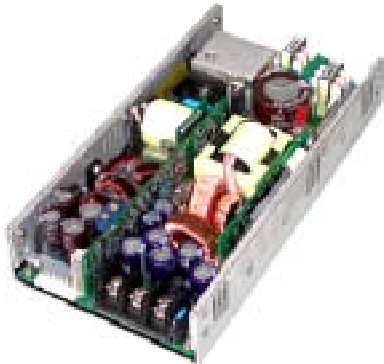


### UNIVERSAL INPUT HARMONIC CORRECTION AC-DC QUAD OUTPUT N+1 REDUNDANCY AND CURRENT SHARING 210 WATTS INTERNAL SWITCHING POWER SUPPLIES APS210VP SERIES



#### FEATURES:

- ACCOMMODATE UNIVERSAL AC SOURCES
- MEETS IEC1000-3-2 HARMONIC CORRECTION
- HIGH EFFICIENCY BY SYNCHRONOUS RECTIFIER
- N+1 REDUNDANCY
- THIRD WIRE CURRENT SHARING
- MEETS UNIVERSAL SAFETY STANDARDS
- EMI MEETS 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 IEC950  
**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:**  
 Meets IEC1000-3-2, PF typ.0.99 @ full load  
**Over Temp. Protection (OTP):** By thermostat  
**Earth Leakage:** Less than 0.75mA  
**Over Current Protection:** Installed in all output  
**Overload Protection (OLP):** Fully protected against output overload and short circuit. Consult the factory for OLP setting

##### OUTPUT SPECIFICATION

**Output Voltage and Current:** See Ratings Charts  
**Output Connector:** B-S, V-M (Molex # 5273),  
 X-H (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. ±0.5%  
 Aux. VO2,VO3 & VO4 typ. ±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.

##### GENERAL SPECIFICATION

**Efficiency:** Typ. 77-80%  
**Switching Frequency:** Fixed frequency at 115KHz  
**Circuit Topology:** PWM fixed-frequency forward  
 converter circuit  
**Transient Response:** Output voltage returns in about  
 0.4mS following a 25% load change  
**Safety Standard:** UL1950 / EN60950 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. ±0.02-0.05%/ °C  
**Cooling:** 30 CFM air flow is required to deliver  
 the full power 210W  
**Construction:** U-bracket construction format

# OUTPUT VOLTAGE / CURRENT RATINGS CHART

09/20/2001

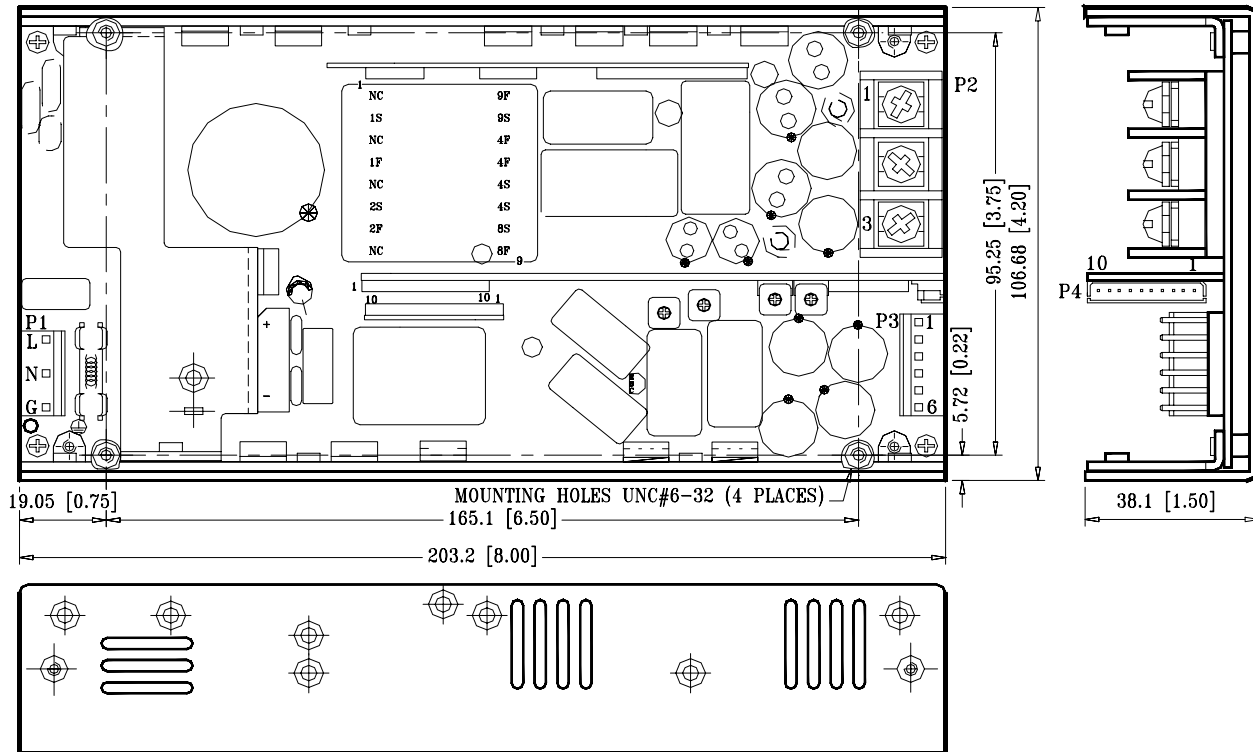
## QUAD OUTPUT (Under 30 CFM forced air cooling)

MODEL NO.	MAIN +VO1 @•-•#		AUX. +VO2 @•▲-•#		AUX. VO3 •@▲		AUX. VO4 •@▲	
	Typ.	Volt.	Typ.	Volt.	Typ.	Volt.	Typ.	Volt.
APS210VPQ-033BII	22.0A	+3.3V	22.0A	+1.8V	4.0A	12.0V	4.0A	12.0V
APS210VPQ-050BII	22.0A	+5.0V	15.0A	+1.8V	3.0A	12.0V	3.0A	12.0V
APS210VPQ-033CII	22.0A	+3.3V	20.0A	+2.5V	4.0A	12.0V	4.0A	12.0V
APS210VPQ-050CII	20.0A	+5.0V	15.0A	+2.5V	3.0A	12.0V	3.0A	12.0V
APS210VPQ-033EII	20.0A	+3.3V	15.0A	+5.0V	3.0A	12.0V	3.0A	12.0V

Symbol: "•" OVP built-in. "@" Adjustable. "•" Floating output. "▲" Installed with magnetic amplifier. "#" Remote sensing.  
 "=" Active 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#	P1-5	P1-3	P1-1	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.  
 P4 Molex # 5264.