

AC-DC Converters

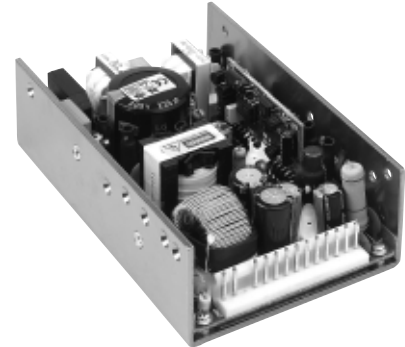


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PPS120 Series

90/120 Watts

Single, Dual, Triple & Quad Outputs



Features

- Universal AC input
- Built-in EMI filter
- Optional 12V, 24V or 48V DC input
(Consult sales office for details)
- Optional Cover

Electrical Specification

INPUT

Input range	90~264 VAC, universal
Frequency	47~63Hz
Inrush current	38A typical, Cold start @ 25°C, 115 VAC
Efficiency	65%~85% typical at full load
EMI filter	FCC Class B conducted, CISPR 22 Class B conducted, EN55022 class B Conducted
Line regulation	±0.5% typical

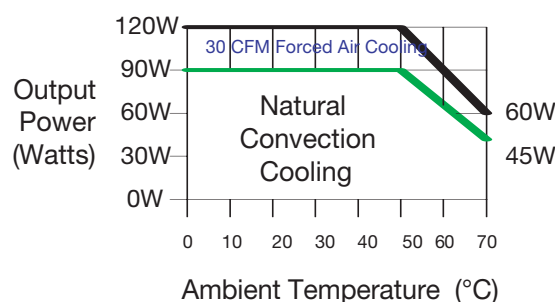
OUTPUT

Maximum power	120W with 30 CFM forced air. 90 Watts convection cooled. See power derating curve
Peak power	150 watts
Output adjustment	±10% on output 1
Hold-up time	10ms typical at full load and 115 VAC nominal line
Overload protection	Short circuit protection
Overvoltage protection	Main output 20% to 40% above nominal output
Ripple/Noise	±1% Max.@ full load
Peak power	150 watts

ENVIRONMENTAL

Operating temperature	0 to 50°C ambient; derate each output at 2.5% per degree from 50°C to 70°C
Humidity	Operating; non-condensing, 5% to 95%
Vibration	10~55 Hz at 1G 3 minutes period, 30 minutes along X, Y and Z axis
Storage temperature	-40 to 85°C
Temperature coefficient	±0.05% per degree C
MTBF demonstrated	>100,000 hours at full load and 25°C ambient conditions
EMI & EMC	FCC part 15, Class B CISPR 22 / EN55022, Class B VCCI, Class 2 CE, EN 61000-3-2 (Class A) and -3; EN 61000-4-2, -3,-4,-5,-6 and -11
Safety approval	UL, cUL, TUV EN60950

Power Derating Curve



Derate output power by 25% when cover fitted

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MODEL	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4	TOTAL REGULATION
PPS120-10	5V 24A (18A)				±3%
PPS120-11	12V 10A (7.5A)				±3%
PPS120-12	15V 8A (6A)				±3%
PPS120-13	24V 5A (3.75A)				±3%
PPS120-14	48V 2.5A (1.875A)				±3%
PPS120-15	13.5V 8.9A (6.66A)				±3%
PPS120-16	56V 2.2A (1.6A)				±3%
PPS120-17	18V 6.7A (5A)				±3%
PPS120-18	3.3V 30A (25A)				±5%
PPS120-20*	+5V 12A (10A)	+12V 5A (4.2A)			±5% both outputs
PPS120-21*	+5V 12A (10A)	+24V 2.5A (2.2A)			±5% both outputs
PPS120-22*	+5V 12A (10A)	-5V 12A (10A)			±5% both outputs
PPS120-23*	+12V 5A (4.2A)	-12V 5A (4.2A)			±5% both outputs
PPS120-24*	+15V 4A (3.4A)	-15V 4A (3.4A)			±5% both outputs
PPS120-25*	+3.3V 20A (17A)	+12V 1A (1A)			±5% both outputs
PPS120-26*	+5V 4A (1A)	+48V 2A (2A)			±5% both outputs
PPS120-30*	+5V 12A (10A)	+12V 4.5A (4A)	-5V 0.6A (0.6A)		O/P 1&2 ±5%, O/P 3 ±10%
PPS120-31*	+5V 12A (10A)	+12V 4.5A (4A)	-12V 0.6A (0.6A)		O/P 1&2 ±5%, O/P 3 ±10%
PPS120-32*	+5V 12A (10A)	+15V 3.5A (2.8A)	-15V 0.6A (0.6A)		O/P 1&2 ±5%, O/P 3 ±10%
PPS120-33*	+5V 15A (14A)	+15V 3A (2A)	-5V 0.5A (0.5A)		O/P 1&2 ±5%, O/P 3 ±10%
PPS120-34*	+5V 14A (13A)	+15V 3A (2A)	-12V 0.6A (0.6A)		O/P 1&2 ±5%, O/P 3 ±10%
PPS120-35*	+5V 11A (9A)	+24V 2.5A (2A)	-12V 0.6A (0.6A)		O/P 1&2 ±5%, O/P 3 ±10%
PPS120-36*	+5V 11A (9A)	+12V 5A (3.5A)	-12V 1A (0.6A)		O/P 1&2 ±5%, O/P 3 ±10%
PPS120-37*	+5V 11A (9A)	+12V 3.5A (2A)	+24V 1A (0.4A)		O/P 1&2 ±5%, O/P 3 ±10%
PPS120-38*	+15V 8A (6A)	-12V 3A (2A)	+48V 1A (1A)		O/P 1&2 ±5%, O/P 3 ±10%
PPS120-40*	+5V 12A (10A)	+12V 4.5A (3.5A)	-12V 0.5A (0.5A)	-5V 0.5A (0.5A)	O/P 1&2 ±5%, O/P 3&4 ±10%
PPS120-41*	+5V 12A (10A)	+12V 4A (3A)	-12V 1A (1A)	-5V 1A (1A)	O/P 1&2 ±5%, O/P 3&4 ±10%
PPS120-42*	+5V 12A (10A)	+12V 3A (2A)	-15V 1A (1A)	+15V 1A (1A)	O/P 1&2 ±5%, O/P 3&4 ±10%
PPS120-43*	+5V 8A (6A)	+12V 3.5A (2.5A)	-12V 1A (1A)	-15V 2A (1A)	O/P 1&2 ±5%, O/P 3&4 ±10%
PPS120-44*	+5V 8A (6A)	+12V 2A (1A)	-12V 1A (1A)	+48V 1A (1A)	O/P 1&2 ±5%, O/P 3&4 ±10%
PPS120-45*	+5V 8A (6A)	+12V 2A (2A)	-12V 1A (1A)	+24V 2A (1.5A)	O/P 1&2 ±5%, O/P 3&4 ±10%
PPS120-46*	+5V 3A (2.5A)	+12V 1A (1A)	-12V 2.5A (2A)	+36V 2A (1.5A)	O/P 1&2 ±5%, O/P 3&4 ±10%

Note:

CONVECTION COOLING: Current ratings in () are maximum continuous output with convection cooling.

Maximum total power is 90 Watts under these conditions.

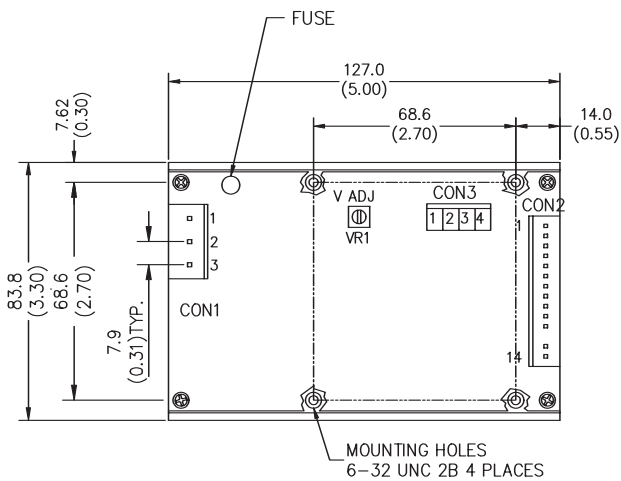
PEAK CURRENT: Peak output currents of 125%, lasting <30 seconds with a maximum of 10% duty cycle can be taken, subject to maximum 150 Watts peak load.

RIPPLE & NOISE: Maximum peak to peak noise expressed as a percentage of output voltage, 20 MHz bandwidth, input at nominal line voltage, 0.1uF and 47uF capacitor on outputs.

LOAD REGULATION: Load test conditions are from minimum, 50% and 100% load conditions on each output.

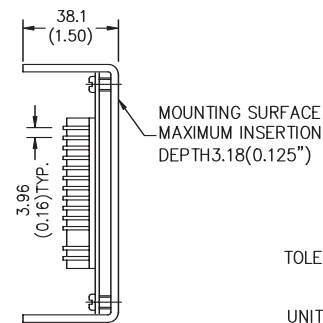
*Minimum loading of 10% required on all outputs, to achieve regulation specified.

PPS120



CON1= MOLEX#09-65-2058(OR EQUIVALENT)
(MATING CONECT.=MOLEX#09-50-3051)
CON2= MOLEX#09-65-2148(OR EQUIVALENT)
(MATING CONECT.=MOLEX#09-50-3141)
ALL MATING TERMINAL=MOLEX#08-50-0106(OR EQUIVALENT)

CON3= MOLEX#22-27-2041(OR EQUIVALENT)
(MATING CONECT.=MOLEX#22-01-3047)
MATING TERMINAL=MOLEX#08-50-0113(OR EQUIVALENT)



TOLERANCE : $\frac{\text{mm} \pm 0.5}{(\text{inch}) \pm 0.02}$

UNIT: $\frac{\text{mm}}{(\text{inch})}$

CON1 (CONNECTORS) CONFIGURATION

1	2	3
FG	NEUT(-)	LINE(+)

CON2 (CONNECTORS) CONFIGURATION FOR V4 ISOLATED

Multiple	1-3	4-7	8-10	11	12	13	14
Output	V1	RET	V2	N/A	V3	KEY	V4RET V4

CON2 (CONNECTORS) CONFIGURATION FOR V4 POSITIVE

Multiple	1-3	4-7	8-10	11	12	13	14
Output	V1	RET	V2	N/A	V3	KEY	RET V4(+)

CON2 (CONNECTORS) CONFIGURATION FOR V4 NEGATIVE

Multiple	1-3	4-7	8-10	11	12	13	14
Output	V1	RET	V2	N/A	V3	KEY	V4(-) RET

CON2 (CONNECTORS) CONFIGURATION FOR V2 ISOLATED

Dual	1-3	4-7	8-9	10-14
Output	V1	RET	V2	NC

CON2 (CONNECTORS) CONFIGURATION

Single	1-5	6-10	11-14
Output	V1(+)	RET(-)	NC

CON3 CONFIGURATION

1	2	3	4
S-	S+	RET	PG