

# EDP65



Safety: Medical IEC 60601 3<sup>rd</sup> Ed, Amend 1

- EMC: Medical IEC 60601-1-2, 4<sup>th</sup> Ed
- ✓ BF Leakage, 2 MOPP
- ✓ IEC AC Inlet Options Available for Class I and Class II Operation
- Universal 90-264 VAC Input, 50/60 Hz
- ✓ DoE Efficiency Level VI, RoHS

# 

## **PRODUCT DESCRIPTION**

The Astrodyne TDI EDP65 is a series of external desktop power supplies designed for industrial and medical applications. These products operate over the input voltage range of 90 to 264 VAC at 50-60Hz frequency and produce up to 65 Watts of regulated DC output power. They are compliant with the latest DoE Level VI efficiency; IEC 60601-1-1, 3<sup>rd</sup> Edition, Amendment 1 safety; and IEC 60601-1-2, 4<sup>th</sup> Edition, Class B EMC standards.

## **PRODUCT MODELS**

| Model  | Output Power | Output Voltage | Output Current | Load Regulation |
|--|--------------|----------------|----------------|-----------------|
| Class I Models (with IEC C14 AC Inlet and 2.5mm Straight Coax DC Plug) |              |                |                |                 |
| EDP65-12-MB1-100   | 65W          | 12VDC          | 5.4A           | ±5%             |
| EDP65-15-MB1-100   | 65W          | 15VDC          | 4.3A           | ±5%             |
| EDP65-18-MB1-100   | 65W          | 18VDC          | 3.6A           | ±5%             |
| EDP65-19-MB1-100   | 65W          | 19 VDC         | 3.4A           | ±5%             |
| EDP65-24-MB1-100   | 65W          | 24VDC          | 2.7A           | ±5%             |
| EDP65-30-MB1-100   | 65W          | 30VDC          | 2.1A           | ±3%             |
| EDP65-36-MB1-100   | 65W          | 36VDC          | 1.8A           | ±3%             |
| EDP65-48-MB1-100   | 65W          | 48VDC          | 1.3A           | ±3%             |
| EDP65-54-MB1-100   | 65W          | 54VDC          | 1.2A           | ±3%             |



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| Model   | Output Power | Output Voltage | Output Current | Load Regulation |
|---|--------------|----------------|----------------|-----------------|
| Class II Models (with IEC C18 AC Inlet and 2.5mm Straight Coax DC Plug) |              |                |                |                 |
| EDP65-12-MB2-100  | 65W          | 12VDC          | 5.4A           | ±5%             |
| EDP65-15-MB2-100  | 65W          | 15VDC          | 4.3A           | ±5%             |
| EDP65-18-MB2-100  | 65W          | 18VDC          | 3.6A           | ±5%             |
| EDP65-19-MB2-100  | 65W          | 19 VDC         | 3.4A           | ±5%             |
| EDP65-24-MB2-100  | 65W          | 24VDC          | 2.7A           | ±5%             |
| EDP65-30-MB2-100  | 65W          | 30VDC          | 2.1A           | ±3%             |
| EDP65-36-MB2-100  | 65W          | 36VDC          | 1.8A           | ±3%             |
| EDP65-48-MB2-100  | 65W          | 48VDC          | 1.3A           | ±3%             |
| EDP65-54-MB2-100  | 65W          | 54VDC          | 1.2A           | ±3%             |



#### INPUT SPECIFICATIONS

| Input Voltage Range   | 90-264 VAC               |
|-----------------------|--------------------------|
| Input Frequency       | 47-63 Hz (50/60 Hz Nom.) |
| Input Current         | 1.62A max at 100VAC      |
|                       | 0.72A max at 240VAC      |
| Earth Leakage Current | 100uA max at 240VAC      |

#### MAIN OUTPUT SPECIFICATIONS

| Output Voltage        | See Selection Chart      |
|-----------------------|--------------------------|
| Output Power          | 65W                      |
| No Load Power         | 210mW max                |
| Load Regulation       | ±5% max                  |
| Line Regulation       | ±1% max                  |
| Over Load Protection* | 110-150%, Auto Recovery  |
| Efficiency            | 89% typ                  |
| Over Voltage*         | 112-132%                 |
| Short Circuit         | Auto Recovery            |
| Transient Response    | 110Vin, FL 4 ms          |
| Temperature Coeff.    | ±0.04%/°C                |
| Ripple/Noise          | 100mV Pk-Pk max (< 48V)  |
|                       | 150mV Pk-Pk max (>= 48V) |
|                       |                          |

#### **ISOLATION SPECIFICATIONS**

| Input to Output        | 4000VAC |
|------------------------|---------|
| Input to GND (Class I) | 1500VAC |
| Isolation Resistance   | 50ΜΩ    |

#### MECHANICAL SPECIFICATIONS

| Size **           | 5.34" x 2.59" x 1.46"  |  |
|-------------------|------------------------|--|
|                   | 135.6 x 65.8 x 37.1 mm |  |
| Weight            | 12.34oz / 350g         |  |
| Case Type         | Desktop                |  |
| ** Case size only |                        |  |

All Specifications are typical at nominal input, full load, 25°C unless specified otherwise.

\*These are stress ratings. Exposure of the devices to any of these conditions may adversely affect long term reliability. Operation under conditions other than the standard operating conditions is neither warranted nor implied.

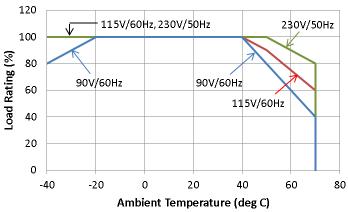
#### SAFETY AND COMPLIANCE CERTIFICATIONS

| Safety Approvals I       | EC 60601-1 3 <sup>rd</sup> Ed, Amend 1:  |
|--------------------------|--|
| L                        | JL/cUL, UL-EU, CB/CE, CSA C22.2          |
| EMC Overall E            | EN60601-1-2, 4 <sup>th</sup> Ed, Class B |
| Conducted and            | EN 55011 (CISPR11), Class B;             |
| Radiated Emissions       | FCC Part 15, Class B;                    |
|                          | ICES-003 Issue 6, Class B                |
| Harmonic Current         | EN 61000-3-2, Class B                    |
| Voltage Fluctuations     | 5 EN 61000-3-3                           |
| ESD Immunity             | EN 61000-4-2, Level 4                    |
| <b>RF Field Immunity</b> | EN 61000-4-3, Level 2                    |
| EFT Burst Immunity       | EN 61000-4-4, Level 3                    |
| Surge Immunity           | EN 61000-4-5, Level 2                    |
| Conducted Immunit        | y EN 61000-4-6, Level 2                  |
| Magnet Field Immu        | nity EN 61000-4-8, Level 4               |
| Voltage Dips and         | EN 61000-4-11                            |
| Interruptions            |  |
| Case Flammability Rat    | ing UL 94 V-1                            |
|                          |  |

#### **ENVIRONMENTAL SPECIFICATIONS**

| Operating Temperature | -25 to +40°C at Full Load,    |  |
|-----------------------|-------------------------------|--|
|                       | -40 to +70°C at Reduced Load  |  |
|                       | See derating chart            |  |
| Cooling               | Free Air Convection           |  |
| Storage Temperature*  | -40 to +85°C                  |  |
| Operating Humidity*   | 0% to 95%, non-condensing     |  |
| Operating Altitude    | 3000m                         |  |
| Vibration             | 5G, 10 ~500Hz, 10min./1 cycle |  |
| Drop Test             | 120cm, 1 ea. on six sides     |  |
|                       |                               |  |

#### **TEMPERATURE DERATING**





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