PT1K, PT2K & PT5K Instrument Power Supplies

Models C2185, C2186 and C2187 Power Supplies 12 or 24Volts; 1, 2 or 5 Amps

DATASHEET

- Universal ac input on all models
- 100-250Vdc input supply available on some models
- DIN Rail or surface Mounting
- CE Approved
- High reliability design for industrial grade applications
- Conforms to EN55011, EN50081-2, EN50082-2, IEC950andEN60950
- Enclosed housings to allow safe mounting in serviceable locations
- Compact size for better space efficiency

OVERVIEW

The POWERTERM “K” range of 12/24Vdc power supplies is specifically designed for industrial instrumentation applications. Use of carefully selected long-life components and conservative design parameters ensure increased reliability even in harsh conditions.

Forming part of the OMNITERM range of industrial instrumentation, the POWERTERM “K” Series is designed to be DIN rail or surface mounted.

This second-generation family of power supplies uses the latest switch-mode supply technology to reduce cost, increase reliability and meet international safety and compatibility norms.

Quick Selection Guide and Ordering Information

Model	Power Rating	Output	ac Input Range	dc Input Range	Module Width	Order Code
PT1K-24V	12W	24V 1A	100-240Vac	100-250Vdc	50mm	C2185A
PT1K-12V	9W	12V 1A	100-240Vac	100-250Vdc	50mm	C2185A-1
PT2K-24V	50W	24V 2A	100-240Vac	100-250Vdc	70mm	C2186A
PT2K-12V	25W	12V 2A	100-240Vac	100-250Vdc	70mm	C2186A-1
PT5K-24V	120W	24V 5A	115/230Vac	190-250Vdc	150mm	C2187A
PT5K-12V	60W	12V 5A	115/230Vac	190-250Vdc	150mm	C2187A-1

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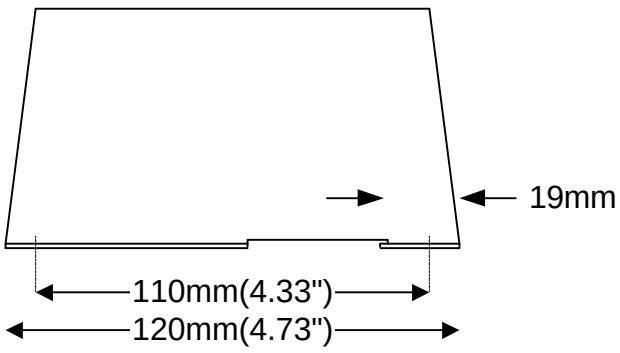
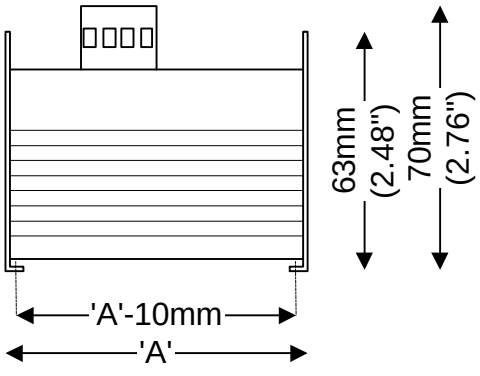
SPECIFICATIONS

MODEL	PT1K	PT2K	PT5K
INPUT			
ac Input Voltage Range	85-264Vac	85-264Vac	85-132Vac or 170-264Vac dependent upon the input terminals wired.
ac Input Frequency	47-63Hz	47-63Hz	47-63Hz
dc Input Voltage Range (derate 1%/Volt below 110Vdc)	85-264Vdc	85-264Vdc	190-264Vdc
Input Protection	Surge protected plus internal safety fuse		
Input Current at 100% load	<0.25A rms at 115Vac <0.12A rms at 230Vac	<1.1A rms at 115Vac <0.5A rms at 230Vac	<2.1A rms at 115Vac <1.2A rms at 230Vac
Switch-on Inrush Current at 264Vac	5A for < 10ms 40A for < 1ms	11A for < 10ms 80A for < 1ms	22A for < 10ms 160A for < 1ms
OUTPUT			
Output Voltage at full load (dependent upon model selected)	24.5Vdc +-0.5V or 12.5Vdc +-0.5V	24.5Vdc +-0.5V or 12.5Vdc +-0.5V	24.5Vdc +-0.5V or 12.5Vdc +-0.5V
Maximum Continuous Output Current	1A	2A	5A
Overload Protection	Short Circuit Proof with over temperature shutdown		
Internal adjustment range (service personnel)	None	21-28Vdc typical	21-28Vdc typical
Output Voltage Ripple at full load	2% max. pk-to-pk		
ac Line regulation 85-132Vac or 170-264Vac	2% max	0.5% max	0.5% max
dc Line regulation 110-132Vac or 170-264Vac	2% max	0.5% max	0.5% max
Load Regulation 10-100% of full load	7.5%	2%	2%
Temperature Regulation	0.05%/°C		
ENVIRONMENT			
Operating Temperature (25-95%humidity)	0-50°C at full load (derate3%/°C to 65°C)		
Storage Temperature	-25 to 75°C		
Insulation Resistance(Tested on 100% of units)	>100MΩ at 500Vdc input to output to ground		
Insulation Breakdown (Tested on 100% of units)	3000Vac input to output for one second		
Safety Conformance	Conforms to IEC950;EN60950		
Electromagnetic Interference	Conforms toEN55011;EN50082-2		
Design Life at 50°C full load	50000 hours		
Mass	400g (unpacked) 500g (packed)	450g (unpacked) 550g (packed)	850g (unpacked) 950g (packed)





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PT1K	50mm (2")
PT2K	70mm (2.76")
PT5K	150mm (5.9")

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