## **MVLT40 Series**

### Medical 40 Watt AC/DC Power Supplies

Low profile in a 4.0"x2.0"x1.07" package and over 82% efficient the EOS MVLT40 medical power supply family comes in single and triple DC output configurations. The low leakage current MVLT40 offers a full 40 watts output power with convection cooling and more with optional air flow. A cover kit is available for easy drop in design and manufacturability.

VLT40-1201

wild Code

E01-02-830:

This industry and designer's favorite is used to power a variety of medical applications to include endoscopy systems and video, pumps/drips, test and lab gear, sleep disorder, If space is a premium and thermal management integral to your design we suggest the MVLT40 as the optimum solution. The MVLT40 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
- Pumps, IVs and drips
- Laboratory gear
- Fluid analyzers
- Respiratory systems
- Diagnostic systems

| Model<br>Number                   | Output | Voltage /<br>Current * | Voltage<br>Set Point | Min.<br>Load |
|-----------------------------------|--------|------------------------|----------------------|--------------|
| MVLT40-1200                       | V1     | 5V@ 8.0A               | 5. 1V                | 0. 2A        |
| MVLT40-1201                       | V1     | 12V@ 3.5A              | 12V                  | 0. 1A        |
| MVLT40-1202                       | V1     | 15V@ 2.7A              | 15V                  | 0. 1A        |
| MVLT40-1203                       | V1     | 24V@ 1.7A              | 24V                  | 0. 05A       |
| MVLT40-1204                       | V1     | 48V@ 0.83A             | 48V                  | 0.05A        |
| MVLT40-3200                       | V1     | 5V@6.0A                | 5. 2V                | 0. 5A        |
|                                   | V2     | 12V@2.0A               | 12. 5V               | 0. 1A        |
|                                   | V3     | -12V@0.5A              | -12. 8V              | 0. 0A        |
| MVLT40-3201                       | V1     | 5V@6.0A                | 5. 2V                | 0. 5A        |
|                                   | V2     | 24V@1.0A               | 24V                  | 0. 1A        |
|                                   | V3     | -12V@0.5A              | -12. 8V              | 0. 0A        |
| MVLT40-3202                       | V1     | 5V@6.0A                | 5. 2V                | 0. 5A        |
|                                   | V2     | 15V@1.5A               | 14. 6V               | 0. 1A        |
|                                   | V3     | -15V@0.5A              | -14. 8V              | 0. 0A        |
| MVLT40-3203                       | V1     | 3.3V@6.0A              | 3. 3V                | 0. 1A        |
|                                   | V2     | 5V@3.0A                | 5. 2V                | 0. 1A        |
|                                   | V3     | -12V@0.5A              | -12. 8V              | 0. 0A        |
| VLT60CK Metal cover kit accessory |        |                        |                      |              |

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

All 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 <u>www.eospower.com</u>. EOS brand power supplies and patents are owned exclusively by EOS Power. All Rights Reserved.

Page 1



### Features :

- > Low leakage current <250 µA</p>
- > EN55022-B, CISPR22-B FCC Part 15 Level B
- > Small 4.0"x2.0"x1.07
  inch package
- > Ultra high efficiency >82%
- > NEMKO, UL, and CSA approvals to IEC60601
- > Cover Kit accessory available.

| INPUT SPECIFICATION   |                             |                           |  |
|-----------------------|-----------------------------|---------------------------|--|
| AC Input              | Auto-ranging                | 90 to 132V<br>180 to 264V |  |
| Efficiency<br>Typical | MVLT40-3203<br>Other Models | 75%<br>82%                |  |
| Input Frequency       |                             | 47-63 Hz                  |  |
| Input Current         | Full Load at low line       | 1.1Arms , max             |  |
| Inrush Current        | High Line , cold start      | 75A, max                  |  |
| Leakage Current       |                             | <250 µA                   |  |

| OUTPUT SPECIFICATIONS          |  |  |  |
|--------------------------------|--|--|--|
| Output Power                   |  | 40W max                                      |  |
| Voltage Set Point              |  | See table                                    |  |
| Hold-Up Time                   | 115V/230V  | 6ms./15ms                                    |  |
| Voltage Set Point<br>Accuracy  | V1<br>V2 and V3  | <u>+</u> 3%<br><u>+</u> 5%                   |  |
| Line Regulation                | Low line to high line                                  | <u>+</u> 0.3%                                |  |
| Load Regulation                | Min to 50% &<br>50% to Max load<br>V1<br>V2 and V3     | <u>+</u> 0.5%<br><u>+</u> 5%                 |  |
| Transient Response             | 50% to full load<br>Voltage Deviation<br>Recovery Time | 10%, max<br><5 ms                            |  |
| OVP<br>(For 3 o/p models only) | V1 only 3.3 V<br>V1 only 5V                            | 3.95V, <u>+</u> 0.25V<br>6.2V, <u>+</u> 0.4V |  |
| Overload Protection            | Primary limited  | Yes, 130%                                    |  |
| Short Circuit Protection       | Auto recovery <6s                                      | Short Term                                   |  |
| Ripple and Noise               | 3.3V and 5V<br>Other voltages                          | 50mV<br>1%                                   |  |
| Output Rise Time               | All outputs  | <100ms                                       |  |

39-DE60-44226-002/A2

E05

# **MVLT40 Series**

## Medical 40W AC/DC Power Supplies

| MECHANICAL SPECIFICATION |   |  |
|--------------------------|---|--|
| AC Input Connector J1    | Molex 3 position, 0.156 center<br>Header 26-60-4030 or equivalent |  |
| Ground Connector         | Spade connector   |  |
| DC Output connector J2   | Molex 6 position, 0.156 center<br>Header 26-60-4060 or equivalent |  |
| Size                     | 4.0 "X 2.0" x 1.07"<br>101.6 x 50.8 x 27.18 mm                    |  |
| Weight                   | 5oz (150g)  |  |

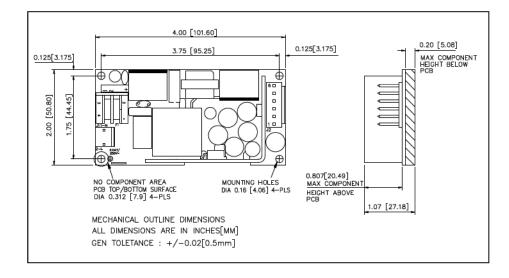
| INPUT SPADE CONNECTOR |                         |  |
|-----------------------|-------------------------|--|
| GND                   | AC Ground               |  |
|                       |                         |  |
|                       |                         |  |
|                       |                         |  |
| INPUT CON             | NECTOR J1               |  |
| INPUT CON             | NECTOR J1<br>AC Neutral |  |
|                       |                         |  |

### **ENVIRONMENTAL SPECIFICATION**

| Operating Temperature | No derating<br>Linear derate to 50% | 0 to 50° C<br>51 to 70° C |
|-----------------------|-------------------------------------|---------------------------|
| Storage Temperature   |                                     | -40 to 70° CC             |
| Cooling               |                                     | Convection                |
| Relative humidity     | Non condensing                      | 95%, max                  |
| MTBF                  | MIL - HDBK-217F                     | > 100,000 hrs             |

| OUTPUT CONNECTOR J2 |               |               |  |  |
|---------------------|---------------|---------------|--|--|
|                     | Single Output | Triple Output |  |  |
| Pin1                | V1            | V1            |  |  |
| Pin2                | V1            | V1            |  |  |
| Pin3                | Common        | Common        |  |  |
| Pin4                | Common        | Common        |  |  |
| Pin5                | NC            | V3            |  |  |
| Pin6                | NC            | V2            |  |  |

#### **EMC AND SAFETY SPECIFICATIONS** CE Mark Complies with the LVD EN5022-B,CISPR22-B, FCC EMC Part 15 Class B, EN50082-1 EN60601-1-2ND ED VDE, UL, c-UL Agency Approval IEC60601-1, EN60601-1-1, Safety Standard UL60601-1, CSA C22.2 No 601 Class 1 SELV. NEMKO:P06206742 Safety file number UL: E173812 4000 VAC Isolation Voltage



All 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.eospower.com. EOS brand power supplies and patents are owned exclusively by EOS Power. All Rights Reserved.



