

DESCRIPTION

UNIPOWER's **MEDIMOD AM-120UM** is a 120 Watt Power Supply platform with output voltage(s) that are quickly configured to order with medical safety approvals.

These power supplies are available in a complete range of single to quad output configurations from 1.5 to >48 VDC. Delivering 120 (135 peak) watts of highly regulated output power, the AM-120UM offers Class B emissions, 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 UPGRADES include a multitude of output voltage configurations, optional covers (with or without fan), extended temperature operating range, isolated outputs, DC inputs, attached wire harnesses and much, much more. All these modifications are available without any impact on safety approvals to reduce both development cost and time to market.

FEATURES

- ◆ Universal AC Input meets EN61000-3-2
- ◆ UL-60601 3rd Edition Listed
- ◆ Small 3.3 x 5.0 x 1.5" U-Frame Package
- ♦ 1~4 Outputs configurable from 1.5~48VDC
- ◆ Remote Sense Option (V1 Only)
- ◆ Optional Overtemperature Protection
- ♦ >250k Hours MTBF (MIL-217F)
- ◆ Optional -40°C Guaranteed Start-Up

MEDIMOD AM 120 Wimited **AC INPUT / MEDICAL APPROVED** 120 WATT POWER PLATFORM

3.3 x 5.0 x 1.5" | 127 x 83.08 x 38.1mm









TWO-YEAR WARRANTY

INTERNATIONAL STANDARDS

UL/cUL 60601-1 2nd & 3rd Editions CB Report, CE Mark (LVD)

Contact Unipower to discuss your application and define the right part number for your specific application.

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FLEXIBLE CUSTOMER CONFIGURATION GUIDELINES

with 90-264 VAC Input and -20-50°C Operation

Single Output Capabilities

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

Multiple Output Capabilities

OUTPUT	DC OUTPUT	MIN	CON (3)	AIR (4)	PEAK (4, 5)
V1	1.5 ~ 48V (7)	2.4 (2,13)	18	24	27
V2	1.5 ~ 48V (8)	0.6 (2,13)	5	6	8
V3	1.5 ~ 48V (8)	0.2 (2,13)	1.8	2	3
V4	1.5 ~ 48V (8)	0.2 (2,13)	1.8	2	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. conditions.
- (5)...30 seconds maximum duration.
- (6)...Most output combinations from 2 to 48+ Volts possible; up to maximum rated Current / Power...Consult UNIPOWER.

- (7)...Specify 0.1V increments.
- (8)....Specific output voltage is current dependent.
 (9)...Regulation may degrade under some output Consult UNIPOWER.
 (10).Consult UNIPOWER for Model #.
- (11). For outputs >48 Volts, consult UNIPOWER.
- (12).Cover and custom sheet metal available. (13).10% minimum of marked rating.

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STOCKED / OFF-THE-SHELF MODELS

Listed below are common configurations stocked by UNIPOWER for immediate delivery.

Single Output Models

MODEL	V1	MIN	CON	AIR	PEAK
AM-120UM-S1-STD	5V	0	18A	24A	27A
AM-120UM-S2-STD	12V	0	7.5A	10A	11.25A
AM-120UM-S4-STD	24V	0	3.76A	5A	7A
AM-120UM-S5-STD	48V	0	1.87A	2.5A	3A

Quad Output Models

MODEL	V1	MIN	CON	AIR	V2	MIN	CON	AIR	V3	MIN	MAX	V4	MIN	MAX
AM-120UM-Q1221-STD	+5V	1.2A	9A	12A	+12V	0.6A	4.5A	6A	-12V	0.2A	2A	-5V	0.2A	2A
AM-120UM-Q1331-STD	+5V	1.2A	9A	12A	+15V	0.6A	4.5A	6A	-15V	0.2A	2A	-5V	0.2A	2A
AM-120UM-Q1224-STD	+5V	1.2A	9A	12A	+12V	0.6A	4.5A	6A	-12V	0.2A	2A	+24V	0.2A	2A
AM-120UM-Q1334-STD	+5V	1.2A	9A	12A	+15V	0.6A	4.5A	6A	-15V	0.2A	2A	+24V	0.2A	2A
AM-120UM-Q0122-STD	+3.3V	1.2A	9A	12A	+5V	0.5A	4A	5A	+12V	0.2A	2A	-12V	0.2A	2A
AM-120UM-Q0133-STD	+3.3V	1.2A	9A	12A	+5V	0.5A	4A	5A	+15V	0.2A	2A	-15V	0.2A	2A
AM-120UM-Q0124-STD	+3.3V	1.2A	9A	12A	+5V	0.5A	4A	5A	+12V	0.2A	2A	+24V	0.2A	2A

MIN = Minimum Load Required for specificed regulation

CON = Maximum continuous output current with Convection Cooled Operation (Total power not to exceed 90 Watts continuous)

AIR = Maximum continuous output current with 30 CFM Airflow Operation (Total power not to exceed 120 Watts continuous)

OPTIONAL TOP COVER - Add suffix C to the end of the model number to include a ventilated top cover.

OPTIONAL COVER/FAN ASSEMBLY - Consult factory to request an integrated cover/fan assembly.

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SPECIFICATIONS

Typical at Nominal Line, Full Load and 25°C Unless Otherwise Noted.

INPUT	
Voltage Range	90-264 VAC
Power Factor	
Frequency	
Inrush Current Limiting, Max	
EMI Filter, ConductedFC	
Fast Transients	
Surges	
Input Protection, dual fuse	
Leakage Current	
250.0095 50.000	σοσ μπι @ <u>σ</u> ο ππισ (απ.)
OUTPUT	
Output Power90W Convection /	120W with 30 cfm Airflow
Efficiency	75% Typical
Adjustment Range (V1 Only)	
Ripple / Noise, max	
Line Regulation	
Load Regulation @ 60% ± 40% Full LoadV1-V2 =	
Cross Regulation @ 60% ± 40% Full Load	,
V1: Change in V2 - V4	±0.5%
V2 - V4: Change in V1 @ 75 ±25% F/L	±5% (max)
Transient Load / Slew Rate	
Holdup Time	6msec
Overvoltage Protection (V1 Only)	
Power Limit	>120% (Auto-Recovery)
Response Time500	μSec (25-75% step load)

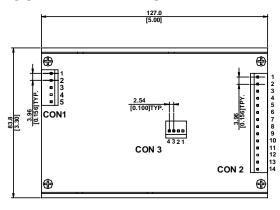
STATUS / CONTROL Remote Sense (Option)>250mV (V1 Only) Power Good (Option)TTL Compatible
ENVIRONMENTAL Operating Temp. Range20°C to +50°C (Full Load) Consult factory for -40°C Guaranteed Start-Up and Industrial Temperature Range options
Output Current Derating 2.5%°C, 50°C to 70°C Storage Temp. Range -40°C to + 85°C Humidity. 5% to 95%, Non-Condensing Immunity. EN61000-4-2; -3; -4; -5; -6; -8; -11 MTBF, 25°C (MIL217F) >250,000 Hours Cooling 30 cfm Airflow for Full Power Immunity. EN61000-4-2; -3; -4; -5; -6; -8; -11
PHYSICAL SPECIFICATIONS Case Dimensions 5.00 x 3.30 x 1.50" / 127 x 83.8 x 38.1mm Weight 1.2 lbs. (0.9 kg.) Vibration 4 from 10 - 55Hz 1.0G Peak
SAFETY STANDARDS UL/CUL60601-1 2nd & 3rd Editions, IEC60601-1 2nd & 3rd Editions,

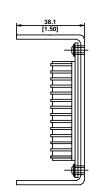
EMI STANDARDS

CB REPORT, CE MARK (LVD)

FCC Class B & VDE Class B, CISPR 22; EN 55022 Class B

OUTLINE DRAWING





PIN 1~5 V1 PIN 6~10RET PIN 11~14.....N/C **MULTIPLE OUTPUTS**

CONNECTOR 2 (MOLEX#09-65-2148 OR EQUIVALENT; MATING CONNETOR= MOLEX#09-50-3141)

SINGLE OUTPUT MODELS

CONNECTOR 1 (MOLEX#09-65-2058 OR EQUIVALENT; MATING CONNECTOR= MOLEX#09-50-3051)

PIN1.....FG PIN2.....KEY PIN3..... NEUTRAL

PIN4.....KEY PIN5.....LINE

PIN1~PIN3 V1 PIN4~PIN7RET PIN8~PIN9 V2 PIN10NC PIN11.....V3 PIN12KEY PIN13 -V4

PIN14 RET or +V4

CONNECTOR 3 (OPTIONAL)
(MOLEX#22-27-2041 OR EQUIVALENT;
MATING CONNECTOR= MOLEX#22-01-3047
PIN1 S-
PIN2 S+

PIN3.....RET

PIN4.....PG

2- ø5.4 Hole 19.0 113.0 [4.45] H TOLERANCE: UNIT: 4-Mounting Holes

#6-32 UNC 2B

am-120m-ds-rev2a-0312.indd

[inch]

mm +/-0.5

[inch] +/-0.02