

# PTC-0485 SERIES

## DC/DC CONVERTERS

HIGH LOAD ISOLATION POWER SUPPLY  
MINIATURE, HIGH DENSITY  
TRIPLE OUTPUT  
(UP TO 25W FROM ALL THREE OUTPUTS)

### APPLICATIONS

Military, Ruggedized, Telecom, Industrial

### SPECIAL FEATURES

- Miniature size
- Wide input range
- Input / Output isolation
- Fixed switching frequency
- Logic enabled
- EMI/RFI Output Filters included
- Indefinite short circuit protection with auto-recovery
- Over-voltage passive transzorb across outputs
- Over temperature shutdown with auto-recovery

### ENVIRONMENTAL

Meets or exceeds MIL-STD-810D

Temperature:

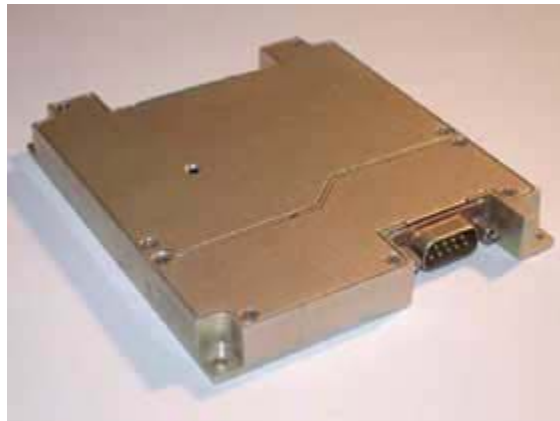
Operating -55°C to +85°C (baseplate)

Storage -55°C to +125°C

### RELIABILITY

150'000 hours, calculated per MIL-STD-217F at +85°C baseplate, ground fixed.

**PTC can customize this product  
to your requirements –  
contact us!**



### ELECTRICAL SPECIFICATIONS

#### DC INPUT

DC Input range: 18 to 36 VDC

Input transient protection:

All models meet or exceed (no damage)  
MIL-STD-1275A (100V for 50mSec) and  
MIL-STD-704A, MIL-STD-704D (80V for 0.1Sec)

Efficiency: 70%, typical (at 25W load)

EMI/RFI:

Design to meet or exceed MIL-STD-461D  
CE101, CE102, CS101, RE101, RE102

Isolation:

200V between Input and Output

200V between Input and Case

#### DC OUTPUT (floating)

Line /load regulation:

Less than 2% (no load to full load, -55°C to +85°C)

Ripple and noise: 50mVp-p, typical (max. 1%)

Current limiting:

Continuous protection for unlimited time.

Over voltage protection:

Passive transzorb on outputs.

Over temperature protection:

Shutdown at baseplate temperature of +95°C (±10°C)

Automatic recovery at baseplate temperature  
lower than +90°C (±10°C)

Isolation:

200V between Output and Input

100V between Output and Case

Load isolation from any output to input • 60db at  
frequency above 20KHz.



**PTC**

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## SELECTION GUIDE

Model	Input	Out#1	Out#2	Out#3	Regulation	Ripple (20MHzBW)
PTC-0485-01	18 to 36 VDC	5V/3A	3.3V/5A	28V/0.1A	± 1%	50 mVp-p
PTC-0485-03	18 to 36 VDC	5V/4.5A	3.5V/3A	28V/0.1A	± 1%	50 mVp-p

Notes: Other voltages and currents are available, consult factory.  
Maximum Total Output Power (all outputs) – 25W.

## PIN ASSIGNMENT

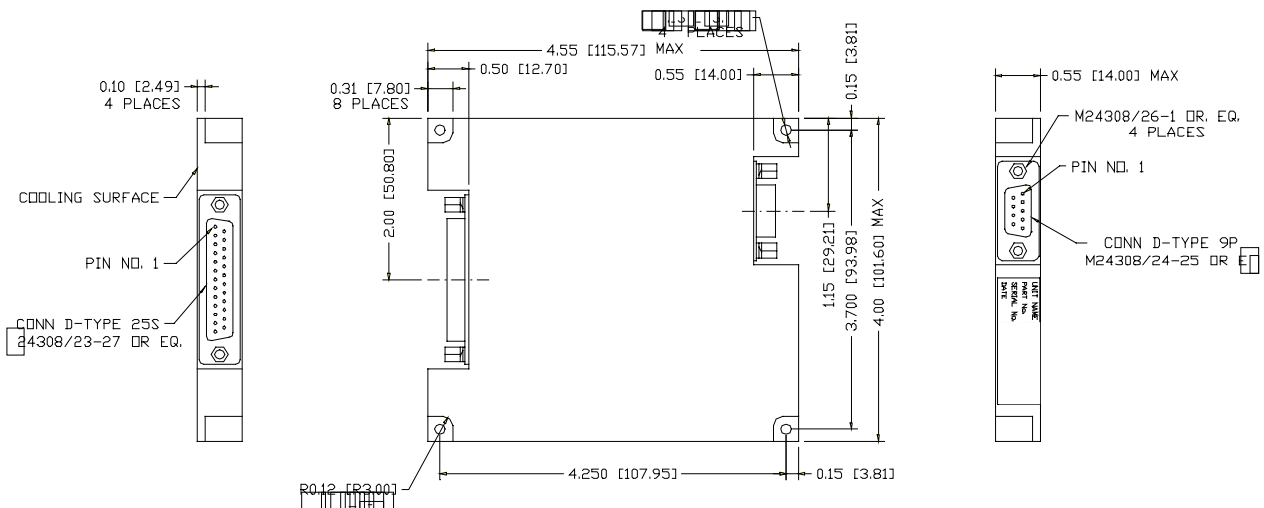
### (INPUT)

Pin No.	Pin Function
1	VIN (+28VDC)
2	VIN (+28VDC)
3	N.C.
4	N.C.
5	N.C.
6	N.C.
7	N.C.
8	VIN RTN
9	VIN RTN

### (OUTPUT)

Pin No.	Pin Function	Pin No.	Pin Function	Pin No.	Pin Function
1	GND	10	GND	19	N.C.
2	OUT 1 RTN	11	OUT 3 RTN	20	N.C.
3	OUT 1 RTN	12	+OUT 3	21	N.C.
4	OUT 2 RTN	13	ON/OFF	22	N.C.
5	OUT 2 RTN	14	OUT 1 RTN	23	N.C.
6	OUT 2 RTN	15	+OUT 1	24	N.C.
7	+OUT 2	16	+OUT 1	25	N.C.
8	OUT 2 RTN	17	N.C.		
9	+OUT 2	18	+OUT 2		

## OUTLINE DRAWING



\*Specifications are subject to change without prior notice by the manufacturer

### Notes

1. Dimensions are in Inches [mm]
2. Tolerance is:  
.XX ±.02 IN  
.XXX ±.01 IN
3. Weight: Approx. 10 Oz (285gr)



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