

# AC-DC Converters

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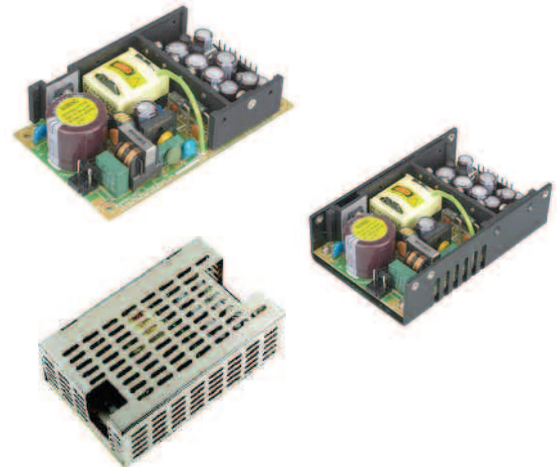
PSO60/PSU60/PSB60 Series

Single, Dual, Triple & Quad Outputs

Up to 63 Watts

## Features

- Wide Universal Input Voltage of 90-264VAC
- Single, Dual, Triple or Quad DC Outputs
- Industry Standard 5 x 3" footprint (PCB Version)
- Available as Open PCB, Aluminium U Channel or Fully Enclosed
- Full Safety Approvals
- EMC to FCC Part 15 Class B & CISPR-22 Class B
- Single Output versions available with any voltage from 3V to 50V DC



## Electrical Specification

AC Input	90-264VAC, 47-63Hz
Input Current	1.6A Max, Low Line, Full Load
Inrush Current	30A Max, Cold Start, 230VAC Input
Efficiency	80% Typical
DC Outputs	See table
Line Regulation	0.5% Typical, 1% Max
Load Regulation	See table
Over Voltage Protection	Single Output Models & Output 1 of Multi Output Models, 112-132% V Nominal
Over Current Protection	110-150% Nominal Output Power
Transient Response	4mS, Full Load to 50% Load
Hold Up Time	12mS Min, 110V AC Input, Full Load Output
Start Up Time	1 Sec Typical, 2 Sec Max
Ripple & Noise	1% Typical, 2% Max
Earth Leakage Current	0.45mA Max
Operating Temperature	0 to 70°C, Derate Linearly from 100% Load at 50°C to 50% Load at 70°C
Storage Temperature	-40 to +85°C
Relative Humidity	95% Max Non Condensing
EMC	FCC Part 15 Class B, CISPR-22 Class B
Safety Approvals	UL, cUL60950, TUV/GS(EN60950), CE

**Powersolve Electronics Ltd. Units 8A, Arnhem Road, Newbury, RG14 5RU. England**

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## Output Voltage & Current Ratings (Single Outputs)

MODEL (OPEN PCB VERSION)	MODEL (U CHANNEL VERSION)	MODEL (ENCLOSED)	DC OUTPUT	TOTAL REGULATION	MAXIMUM OUTPUT POWER
PSO60-3V3	PSU60-3V3	PSB60-3V3	3.3V 15.15A	5%	50 Watts
PSO60-05	PSU60-05	PSB60-05	5V 11A	5%	55 Watts
PSO60-09	PSU60-09	PSB60-09	9V 7A	3%	63 Watts
PSO60-12	PSU60-12	PSB60-12	12V 5.25A	3%	63 Watts
PSO60-15	PSU60-15	PSB60-15	15V 4.2A	3%	63 Watts
PSO60-18	PSU60-18	PSB60-18	18V 3.5A	3%	63 Watts
PSO60-24	PSU60-24	PSB60-24	24V 2.63A	2%	63 Watts
PSO60-36	PSU60-36	PSB60-36	36V 1.75A	2%	63 Watts
PSO60-48	PSU60-48	PSB60-48	48V 1.31A	2%	63 Watts

### Note:

Single output models available in any voltage between 3V and 50V - consult sales office for details.

## Output Voltage & Current Ratings (Multi Outputs)

MODEL	MODEL	MODEL	OUTPUT 1	MAX REG.	OUTPUT 2	MAX REG.	OUTPUT 3	MAX REG.	OUTPUT 4	MAX REG.	MAX POWER
PSO60-3V312	PSU60-3V312	PSB60-3V312	+3.3V 1.4A-7A	7%	+12V 0.6A-3A	5%					59.1W
PSO60-512	PSU60-512	PSB60-512	+5V 0.7A-7A	5%	+12V 0.3A-3A	5%					63W
PSO60-515	PSU60-515	PSB60-515	+5V 0.7A-7A	5%	+15V 0.3A-3A	5%					63W
PSO60-524	PSU60-524	PSB60-524	+5V 0.7A-7A	5%	+24V 0.4A-2A	5%					63W
PSO60-3V35	PSU60-3V35	PSB60-3V35	+3.3V 1.4A-7A	7%	+5V 0.5A-5A	5%					48.1W
PSO60-524N	PSU60-524N	PSB60-524N	+5V 0.1A-5A	5%	-24V 0.2A-2A	5%					63W
PSO60-3V348	PSU60-3V348	PSB60-3V348	+3.3V 0.1A-5A	7%	+48V 0.1A-1.25A	5%					63W
PSO60-528	PSU60-528	PSB60-528	+5V 0.1A-5A	5%	+28V 0.2A-2A	5%					63W
PSO60-535	PSU60-535	PSB60-535	+5V 0.5A-5A	5%	+35V 0.1A-1.5A	5%					63W
PSO60-536	PSU60-536	PSB60-536	+5V 0.5A-5A	5%	+36V 0.1A-1.5A	5%					63W
PSO60-3V31212	PSU60-3V31212	PSB60-3V31212	+3.3V 1.2A-6A	7%	+12V 0.6A-3A	5%	-12V 0A-0.8A	5%			63W
PSO60-3V31212P	PSU60-3V31212P	PSB60-3V31212P	+3.3V 1.2A-6A	7%	+12V 0.6A-3A	5%	+12V 0A-0.8A	5%			63W
PSO60-5125	PSU60-5125	PSB60-5125	+5V 0.6A-6A	5%	+12V 0.3A-3A	5%	-5V 0A-0.8A	5%			63W
PSO60-5125P	PSU60-5125P	PSB60-5125P	+5V 0.6A-6A	5%	+12V 0.3A-3A	5%	+5V 0A-0.8A	5%			63W
PSO60-51212	PSU60-51212	PSB60-51212	+5V 0.6A-6A	5%	+12V 0.6A-3A	5%	-12V 0A-0.8A	5%			63W
PSO60-51212P	PSU60-51212P	PSB60-51212P	+5V 0.6A-6A	5%	+12V 0.6A-3A	5%	+12V 0A-0.8A	5%			63W
PSO60-51515	PSU60-51515	PSB60-51515	+5V 0.6A-6A	5%	+15V 0.3A-3A	5%	-15V 0A-0.8A	5%			63W
PSO60-51515P	PSU60-51515P	PSB60-51515P	+5V 0.6A-6A	5%	+15V 0.3A-3A	5%	+15V 0A-0.8A	5%			63W
PSO60-52424	PSU60-52424	PSB60-52424	+5V 1.2A-6A	5%	+24V 0.4A-2A	5%	-24V 0A-0.5A	5%			63W
PSO60-52424P	PSU60-52424P	PSB60-52424P	+5V 1.2A-6A	5%	+24V 0.4A-2A	5%	+24V 0A-0.5A	5%			63W
PSO60-52412	PSU60-52412	PSB60-52412	+5V 1.2A-6A	5%	+24V 0.4A-2A	5%	-12V 0A-0.5A	5%			63W
PSO60-52412P	PSU60-52412P	PSB60-52412P	+5V 1.2A-6A	5%	+24V 0.4A-2A	5%	+12V 0A-0.5A	5%			63W
PSO60-3V3125	PSU60-3V3125	PSB60-3V3125	+3.3V 1.2A-6A	7%	+12V 0.6A-3A	5%	-5V 0A-0.8A	5%			59.8W
PSO60-3V3125P	PSU60-3V3125P	PSB60-3V3125P	+3.3V 1.2A-6A	7%	+12V 0.6A-3A	5%	+5V 0A-0.8A	5%			59.8W
PSO60-51010P	PSU60-51010P	PSB60-51010P	+5V 0.6A-6A	5%	+10V 0.2A-2A	5%	+10V 0A-1.0A	5%			60W
PSO60-51010	PSU60-51010	PSB60-51010	+5V 0.6A-6A	5%	+10V 0.2A-2A	5%	-10V 0A-1.0A	5%			60W
PSO60-3V3512P	PSU60-3V3512P	PSB60-3V3512P	+3.3V 0.5A-5A	7%	+5V 0.5A-5A	5%	+12V 0A-1A	5%			53.5W

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## Output Voltage & Current Ratings (Multi Outputs)

MODEL	MODEL	MODEL	OUTPUT 1	MAX REG.	OUTPUT 2	MAX REG.	OUTPUT 3	MAX REG.	OUTPUT 4	MAX REG.	MAX POWER
PSO60-3V3512	PSU60-3V3512	PSB60-3V3512	+3.3V 0.5A-5A	7%	+5V 0.5A-5A	5%	-12V 0A-1A	5%			53.5W
PSO60-3V312125	PSU60-3V312125	PSB60-3V312125	+3.3V 1.2A-6A	7%	+12V 0.6A-3A	5%	-12V 0A-0.8A	5%	-5V 0A-0.8A	5%	63W
PSO60-3V312125P	PSU60-3V312125P	PSB60-3V312125P	+3.3V 1.2A-6A	7%	+12V 0.6A-3A	5%	-12V 0A-0.8A	5%	+5V 0A-0.8A	5%	63W
PSO60-3V31212P5	PSU60-3V31212P5	PSB60-3V31212P5	+3.3V 1.2A-6A	7%	+12V 0.6A-3A	5%	+12V 0A-0.8A	5%	-5V 0A-0.8A	5%	63W
PSO60-3V31212P5P	PSU60-3V31212P5P	PSB60-3V31212P5P	+3.3V 1.2A-6A	7%	+12V 0.6A-3A	5%	+12V 0A-0.8A	5%	+5V 0A-0.8A	5%	63W
PSO60-512125	PSU60-512125	PSB60-512125	+5V 0.6A-6A	5%	+12V 0.3A-3A	5%	-12V 0A-0.8A	5%	-5V 0A-0.8A	5%	63W
PSO60-512125P	PSU60-512125P	PSB60-512125P	+5V 0.6A-6A	5%	+12V 0.3A-3A	5%	-12V 0A-0.8A	5%	+5V 0A-0.8A	5%	63W
PSO60-51212P5	PSU60-51212P5	PSB60-51212P5	+5V 0.6A-6A	5%	+12V 0.3A-3A	5%	+12V 0A-0.8A	5%	-5V 0A-0.8A	5%	63W
PSO60-51212P5P	PSU60-51212P5P	PSB60-51212P5P	+5V 0.6A-6A	5%	+12V 0.6A-3A	5%	+12V 0A-0.8A	5%	+5V 0A-0.8A	5%	63W
PSO60-51212P12P	PSU60-51212P12P	PSB60-51212P12P	+5V 1.2A-6A	5%	+12V 0.6A-3A	5%	+12V 0A-0.8A	5%	+12V 0A-0.8A	5%	63W
PSO60-51212P12	PSU60-51212P12	PSB60-51212P12	+5V 1.2A-6A	5%	+12V 0.6A-3A	5%	+12V 0A-0.8A	5%	-12V 0A-0.8A	5%	63W
PSO60-51212N12	PSU60-51212N12	PSB60-51212N12	+5V 1.2A-6A	5%	+12V 0.6A-3A	5%	-12V 0A-0.8A	5%	-12V 0A-0.8A	5%	63W
PSO60-5121224	PSU60-5121224	PSB60-5121224	+5V 1.2A-6A	5%	+12V 0.6A-3A	5%	-12V 0A-0.8A	5%	+24V 0A-0.8A	5%	63W
PSO60-51212P24	PSU60-51212P24	PSB60-51212P24	+5V 1.2A-6A	5%	+12V 0.6A-3A	5%	+12V 0A-0.8A	5%	+24V 0A-0.8A	5%	63W
PSO60-51212P24N	PSU60-51212P24N	PSB60-51212P24N	+5V 1.2A-6A	5%	+12V 0.6A-3A	5%	+12V 0A-0.8A	5%	-24V 0A-0.8A	5%	63W
PSO60-5121224N	PSU60-5121224N	PSB60-5121224N	+5V 1.2A-6A	5%	+12V 0.6A-3A	5%	-12V 0A-0.8A	5%	-24V 0A-0.8A	5%	63W
PSO60-515155	PSU515155	PSB60-515155	+5V 0.6A-6A	5%	+15V 0.6A-3A	5%	-15V 0A-0.8A	5%	-5V 0A-0.8A	5%	63W
PSO60-515155P	PSU515155P	PSB60-515155P	+5V 0.6A-6A	5%	+15V 0.6A-3A	5%	-15V 0A-0.8A	5%	+5V 0A-0.8A	5%	63W
PSO60-51515P5P	PSU51515P5P	PSB60-51515P5P	+5V 0.6A-6A	5%	+15V 0.6A-3A	5%	+15V 0A-0.8A	5%	+5V 0A-0.8A	5%	63W
PSO60-5241512	PSU60-5241512	PSB60-5241512	+5V 0.1A-1A	5%	+24V 0.18A-1.8A	5%	-15V 0A-0.1A	5%	+12V 0A-0.8A	5%	59.3W

Mating Connectors: Input: Molex Housing 09-50-3031  
Output: Molex Housing 09-50-3061 (up to 3 outputs)  
Molex Housing 09-50-3081 (4 outputs)

Crimp Terminals: Molex 2478  
Crimp Terminals: Molex 2478  
Crimp Terminals: Molex 2478

Options: Power Fail Detect – Consult sales office for details

Pin	Pin Connection							
	1	2	3	4	5	6	7	8
Model								
SINGLE OUTPUT		OUT	OUT	OUT	RTN	RTN	RTN	
DUAL OUTPUT	Vo2	Vo1	Vo1	COM	COM	N/C		
TRIPLE OUTPUT	Vo2	Vo1	Vo1	COM	COM	Vo3		
QUAD OUTPUT	Vo2	Vo1	Vo1	COM	COM	Vo3	Vo4	Vo4

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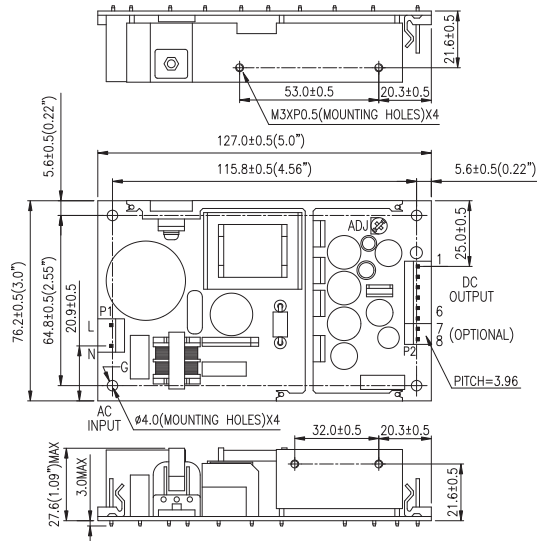


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## Mechanical Specification - PSO60 Series

Note:

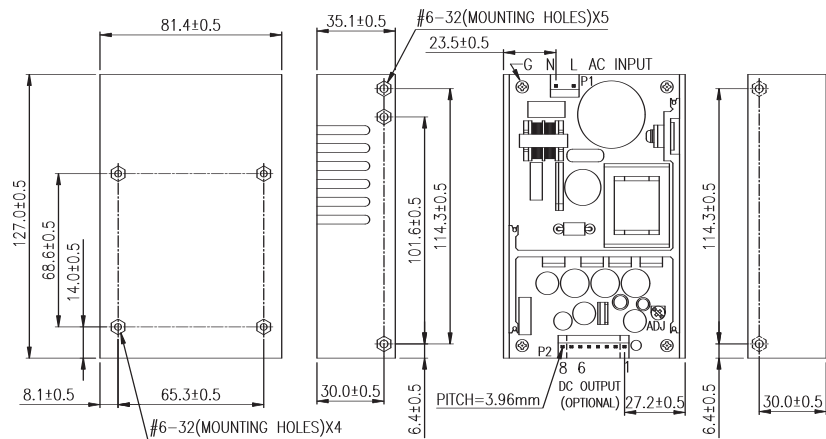
1. Dimensions are shown in inches or mm.
2. Weight: 250gs approx.



## Mechanical Specification - PSU60 Series

Note:

1. Dimensions are shown in inches or mm.
2. Weight: 385gs approx.



## Mechanical Specification - PSB60 Series

Note:

1. Dimensions are shown in inches or mm.
2. Weight: 475gs approx.

