

HiTRON

UNIVERSAL INPUT HARMONIC CORRECTION AC-DC N+1 REDUNDANCY AND ACTIVE CURRENT SHARING OPEN FRAME QUAD OUTPUT 210 WATTS INTERNAL SWITCHING POWER SUPPLIES HVP210 SERIES



FEATURES:

- ACCOMMODATE UNIVERSAL AC SOURCES
- MEET IEC 61000-3-2 HARMONIC CORRECTION
- HIGH EFFICIENCY BY SYNCHRONOUS RECTIFIER
- N+1 REDUNDANCY
- MEET UNIVERSAL SAFETY STANDARDS
- EMI MEET CISPR PUB. 22 & FCC CLASS B
- CE MARKING COMPLIANCE

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: Typ. 90-264Vac with PFC.
Input Connector: V-M (Molex 5273) connector.
Input Frequency: 47-63Hz.
Inrush Current: Typ. 29A @ 115 & 230Vac.
Input Current: Typ. 2.4A @ 115Vac, 1.2A @ 230Vac.
Dielectric Withstand: Meet IEC 60950-1.
EMI: Meet CISPR PUB. 22 & FCC Class B.
Hold-up Time: Typ. 15mS at full load.
Power Fail Signal: Installed.
Remote Inhibit: Installed.
Power Factor & Harmonic Correction:
Meet IEC 61000-3-2, PF typ.0.99 @ full load.
Over Temp. Protection (OTP): By thermostat.
Earth Leakage: Less than 0.75mA.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.
Output Current: See Ratings Chart.
Output Connector: B-S, V-M (Molex # 5273),
X-M (Molex # 5268) connectors.
Output Wattage: Typ. 210 Watts under 30 cfm forced
air cooling .If convection typ. 150W.
Line Regulation: Typ. 0.1%.
Load Regulation: Main VO1 typ. $\pm 0.5\%$.
Aux. VO2, VO3 & VO4 typ. $\pm 1.0\%$.
Noise & Ripple: Typ. 1.0% peak to peak.
OVP: Installed in VO1 & VO2.
Remote Sense: Installed in VO1 & VO2.
Adjustability: Available at all outputs.
Load Sharing: Active current sharing circuit available at
VO1 & VO2 rail.
Synchronous Rectifier: Installed in VO1 & VO2.
DC OK Signal: Installed in VO1 & VO2.
Over Current Protection: Installed in all output.
Overload Protection (OLP): Fully protected against output
overload and short circuit.
Consult the factory for OLP setting.

GENERAL SPECIFICATION

Efficiency: Typ. 77-80%.
Switching Frequency: Fixed frequency at 115K Hz.
Circuit Topology: PWM fixed-frequency forward
converter circuit.
Transient Response: Output voltage returns in about
0.4mS following a 25% load change.
Safety Standard: UL 60950-1/EN 60950-1 Class I.
Power Density: 4.16 Watts / Cubic Inch.
Operating Temperature: 0 to +50°C under 30 cfm
forced air cooling.
Storage Temperature: -55 to +85°C.
Temperature Coefficient: 0 to +70°C (after 15 minutes
warm-up) typ. $\pm 0.02-0.05\%/^{\circ}\text{C}$.
Cooling: 30 cfm air flow is required to deliver
the full power 210W.
Construction: U-bracket construction format.

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



In application

OUTPUT VOLTAGE / CURRENT RATINGS CHART

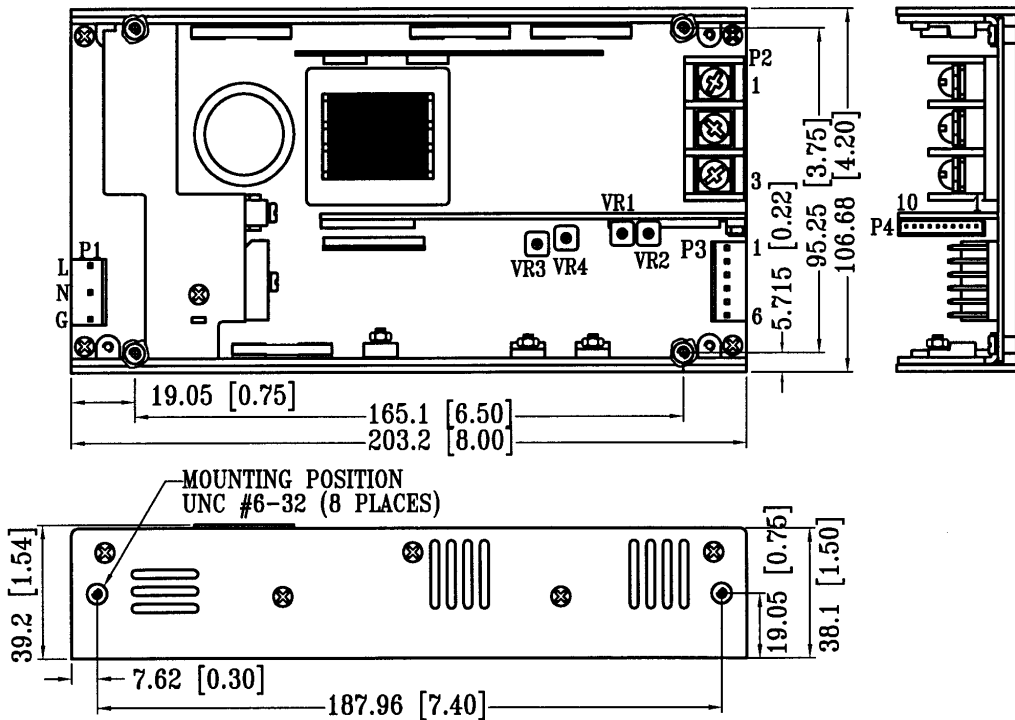
QUAD OUTPUT (Under 30 CFM forced air cooling)

MODEL NO.	MAIN +VO1 @★≡※#		AUX. +VO2 @★▲≡※#		AUX. VO3 ◇@▲		AUX. VO4 ◇@▲	
	Typ.	Volt.	Typ.	Volt.	Typ.	Volt.	Typ.	Volt.
HVP210-Q033BII	22.0A	+3.3V	22.0A	+1.8V	4.0A	12.0V	4.0A	12.0V
HVP210-Q050BII	22.0A	+5.0V	15.0A	+1.8V	3.0A	12.0V	3.0A	12.0V
HVP210-Q033CII	22.0A	+3.3V	20.0A	+2.5V	4.0A	12.0V	4.0A	12.0V
HVP210-Q050CII	20.0A	+5.0V	15.0A	+2.5V	3.0A	12.0V	3.0A	12.0V
HVP210-Q050DII	20.0A	+5.0V	15.0A	+3.3V	3.0A	12.0V	3.0A	12.0V

Symbol: "★" OVP built-in. "@"Adjustable. "◇" Floating output. "▲" Installed with magnetic amplifier. "#" Remote sensing.
 "≡" 3rd-wire current sharing. "※" Synchronous Rectifier.

MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 1,000.0g (2.2 lb.)



INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

ASSIGNMENT	AC INPUT			QUAD OUTPUT						ASSORTED SIGNALS									
	AC-L	AC-N	AC-G	+VO1	DC COM	VO2	VO3	-VO3	VO4	-VO4	DC COM	Disable	Power Fail	DC OK	VO2≡	+VO2#	VO1≡	-VO1,2#	+VO1#
CONNECTOR & PIN#	P1-L	P1-N	P1-G	P2-2	P2-1	P2-3	P3-1,2	P3-3,4	P3-5	P3-6	P4-1	P4-2	P4-3	P4-4	P4-6	P4-7	P4-8	P4-9	P4-10

Mating connector: P1,3 Molex # 5195 or 5239 series.
 P4 Molex # 5264 series or equivalent.