



TRI-MAG, Inc.
your POWER Specialists

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 (559) 651-2222 • FAX (559) 651-0188
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DZ100M SERIES

100 Watts with PFC

FOR MEDICAL APPLICATIONS



GENERAL SPECIFICATIONS

| | |
|---------------------------------------|--|
| Input Voltage..... | 90VAC to 264VAC |
| Input Frequency..... | 47Hz to 63Hz |
| Power Factor..... | >0.95 |
| 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 for 100W 18CFM for 130W |
| Efficiency..... | 85-90% Typical |
| Holdup Time..... | >20ms at 115VAC |
| Oversvoltage Type..... | Latch Off |
| Overload Protection..... | Auto Recovery |
| Short Circuit Protection..... | Auto Recovery |
| Earth Leakage..... | 250µA @240VAC |
| Designed in full compliance with..... | UL 60601-1 CSA 22.2 #601.1 EN60601-1 |
| EMI..... | EN55022 "B" FCC docket class "B" |
| Harmonics..... | EN61000-3-2 Class D |
| EMS..... | EN61000-4-2,-3,-4,-5,-6,-8,-11 |

DESCRIPTION

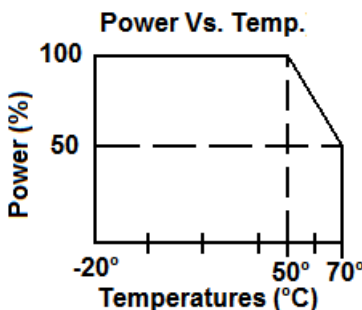
DZ100M series is a universal input multiple output power supply. The series is a 100 watts power supply in the size of 3" x 5" with PFC and high density 6W/in³. The efficiency can reach up to 85-90% depending on model.

FEATURES

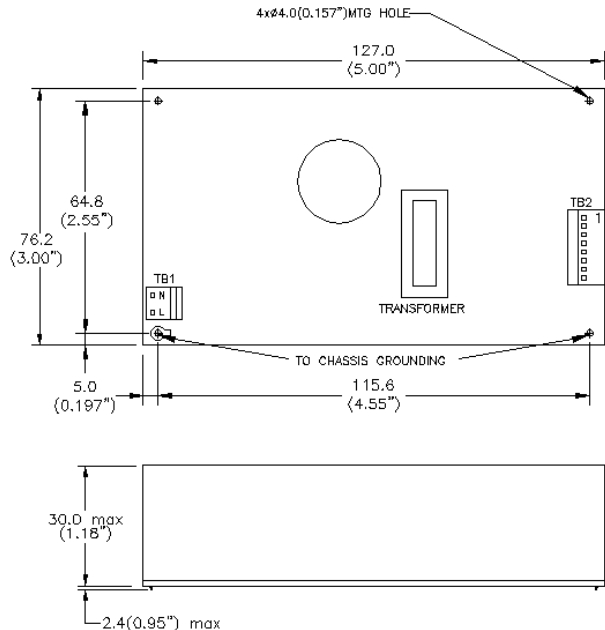
- EMI FCC Class B
- Power Factor Correction
- No Minimum Load Required
- Single and Multiple Output
- Universal input 90VAC to 260VAC
- Low Leakage
- Double Fused

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)
 127.0mm X 76.2mm X 32mm
 5" X 3" X 1.26"



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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% | 120 mV | 0.5% | ±5% |
| | | -12V | 0 | 0.8 | 1.1 | 5% | 120 mV | 0.5% | ±5% |
| DZ100M-10 | 100 | +5V | 0 | 10 | 15 | 1% | 50 mV | 0.5% | +1% |
| | | +15V | 0 | 2.5 | 4.1 | 5% | 150 mV | 0.5% | ±5% |
| | | -15V | 0 | 0.8 | 1.1 | 5% | 150 mV | 0.5% | ±5% |
| DZ100M-21 | 100 | +28V | 0 | 3.8 | 4.65 | 1% | 100 mV | 0.5% | ±1% |
| DZ100M-11 | 100 | +5V | 0 | 2.5 | 4 | 1% | 50 mV | 0.5% | +1% |
| | | +24V | 0 | 2.8 | 4 | 5% | 240 mV | 0.5% | ±5% |
| | | -+12V | 0 | 0.7 | 1 | 5% | 120 mV | 0.5% | ±5% |

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



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DZ100M SERIES 100 WATT— PIN ASSIGNMENT

| Model \ Pin | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------|------|------|------|-----|-----|-----|------|------|------|
| DZ100M-2 | +5V | +5V | +5V | COM | COM | COM | COM | +12V | -12V |
| DZ100M-6 | +5V | +5V | +5V | +5V | COM | COM | COM | COM | |
| DZ100M-7 | +12V | +12V | +12V | COM | COM | COM | | | |
| DZ100M-8 | +15V | +15V | +15V | COM | COM | COM | | | |
| DZ100M-9 | +24V | +24V | +24V | COM | COM | COM | | | |
| DZ100M-14 | +48V | +48V | +48V | COM | COM | COM | | | |
| DZ100M-10 | +5V | +5V | +5V | COM | COM | COM | COM | +15V | -15V |
| DZ100M-21 | +28V | +28V | +28V | COM | COM | COM | | | |
| DZ100M-11 | +5V | +5V | +5V | COM | COM | COM | +24V | +24V | +12V |

ENCLOSURES (optional)

Note: Package options are available for this series, EU type (U shape) and EC type (Enclosed)

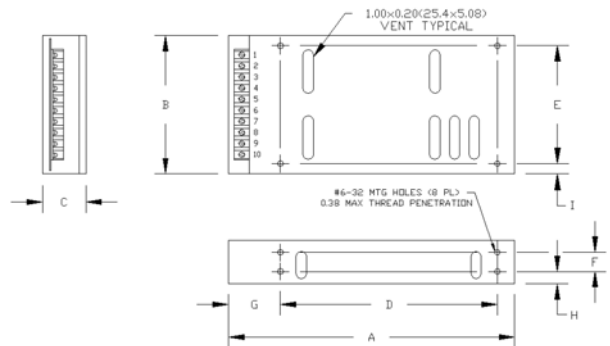
EC



EU

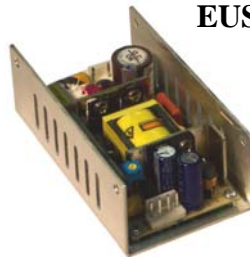


| Figure | Inches | (mm) |
|--------|--------|-------|
| A | 6.22 | 158 |
| B | 3.66 | 93 |
| C | 1.45 | 36.8 |
| D | 5.00 | 127 |
| E | 1.93 | 49 |
| F | 0.79 | 20 |
| G | 0.79 | 20 |
| H | 0.28 | 7.11 |
| I | 0.86 | 21.8 |
| J | 4.00 | 101.6 |



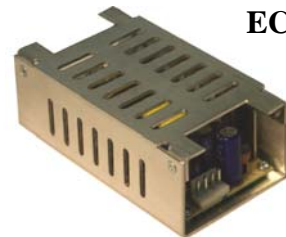
*Note DZ065 pictured in chassis

EUS



*Note DY040 pictured in chassis

ECS



Our Standard power supplies, the DZ100M Series, can be installed into a fully enclosed chassis or in a 'U' shape chassis as an option. These options offer two mounting planes to choose from. The fully enclosed option help to reduce radiated noise.