

Compact PCI®

150 Watts RTC150 Series

XPIQ inc.

Intelligent Design Quality Product



- Industry Standard
- AC or DC Input Versions
- Power Factor Corrected
- Hot Swap N + 1 Redundancy
- Active Current Share
- International Safety Approvals
- PICMG 2.11 Compatible

Specification

All specifications typical at nominal line, full load and 25°C

Input

- Input Voltage**
 - 36-72 VDC, DC input versions
 - 90-264 VAC, AC input versions
- Input Frequency**
 - 47-63 Hz
- Inrush Current**
 - 30 A at 120 VAC, 60 A at 230 VAC
 - 40 A at 48 VDC for DC version
- Power Factor**
 - 0.99
- Leakage Current**
 - <3 mA

Output

- Output Adjustment**
 - ±0.25 V on each rail
- Line Regulation**
 - See Table
- Load Regulation**
 - See Table
- Ripple & Noise**
 - See Table
- Overvoltage Protection**
 - 125-135% Vnom recycle input to reset
- Overload Protection**
 - Recycle input to reset
- Overtemperature Protection**
 - Automatic shutdown at 100 °C measured internally with auto restart
- Remote Sense**
 - V1, V2 compensates for 0.3 V drop
- Power Fail**
 - TTL compatible signal, open collector active low signal. Indicates any output below 90% and/or low input below 60 VAC for AC version or 36 VDC for DC version
- Front Panel LED**
 - Power good (green)
 - Power fail (amber)
- Remote Enable**
 - TTL LOW to turn output ON
- Remote Inhibit**
 - TTL HIGH (or open circuit) to turn output ON

General

- Efficiency**
 - 70% minimum 110 VAC, 70% typical at 48 VDC full load
- Switching Frequency**
 - 125-145 kHz
- Current Share**
 - Accuracy of current share with up to 6 parallel units is 10%, available on V1 & V2
- Isolation**
 - Input to ground 1500 VAC
 - Input to output 3000 VAC
- Weight**
 - 0.9 kg (2 lbs)

Environmental

- Operating Temperature**
 - 0 °C to +70 °C ambient. Full power to +50 °C then derate by 2.5%/°C to +70 °C
- Cooling**
 - 400 LFM/30 CFM full power operation
- Storage Temperature**
 - -40 °C to +85 °C
- Overtemperature Warning**
 - TTL compatible signal provides warning when power supply temperature exceeds rating
- Relative Humidity**
 - 5-95% non-condensing
- Shock & Vibration**
 - MIL-STD-810D

EMC & Safety

- Safety Approvals**
 - EN60950 (TÜV), UL1950, CSA950/234 per cUL, CE LVD
- EMC Immunity**
 - EN55022 level A radiated & conducted
 - EN61000-4-2 level 4, EN61000-4-3, 4, 5 level 3, EN61000-4-6 level 2

OUTPUT VOLTAGE & CURRENT RATINGS

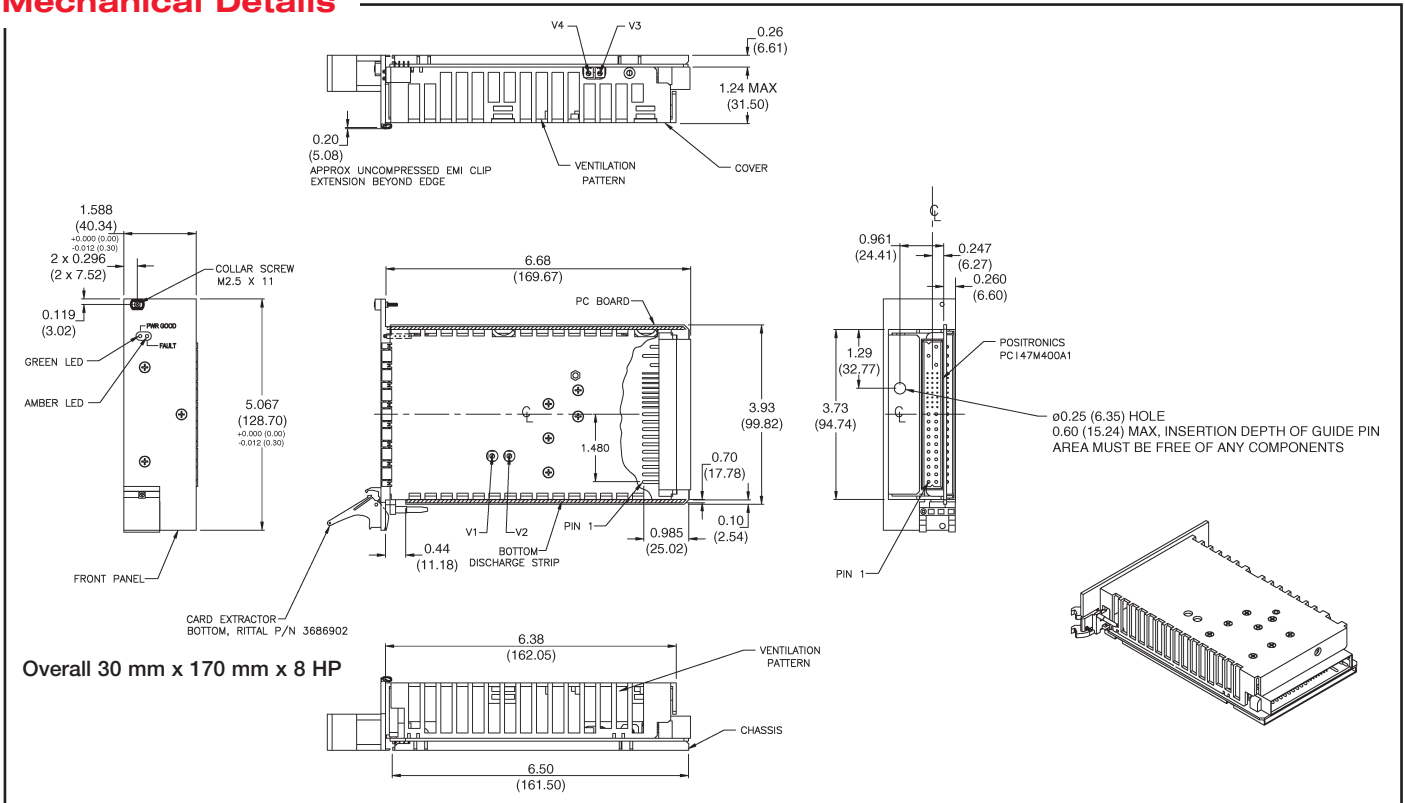
RTC150

Input Voltage	Output	Output Voltage	Output Current ⁽¹⁾	Regulation		Ripple & Noise Pk-Pk ⁽²⁾	Model Number
				Line	Load		
90-264 VAC	V1	+5.0 V	20.0 A	±2%	±2%	1%	RTC150PM42
	V2	+3.3 V	33.0 A	±2%	±2%	1%	
	V3	+12.0 V	8.0 A	±2%	±2%	1%	
	V4	-12.0 V	1.5 A	±2%	±3%	1%	
36-72 VDC	V1	+5.0 V	20.0 A	±2%	±2%	1%	RTC15048M42
	V2	+3.3 V	33.0 A	±2%	±2%	1%	
	V3	+12.0 V	8.0 A	±2%	±2%	1%	
	V4	-12.0 V	1.5 A	±2%	±3%	1%	

Notes

- V1 & V2 combined output power must not exceed 125 W.
- Output ripple and noise is measured using 10 µf tantalum and 0.1 µf capacitors across probe and 20 MHz bandwidth.

Mechanical Details



PIN CHART

RTC150

Pin	Pin Length	Signal Name	Description	Pin	Pin Length	Signal Name	Description
1-4	Medium	V1	V1 Output	32	Medium	V2 Margin	V2 Marginate
5-12	Medium	RTN	V1 & V2 Return	33	Medium	V2 SENSE	V2 Remote Sense
13-18	Medium	V2	V2 Output	34	Medium	S RTN	Sense Return
19	Medium	RTN	V3 Return	35	Medium	V1 SHARE	V1 Current Share
20	Medium	V3	V3 Output	36	Medium	Reserved	Reserved
21	Medium	V4	V4 Output	37	Medium	Reserved	Reserved
22	Medium	RTN	Signal Return	38	Medium	TEMP WNG	Thermal Warning
23	Medium	Reserved	Reserved	39	Medium	INH#	Inhibit
24	Medium	RTN	V4 Return	40	Medium	Reserved	Reserved
25	Medium	Reserved	Reserved	41	Medium	V2 SHARE	V2 Current Share
26	Medium	Reserved	Reserved	42	Medium	FAL#	Fail Signal
27	Short	EN#	Enable	43	Medium	Reserved	Reserved
28	Medium	Reserved	Reserved	44	Medium	Reserved	Reserved
29	Medium	V1 Margin	V1 Marginate	45	Long	CGND	Chassis Ground
30	Medium	V1 SENSE	V1 Remote Sense	46	Medium	ACN or +DC IN	+DC Input/AC IN - Neutral
31	Medium	Reserved	Reserved	47	Medium	ACL or -DC IN	-DC Input/AC IN - Line

Note: Long length pins = First mate last break, Short length pins = last mate first break.