

EASYMOD AF-180P SERIES SWITCHERS

180 watts - 1U High - Single to Quad Output

IF WHAT YOU WANT IS WHAT YOU NEVER GET IN 1U HIGH AC INPUT SWITCHERS, the POWER SOLUTION for up to 180 watts steady state of high reliability, Universal AC input power can be found in the AF-180 family of 3.8" x 6.8" x 1.5" HIGH 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 180W (200W peak) of highly regulated output power. The entire family has on-board Class B EMI filtering, is CE marked, complies to EN61000-3-2, 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 DC inputs, 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.



INPUT SPECIFICATION

Input Voltage47-63 Hz; 90-264 VAC
 Harmonic Content Meets EN61000-3-2
 Inrush Current, 115VAC.....40A P - P
 Input Current @ 115VAC..... 4A
 Fusing 5A @ 250VAC On Board

OUTPUT SPECIFICATION

Continuous Output Power ⁵180 Watts
 Line Regulation Over Input Range; V1 - V4 0.2%
 Load Regulation @ 60% 0% Full Load
 V1 - V2 3%
 V3 - V45% 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 Outputs10% max
 Power LimitSet @120% typ
 Response Time ¹ 500 µSec
 Ripple & Noise ³ @ 20 Mhz Band Width ; Full Load
 All Outputs.....1% P-P max
 Remote Sense; Single Output only250mV compensation
 Thermal Protection Optional
 Output Adjustment Range on V1 5% min

FEATURES & OPTIONS

- EN61000-3-2 COMPLIANT
- CB REPORT
- 1.5 - 48 VDC OUTPUTS AVAILABLE
- CE MARKED
- EN60950 APPROVAL
- UL-cUL 60950 APPROVAL
- UL-2601; EN 60601 - APPROVAL
- 40°C START-UP C OPTION
- 24 or 48 VDC INPUT AVAILABLE

GENERAL SPECIFICATION

Efficiency75% typ
 Switching Frequency65KHz typ
 Susceptibility / ImmunitySee 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
 CoolingSee Note 5
 Relative Humidity; Non-Condensing 5 - 95%
 Altitude10,000 ft
 EMIFCC Class B & VDE Class B
 CISPR 22; EN 55022 Class B
 MTBF per MIL 217..... > 200,000 hrs
 Vibration ⁴ from 10 - 55Hz1.0G Peak
 Safety Agency Approvals:..... UL & cUL 60950 & 2601;
 EN 60950; EN 60601; 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 to 150 watts convection.
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.

EASYMOD AF-180P 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	3 ²	26	36	36
V2	1.5 to 48 ⁸ V	0.2 ²	1.2	2.5	3
V3	1.5 to 48 ⁸ V	0.2 ²	1.2	2.5	3
V4	1.5 to 48 ⁸ V	1 ²	5	10	12

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	26	26	11	9	5.5	2.75
MAXIMUM ⁴	36	36	15	12	7.5	3.75
PEAK ⁵	41	41	17	14	8.5	4.25

- (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) 15CFM 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.

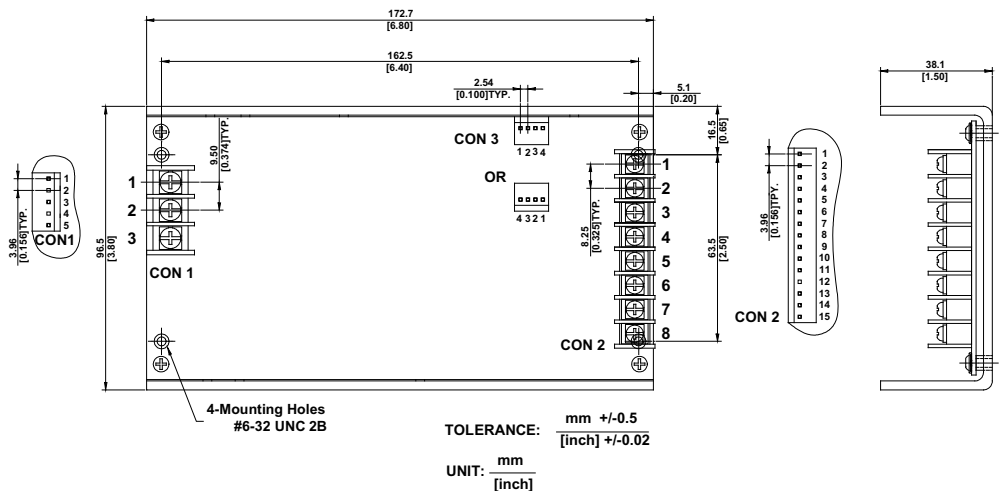
MECHANICAL

CON 1:
Terminal Block, 3-pole,
Pitch 9.5mm

POLE1 GROUND
 POLE2 NEUTRAL
 POLE3 LINE

CON 2:
Terminal Block, 8-pole,
Pitch 9.5mm

POLE1~2 V1
 POLE3~4 RET
 POLE5 V2
 POLE6 V3
 POLE7 RET
 POLE8 V4



Consult EASYMOD support for optional
Molex Connectors.

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