



**TRI-MAG, Inc.**  
 your POWER Specialists

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# DZ100M SERIES

## 100 Watts with PFC

### FOR MEDICAL APPLICATIONS



#### GENERAL SPECIFICATIONS

|                                       |                               |
|---------------------------------------|-------------------------------|
| Input Voltage.....                    | 90VAC to 260VAC               |
| Input Frequency.....                  | 47Hz to 63Hz                  |
| Inrush Current (cold).....            | Less than 50A at 220VAC, 25°C |
| Operating Temperature.....            | 0 to 50°C                     |
| Storage Temperature.....              | -20°C to 85°C                 |
| Cooling.....                          | Free Air Convection           |
|                                       | 130 Watts with 18 CFM         |
| Efficiency.....                       | 85-90% Typical                |
| Holdup Time.....                      | >20ms at 115VAC               |
| Overvoltage Protection.....           | Latch-off                     |
| Overload Protection.....              | Auto recovery                 |
|                                       | Within 150% rated load        |
| Short circuit protection.....         | Auto recovery                 |
| Earth Leakage.....                    | 250µA Max at 240VAC           |
| Designed in full compliance with..... | UL 2601-1                     |
|                                       | CSA 22.2 #601-1               |
|                                       | VDE EN60601-1                 |
| EMI & EMS.....                        | EN55011 "B"                   |
|                                       | FCC docket class "B"          |
|                                       | EN61000-3-2                   |

#### DESCRIPTION

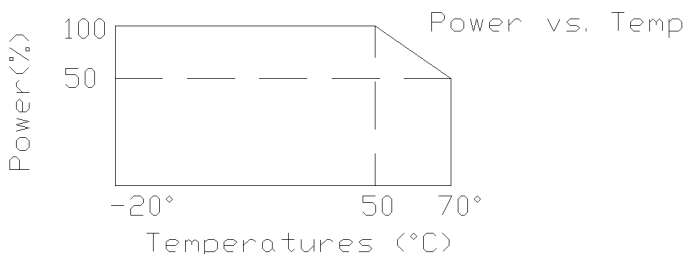
DZ100M series is a universal input multiple output power supply. The series is a 100 watts power supply in the size of 3"x 5" with PFC and high density 6W/in<sup>3</sup>. The efficiency can reach up to 85-90% depending on model.

#### FEATURES

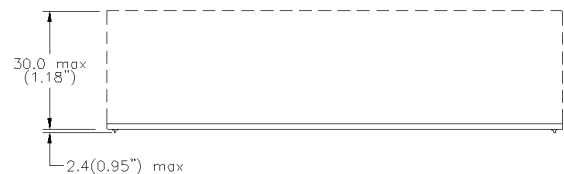
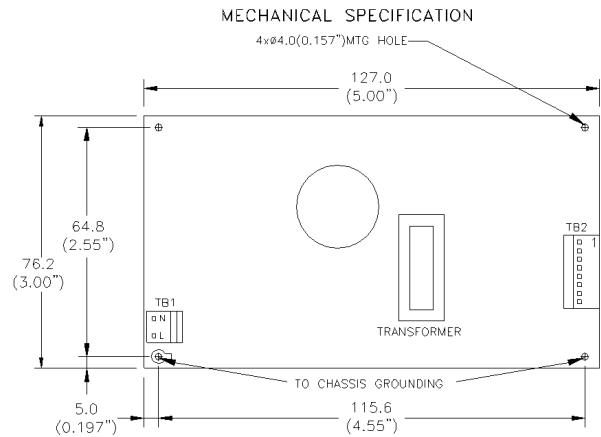
- EMI FCC Class B
- Power Factor Correction
- No Minimum Load Required
- Single and Multiple Output
- Universal input 90VAC to 260VAC
- Low Leakage
- Double Fused

#### APPLICATIONS

- Medical equipment
- Dental equipment
- Equipment with low leakage current requirements



#### MECHANICAL SPECIFICATIONS



TB1—AC input : Molex 5277-02A or equivalent  
 TB2—DC output : Molex 5273-08A or equivalent  
 Note: DZ100M-2, -10 Height 1.35" (34.29mm)



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**OUTPUT SPECIFICATIONS**


| Model     | Watts | Voltage (Vdc) | Load (A) |      |      | Tolerance ± | Ripple & Noise | Regulation |      |
|-----------|-------|---------------|----------|------|------|-------------|----------------|------------|------|
|           |       |               | Min.     | Rate | Peak |             |                | Line       | Load |
| DZ100M-6  | 100   | +5V           | 0        | 20   | 26   | 1%          | 50 mV          | 0.5%       | +1%  |
| DZ100M-7  | 100   | +12V          | 0        | 9    | 11   | 1%          | 100 mV         | 0.5%       | +1%  |
| DZ100M-8  | 100   | +15V          | 0        | 7    | 8.7  | 1%          | 100 mV         | 0.5%       | +1%  |
| DZ100M-9  | 100   | +24V          | 0        | 4.5  | 5.4  | 1%          | 200 mV         | 0.5%       | +1%  |
| DZ100M-14 | 100   | +48V          | 0        | 2.1  | 2.7  | 1%          | 200 mV         | 0.5%       | ±1%  |
| DZ100M-2  | 100   | +5V           | 0        | 10   | 15   | 1%          | 50 mV          | 0.5%       | ±1%  |
|           |       | +12V          | 0        | 3    | 4.1  | 5%          | 100 mV         | 0.5%       | ±5%  |
|           |       | -12V          | 0        | 0.8  | 1.1  | 5%          | 100 mV         | 0.5%       | ±5%  |
| DZ100M-10 | 100   | +5V           | 0        | 10   | 15   | 1%          | 50 mV          | 0.5%       | +1%  |
|           |       | +15V          | 0        | 2.5  | 4.1  | 5%          | 100 mV         | 0.5%       | ±5%  |
|           |       | -15V          | 0        | 0.8  | 1.1  | 5%          | 100 mV         | 0.5%       | ±5%  |
| DZ100M-21 | 100   | +28V          | 0        | 3.8  | 4.65 | 1%          | 100 mV         | 0.5%       | ±1%  |

**Note:** Contact factory for Safety Agency Approved status.

1. Each output can provide up to peak load temporarily. Continuous staying in more than rated load is not allowed.
2. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
3. Line regulation is defined by changing ±10% of input voltage from nominal line at rated load.
4. Load regulation is defined by changing ±40% of measured output load from 60% rated load.
5. The ripple and noise is measured by using 15MHz bandwidth limited oscilloscope and terminated each output with a 0.47 μF capacitor at rated load and nominal line.
6. Hold up time is measured from the end of the last charging pulse to the time which the main output drops down to 95% output voltage at rated load and nominal line.
7. Efficiency is measured at rated load.

“U” shape and enclosed available. DZ100M-XXEC for Enclosed and DZ100M-XXEU for “U” shape.

**EC**



| Figure | Inches | (mm)  |
|--------|--------|-------|
| A      | 6.22   | 158   |
| B      | 3.66   | 93    |
| C      | 1.45   | 36.8  |
| D      | 5.00   | 127   |
| E      | 1.93   | 49    |
| F      | 0.79   | 20    |
| G      | 0.79   | 20    |
| H      | 0.28   | 7.11  |
| I      | 0.86   | 21.8  |
| J      | 4.00   | 101.6 |

