

# DZ150 SERIES

## 150 Watts with PFC

For Medical and Industrial Applications



### DESCRIPTION

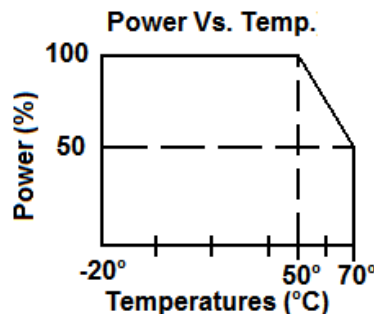
DZ150 series are 150W with active PFC in U shape chassis power supply. With soft-switching topology, low-profile height fits 1U constraints, high efficiency and high density in 4.0 W/in<sup>2</sup>. 220W peak rating for 8 seconds.

### FEATURES

- EMI FCC Class B
- Power Factor Correction
- No Minimum Load Required (Single Outputs Only)
- Single and Multiple Output
- Universal input 90VAC to 264VAC

### APPLICATIONS

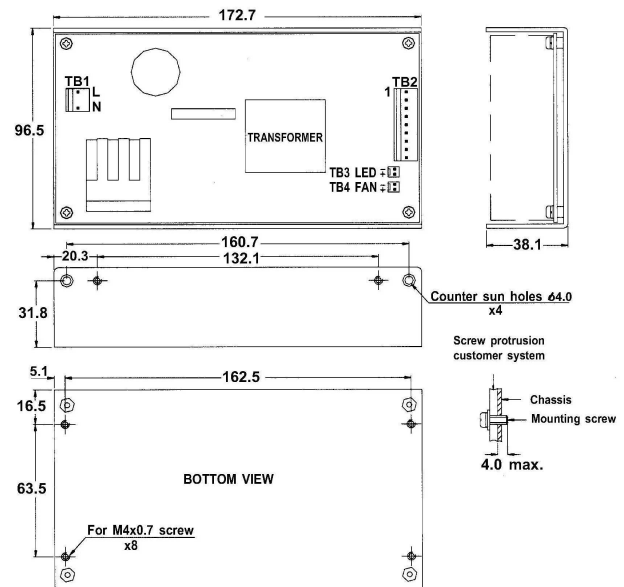
- Computer Peripherals
- Telecommunications
- Tape Drives
- Test Instrumentation Product
- Data Acquisition
- Medical



### GENERAL SPECIFICATIONS

Input Voltage.....	90VAC to 264VAC
Input Frequency.....	47Hz to 63Hz
Power Factor.....	>0.95
Inrush Current (cold).....	Less than 20A at 115VAC or 40A at 230VAC cold start, 25°C
Operating Temperature.....	0 to 70°C
	De-rated 2.5%/°C >50°C
Storage Temperature.....	-20°C to 85°C
Cooling.....	Free Air Convection
Efficiency.....	79-88% Typical
Holdup Time.....	>20ms
Overvoltage Type.....	Latch off
Overload Protection.....	Auto-recovery
Short Circuit Protection.....	Auto-recovery
Earth Leakage.....	300µ Max @ 240VAC
Designed in full compliance with.....	UL 60950-1, UL60601-1
	CSA 22.2 #60950-1 No.601.1
	EN60950-1, EN60601-1
EMI.....	FCC "B", EN55022 "B", EN55011 "B"
Harmonics.....	EN61000-3-2 class D
EMS.....	EN61000-4-2, -3, -4, -5, -6, -8, -11

### MECHANICAL SPECIFICATIONS



1. Dimension shown in mm as above.
2. Size: 3.8" X 6.8" X 1.5"  
[96.5mm X 172.7mm X 38.1mm]
3. Connectors: AC Input: Molex 5277-02A or equivalent  
DC Output: Molex 5277-12A for Quad output 5277-10A for other  
Fan: Molex 5045-02A or equivalent  
Remote Sense: Molex 5045-02A or equivalent

**OUTPUT SPECIFICATIONS**

Model	Watts	Voltage (Vdc)	Load (A)			Tolerance ±	Ripple & Noise	Regulation	
			Min.	Rate	Peak			Line	Load
DZ150-1EU DZ150-1EC	150	+5V +12V -12V	0 0 0	10 7 0.5	20 15 -	1% 5% 5%	50 mV 120 mV 120 mV	± 1% ± 1% ± 1%	± 1% ± 5% ± 5%
DZ150-19EU DZ150-19EC	150	+3.3V +5V +12V -12V	0 0 0 0	10 8 3.5 0.5	15 10 - -	3% 2% 5% 5%	50 mV 50 mV 120 mV 120 mV	± 1% ± 1% ± 1% ± 1%	± 3% ± 3% ± 5% ± 5%
DZ150-12EU DZ150-12EC	150	+5V +12V	0 0	10 7	20 15	1% 5%	50 mV 120 mV	± 1% ± 1%	± 1% ± 1%
DZ150-6EU DZ150-6EC	150	+5V	0	28	-	1%	50 mV	± 1%	± 1%
DZ150-7EU DZ150-7EC	150	+12V +5V	0 0	12 2	18 -	1% 2%	120 mV 50 mV	± 1% ± 1%	± 1% ± 1%
DZ150-7EU-1 DZ150-7EC-1	150	+12V	0	12.5	18	1%	120 mV	± 1%	± 1%
DZ150-8EU DZ150-8EC	150	+15V +5V	0 0	9.6 2	14 -	5%	200 mV	± 1%	± 1%
DZ150-8EU-1 DZ150-8EC-1	150	+15V	0	10	14	1%	150 mV	± 1%	± 1%
DZ150-9EU DZ150-9EC	150	+24V +5V	0 0	6 2	8.8 -	1% 2%	200 mV 50 mV	± 1% ± 1%	± 1% ± 1%
DZ150-9EU-1 DZ150-9EC-1	150	+24V	0	6.5	8.8	1%	240 mV	± 1%	± 1%
DZ150-14EU DZ150-14EC	150	+48V	0	3.2	4.6	1%	480 mV	± 1%	± 1%
DZ150-11EU DZ150-11EC	150	+5V +24V +12V -12V	0 0 0 0	8 3 2 0.5	18 7 - -	2% 5% 5% 5%	50 mV 240 mV 120 mV 120 mV	± 1% ± 1% ± 1% ± 1%	± 3% ± 3% ± 5% ± 5%

**DZ150 SERIES 150WATT— PIN ASSIGNMENT**

Model \ Pin	1	2	3	4	5	6	7	8	9	10	11	12
DZ150-1EU/EC	-12V	+5V	+5V	+5V	COM	COM	COM	COM	COM	+12V	+12V	+12V
DZ150-19EU/EC	+12V	-12V	+3.3V	+3.3V	+3.3V	COM	COM	COM	COM	COM	+5V	+5V
DZ150-12EU/EC	N/C	+5V	+5V	+5V	COM	COM	COM	COM	COM	+12V	+12V	+12V
DZ150-6EU/EC	+5V	+5V	+5V	+5V	+5V	+5V	COM	COM	COM	COM	COM	COM
DZ150-7EU/EC	+5V	COM	COM	COM	COM	+12V	+12V	+12V	+12V			
DZ150-7EU/EC-1	N/C	COM	COM	COM	COM	+12V	+12V	+12V	+12V			
DZ150-8EU/EC	+5V	COM	COM	COM	COM	+15V	+15V	+15V	+15V			
DZ150-8EU/EC-1	N/C	COM	COM	COM	COM	+15V	+15V	+15V	+15V			
DZ150-9EU/EC	+5V	COM	COM	COM	COM	+24V	+24V	+24V	+24V			
DZ150-9EU/EC-1	N/C	COM	COM	COM	COM	+24V	+24V	+24V	+24V			
DZ150-14EU/EC	N/C	COM	COM	COM	COM	+48V	+48V	+48V	+48V			
DZ150-11EU/EC	+12V	-12V	+5V	+5V	+5V	COM	COM	COM	COM	COM	COM	+24V

NOTE: Enclosed (EC) is available

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

- Each output can provide up to peak load temporarily. Continuous operation at greater than rated load is not allowed.
- At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
- Line regulation is defined by changing  $\pm 10\%$  of input voltage from nominal line at rated load.
- Load regulation is defined by changing  $\pm 40\%$  of measured output load from 60% rated load.
- The ripple and noise is measured by using 15MHz bandwidth limited oscilloscope. Each output is terminated with a 0.47  $\mu$ F capacitor at rated load and nominal line.
- Hold up time is measured from the end of the last charging pulse to the time when the main output drops down to 95% output voltage at rated load and nominal line.
- Efficiency is measured at rated and nominal load.

**OTHER POWER SUPPLIES FOR MEDICAL APPLICATIONS**

- Desktop Style
  - DT430M-5 (30 Watts, +12VDC)
  - DT450M-6 (50 Watts, +24VDC)
- “U” shape and Enclosed
  - DZ200M-9EU or EC  
200 Watts, 24V convection cooled 250 Watts with 18 CFM forces air  
dimension: 4.2” x 8.0” x 1/5” (106.7mm x 203.2mm x 38.1mm)
  - UV480PM-4  
80 Watts, +5V @ 12.0A and +12V @ 1.0A  
dimension: 3.3” x 5.25” x 1.5” (83.82mm x 133.35mm x 38.1mm)
- Detailed Specification is available