

50 Watts

PCM50



- 4000 VAC Isolation
- Low Leakage Current
- Single, Dual and Triple Outputs
- Worldwide Medical Approvals
- Both Line and Neutral Fused
- Non-standard Connectors Available

Specification

Input

Input Voltage	• 90-264 VAC
Input Frequency	• 47-63 Hz
Input Current	• 1.35 A max
Inrush Current	• 30 A at 115 VAC or 60 A at 230 VAC at 25 °C cold start
Power Factor	• 0.55 typical
Earth Leakage Current	• 180 μ A max at 132 VAC/60Hz 300 μ A max at 264 VAC/50Hz

Output

Output Voltage	• See tables
Minimum Load	• No minimum load required for single output models. See tables for multi output models
Start Up Delay	• 2 s max
Hold Up Time	• 10 ms min at low line
Line Regulation	• $\pm 1\%$ max at full load
Load Regulation	• $\pm 5\%$ max
Transient Response	• 5% max. deviation, 500 μ s recovery time for a 50% load change
Ripple & Noise	• 2% pk-pk, 20MHz BW
Overvoltage Protection	• 112-132%
Overcurrent Protection	• 110-200% with auto recovery on all outputs
Temperature Coefficient	• $\pm 0.05\%$ /°C

General

Efficiency	• Single output models: 80% typical Multi output models: 75% typical 230 VAC 100% load
Isolation	• 4000 VAC Input to Output 1500 VAC Input to Ground 500 VAC Output to Ground
Switching Frequency	• 64 kHz typical (PWM), 70 kHz (PFC)
MTBF	• 100 kHrs at full load and 25 °C ambient per MIL-HDBK-217F

Environmental

Operating Temperature	• 0 °C to +70 °C, derate from 100% load at 50 °C to 50% load at +70 °C
Storage Temperature	• -40 °C to +80 °C

EMC

Emissions	• EN55032, level B conducted & radiated
Harmonic Currents	• EN61000-3-2, class A
Voltage Flicker	• EN61000-3-3
ESD Immunity	• IEC61000-4-2, level 3 Perf Criteria A
Radiated Immunity	• IEC61000-4-3 10 V/m, level 3 Perf Criteria A
EFT/Burst	• IEC61000-4-4, level 3, Perf Criteria A
Surge	• IEC61000-4-5, level 3, Perf Criteria A
Conducted Immunity	• IEC61000-4-6 10 V/m, level 3 Perf Criteria A
Power Frequency Magnetic Fields	• IEC61000-4-8 10 A/m, Perf Criteria A
Dips & Interruptions	• IEC61000-4-11, 30% 500 ms, 60% 100 ms, 100 % 5000 ms Perf Criteria A, B, B

Safety

Safety Approvals	• EN60601-1, CE (Meets all applicable directives), UKCA (Meets all applicable legislation)
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Models and Ratings

PCM50 XP

Maximum Output Power	Output Voltage	Output Current	Regulation ⁽¹⁾	Model Number
40 W	3.3 V	8.00 A	5%	PCM50US3V3
40 W	5.0 V	8.00 A	5%	PCM50US05
42 W	7.0 V	6.00 A	5%	PCM50US07
45 W	9.0 V	5.00 A	4%	PCM50US09
45 W	12.0 V	3.75 A	3%	PCM50US12
45 W	15.0 V	3.00 A	3%	PCM50US15
50 W	18.0 V	2.77 A	3%	PCM50US18
50 W	24.0 V	2.08 A	2%	PCM50US24
50 W	28.0 V	1.78 A	2%	PCM50US28
50 W	36.0 V	1.38 A	2%	PCM50US36
50 W	48.0 V	1.04 A	2%	PCM50US48

Output Power	Output 1				Output 2				Output 3				Model Number
	Vnom	Imin	Imax	Tol. ⁽¹⁾	Vnom	Imin ^(4, 5)	Imax	Tol. ⁽¹⁾	Vnom	Imin	Imax	Tol. ⁽¹⁾	
26.5 W	+3.3 V	1.0 A	5.0 A	7%	+5.0 V	0.4 A	2.0 A	5%					PCM50UD00
42.0 W	+3.3 V	0.5 A	5.0 A	7%	+12.0 V	0.2 A	2.0 A	5%					PCM50UD01
42.0 W	+5.0 V	0.5 A	5.0 A	5%	+12.0 V	0.2 A	2.0 A	5%					PCM50UD03
42.0 W	+5.0 V	0.5 A	5.0 A	5%	+15.0 V	0.2 A	1.5 A	6%					PCM50UD04
42.0 W	+5.0 V	0.5 A	5.0 A	5%	+24.0 V	0.1 A	1.0 A	5%					PCM50UD05
42.0 W	+5.0 V	0.5 A	5.0 A	5%	-24.0 V	0.1 A	1.0 A	5%					PCM50UD06
42.0 W	+12.0 V	0.5 A	3.0 A	5%	-12.0 V	0.2 A	1.0 A	5%					PCM50UD07
42.0 W	+15.0 V	0.5 A	2.0 A	5%	-15.0 V	0.2 A	1.0 A	5%					PCM50UD08
42.0 W	+3.3 V	0.5 A	5.0 A	7%	+12.0 V	0.2 A	2.0 A	5%	-12.0 V	0.0 A	0.8 A	5%	PCM50UT02
42.0 W	+5.0 V	0.5 A	5.0 A	5%	+12.0 V	0.2 A	2.0 A	5%	-5.0 V	0.0 A	0.8 A	5%	PCM50UT03
42.0 W	+5.0 V	0.5 A	5.0 A	5%	+12.0 V	0.2 A	2.0 A	5%	-12.0 V	0.0 A	0.8 A	5%	PCM50UT04
42.0 W	+5.0 V	0.5 A	5.0 A	5%	+15.0 V	0.2 A	2.0 A	6%	-15.0 V	0.0 A	0.8 A	5%	PCM50UT05
42.0 W	+5.0 V	0.5 A	5.0 A	5%	+24.0 V	0.1 A	1.0 A	5%	-12.0 V	0.0 A	0.8 A	5%	PCM50UT06
42.0 W	+5.0 V	0.5 A	5.0 A	5%	+24.0 V	0.1 A	1.0 A	5%	-24.0 V	0.0 A	0.5 A	5%	PCM50UT07

Notes

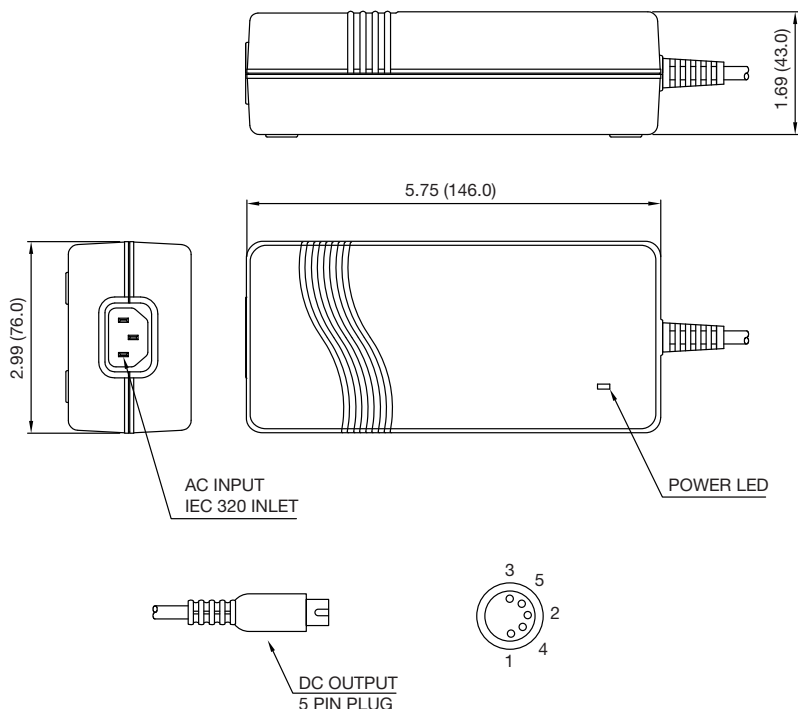
1. Regulation includes initial set tolerance, line regulation and load regulation.

Mechanical Details

All dimensions are in inches (mm)

Weight: 0.88-1.21 lb (400-550 g) approx.

Tolerance: 0.04 (1.0) maximum



PIN CONNECTIONS			
Pin	Single	Dual	Triple
1	Common	Common	Common
2	Common	Common	Common
3	Output	Output 1	Output 1
4	Common	Common	Output 3
5	Output	Output 2	Output 2
Shell ⁽⁵⁾	Ground	Ground	Ground

Notes:

1. Cable length is 48.0" (1.22m) approx.
2. For mating connector, use standard 5 pin din 180° socket.
3. Optional output connectors available, contact sales office.
4. Multi output models include a ferrite bead on the output connector.
5. Output connector shell is connected to AC input Earth pin.