

AC/DC Medical Desktop

90 Watts PCM90 Series

XPiQ inc.

Intelligent Design Quality Product



Active PFC, Meets EN61000-3-2, -3

Low Leakage Current

Single, Dual and Triple Outputs

Both Line and Neutral Fused
for European Applications

4000 VAC Isolation

Medical Safety Agency Approvals

Specification

Input

Input Voltage	• 90-264 VAC
Input Frequency	• 47 to 63 Hz
Power Factor	• 0.99 at 100 VAC or 0.94 at 240 VAC
Input Current	• 1.3 A maximum
Inrush Current	• 15 A max at 115 VAC or 30 A max at 230 VAC cold start
Safety Ground Leakage Current	• 0.3 mA max at 115 VAC, 60 Hz • 0.3 mA max at 230 VAC, 50 Hz

Output

Output Voltage	• See Tables
Output Power	• 90 Watts
Minimum Load	• 0 minimum load required for single output models
Line Regulation	• $\pm 1\%$ maximum at full load
Load Regulation	• $\pm 5\%$ maximum, except 3.3 V model is $\pm 7\%$
Ripple and Noise	• 1% pk-pk maximum
Transient Response	• Maximum excursion of 4% or better on all models. Recovers to 1% of final value within 500 μ s after a 25% step load change
Temperature coefficient:	• All outputs $\pm 0.04\%/^{\circ}\text{C}$ maximum
Hold-up time	• 16 msec minimum
Overvoltage Protection	• Provided on output #1 only 112 to 132% recycle input to reset
Overcurrent Protection:	• All outputs 110-150% with auto recovery

General

Efficiency	• 83% typical
MTBF	• 100,000 hours minimum at full load at +25 $^{\circ}\text{C}$ ambient
Isolation Voltage	• 4000 VAC from input to output 1500 VAC from input to ground 500 VAC from output to ground
Insulation Resistance	• 100 Mohm minimum from output to ground
Size	• 6.63" x 3.07" x 1.97"
Weight	• 800 grams approx

Environmental

Operating Temperature	• 0 $^{\circ}\text{C}$ to +70 $^{\circ}\text{C}$ Derate linearly from 100% load at +40 $^{\circ}\text{C}$ to 50% load at +70 $^{\circ}\text{C}$
Humidity	• 5 to 95% RH, non-condensing
Storage Temperature	• -40 $^{\circ}\text{C}$ to +85 $^{\circ}\text{C}$

EMC & Safety

EMI Requirement	• EN55011 (CISPR11) Class B conducted and radiated
Safety Approvals	• UL2601-1, CSA C22.2 No 601.1 per cUL EN60601-1 CE Mark, IEC 60601-1

* Preliminary datasheet - see website for current specs

OUTPUT VOLTAGE & CURRENT RATINGS

PCM90

Maximum Power	Output #1				Output #2				Output #3				Model Number ⁽²⁾
	Vnom	Imin	I _{max}	Tol. ⁽¹⁾	Vnom	Imin	I _{max}	Tol. ⁽¹⁾	Vnom	Imin	I _{max}	Tol. ⁽¹⁾	
50 W	3.3 V	0.0 A	15.1 A	7%									PCM90PS3V3
65 W	5.0 V	0.0 A	13.0 A	5%									PCM90PS05
70 W	7.0 V	0.0 A	10.0 A	4%									PCM90PS07
75 W	9.0 V	0.0 A	8.3 A	3%									PCM90PS09
75 W	10.0 V	0.0 A	7.5 A	3%									PCM90PS10
90 W	12.0 V	0.0 A	7.5 A	3%									PCM90PS12
90 W	13.5 V	0.0 A	6.6 A	3%									PCM90PS13V5
90 W	15.0 V	0.0 A	6.0 A	3%									PCM90PS15
90 W	17.5 V	0.0 A	5.1 A	3%									PCM90PS17V5
90 W	18.0 V	0.0 A	5.0 A	3%									PCM90PS18
90 W	24.0 V	0.0 A	3.75 A	2%									PCM90PS24
90 W	27.0 V	0.0 A	3.3 A	2%									PCM90PS27
90 W	30.0 V	0.0 A	3.0 A	2%									PCM90PS30
90 W	36.0 V	0.0 A	2.5 A	2%									PCM90PS36
90 W	48.0 V	0.0 A	1.87 A	2%									PCM90PS48
38 W	3.3 V	0.5 A	7.0 A	5%	5.0 V	0.1 A	3.0 A	5%					PCM90PD00
53 W	3.3 V	0.5 A	7.0 A	5%	12.0 V	0.3 A	2.5 A	5%					PCM90PD01
60 W	5.0 V	0.5 A	7.0 A	5%	12.0 V	0.3 A	2.5 A	5%					PCM90PD02
60 W	5.0 V	0.5 A	7.0 A	5%	15.0 V	0.1 A	2.0 A	5%					PCM90PD03
60 W	5.0 V	0.5 A	7.0 A	5%	24.0 V	0.2 A	2.0 A	5%					PCM90PD04
60 W	5.0 V	0.5 A	7.0 A	5%	-24 V	0.2 A	2.0 A	5%					PCM90PD05
65 W	12.0 V	0.5 A	5.0 A	5%	-12.0 V	0.1 A	0.8 A	5%					PCM90PD06
65 W	15.0 V	0.5 A	4.0 A	5%	-15.0 V	0.1 A	0.8 A	5%					PCM90PD07
65 W	24.0 V	0.5 A	2.1 A	5%	-24.0 V	0.2 A	0.8 A	5%					PCM90PD08
51 W	3.3 V	0.5 A	7.0 A	5%	12.0 V	0.3 A	2.0 A	5%	-5.0 V	0.1 A	0.8 A	5%	PCM90PT01
60 W	5.0 V	0.5 A	6.0 A	5%	12.0 V	0.3 A	2.5 A	5%	-5.0 V	0.1 A	0.5 A	5%	PCM90PT03
60 W	5.0 V	0.5 A	6.0 A	5%	12.0 V	0.3 A	2.1 A	5%	-12.0 V	0.1 A	0.5 A	5%	PCM90PT04
65 W	5.0 V	0.5 A	6.0 A	5%	15.0 V	0.1 A	2.1 A	5%	-15.0 V	0.1 A	0.5 A	5%	PCM90PT05
60 W	5.0 V	0.5 A	6.0 A	5%	24.0 V	0.2 A	1.2 A	5%	-12.0 V	0.1 A	0.5 A	5%	PCM90PT06
65 W	5.0 V	0.5 A	7.0 A	5%	24.0 V	0.2 A	2.0 A	5%	-24.0 V	0.1 A	0.5 A	5%	PCM90PT07

Notes

1. Total regulation includes tolerance, line regulation and load regulation.
2. Part numbers in bold type are standard stock models, all others are build to order.

Mechanical Details

PIN CONNECTIONS 8-Pin is Standard			
Pin	Single	Dual	Triple
1	Common	Common	Common
2	Common	Output #2	Output #3
3	Output #1	Output #1	Output #1
4	Common	Output #2	Output #2
5	Output #1	Output #1	Output #2
6	Common	Common	Common
7	Output #1	Output #1	Output #1
8	Output #1	Common	Output #3
Shell	Ground	Ground	Ground

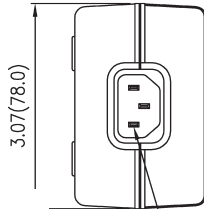
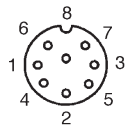


DC OUTPUT

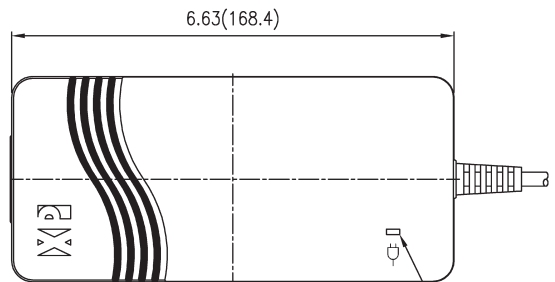
8-Pin DIN PLUG

Notes:

1. Dimensions shown in inches (mm).
2. Tolerance 0.04" (1.0mm) maximum.
3. Cable length is 48.0".
4. Optional output connectors available consult factory.
5. Weight 800-900g approx.
6. Multiple output models include a ferrite bead on the output connector.



AC INPUT
IEC 320 INLET



POWER LED

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