

EASYMOD AM-120D SERIES DC INPUT SWITCHERS

120 watts - 3" x 5" x 1U - Single to Quad Output

IF WHAT YOU WANT IS WHAT YOU NEVER GET IN DC INPUT SWITCHERS, the POWER SOLUTION for up to 120 watts steady state of high reliability, 24 or 48 VDC input power can be found in the DCMOD AM-120D family of 3.3" x 5" U-Channel mounted EASYMOD switchers. These models are available in a complete range of single to quad output configurations from 1.5 to >48 VDC. All models deliver 120W (135W peak) of highly regulated output power. The entire family has on-board Class B EMI filtering, is CE marked, delivers continuous full power output to 50°C, and is capable of operation up to 70°C.

EASYMOD simply means: IF WHAT YOU SEE IS WHAT YOU DON'T WANT, IT CAN BE EASILY CHANGED. EASYMODS include; extended temperature operating range, isolated outputs, unique output combinations, available universal AC inputs and medical versions, low noise versions, unique cables and harnesses and much, much more. All these modifications are available at nominal (if any) additional cost, and normally without any impact on safety agency approvals which reduces both development cost and time to market. An EASYMOD can be performed on supplies for programs requiring as few as 250 units per year.

Call EASYMOD Support on (U.S.) +1-954-346-2442 or (U.K.) +44 (0)1903 768204 or email easymod@unipower-europe.com.



FEATURES & OPTIONS

- CB REPORT
- 1.5 - 48V OUTPUTS AVAILABLE
- THERMAL PROTECTION - OPTION
- UL cUL ; EN 60950 APPROVAL
- 2:1 & WIDER INPUT RANGES
- 40°C START-UP - OPTION
- POWER GOOD SIGNAL - OPTION
- 1U HIGH CHASSIS: 3.3" X 5" x 1.5"

INPUT SPECIFICATION

Input Voltage	..... 10 - 18; 18 - 36 or 36 - 72 VDC
Input Current	@ 12VDC 10A
	@ 24VDC 8A
	@ 48VDC 5A
Fuse	..... 8A @ 48VDC; 15A @ 24VDC;
	..... 20A @ 12VDC

OUTPUT SPECIFICATION

Continuous Output Power ⁵	..... 120 Watts
Line Regulation Over Input Range; V1 - V4	..... 0.2%
Load Regulation @ 60% 0% Full Load	
V1 - V2	..... 3%
V3 - V4	..... 5% max
Cross Regulation @ 60% 40% Full Load	
V1: Change in V2 - V4	..... 0.5%
V2 - V4: Change in V1 @ 75 25% F/L	..... 5% max
Overvoltage Protection V1	..... 130% Vout typ
Overshoot, All Outputs	..... 10% max
Power Limit	..... Set @ 120% typ
Response Time ¹	..... 500 µSec
Ripple & Noise ³ @ 20 Mhz Band Width ; Full Load	
All Outputs	..... 1% P-P max
Output Adjustment Range on V1	..... 5% min

GENERAL SPECIFICATION

Efficiency	..... 75% typ
Switching Frequency	..... 65KHz typ
MTBF per MIL 217	..... > 250,000 hrs
Immunity	..... See Note 2
Operating Temperature Range ³	..... 0 to +70°C
Minimum Start-up Temperature ³	..... -20°C
Derating from 50-70°C	..... 2.5% /°C
Storage Temperature	..... -40 to +85°C
Cooling	..... See Note 5
Relative Humidity; Non-Condensing	..... 5 - 95%
Altitude	..... 10,000 ft
EMI	..... FCC Class B & VDE Class B
	..... CISPR 22; EN 55022 Class B
Vibration ⁴ from 10 - 55Hz	..... 1.0G Peak
Safety Agency Approvals:	..... UL & cUL 60950;
	..... EN 60950; CE; CB REPORT

Notes :

1. All outputs return within 1% of nominal for load change from 25-75% lo excursion.
2. Meets EN61000-4-2; -3; -4; -5; -6; -8; -11
3. Ripple & noise may not meet published specifications for 2 min. after start-up below 0°C.
4. Three orthogonal axes @ 1 octave/min. 5 min. dwell @ four major resonances.
5. Rating with 30 CFM air; Rated at 90 watts convection. Derate by 15% for 24VDC input and by 25% for 12VDC input
6. All specifications typical at nominal line, full load & 25°C, and are subject to change without notice.

EASYMOD is a Sales Mark of Power Solutions Inc.

www.unipowercorp.com or www.powercassette.com

EASYMOD AM-120D FAMILY

AVAILABLE STEADY STATE CURRENT ¹ @ 50°C AMBIENT

MULTIPLE OUTPUT MODELS / OUTPUT CURRENT / AMPS

OUTPUT	DC OUTPUT ¹	MINIMUM	MAXIMUM ³	MAXIMUM ⁴	PEAK ^{4,5}
V1	1.5 to 48 ⁷ V	2.4 ²	16	24	26
V2	1.5 to 48 ⁸ V	1.2 ²	7.5	12	14
V3	1.5 to 48 ⁸ V	0.35 ²	3.5	5	6
V4	1.5 to 48 ⁸ V	0.35 ²	3.5	5	6

SINGLE OUTPUT MODELS (1.5 to 48VDC ^{7,11}) / OUTPUT CURRENT / AMPS

OUTPUT CURRENT	1.5V ~ 3.3V	5V	12V	15V	24V	48V
MINIMUM	0	0	0	0	0	0
MAXIMUM ³	18	18	7.5	6	3.76	1.87
MAXIMUM ⁴	24	24	10	8	5	2.5
PEAK ⁵	27	27	11	9	7	3

- (1) Full power out on V3-V4 with minimal V1 and V2 loading--Option.
 (2) 10% minimum load for stated regulation on multiple O/P units.
 (3) Convection cooling.
 (4) 30CFM forced air cooling.
 (5) 30 seconds maximum duration.
 (6) Most output combinations from 2 to 48+ Volts possible; up to maximum rated Current / Power...Consult EASYMOD Support.

- (7) Specify 0.1V increments.
 (8) Specific output voltage is current dependent
 (9) Regulation may degrade under some output conditions. Consult EASYMOD Support.
 (10) Consult EASYMOD Support for Model #.
 (11) For outputs >48 Volts, consult EASYMOD Support.
 (12) Cover and custom sheet metal available.

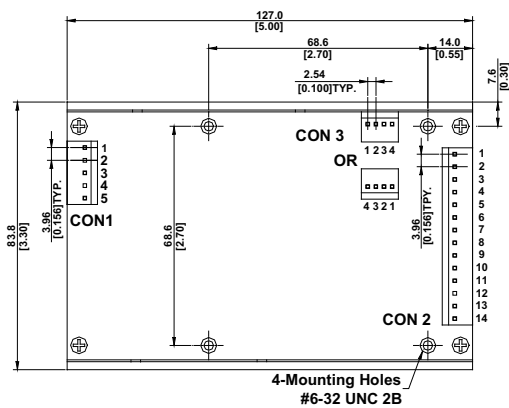
MECHANICAL

CON 1:
 Molex 09-65-2058
 Mating: Molex 09-50-3051

PIN1 GROUND
 PIN2 -V IN
 PIN3 -V IN
 PIN4 +V IN
 PIN5 +V IN

CON 2:
 Molex 09-65-2148
 Mating: Molex 09-50-3141

PIN1~PIN3 V1
 PIN4~PIN7 RET
 PIN8~PIN9 V2
 PIN10 NC
 PIN11 V3
 PIN12 KEY
 PIN13 RET
 PIN14 V4



TOLERANCE: mm +/-0.5
 [inch] +/-0.02

UNIT: mm
 [inch]