



FEATURES

- Self-powered, two-terminal operation
- 350 to 600Vac operating input range
- Half-wave averaging, rms calibrated
- Large, easy-to-read, bright red or green LED display
- Rugged, epoxy-encapsulated construction
- Built-in bezel for panel mounting
- Reliable screw terminals for easy installation
- Small 1.38" x 0.88" x 1.0" package

Functional Specifications

Input

| | |
|---------------------|-----------------------|
| Voltage Range ① | 350-600Vrms (47-63Hz) |
| Current Consumption | 50mArms (max.) |

Performance

| | |
|----------------------------------|--|
| Sampling Rate | 2.5 readings/second |
| Measurement Type | Half-wave average, rms calibrated for sinusoidal input |
| Accuracy @ +25°C | ±1V (typ.), ±2V (max.) |
| Temperature Drift (-25 to +60°C) | ±0.15 Volts/°C (max.) |

Mechanical

| | |
|---------------|--------------------------|
| Dimensions | 1.38" x 0.88" x 1.00" |
| Display Type | 3 digit LED, 0.37"/9.4mm |
| Weight | 1 ounce (28 grams) |
| Case Material | Polycarbonate |

Environmental

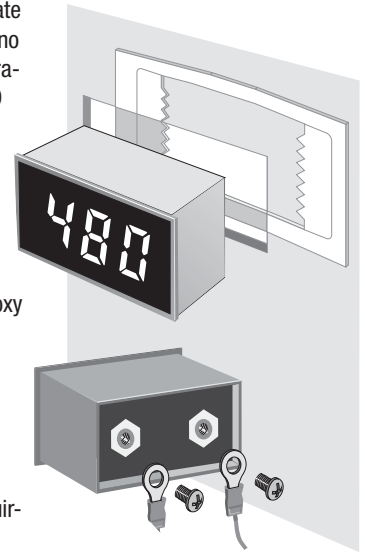
| | |
|---------------------------|--------------|
| Operating Temperature | -25 to +60°C |
| Storage Temperature | -40 to +75°C |
| Humidity (Non-condensing) | 0 to 95% |

① Operation and accuracy at inputs above or below this range are not specified.

DATEL's DMS-20PC-3-LM is a low-cost, self-powered, 2-wire digital voltmeter designed for monitoring 480Vac 3-phase primary power. The DMS-20PC-3-LM's unique power-supply design allows a single model to operate from 350 to 600Vac (47-63Hz). The meter requires no external components or auxiliary power for full operation! Its large, 0.37"/9.4mm, bright red or green LED display is easily readable under virtually all lighting conditions.

DMS-20PC-3-LM employs rms calibrated, half-wave sinusoidal averaging to achieve a display resolution of 1Vac over its full operating range. Packaged in a subminiature (1.38" x 0.88" x 1.0") red-filter case with a built-in bezel, the meter is epoxy encapsulated for ruggedness. An optional bezel assembly, featuring metal fasteners, simplifies panel mounting.

This easy-to-use, vibration-proof voltmeter is the ideal digital upgrade for fragile analog-style panel meters in 480Vac power distribution equipment. It similarly excels in any new application requiring accurate, high-voltage, ac line monitoring.

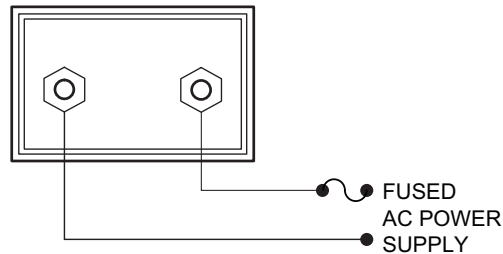


Typical panel mount installation and suggested wiring (user supplied)

Ordering Information

| | |
|--------------------------|---------------------------------------|
| DMS-20PC-3-LM-C | Red LED display |
| DMS-20PC-3-LM-G-C | Green LED display |
| DMS-BZL3-C | Panel mount bezel |
| DMS-BZL4-C | Panel mount bezel with sealing gasket |
| DMS-20-CP | Panel cutout punch |

Brass screws (6-32 thread) and a panel-mount retaining clip are supplied with each meter



Typical Connection Diagram



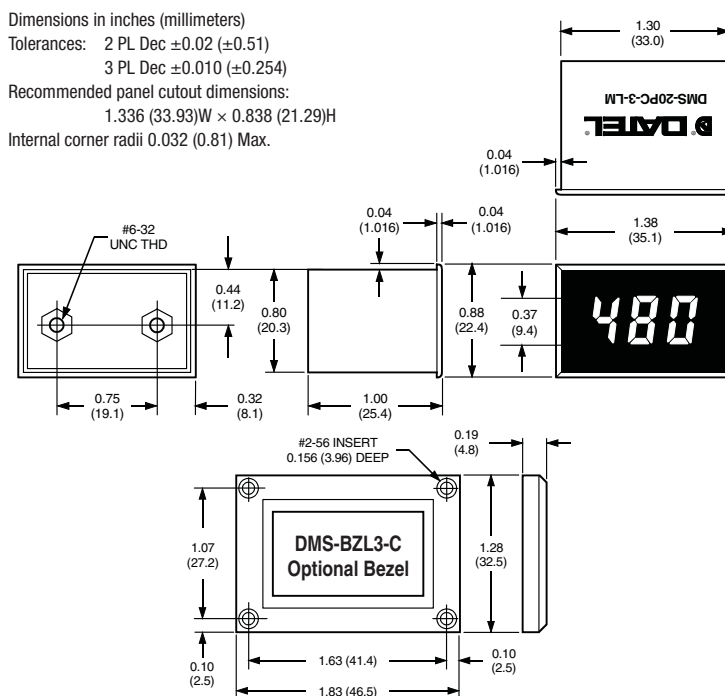
Power Supply Polarity, Fusing, Wiring, and Grounding: DMS-20PC-3-LM's ac-supply terminals are not polarity sensitive, that is, they have no "AC LO" or "AC HI" designations. These meters do not include nor require a connection to earth/chassis ground.

All ac-supply wiring must be rated for the voltages and currents they will conduct and comply with any code or application-mandated requirements pertaining to the user's specific installation. 600V UL rated wire suitable for the intended application is required.

DMS-20PC-3-LM ac voltmeters are not internally fused. The rear threaded

standoff input-terminals are to be used only for powering the voltmeter's internal circuitry; they must not be used to supply power to external loads. The supply wires feeding these voltmeters must be fused with a 0.25A/600V time delay/time lag fuse, in accordance with applicable regulatory codes.

The recommended wire size is 16AWG to 20AWG (1.31mm² to 0.52mm²) stranded copper wire. Wires must be properly stripped and attached to the threaded standoffs such that their insulation is not pinched by the supplied 6-32 screws. Rated tightening torque for the 6-32 screws is 7 to 8 pound-inches (0.8 to 0.9N-m).



Murata Power Solutions, Inc.
 11 Cabot Boulevard, Mansfield, MA 02048-1151 U.S.A.
 ISO 9001 and 14001 REGISTERED

Murata Power Solutions, Inc. makes no representation that the use of its products in the circuits described herein, or the use of other technical information contained herein, will not infringe upon existing or future patent rights. The descriptions contained herein do not imply the granting of licenses to make, use, or sell equipment constructed in accordance therewith. Specifications are subject to change without notice.
 © 2011 Murata Power Solutions, Inc.