

APS

Advanced Power Solutions

36-72VDC INPUT RANGE DC-DC CONVERTER MULTIPLE OUTPUTS 300 WATTS ACTIVE CURRENT SHARING CompactPCI SWITCHING POWER SUPPLIES APS300DCP-48B SERIES



FEATURES:

- 300W 6U X 8HP EUROCARD PACKAGE
- 36-72VDC NOMINAL 48VDC INPUT
- INTERNAL OR-ING DIODES FOR N+1 REDUNDANCY
- HOT-SWAPPABLE
- THIRD-WIRE CURRENT SHARING
- EMI MEET EN 55022 / FCC CLASS B
- CE MARKING COMPLIANCE
- FULLY COMPLIANT WITH PICMG

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: Typ. 36-72Vdc, nominal input 48Vdc
Input Connector: Positronic 47-pin PCIH47M400A1
Inrush Current: Typ. 20A @ nominal input 48Vdc (Active)
Input Current: 6.5A @ nominal input 48Vdc
Dielectric Withstand: Meets IEC950 regulation
EMI: Meet EN55022 / FCC Class B
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 (OTP): Installed NTC for thermal sensor at [DEG#] pin
Overload Protection (OLP): Fully protected against output overload or short circuit
 Consult the factory for OLP setting

OUTPUT SPECIFICATION

Output Voltage & Current: See Ratings Chart
Output Wattage: Typ. 300W continuous
Output Connector: Positronic 47-PIN PCIH47M400A1
Line Regulation: Typ. 0.1%
Load Regulation: Typ. ± 1.0 -1.5%
Noise & Ripple: Typ. 1% peak to peak or 50mV, whichever is greater
OVP: Built-in at all outputs
Adjustability: Available at VO1, 2 & 3
Remote Sensing: Available at VO1, VO2 & VO3
Redundancy/Hot-Swap: Available with OR-ing diodes at all outputs for N+1 redundancy
Current Sharing: Third-wire current sharing @ VO1,2&3
Power OK Signal: Available for all output
Over Current Protection (OCP): Installed in each rail

GENERAL SPECIFICATION

Efficiency: Typ. 80 %
Switching Frequency: 114KHz
Circuit Topology: Forward circuit
Transient Response: Typ. 2mS following 25% load change
Safety Standard: IEC60950
Construction: Eurocard 6U X 8HP X 160mm
 CompactPCI format.
 Front panel with Extractor handle

Operating Temperature: 0 to +50 °C at full load, with specified air flow
Storage Temperature: -40 to +85 °C
Temperature Coefficient: $\pm 0.04\%$ / °C
Cooling: At least 500 LFM moving air through the PSU is required to achieve full rating power 300W in a confined area
Power Density: 2.71 Watts/ Cubic Inch

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

OUTPUT VOLTAGE/CURRENT RATINGS CHART

QUAD OUTPUT

MODEL NO.	MAIN +VO1 @•#=#•				AUX. +VO2 ▲@•#=#•				AUX. +VO3 ▲=#•@•					AUX. -VO4 ●●●				
	Min.	Typ.	Volt.	Max.	Min.	Typ.	Volt.	Max.	Min.	Typ.	Volt.	Max.	Pk.	Min.	Typ.	Volt.	Max.	Pk.
APS300DCP-48B-490	2.0A	20A	+5V	25A	0A	20A	+3.3V	25A	0A	10A	+12V	11A	13A	0A	0.8A	-12V	1A	1.5A

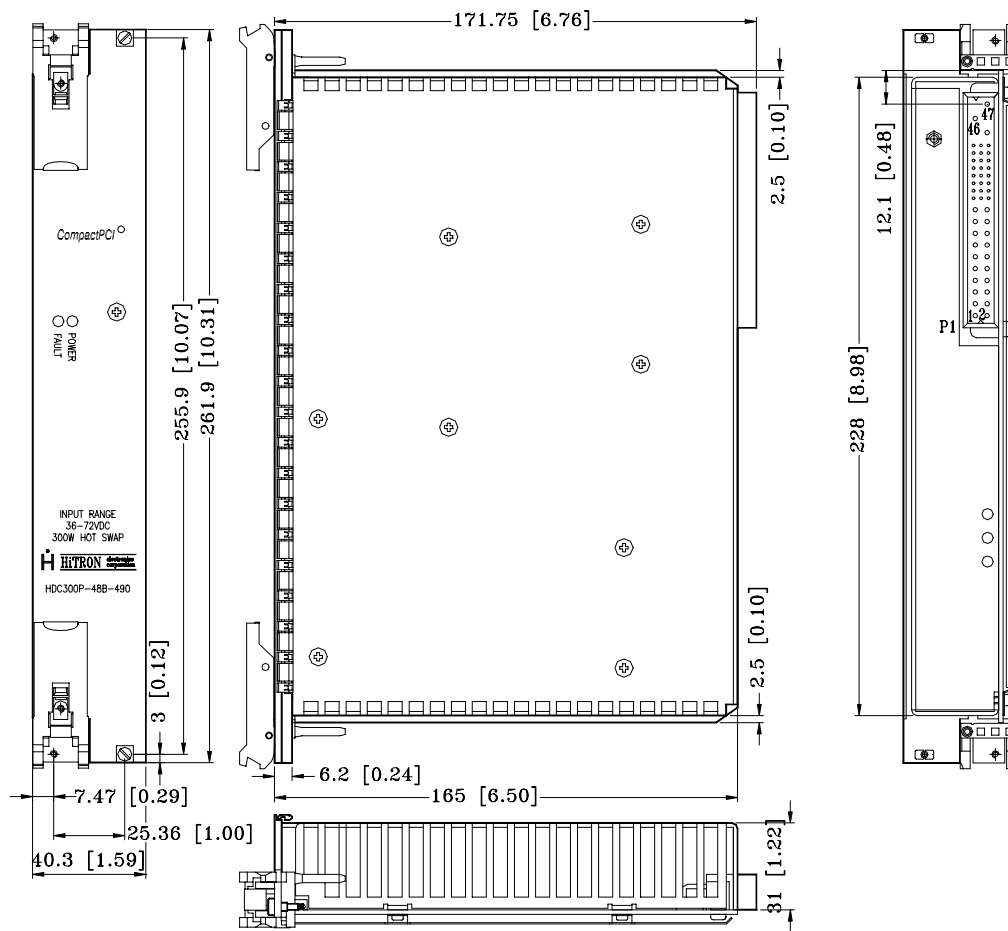
Symbol: "•" OVP built-in. "@" Adjustable. "#" Remote sensing. "=" Load Sharing. "•" Installed with Or-ing diode.
 "▲" Magnetic Amplifier. "●" Post-regulator.

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: 1.42Kg (3.13 lb.)



INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

ASSIGNMENT	DC INPUT			QUAD OUTPUT													STATUS/CONTROL					
	-Vin	+Vin	G	VO1	S+	S RTN	Adj.	C.S.	VO2	S+	Adj.	C.S.	VO3	S+	C.S.	VO4	DC COM	EN#	DEG#	Signal RTN	INH#	FAL#
CNTR & PIN #	47	46	45	1,2,3,4	30	34	29	35	13,14,15,16,17,18	33	32	41	20	36	44	21	5,6,7,8,9,10,11,12,19,24	27	38	22	39	42

Mating connector: PCIH47F300A.