

UNIVERSAL AC INPUT HARMONIC CORRECTION AC-DC QUAD OUTPUT 175 WATTS CompactPCI SWITCHING POWER SUPPLIES APS175ACP & APS175ACD SERIES



FEATURES:

- 175W IN 3U X 8HP EUROCARD PACKAGE
- INTERNAL OR-ING DIODES FOR N+1 REDUNDANCY
- HOT-SWAPPABLE
- DROOP CURRENT SHARING
- EMI MEET EN55022 / FCC CLASS A
- CE MARKING COMPLIANCE
- FULLY COMPLIANT WITH PICMG

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: Typ. 90-264Vac with PFC.
Input Connector: PCIH47M400A1 for APS175ACP.
 DIN41612 M24/8 for APS175ACD.
Input Frequency: 47-63Hz.
Inrush Current: Less than 30A @ 230Vac. By thermistor.
Input Current: 2.2A @115Vac; 1.1A @230Vac for APS175ACD
 2.4A @115Vac; 1.2A @230Vac for APS175ACP
Dielectric Withstand: Meet IEC950 regulation.
EMI: Meet EN55022 / FCC Class A.
Hold-up Time: 5mS after power fail signal
Power Factor & Harmonic Correction:
 Meet IEC1000-3-2, Power Factor typ. 0.95-0.99.
Remote ON/OFF: Available at [INH#] & [EN#] pins.
Power Fail Signal: Available at [FAL#] pin.
Status LED: <Green> means valid input voltage.
 <Amber> means a critical fault.
Thermal Protection: Installed NTC for thermal sensor
 at [DEG#] pin.
Earth Leakage: Less than 0.5mA @230Vac.

OUTPUT SPECIFICATION

Output Voltage & Current: See Ratings Chart.
Output Wattage: Typ. 175W continuous.
Output Connector: PCIH47M400A1 for APS175ACP.
 DIN41612 M24/8 for APS175ACD.
Line Regulation: Typ. 0.5%.
Load Regulation: VO1 & VO2 typ. $\pm 1.0\%$.
 VO3 & VO4 typ. $\pm 2.0\%$.
Noise & Ripple: Typ. 1% ppk or 50mV, whichever is greater
OVP: Built-in at VO1 & VO2.
Adjustability: Available at VO1 & VO2. VO3 factory set.
Remote Sensing: Available at VO1 & VO2.
Hot-Swap: Available.
N+1 Redundancy: Installed with OR-ing diodes for
 N+1 redundancy operation.
Current Sharing: Droop current sharing at all output.
Power OK Signal: Available for VO1 & VO2.
Over Current Protection (OCP): Installed in all outputs.
Overload Protection (OLP): Fully protected against
 output overload and short circuit. Typical 130-150%
 Max. load. Consult factory for special OLP setting.

GENERAL SPECIFICATION

Efficiency: Typ. 75-78%
Switching Frequency: 100 KHz
Circuit Topology: Half-bridge circuit
Transient Response: Typ. 1mS for a 25% load change
Safety Standard: IEC950/ UL1950
Construction: Eurocard 3U x 8HP x 160mm
 CompactPCI format. Front Panel with either
 Ordinary handle or Extractor handle

Operating Temperature: 0 to +50°C full load with specified air flow
Storage Temperature: -40°C to +85°C.
Temperature Coefficient: $\pm 0.04\%$ /°C.
Cooling: At least 15 CFM (400LFM) airflow is required to
 deliver full rating load.
Power Density: 3.2 Watts /Cubic Inch.

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



In application

OUTPUT VOLTAGE / CURRENT RATINGS CHART

MODEL NO.	MAIN +VO1 @★#◆				AUX. +VO2 ▲★#◆@			AUX. +VO3 ▲◆◆@				AUX. +VO4 ◆◆◆			
	Min.	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Peak	Typ.	Volt.	Max.	Peak
APS175ACP-490(E)	2.0A	20A	+5V	35A	10A	+3.3V	20A	3.0A	+12V #	5.0A	6A	0.5A	-12V	1.0A	1.0A
APS175ACP-490(O)	2.0A	20A	+5V	35A	10A	+3.3V	20A	3.0A	+12V #	5.0A	6A	0.5A	-12V	1.0A	1.0A
APS175ACD-490(O)	2.0A	20A	+5V	35A	10A	+3.3V	20A	3.0A	+12V	5.0A	6A	0.5A	-12V	1.0A	1.0A

Symbol: "★" OVP built-in. "@@@" Adjustable. "(@)" Adjustable factory set.. "##" Remote sensing. "=" Droop Load Sharing. "◆" Installed with Or-ing diode.

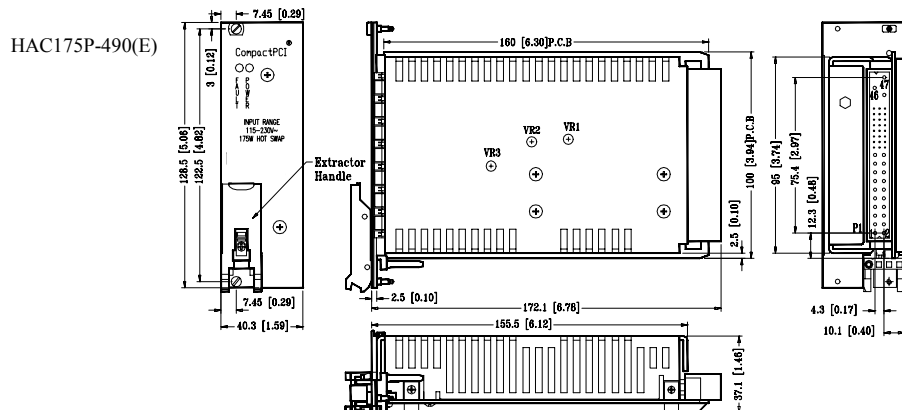
"▲" Magnetic Amplifier. "◆" Post Regulator.

Remark: Peak load less than 60sec. with duty cycle <10%.

Max. load is the continuous operating load of each rail. But the max. load of each rail can't be drawn from all outputs at the same time.

MECHANICAL DIMENSIONS: MM [INCHES]

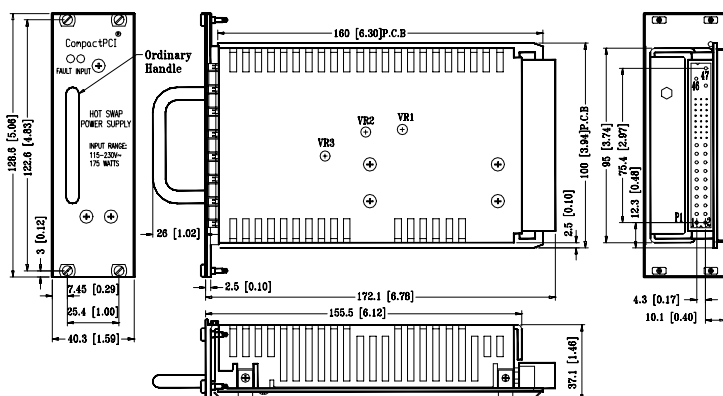
WEIGHT: 666.0g (23.5 Oz.)



INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

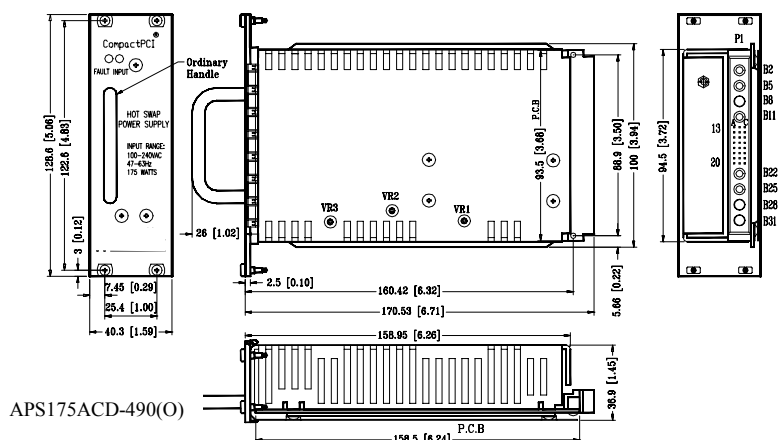
ASSIGNMENT	PIN NO.
AC-L	47
AC-N	46
AC-GND	45
VO1	1,2,3,4.
VO1 S +	30
VO1 S -	34
VO2	13, 14, 15, 16, 17, 18.
VO2 S+	33
VO3	20
VO3 S+	36
VO4	21
DC COM	5, 6, 7, 8, 9, 10, 11, 12, 19, 24.
EN#	27
DEG #	38
INH #	39
FAL #	42

Mating connector: PCIH47F300A



APS175ACP

APS175ACP-490(O)



APS175ACD-490(O)

INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

ASSIGNMENT	PIN NO.
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

APS175ACD