

POWER SUPPLY

3U 8HP 300W

CPCI AC/DC

kontron

The Power of IoT



Key figures:

- 300W 3U 8HP Eurocard package
- Wide operating temperature range, high efficiency
- Hot swap and redundancy operation with current share bus
- Internal or-ing diodes for N+1 redundancy
- No minimum load requirements
- Fully compliant with PIGMG
- I²C interface optional
- CE marking compliance
- Coated according to MIL-I-460580

Partnumber: D575.00361



General specification:

- Storage temperature: - 45° C to +85° C
- Operating temperature: - 40° C to +70° C (see note 3)
- Derate linearly from 100% load at +50° C to 60% load at +70° C (refer to derating curve)
- Temperature Coefficient: Typ. $\pm 0.02\%$ / °C
- Cooling: At least 400 LFM moving air is required to achieve full rating power 300W in a confined area
- Power Density: 7.8 Watts/ Cubic Inch.
- Efficiency: Typ. 85% at 230VAC
- Switching Frequency: 100K Hz
- Circuit Topology: ZVS & LLC circuit
- Transient Response: Peak transient less than 200mV and recovers within 0,5mS after 25% load change
- Safety Standard: IEC 60950-1 Class I
- Coated pcb with Cramilin 120 Plastic according to MIL-I-460580 „Type Acrylic Resin“
- Construction: Eurocard 3U 8HP 160mm; CompactPCI format, Front Panel with Extractor handle

NOTE:

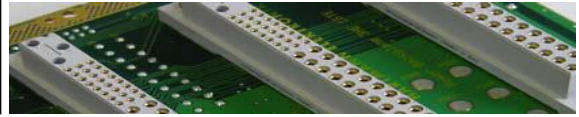
- 1) All measurement are at nominal input, full load and +25°C unless otherwise specifications.
- 2) Tantalum capacitors connected to system is suggested for bettering Ripple&Noise against operating temperature from -40°C to +0°C
- 3) A warm-up time 3 minutes is required to maintain VO3 +12V within specific spec. After cold start at temperature from -40°C to +0°C

CE

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ELECTRICAL SPECIFICATION

INPUT SPECIFICATION

Input Voltage:	Typ. 90-264VAC
Power Factor Correction:	Meet Harmonic Correction IEC 61000-3-2. Power Factor typ. 0.95-0.98
Input Connector:	Positronic 47-pin PCIH47M400A1
Input Frequency:	47-63Hz.
Inrush Current:	9,37Arms at 230VAC
Input Current:	3,1A at 115VAC / 1.6A at 230VAC
Dielectric Withstand:	Meet IEC 60950-1 regulation
EMI:	Meet EN 55022 / FCC Class B
Hold-up Time:	10mS at 115VAC /13mS at 230VAC
Earth Leakage Current:	Less than 0.73mA at 230VAC
Remote ON/OFF:	Available at [INH#] & [EN#] pins
Power Fail Signal:	Available at [FAL#] pin
Thermal Protection (OTP):	Installed NTC for thermal sensor at [DEG#] pin
Status LED:	<Green> means valid input voltage <Amber> means a critical fault

OUTPUT SPECIFICATION

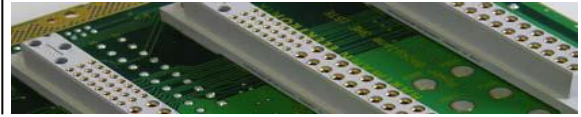
Output Voltage:	See Ratings Chart
Output Current:	See Ratings Chart
Output Wattage:	Typ. 300W continuous
Output Connector:	Positronic 47-pin PCIH47M400A1
Line Regulation:	Typ. 0.1%
Load Regulation:	Typ. $\pm 1\%$
Total Tolerance:	VO1/VO2/VO3 typ. $\pm 2\%$, VO4 typ. $\pm 3\%$
Noise & Ripple:	1% peak to peak or 50mV, whichever is greater
OVP:	Built-in at all outputs (Latch)
Adjustability:	Available at VO1, VO2 & VO3
Output Trim:	Electrical trim available at VO1/VO2.[ADJ #]
Remote Sensing:	Available at VO1,VO2 & VO3
Hot-Swap:	Available
N+1 Redundancy:	Installed with internal OR-ing diodes, all outputs for N+1 redundancy operation
Current Sharing:	Third-wire current sharing at VO1, VO2 & VO3
Power OK Signal:	Available for all outputs
Over Current Protection (OCP):	Installed at each rail
Overload Protection (OLP):	Fully protected against output overload or short circuit Typ.110-130% max. load at 115VAC. Consult the factory for special OLP setting

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

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Output Voltage / Current Ratings Chart

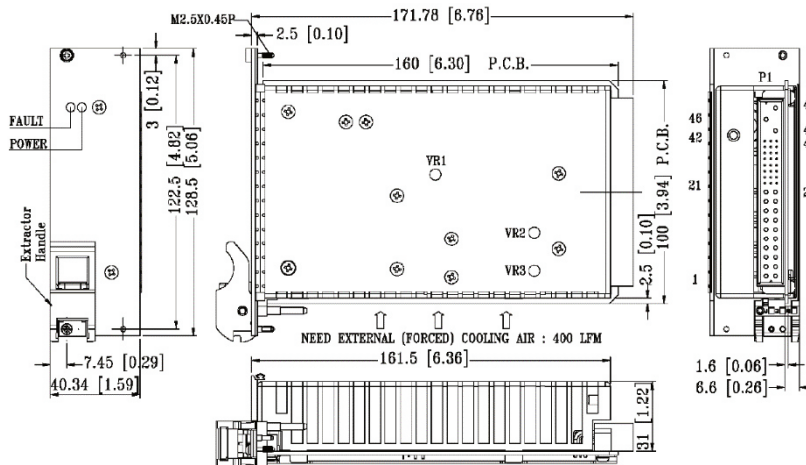
MAIN +VO1 @★#≡○▼					AUX. +VO2 ▼@★#≡○					AUX. +VO3 ≡#○★@※					AUX. -VO4 ○★▼				
Min	Typ	Volt	Max	Pk	Min	Typ	Volt	Max	Pk	Min	Typ	Volt	Max	Pk	Min	Typ	Volt	Max	Pk
0A	25A	+5V	40A	45A	0A	25A	+3.3V	40A	45A	0A	7A	+12V	10A	12A	0A	1A	-12V	2A	2A

Symbol: "★" OVP built-in. "@" Adjustable. "#" Remote sensing. "≡" 3rd-wire Load Sharing. "○" Installed with Or-ing diode.

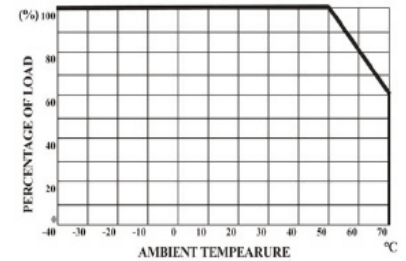
"▼" Buck Regulator. "※" Synchronous Rectifier

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. Total max. power: 300W and total combined current of +VO1 and +VO2 not large than 50A



DERATING CURVE



Mechanical dimensions: mm (inches)

Weight: 666.0 g (23.5 Oz.)

Input & Output connectors pin assignment

AC INPUT				QUAD OUTPUT												STATUS/CONTROL					
ASSIGNMENT	L	N	G	VO1	S+	S-	Adj.	C.S.	VO2	S+	Adj.	C.S.	VO3	S+	C.S.	VO4	DC COM	EN#	DEG#	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	39	42

Mating connector: PCIH47F400A1

For the details of safety approval, please consult the factory