

# APS

## Advanced Power Solutions

7/12/2001

### UNIVERSAL INPUT POWER FACTOR CORRECTION AC TO DC CompactPCI 200 Watts MULTIPLE OUTPUTS SWITCHING POWER SUPPLIES APS200ACP & APS200ACD SERIES



#### FEATURES:

- 200W IN 3U X 8HP
- UNIVERSAL AC INPUT WITH PFC
- INTERNAL OR-ING DIODES FOR N+1 REDUNDANCY
- HOT-SWAPPABLE
- EMI MEET EN55022 / FCC CLASS A
- CE MARKING COMPLIANCE
- FULLY COMPLIANT WITH PICMG

#### SPECIFICATION

##### INPUT SPECIFICATION

**Input Voltage:** Typ. 90-264Vac  
**Power Factor Correction:** 0.95 – 0.99 typ. meets EN61000-3-2  
**Input Connector:** PCI47M400A1 for APS200ACP  
DIN41612 M24/8 for APS200ACD  
**Input Frequency:** 47-63Hz  
**Inrush Current:** Cold start 60A @ 230Vac  
**Input Current:** Typ. 2.5A @115Vac./ 1.25A @230Vac. For APS200ACP  
Typ. 2.7A @115Vac./ 1.4A @230Vac. For APS200ACD  
**Dielectric Withstand:** Meets IEC950 regulation  
**EMI:** Meets EN55022 / FCC Class B  
**Hold-up Time:** 5ms @ 115/230Vac  
**Turn-on Delay/Rise Time:** 1 Sec./20ms  
**Earth Leakage:** Less than 0.5mA @ 230Vac  
**Remote ON/OFF:** Available [INH#] & [EN#]  
**Power Fail Signal:** Available [FAL#]  
**Status LED:** <Green> means valid input voltage  
<Amber> means a critical fault  
**Thermal Protection:** Installed NTC for thermal sensor [DEG#]

##### OUTPUT SPECIFICATION

**Output Voltage:** See Ratings Chart  
**Output Current:** See Ratings Chart  
**Output Power:** Typ. 200W continuous  
**Output Connector:** PCI47M400A1 connector for APS200ACP  
DIN41612 M24/8 for APS200ACD  
**Line & Load Regulation:** ±2.0% over AC input range 0 to full load change  
**Total Regulation:** -2.0% to +4.0% typ.  
**Noise & Ripple:** Typ. 1.0% peak to peak  
**OVP:** Built-in at VO1 & VO2  
**Adjustability:** Available for VO1 & VO2  
From -10% of main O/P till OVP point  
**Overload Protection (OLP):** Fully protected against output  
Overload and short circuit. Consult factory  
For OLP settings.  
**Remote Sensing:** Available for VO1 & VO2  
**N+1 Redundancy/ Hot-Swapping:** Available  
**Current Sharing:** Or-ing diodes drooping method current sharing  
**Power OK Signal:** Available for VO1 & VO2

##### GENERAL SPECIFICATION

**Efficiency:** Typ. 75 to 78%  
**Switching Frequency:** 100 KHz  
**Circuit Topology:** Half-bridge circuit  
**Transient Response:** 0.5ms following 25% load change  
**Safety Standard:** IEC950 / UL1950  
**Power Density:** 4.08 Watts / Cubic Inch  
**Construction:** CompactPCI format  
3U x 160mm x 8HP

**Operating Temperature:** 0-50°C at full load, with specified air flow. De-rating linearly to 50% at 70°C  
**Storage Temperature:** -40°C to +85°C  
**Temperature Coefficient:** ±0.04% /°C  
**Cooling:** At least 20 CFM moving air is required to achieve full rating power 150W ≥+40°C or 175W ≥+35°C in a confined area  
**Relative Humidity:** Up to 95%, non-condensing

Notes: All measurements are at nominal input, full load, and +25°C unless otherwise specified.

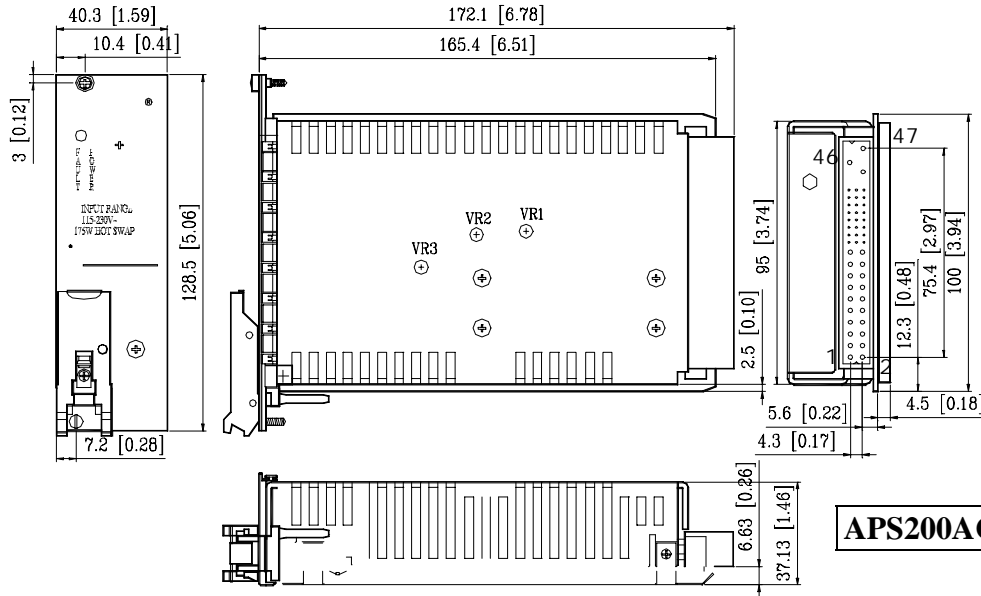
# OUTPUT VOLTAGE / CURRENT RATINGS CHART

## Quad Output

MODEL NO.	Main O/P +VO1 @★#=#◆		+VO2 O/P ★#=#◆		+VO3 O/P #=#◆		+VO4 O/P #=#◆	
	Typ.	VOLT.	Typ.	VOLT.	Typ.	VOLT.	Typ.	VOLT.
APS200ACP-490	25A	+5V	10A	+3.3V	3.0A	+12V #	0.5A	-12V
APS200ACD-490	25A	+5V	10A	+3.3V	3.0A	+12V	0.5A	-12V

Symbols: "★" OVP built-in. "@" Adjustable. "#" Remote sensing. "=" Load Sharing. "◆" Installed with Or-ing diode. "\*" Magnetic Amplifier. "•" Post of Regulator.

## MECHANICAL DIMENSIONS: MM[INCHES] WEIGHT: 666g (23.5 Oz)

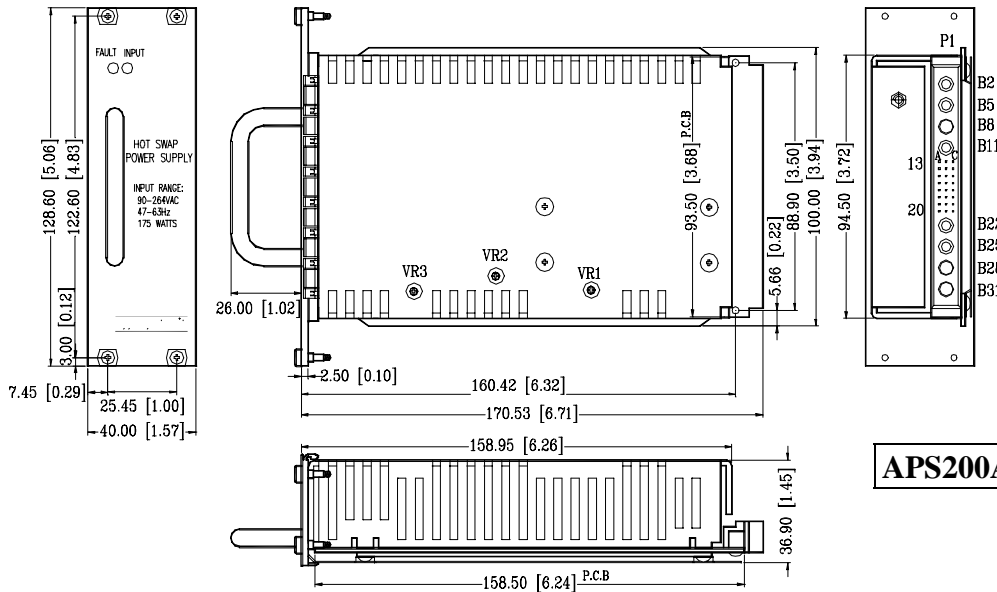


**APS200ACP**

## CONNECTORS PIN ASSIGNMENT

APS200ACP Pin Assignment (PCI47M400A1)	
AC-L	47
AC-N	46
AC-GND	45
VO1	1,2,3,4.
VO1 S +	30
VO1 S -	34
VO2	13, 14, 15, 16, 17, 18.
VO2 S+	33
VO3	20
VO3 S+	36
VO4	21
DC COM	5, 6, 7, 8, 9, 10, 11, 12, 19, 24.
EN#	27
DEG #	38
INH #	39
FAL #	42

Mating Connector:  
PCIH47F300A



**APS200ACD**

APS200ACD Pin Assignment (DIN41612M24.8)	
AC-L	B2
AC-N	B5
AC-GND	B11
VO1	B22
VO1 S +	A17
VO1 S -	A16
VO2	B13,14,15, 16,17,18.
VO2 S+	A18
VO3	B19
VO4	B20
DC COM	B25
EN#	C13
DEG #	C14
INH #	A14
FAL #	C15

Mating Connector:  
DIN 41612 M24/8-F