

65 Watts

- US DoE Energy efficiency level VI
- EU CoC Tier 2 requirements, ErP stage 2
- IEC60601-1-2 4th edition EMC
- Class II –C8
- Single outputs 12 to 48V
- 5 Year warranty



The MDA65 range of external AC-DC power adapters are compliant with the latest medical immunity IEC60601-1-2, energy efficiency Level VI standard, CoC tier 2 and ErP stage 2. The units offer 60-65 watts of output power with output voltages available between 12 and 48VDC. The range is reliable, cost competitive, and comes with an impressive FiDUS 5 year warranty.

Dimensions:

2.36 x 4.69 x 1.42" (60 x 119 x 36mm)

Models & Ratings

| Model Number ⁽¹⁾ | Output Power | Output voltage | Output Current |
|-----------------------------|--------------|----------------|----------------|
| MDA6512-C8 | 60W | 12V | 5.00A |
| MDA6515-C8 | 65W | 15V | 4.34A |
| MDA6518-C8 | 65W | 18V | 3.62A |
| MDA6519-C8 | 65W | 19V | 3.43A |
| MDA6524-C8 | 65W | 24V | 2.71A |
| MDA6548-C8 | 65W | 48V | 1.36A |

Notes

- C18 Class II, C14 & C6 Class I IEC inlet also available on request
- Alternative output connectors available for production quantities. Contact sales for details
- For UK/ US/ EU mains power cable please order UK-C8, US-C8 or EU-C8 separately
- 30V & 36V units also available

Key specifications

| Parameter | Minimum | Typical | Maximum | Units | Notes & Conditions |
|-----------------------|---|---------|---------|-------|---|
| AC Input range | 90 | | 264 | VAC | No derating |
| Operating temperature | 0 | | 60 | °C | 100% power at 40°C, derating to 50% power at 60°C |
| Efficiency | 88 | | | % | |
| Dimensions | 2.36 x 4.69 x 1.42" (60 x 119 x 36mm) | | | | |
| EMC | EN55011 Level B Conducted and Radiated. EN61000-3 and EN61000-4, harmonics, flicker, Surge, EFT, ESD, conducted and radiated to IEC 60601-1-2 4th edition | | | | |

Safety Approvals

| | Safety standard | Notes & Conditions |
|----------------------------|--|--|
| UL | ANSI/AAMI 60601-1, UL 60950-1: 2nd edition | |
| CB | IEC 60601-1 IEC 60950-1:2005 /A2:2013 | PSE |
| TUV | EN 60601-1 EN 60950-1:2006 /A2:2013 | |
| CE | | 2011/65/EU RoHS Directive and 2014/35/EU Low voltage directive |
| Equipment protection class | | Class II (class I available on request) |

Input

| Parameter | Minimum | Typical | Maximum | Units | Notes & Conditions |
|---------------------|---------|---------|---------|-------|---|
| Input voltage | 90 | | 264 | VAC | No derating |
| Input frequency | 47 | | 63 | Hz | |
| Power factor | | | | | EN61000-3-2 class A compliant |
| Input current | | | 1.6 | A | |
| Inrush current | | | 80 | A | High line. Full load, 25°C cool start, Vin=230VAC |
| No load input power | | | 0.21 | W | 230VAC |

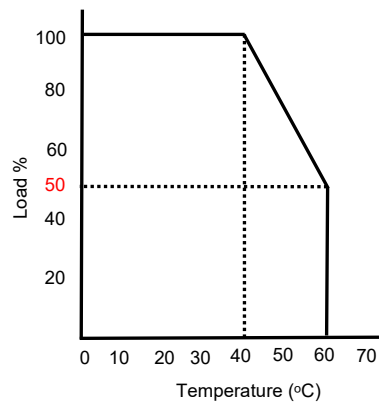
Output

| Parameter | Minimum | Typical | Maximum | Units | Notes & Conditions |
|--------------------------|---------|---------|---------|--------|---|
| Output voltage | 12 | | 48 | VDC | 30V & 36V units also available on request |
| Total regulation | | ±5 | | % | |
| Minimum load | 0 | | | % | |
| Transient response | | 0.5 | | mS | 50% load change |
| Ripple & Noise | | 2 | | %Pk-Pk | All models measured with 10uF and 0.1uf capacitor. 20 MHz bandwidth |
| Hold up time | 10 | | | ms | At full load |
| Overload protection | | | 170 | % | Automatic recovery |
| Short circuit protection | | | | | Automatic recovery |
| Over voltage protection | | | 150 | % | Latch off reset |
| Touch current | | | 100 | uA | |

Environmental

| Parameter | Minimum | Typical | Maximum | Units | Notes & Conditions |
|-----------------------|---------|---------|---------|-------|---|
| Operating temperature | 0 | | 60 | °C | 100% load at 40°C, derating to 50% load at 60°C |
| Storage temperature | -20 | | 80 | °C | |
| Cooling | | | | | Convection cooled |
| Operating Humidity | 20 | | 80 | % RH | |
| Storage Humidity | 10 | | 90 | % RH | |

Derating curve



MDA65 Series

General

| Parameter | Minimum | Typical | Maximum | Units | Notes & Conditions |
|-----------------------|-----------------------|---------|---------|-------------------|---|
| Efficiency | 88 | | | % | |
| Isolation | Input to Output: 4000 | | | VAC | For 1 minute. 2 x MOPP |
| Insulation resistance | | 10 | | MOhm | 500Vdc input to output and output to ground |
| Power density | | | 4.13 | W/in ³ | |
| MTBF | 300 | | | KHrs | As per Telcordia SR-332 |
| Weight | | 310 | | g | |

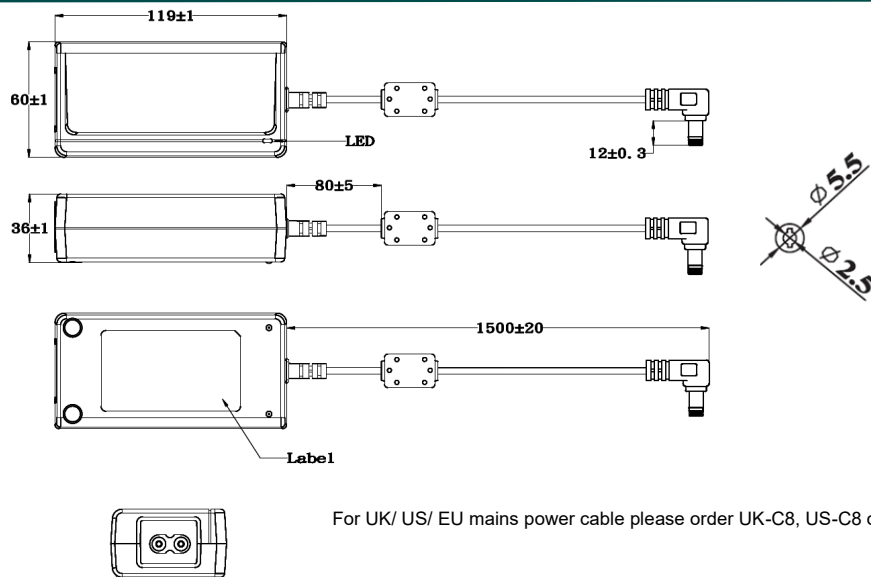
EMC: Emissions

| | Standard | Test level | Criteria | Notes & Conditions |
|------------------|-------------|------------|----------|--------------------|
| Conducted | EN55011 | B | | |
| Radiated | EN55011 | B | | |
| Harmonic current | EN61000-3-2 | Class A | | |
| Voltage flicker | EN61000-3-3 | | | |

EMC: Immunity

| | Standard | Test level | Criteria | Notes & Conditions |
|------------------------------|--------------|---|----------|---|
| ESD | EN61000-4-2 | 3 | A | 8kV contact, 15kV air |
| Radiated | EN61000-4-3 | 3 | A | 3-28V/m, 80MHz-2700MHz, 1KHz 80% AM Modulation |
| EFT | EN61000-4-4 | 3 | A | 2kV 100KHz |
| Surges | EN61000-4-5 | Installation Class 3 | A | 2KV L/N to GND, 1KV L to N both at 0°,90°,180°,270° |
| Conducted | EN61000-4-6 | 3 | A | 3/6Vrms, 1KHz 80 AM Modulation 150KHz-80MHz |
| PFMF | EN61000-4-8 | 4 | A | 30A/m |
| Voltage Dips / Interruptions | EN61000-4-11 | 100% for 0.5 & 1 cycle, 30% for 25 cycles: 240VAC A,A,A, 100VAC A,A,B interrupt 250,300 cycles and 30% for 30 cycles: 240VAC B,B,A, 100VAC B,B,B | | |

Mechanical Details



Notes

- All dimensions in mm
- Output connector : Tuning fork style 5.5 / 2.5mm
- 12-15V use AWG16, other voltages AWG18