- EMI MEET EN 55022 & FCC CLASS A
- 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:** Meet IEC950 regulation.  
**EMI:** Meet 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. 50Watts 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:** 56K Hz.  
**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,  
 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.  
**Construction:** PCB open-frame format.

# OUTPUT VOLTAGE/CURRENT RATINGS CHART

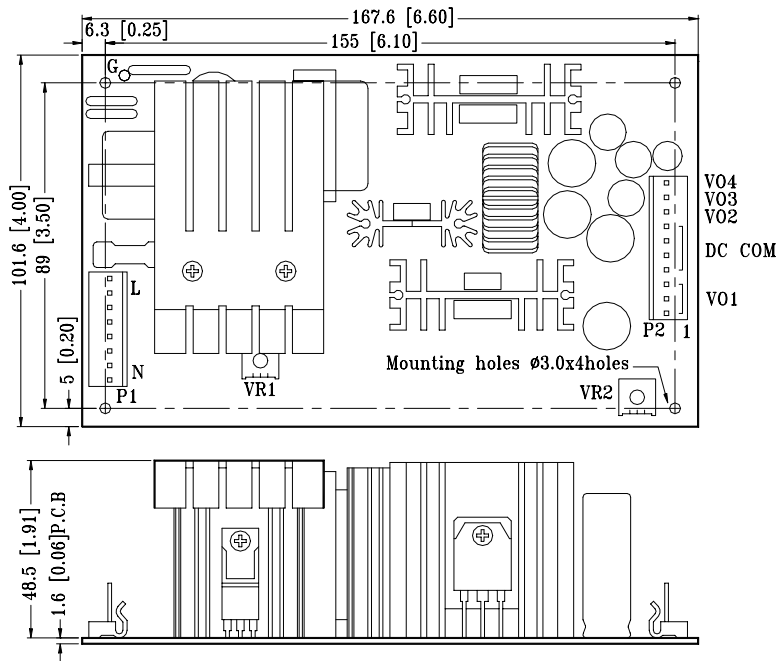
## QUAD OUTPUT

MODEL NO.	MAIN +VO1 @★			AUX. VO2●■			AUX. VO3 ●■			AUX. -VO4 ●■		
	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Typ.	Volt.	Max.
HDB49-24B-Q056HIE	4.2A	+5.6V	7.0A	1.4A	+12V	2.0A	0.6A	-12V	1.2A	0.6A	-5V	1.2A
HDB49-24B-Q033HIE	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				DC COM
	+Vin	-Vin	Gnd.	VO1	VO2	VO3	VO4	
CNTR & PIN #	P1-1~P1-4	P1-5~P1-8	GND	P2-1~P2-3	P2-8	P2-9	P2-10	P2-4~P2-7

Mating connector: Molex 5195 or 5239 series.