

# MVLT110 Series

## Medical 110 Watt AC/DC Power Supplies

EOS brand MVLT110 family of medically certified power supplies utilize our patented resonant technology in a slim line 5.0"x 3.04"x1.07" package and over 82% efficiency. Single and quad outputs in all popular DC output configurations are available ranging from 3.3v to 48v. Packing over 8 watts per cubic inch the MVLT110 family is ideal for a wide range of medical industry applications where space is a premium, thermal management critical and a known supplier key.

MVLT110 has universal 90v to 264v input and meets EN61000-3-2 class A&D harmonics with less than 250 micro amps leakage current. The MVLT110 family is RoHs compliant and our factory is ISO 14001 environmentally approved. Worldwide medical safety standards apply and the power supply is fitted with OVP and OCP standard features. Applications include:

- Endoscopy equipment
- Defibrillators & Pumps
- Laboratory gear, IV & drips
- Fluid analyzers
- Respiratory & Diagnostic systems
- Medical lights & cameras
- Video systems



### Features :

- > 110 W Universal input medical AC/DC
- > EN55022-B, CISPR22-B FCC Part 15 Level B, IEC60601-1-2
- > Low leakage current <250µA
- > Ultra high efficiency >82%
- > Small 5.0 x 3.04 x 1.07" size
- > NEMKO, UL, and CSA approvals to IEC60601
- > Cover Kit accessory available.

Model Number	Output	Nom Vout	Set Point	Current No Fan	Current 150LFM	Min Load
MVLT110-1300	V1	5V	5.1V	12A	18A	0.1A
MVLT110-1301	V1	12V	12V	6.8A	9.2A	0.4A
MVLT110-1302	V1	15V	15V	5.5A	7.3A	0.4A
MVLT110-1303	V1	24V	24V	3.33A	4.6A	0.1A
MVLT110-1304	V1	48V	48V	1.7A	2.3A	0.2A
MVLT110-4300	V1	5V	5.1V	10.0A	15.0A	1.0A
	V2	12V	12.4V	3.0A	4.1A	0.1A
	V3	-5V	-5.1V	0.8A	1.1A	0.0A
	V4	-12V	-12.5V	0.8A	1.1A	0.0A
MVLT110-4301	V1	5V	5.1V	10.0A	15.0A	1.0A
	V2	24V	23.5V	2.0A	2.75A	0.1A
	V3	12V	12.5V	0.8A	1.1A	0.0A
	V4	-12V	-12.5V	0.8A	1.1A	0.0A
MVLT110-4302	V1	5V	5.1V	10.0A	15.0A	1.0A
	V2	15V	16.0V	3.0A	4.1A	0.1A
	V3	-5V	-5.1V	0.8A	1.1A	0.0A
	V4	-15V	-16.0V	0.8A	1.1A	0.0A
MVLT110-4303	V1	5V	5.1V	10.0A	15.0A	1.0A
	V2	12V	12.4V	3.0A	4.1A	0.1A
	V3	24V	25.0V	0.8A	1.1A	0.0A
	V4	-12V	-12.5V	0.8A	1.1A	0.0A
MVLT110-4304	V1	3.3V	3.3V	10.0A	15.0A	1.0A
	V2	5V	5.1V	3.0A	4.1A	0.1A
	V3	12V	12.5V	0.8A	1.1A	0.0A
	V4	-12V	-12.5V	0.8A	1.1A	0.0A

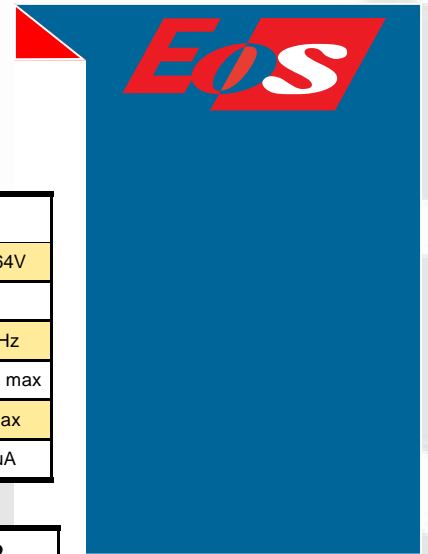
OUTPUT SPECIFICATIONS		
Hold-Up Time	115V	15ms
Voltage Set Point Accuracy	V1 V2, V4 V3	±3% ±5% +7%, -5%
Line Regulation	Low line to high line	±0.3%
Load Regulation Min to 50% & 50% to Max load	V1 V2, V4 V3	±1% ±5% +7%, -5%
Transient Response	50% to full load Voltage deviation Recovery time	10%, max <1ms
OVP	V1 only 5V 3.3V	6.4V, +0.4V 4.1V, +0.2v
Overload Protection	Primary Limited	110 to 160W
Short Circuit Protection	Auto Recovery <6s	Short term
Ripple and Noise <sup>1</sup>	3.3V & 5V Other voltages	50mV 1%
Power Fail Signal <sup>2</sup>	TTL active low	1ms warning
Output rise time		<40ms

1. Maximum current per output channel. Do not exceed total output power rating

2. Power fail signal on quad output models & optional.

All Red Rocket, Inc. EOS power supplies have UL, CSA and Nemko safety compliance and medical versions meet UL60601-1 standards. All our products are RoHs compliant. Visit us at [www.redrocketpower.com](http://www.redrocketpower.com) and contact us at: [sales@redrocketpower.com](mailto:sales@redrocketpower.com) or by calling +1 805-409-0909 today. © 2008, Red Rocket, Inc. EOS brand power supplies and patents are owned exclusively by Red Rocket, Inc. All Rights Reserved.

# MVLT110 Series



## Medical 110W AC/DC Power Supplies

MECHANICAL SPECIFICATION	
AC Input Connector J1	Molex 3 position, 0.156 center Header 26-60-4030 or equivalent
Ground Connector	Spade connector
DC Output connector J2	Molex 6 position, 0.156 center Header 26-60-4060 or equivalent
Size	5.0"x3.04" x1.07" (127.0 x 76.2 x27.18 mm)
Weight	9oz (250g)

INPUT SPECIFICATIONS		
AC Input	Universal	90 to 264V
Efficiency	Typical	82%
Input Frequency		47-63 Hz
Input Current	Full Load at low line	2.5Arms , max
Inrush Current	High Line , cold start	65A, max
Leakage Current		<250 $\mu$ A

INPUT CONNECTOR J3	
Pin 1	Common
Pin 2	Power Fail

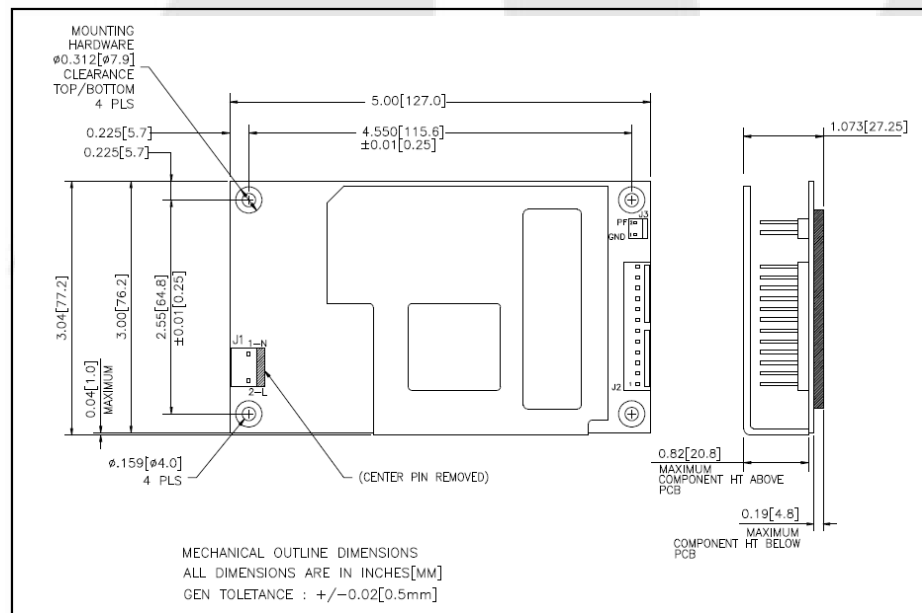
INPUT CONNECTOR J1	
Pin 1	AC Neutral
Pin2	AC Line

OUTPUT CONNECTOR J2		
	Single Output	Quad Output
Pin 1, 2 3, 4	V1	V1
Pin 5, 6, 7, 8	DC Return	DC Return
Pin 9, 10	NC	V2
Pin 11	NC	V3
Pin 12	NC	V4

INPUT SPADE CONNECTOR	
GND	AC Ground

Total Output Power Rating			
Cooling	Convection	Fan Vin >100V	Fan Vin <100V
Single Output	80W	110W	100W
Quad Output	75W	110W	100W
MVLT110-4304	70W	98W	98W
MVLT110-1300	62W	92W	92W

ENVIRONMENTAL SPECIFICATIONS		
Operating Temperature	No derating Linear derate to 50%	0 to 50° C 51 to 70° C
Storage Temperature		-40 to 70° C
Cooling	Convection / Fan	80W / 110W
Relative humidity	Non condensing	95%, max
MTBF	MIL - HDBK-217F	> 200,000 hrs



EMC AND SAFETY SPECIFICATIONS	
CE Mark	Complies with the LVD
EMC	EN5022-B,CISPR22-B, FCC Part 15 Class B, EN50082-1 EN60601-1-2
Harmonic Correction	EN61000-3-2 Class A
Agency Approvals	NEMKO , UL, c-UL
Safety Standards	IEC60601-1, EN60601-1-1, UL60601-1, CSA C22.2 No.6001.1
Safety file number	NEMKO:P06207072 UL: E173812

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