

# HiTRON

**UNIVERSAL INPUT HARMONIC CORRECTION(PFC)  
AC-DC N+1 REDUNDANCY AND LOAD SHARING  
INTERNAL 1U RACK SWITCHING POWER SUPPLIES  
450 WATTS DUAL OUTPUT HVP450 SERIES**



## FEATURES:

- 1U HEIGHT RACK POWER SUPPLY
- BUILT-IN ACTIVE PFC FUNCTION
- INTERNAL OR-ING DIODES FOR N+1 REDUNDANCY
- HOT-SWAPPABLE
- HIGH EFFICIENCY & DENSITY
- PMBus COMMUNICATION
- CE MARKING COMPLIANT

## SPECIFICATION

### INPUT SPECIFICATION

**Input Voltage:** Typ. 90-264Vac.  
**Power Factor:** Meet Harmonic Correction IEC 61000-3-2.  
 Power Factor typ. 0.98.  
**Input Connector:** IEC320-C14 3prong.  
**Input Frequency:** 47-63Hz.  
**Inrush Current:** 11.3A(rms) at 230Vac;  
 35.2A (peak) at 230Vac.  
**Input Current:** 4.4A at 115Vac / 2.2A at 230Vac.  
**Dielectric Withstand:** Meet IEC 60950-1 regulation.  
**EMI:** Meet EN 55022 FCC Class B.  
**Hold-up Time:** Typ. 10mS at 115Vac.  
**Remote ON/OFF:** Available.  
**Power Fail Signal:** Available.  
**Over Temperature Protection (OTP):** Installed NTC and  
 thermostat.  
**Leakage Current:** Typ. 1mA at 230Vac.  
**No-Load Power:** Typ. 9Watt at 115Vac & 230Vac.

### OUTPUT SPECIFICATION

**Output Voltage:** See Ratings Chart.  
**Output Current:** See Ratings Chart.  
**Output Power:** Total continuous 450W.  
**Output Connector:** ALLTOP C24501-128H1-Y.  
**Line Regulation:** VO1/2 typ.  $\pm 1\%$ .  
**Load Regulation:** VO1/2 typ.  $\pm 2\%$ .  
**Total Regulation:** VO1/2 typ.  $\pm 3\%$ .  
**Noise & Ripple:** Typ. 1% peak-peak.  
**OVP:** Built-in at all outputs.  
**Adjustability:** Available for all outputs.  
**Hot-Swap:** Available.  
**N+1 Redundancy:** Installed with internal OR-ing diodes  
 at all outputs and third-wire current sharing method for  
 N+1 redundancy operation.  
**Current Sharing:** Available for all outputs.  
**DC OK Signal:** Available for all outputs.  
**Over Current Protection (OCP):** Built-in.  
**Overload Protection (OLP):** Fully protected against output  
 overload or short circuit. OLP set at about 120-130%  
 rating output wattage. Consult the factory for OLP setting.

### GENERAL SPECIFICATION

**Efficiency:** Typ. 92% at 230Vac.  
**Switching Frequency:** 85-100KHz.  
**Circuit Topology:** Half-bridge circuit ZVS circuit.  
**Transient Response:** Peak transient less than 280mV and  
 recover within 3mS at 25% load-change.  
**Safety Standard:** IEC 60950-1 Class I.  
**Construction:** 1U Rack Format.  
**Operating Temperature:** -10 °C to +70 °C (refer to derating chart).  
**Storage Temperature:** -40°C to +85 °C.  
**Cooling:** Built-in one internal DC ball bearing fan  
 with smart fan speed control.  
**Power Density:** Typ. 8.7 Watts/ cubic inch.  
**PMBus:** Built-in.

NOTE: (1)All measurement are at nominal input, full load and +25°C unless otherwise specifications.

(2)Due to requests in market and advances in technology, specifications subject to change without notification.

# OUTPUT VOLTAGE / CURRENT RATINGS CHART

## DUAL OUTPUT

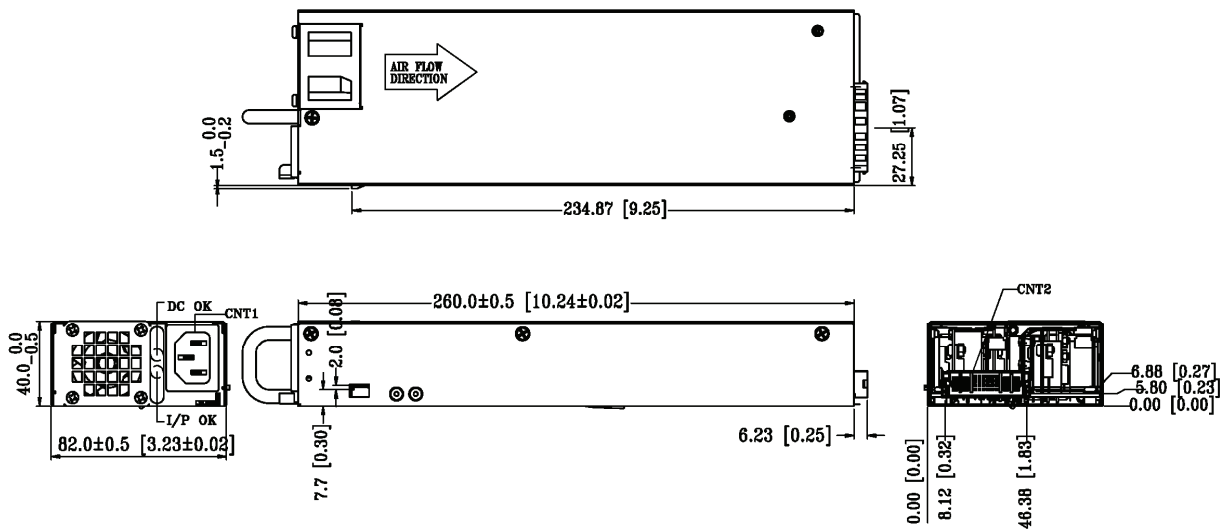
MODEL NO.	MAIN +VO1 @★≡⊙					AUX +VO2 @★≡⊙				
	Min.	Typ.	Volt.	Max.	Peak	Min.	Typ.	Volt.	Max.	Peak
HVP450-D530I	0A	6.5A	+53V	6.5A	6.5A	0A	9.0A	+12V	9.0A	9.0A

Symbol: "★" OVP built-in. "@" Adjustable. "≡" Load Sharing. "⊙" Installed with Or-ing diode.

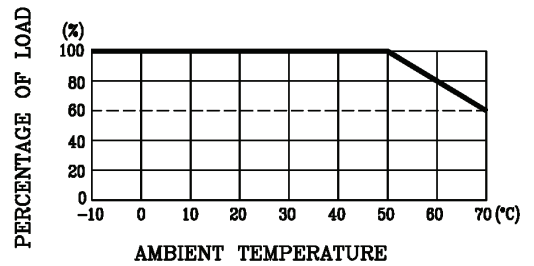
Remark: Maximum Output Power <=453 Watt

## MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 1.24kgs (2.74lb)



## DERATING CHART



## INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

CNT1			CNT2									
L	N	G	P1	P2	D1	D2	D3	D4	D5	D6	P3	P4
LINE	NEUTRAL	GND	VO2	COM	Alert	A2	DGND	5VSB	N/A	53V_CS	VO1 RTN	VO1
					C1	C2	C3	C4	C5	C6		
					PS_PRNT	A1	PS_EN_IN	DCOK_12V_L	N/A	N/A		
					B1	B2	B3	B4	B5	B6		
					12V_CS	A0	PS_EN_OUT	DCOK_53V_L	N/A	N/A		
					A1	A2	A3	A4	A5	A6		
SCL	SDA	AC_FAIL	FAN_FAL	N/A	N/A							