



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



PCM Series



- 4000 VAC Isolation
- Low Leakage Current
- Single, Dual and Triple Outputs
- Worldwide Medical Approvals
- CCC Approved (PCM80)
- Both Line and Neutral Fused
- Non-standard Connectors Available

Specification

Input

Input Voltage	• 90-264 VAC
Input Frequency	• 47-63 Hz
Input Current	• PCM50: 1.35 A max PCM80: 1.30 A max PCM120: 1.60 A max
Inrush Current	• 30 A at 115 VAC or 60 A at 230 VAC at 25 °C cold start
Power Factor	• PCM50: 0.55 typical PCM80/120: 0.94 min
Earth Leakage Current	• 180 µA max at 132 VAC/60Hz 300 µA 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	• ±1% max at full load
Load Regulation	• ±5% max
Transient Response	• 5% max. deviation, 500 µs 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	• ±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	• PCM50: 64 kHz typical PCM80: 55 kHz typical PCM120: 120 kHz typical (PWM), 70 kHz (PFC)
MTBF	• 100 kHrs at full load and 25 °C ambient per MIL-HDBK-217F

Environmental

Operating Temperature	• PCM50: 0 °C to +70 °C, derate from 100% load at 50 °C to 50% load at +70 °C PCM80: 0 °C to +70 °C, derate from 100% load at 40 °C to 50% load at +70 °C PCM120: 0 °C to +60 °C, derate from 100% load at +40 °C to 50% load at +60 °C
Storage Temperature	• PCM50/80: -40 °C to +80 °C PCM120: -20 °C to +85 °C

EMC & Safety

Emissions	• EN55022, 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 Approvals	• PCM80/120: UL60601-1, CSA C22.2 No. 601.1 per cUL PCM50: ANSI/AMMI ES60601-1 EN60601-1, CCC (PCM80)

Models and Ratings

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

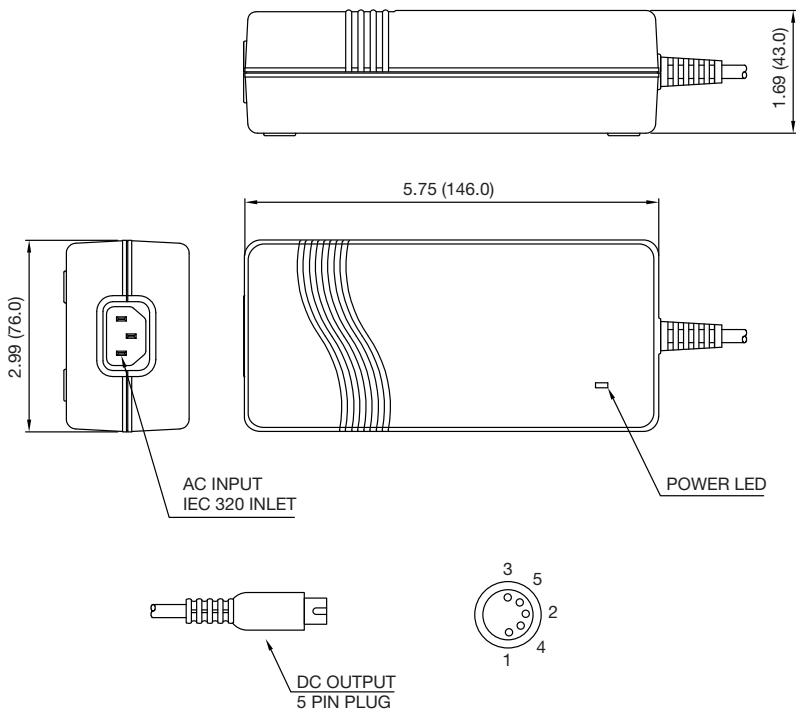
1. Regulation includes initial set tolerance, line regulation and load regulation.

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

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.

Models and Ratings

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⁾	
50.0 W	3.3 V	0.0 A	15.1 A	7%									PCM80PS3V3
65.0 W	5.0 V	0.0 A	13.0 A	5%									PCM80PS05
70.0 W	7.0 V	0.0 A	10.0 A	5%									PCM80PS07
75.0 W	9.0 V	0.0 A	8.3 A	5%									PCM80PS09
75.0 W	10.0 V	0.0 A	7.5 A	5%									PCM80PS10
80.0 W	12.0 V	0.0 A	6.7 A	5%									PCM80PS12
80.0 W	13.5 V	0.0 A	5.9 A	5%									PCM80PS13V5
80.0 W	15.0 V	0.0 A	5.3 A	5%									PCM80PS15
80.0 W	16.0 V	0.0 A	5.0 A	5%									PCM80PS16
80.0 W	17.5 V	0.0 A	4.6 A	5%									PCM80PS17V5
80.0 W	18.0 V	0.0 A	4.4 A	5%									PCM80PS18
80.0 W	24.0 V	0.0 A	3.3 A	5%									PCM80PS24
80.0 W	27.0 V	0.0 A	3.0 A	5%									PCM80PS27
80.0 W	30.0 V	0.0 A	2.7 A	5%									PCM80PS30
80.0 W	36.0 V	0.0 A	2.2 A	3%									PCM80PS36
80.0 W	48.0 V	0.0 A	1.7 A	3%									PCM80PS48
38.0 W	3.3 V	0.5 A	7.0 A	5%	5.0 V	0.3 A	3.0 A	5%					PCM80PD00
53.0 W	3.3 V	0.5 A	7.0 A	5%	12.0 V	0.2 A	2.5 A	5%					PCM80PD01
60.0 W	5.0 V	0.5 A	7.0 A	5%	12.0 V	0.2 A	2.5 A	5%					PCM80PD02
60.0 W	5.0 V	0.5 A	7.0 A	5%	15.0 V	0.2 A	2.0 A	5%					PCM80PD03
60.0 W	5.0 V	0.5 A	7.0 A	5%	24.0 V	0.2 A	2.0 A	5%					PCM80PD04
60.0 W	5.0 V	0.5 A	7.0 A	5%	-24.0 V	0.2 A	2.0 A	5%					PCM80PD05
65.0 W	12.0 V	0.5 A	5.0 A	5%	-12.0 V	0.1 A	0.8 A	5%					PCM80PD06
65.0 W	15.0 V	0.5 A	4.0 A	5%	-15.0 V	0.1 A	0.8 A	5%					PCM80PD07
65.0 W	24.0 V	0.5 A	2.1 A	5%	-24.0 V	0.1 A	0.8 A	5%					PCM80PD08
51.0 W	3.3 V	0.5 A	7.0 A	5%	12.0 V	0.2 A	2.0 A	5%	-5.0 V	0.1 A	0.8 A	5%	PCM80PT01
60.0 W	5.0 V	0.5 A	6.0 A	5%	12.0 V	0.2 A	2.5 A	5%	-5.0 V	0.1 A	0.5 A	5%	PCM80PT03
60.0 W	5.0 V	0.5 A	6.0 A	5%	12.0 V	0.2 A	2.1 A	5%	-12.0 V	0.1 A	0.5 A	5%	PCM80PT04
65.0 W	5.0 V	0.5 A	6.0 A	5%	15.0 V	0.2 A	2.1 A	5%	-15.0 V	0.1 A	0.5 A	5%	PCM80PT05
60.0 W	5.0 V	0.5 A	6.0 A	5%	24.0 V	0.1 A	1.2 A	5%	-12.0 V	0.1 A	0.5 A	5%	PCM80PT06
65.0 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%	PCM80PT07

Notes

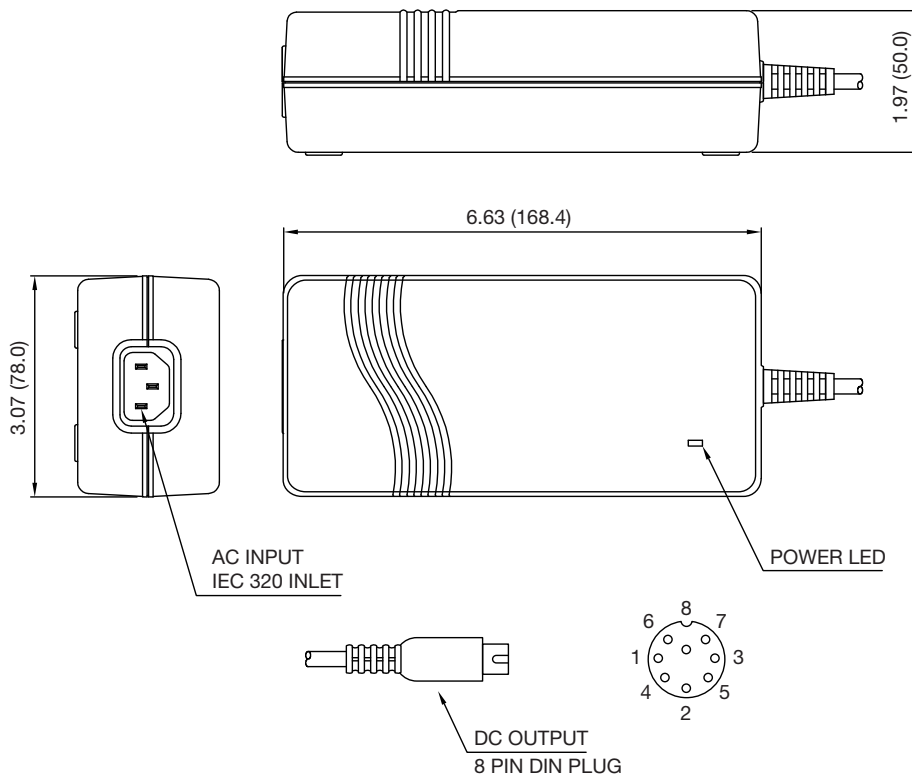
1. Regulation includes initial set tolerance, line regulation and load regulation.

Mechanical Details

All dimensions are in inches (mm)

Weight: 1.76-1.98 lb (800-900 g) approx.

Tolerance: 0.04 (1.0) maximum



Pin	PIN CONNECTIONS		
	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

Notes:

1. Cable length is 48.0" (1.22m) approx.
2. Optional output connectors available, contact sales office.
3. Multi output models include a ferrite bead on the output connector.

Models and Ratings

Maximum Output Power	Output Voltage	Output Current	Peak Current ⁽¹⁾	Model Number
108 W	12.0 V	9.00 A	15.00 A	PCM120PS12
113 W	15.0 V	7.50 A	10.00 A	PCM120PS15
120 W	18.0 V	6.50 A	9.00 A	PCM120PS18
120 W	24.0 V	5.00 A	7.00 A	PCM120PS24
120 W	48.0 V	2.50 A	4.00 A	PCM120PS48

Notes

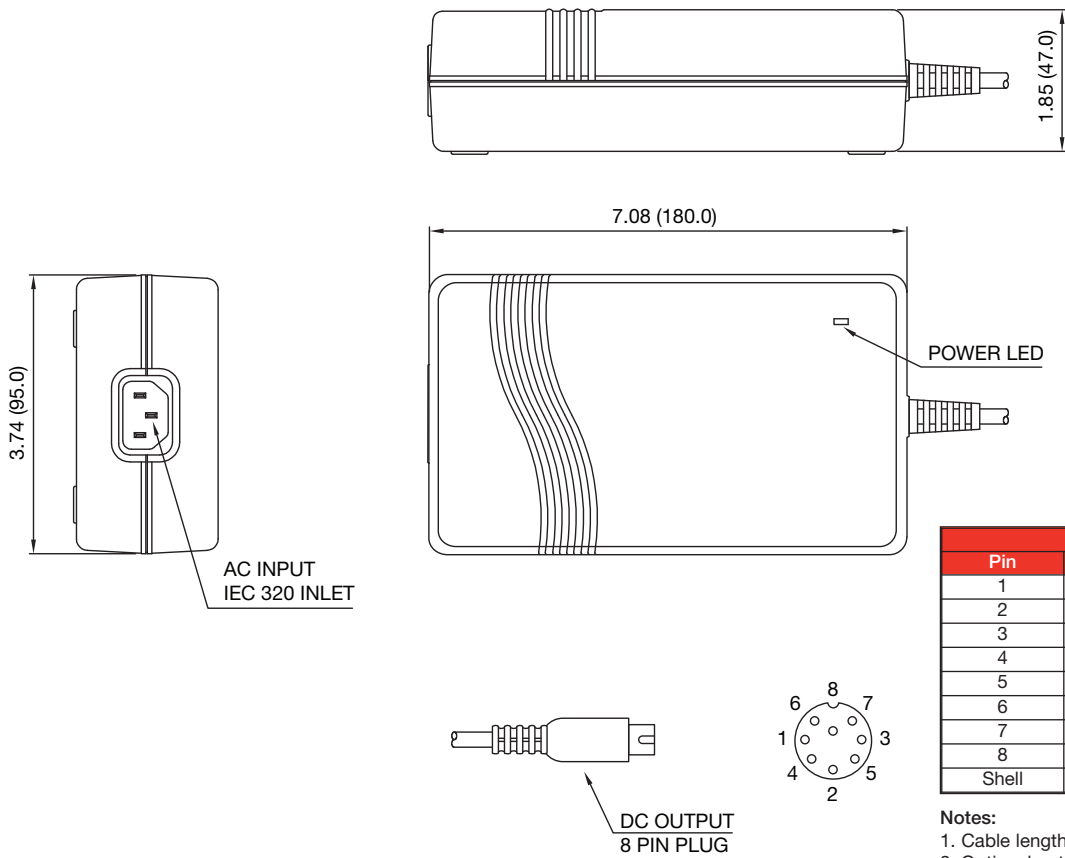
1. Peak current is 5 seconds maximum duration with a 10% duty cycle.

Mechanical Details

All dimensions are in inches (mm)

Weight: 1.90 lb (860 g) approx.

Tolerance: 0.04 (1.0) maximum



PIN CONNECTIONS	
Pin	All models
1	Return
2	Return
3	Output +V
4	Return
5	Output +V
6	Return
7	Output +V
8	Output +V
Shell	Ground

Notes:
 1. Cable length is 72.0" (1.83m) approx.
 2. Optional output connectors available, contact sales office.

Derating Curve

