

AC-DC Converters

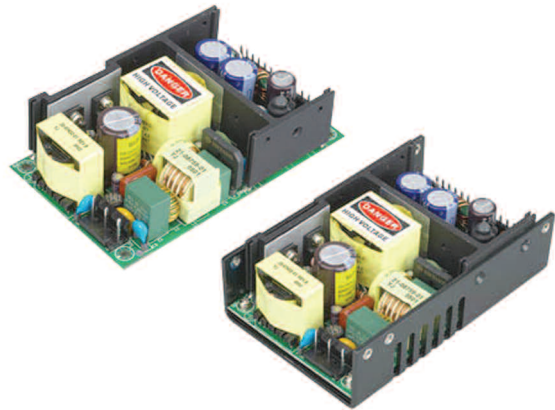
POWER
SOLVE

www.powersolve.co.uk

PSO120/PSU120 Series
Single, Dual & Triple Outputs
Up to 120 Watts

Features

- Power Factor Correction
- Wide Universal Input Voltage of 90-264VAC
- Single, Dual or Triple DC Outputs
- Optional Power Fail Detection
- Industry Standard 5 x 3" footprint
- Available as Open PCB or in Aluminium U Channel
- 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

INPUT

AC Input	90-264VAC, 47-63Hz
Power Factor Correction	0.95 Minimum
Input Current	2A 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	16mS 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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MODEL (OPEN PCB VERSION)	MODEL (U CHANNEL VERSION)	DC OUTPUT	TOTAL REGULATION	MAXIMUM OUTPUT POWER
PSO120-3V3	PSU120-3V3	3.3V 20A	5%	66 Watts
PSO120-05	PSU120-05	5V 20A	5%	100 Watts
PSO120-09	PSU120-09	9V 12.77A	5%	115 Watts
PSO120-12	PSU120-12	12V 10A	3%	120 Watts
PSO120-15	PSU120-15	15V 8A	3%	120 Watts
PSO120-18	PSU120-18	18V 6.67A	3%	120 Watts
PSO120-24	PSU120-24	24V 5A	2%	120 Watts
PSO120-36	PSU120-36	36V 3.33A	2%	120 Watts
PSO120-48	PSU120-48	48V 2.5A	2%	120 Watts

Note:

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

MODEL (OPEN PCB VERSION)	MODEL (U CHANNEL VERSION)	OUTPUT 1	MAX REG.	OUTPUT 2	MAX REG.	OUTPUT 3	MAXIMUM OUTPUT POWER
PSO120-3V312	PSU120-3V312	+3.3V 1.5A-15A	5%	+12V 0.6A-6A	5%		120 Watts
PSO120-512	PSU120-512	+5V 1.5A-15A	5%	+12V 0.8A-6A	5%		120 Watts
PSO120-515	PSU120-515	+5V 1.5A-15A	5%	+15V 0.6-6A	5%		120 Watts
PSO120-524	PSU120-524	+5V 1.5A-15A	5%	+24V 0.4A-3.5A	5%		120 Watts
PSO120-3V35	PSU120-3V35	+3.3V 1.5A-15A	5%	+5V 0.6A-6A	5%		79.5 Watts
PSO120-524N	PSU120-524N	+5V 1.5A-15A	5%	-24V 0.2A-2A	5%		120 Watts
PSO120-285	PSU120-285	+28V 0.4A-3.92A	5%	+5V 0A-2A	5%		120 Watts
PSO120-3V31212	PSU120-3V31212	+3.3V 1.5A-15A	5%	+12V 0.6A-6A	5%	-12V 0A-0.8A	5% 120 Watts
PSO120-3V31212P	PSU120-3V31212P	+3.3V 1.5A-15A	5%	+12V 0.6A-6A	5%	+12V 0A-0.8A	5% 120 Watts
PSO120-5125	PSU120-5125	+5V 1.5A-15A	5%	+12V 0.8A-6A	5%	-5V 0A-0.8A	5% 120 Watts
PSO120-5125P	PSU120-5125P	+5V 1.5A-15A	5%	+12V 0.8A-6A	5%	+5V 0A-0.8A	5% 120 Watts
PSO120-51212	PSU120-51212	+5V 1.5A-15A	5%	+12V 0.8A-6A	5%	-12V 0A-0.8A	5% 120 Watts
PSO120-51212P	PSU120-51212P	+5V 1.5A-15A	5%	+12V 0.8A-6A	5%	+12V 0A-0.8A	5% 120 Watts
PSO120-51515	PSU120-51515	+5V 1.5A-15A	5%	+15V 1A-6A	5%	-15V 0A-0.8A	5% 120 Watts
PSO120-51515P	PSU120-51515P	+5V 1.5A-15A	5%	+15V 1A-6A	5%	+15V 0A-0.8A	5% 120 Watts
PSO120-52424	PSU120-52424	+5V 1.5A-15A	5%	+24V 0.45A-3.5A	5%	-24V 0.25A-0.8A	5% 120 Watts
PSO120-52424P	PSU120-52424P	+5V 1.5A-15A	5%	+24V 0.45A-3.5A	5%	+24V 0.25A-0.8A	5% 120 Watts
PSO120-52412	PSU120-52412	+5V 1.5A-15A	5%	+24V 0.45A-3.5A	5%	-12V 0A-0.8A	5% 120 Watts
PSO120-52412P	PSU120-52412P	+5V 1.5A-15A	5%	+24V 0.45A-3.5A	5%	+12V 0A-0.8A	5% 120 Watts
PSO120-3V3125	PSU120-3V3125	+3.3V 1.5A-15A	5%	+12V 0.8A-6A	5%	-5V 0A-0.8A	5% 120 Watts
PSO120-3V3125P	PSU120-3V3125P	+3.3V 1.5A-15A	5%	+12V 0.8A-6A	5%	+5V 0A-0.8A	5% 120 Watts
PSO120-51010	PSU120-51010	+5V 1.5A-15A	5%	+10V 0.6A-6A	5%	-10V 0A-1.0A	5% 120 Watts
PSO120-51010P	PSU120-51010P	+5V 1.5A-15A	5%	+10V 0.6A-6A	5%	+10V 0A-1.0A	5% 120 Watts
PSO120-3V3512	PSU120-3V3512	+3.3V 1.5A-15A	5%	+5V 0.8A-6A	5%	-12V 0A-1.0A	5% 91.5 Watts
PSO120-3V3512P	PSU120-3V3512P	+3.3V 1.5A-15A	5%	+5V 0.8A-6A	5%	+12V 0A-1.0A	5% 91.5 Watts

Mating Connectors: Input: Molex Housing 09-50-3051 Crimp Terminals: Molex 2478
Output: Molex Housing 09-50-3131 Crimp Terminals: Molex 2478

Options: Power Fail Detect – Consult sales office for details

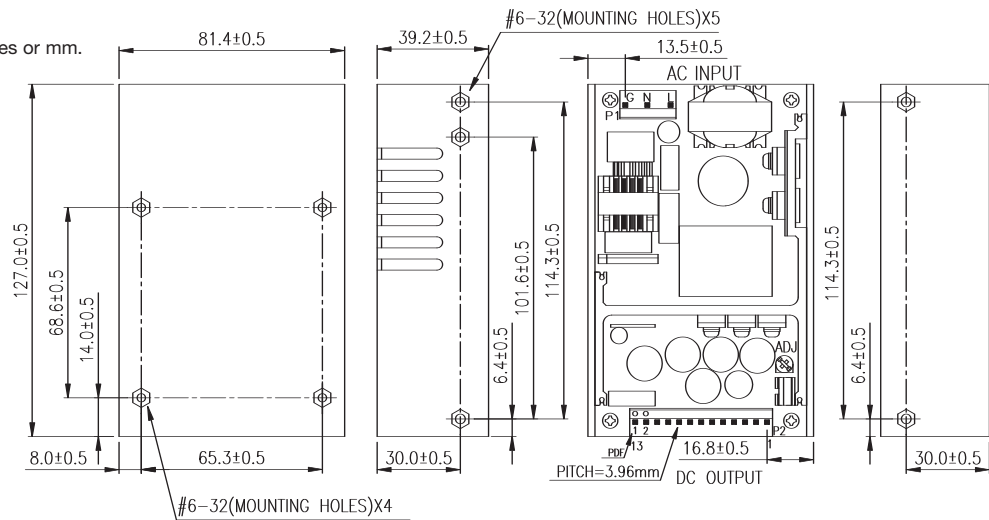
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Mechanical Specification - PSU120

Note:

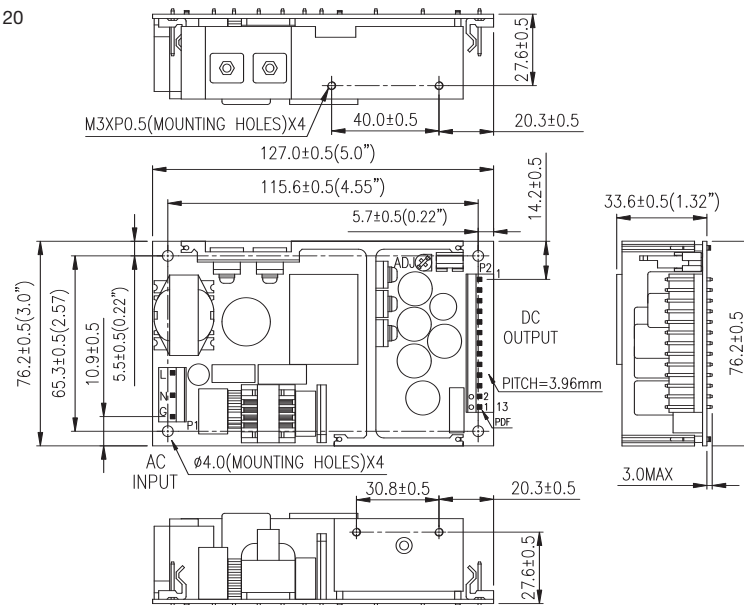
1. Dimensions are shown in inches or mm.
2. Weight: 330~380gs approx.



Mechanical Specification - PSO120

Note:

1. Dimensions are shown
2. Weight: 450~550gs approx.



Pin	Pin Connection												
	1	2	3	4	5	6	7	8	9	10	11	12	13 (optional)
Model													
SINGLE OUTPUT	OUT	OUT	OUT	OUT	OUT	OUT	RTN	RTN	RTN	RTN	RTN	RTN	PFD
PSO/PSU120-285	Vo1	Vo1	COM	COM	COM	Vo2							PFD
DUAL OUTPUT	Vo2	Vo2	Vo1	Vo1	Vo1	Vo1	COM	COM	COM	N/C	COM	COM	PFD
TRIPLE OUTPUT	Vo2	Vo2	Vo1	Vo1	Vo1	Vo1	COM	COM	COM	Vo3	COM	COM	PFD