

# AC-DC Medical Desktop

## 50 Watts PCM50 Series



## THE XPERTS IN POWER

- 4000 VAC Isolation
- Low Leakage Current
- Single, Dual & Triple Outputs
- Approved to International Medical Safety Standards
- Both Line and Neutral Fused
- Low Voltages Available

### Specification

#### Input

- Input Voltage** • 90-264 VAC
- Input Frequency** • 47 to 63 Hz
- Input Current** • 1.35A max at 115 VAC, 0.7 A max at 230 VAC
- Inrush Current** • 15 A at 115 VAC or 30 A at 230 VAC at 25 °C cold start
- Earth Leakage Current** • 0.1 mA max at 230 VAC, 50 Hz

#### Output

- Output Voltage:** • See Tables
- Output Power** • Up to 50 Watts
- Minimum Load** • No minimum load for single output models - See Table for multi output models
- Hold Up Time** • 16 ms minimum at low line
- Line Regulation** •  $\pm 0.5\%$  typical at full load
- Load Regulation** •  $\pm 3\%$  typical
- Ripple and Noise** • 2% pk to pk maximum
- Transient Response** • 4% maximum deviation, 400  $\mu$ s recovery time for a 50% load change
- Overvoltage Protection** • 112-132% with auto recovery on V1
- Overcurrent Protection** • 110-150% with auto recovery on all outputs
- Temperature Coefficient** • All outputs  $\pm 0.04\%/^{\circ}\text{C}$  max

#### General

- Efficiency** • 80% min for single output models, 75% min for multi output models
- Isolation** • 4000 VAC Input to Output, 1500 VAC Input to Ground, 500 VAC Output to Ground
- Switching Frequency** • 80 kHz typically
- Insulation Resistance** • 50 Mohm min from output to ground
- MTBF** • 100,000 hours min at full load & 25 °C ambient to MIL-HDBK-217F.
- Size** • 5.75" x 2.99" x 1.74"
- Weight** • 400-550 g approx

#### 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 +85 °C
- Relative Humidity** • 5-95% non-condensing
- Vibration** • 2 G, 3 axis

#### EMC & Safety

- EMI/EMC** • Meets conducted & radiated limits of CISPR11 Class B and EN55011 Class B
- ESD Susceptibility** • IEC801-2 Level 2 Perf Criteria A
- Radiated Susceptibility** • IEC801-3 3 V/m Perf Criteria A
- EFT/Burst** • IEC801-4 Level 2 Perf Criteria A
- Surge** • IEC801-5 3 Level 3 Perf Criteria A
- Safety Approvals** • UL 2601-1, CSA C22.2 No. 601.1 per cUL & EN60601-1

OUTPUT VOLTAGE & CURRENT RATINGS - SINGLE OUTPUT MODELS				PCM50
Maximum Output Power	Output Voltage	Output Current	Regulation <sup>(1)</sup>	Model Number
30 W	2.5 V	12.00 A	7%	PCM50US2V5*
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 VOLTAGE & CURRENT RATINGS - MULTI OUTPUT MODELS													PCM50
Output Power	Output 1				Output 2				Output 3				Model Number
	Vnom	Imin	Imax	Reg <sup>(1)</sup>	Vnom	Imin	Imax	Reg <sup>(1)</sup>	Vnom	Imin	Imax	Reg <sup>(1)</sup>	
26.5 W	+3.3 V	1.0 A	5.0 A	7%	+5.0 V	0.4 A	2.0 A	5%					PCM50UD00*
40 W	+3.3 V	0.5 A	5.0 A	7%	+12.0 V	0.2 A	2.0 A	5%					PCM50UD01
35 W	+5.0 V	0.2 A	5.0 A	5%	-5.0 V	0.2 A	2.0 A	5%					PCM50UD02*
42 W	+5.0 V	0.5 A	5.0 A	5%	+12.0 V	0.2 A	2.0 A	5%					PCM50UD03
42 W	+5.0 V	0.5 A	5.0 A	5%	+15.0 V	0.2 A	1.5 A	6%					PCM50UD04
42 W	+5.0 V	0.5 A	5.0 A	5%	+24.0 V	0.1 A	1.0 A	5%					PCM50UD05
42 W	+5.0 V	0.5 A	5.0 A	5%	-24.0 V	0.1 A	1.0 A	5%					PCM50UD06*
42 W	+12.0 V	0.5 A	3.0 A	5%	-12.0 V	0.2 A	1.0 A	5%					PCM50UD07*
42 W	+15.0 V	0.5 A	2.0 A	5%	-15.0 V	0.2 A	1.0 A	5%					PCM50UD08*
42 W	+5.1 V	0.0 A	5.0 A	5%	+7.2 V	0.2 A	2.6 A	5%					PCM50UD10
42 W	+10.5 V	0.2 A	2.0 A	5%	-10.5 V	0.2 A	2.0 A	5%					PCM50UD11
42 W	+3.3 V	0.5 A	5.0 A	7%	+12.0 V	0.2 A	2.0 A	5%	-5 V	0.0 A	0.8 A	5%	PCM50UT01*
42 W	+3.3 V	0.5 A	5.0 A	7%	+12.0 V	0.2 A	2.0 A	5%	-12 V	0.0 A	0.8 A	5%	PCM50UT02*
42 W	+5.0 V	0.5 A	5.0 A	5%	+12.0 V	0.2 A	2.0 A	5%	-5 V	0.0 A	0.8 A	5%	PCM50UT03*
42 W	+5.0 V	0.5 A	5.0 A	5%	+12.0 V	0.2 A	2.0 A	5%	-12 V	0.0 A	0.8 A	5%	PCM50UT04*
42 W	+5.0 V	0.5 A	5.0 A	5%	+15.0V	0.2 A	2.0 A	6%	-15 V	0.0 A	0.8 A	5%	PCM50UT05*
42 W	+5.0 V	0.5 A	5.0 A	5%	+24.0 V	0.1 A	1.0 A	5%	-12 V	0.0 A	0.8 A	5%	PCM50UT06*
42 W	+5.0 V	0.5 A	5.0 A	5%	+24.0 V	0.1 A	1.0 A	5%	-24 V	0.0 A	0.5 A	5%	PCM50UT07*

**Notes**

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

\* Also available from Farnell InOne, see pages 350 & 351.

**Mechanical Details**

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

**NOTES:**

- Dimensions shown in inches (mm).
- Tolerance 0.04 (1.0) maximum.
- Cable length is 48.0" approx.
- For mating connector, use standard 5 Pin Din 180° socket.
- Optional output connectors available, contact sales office.
- Weight: 400-550 g approx.
- Multi output models include a ferrite bead on the output connector.