DATEL
INNOVATION and EXCELLENCE

Actual Size

DMS-20PC-3-LM

Self-Powered, LED Display
480V AC Line Monitor

Features

- **Self-powered, two-terminal operation**
- **350 to 600Vac operating input range**
- **Half-wave averaging, rms calibrated**
- **Large, easy-to-read, bright red 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**

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 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

Suggested wiring (User supplied)

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, red LED, 0.37"/9.4mm
Weight	1 ounce (28 grams)
Case Material	Polycarbonate

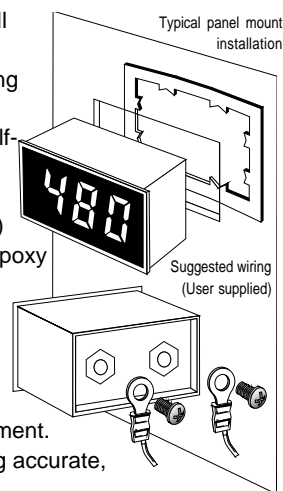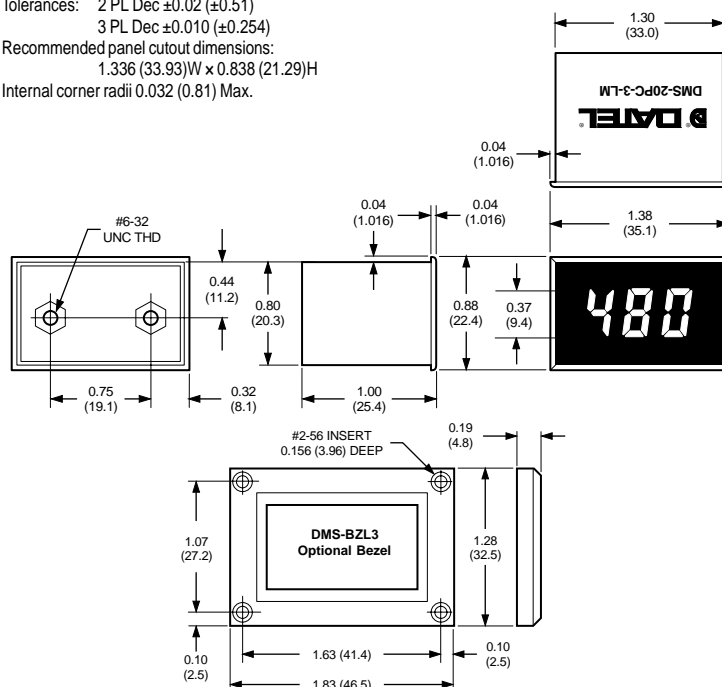**Environmental**
Operating Temperature	–25 to +60°C
Storage Temperature	–40 to +75°C
Humidity (Non-condensing)	0 to 95%

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

Ordering Information

DMS-20PC-3-LM	350-600Vac line monitor with screw terminals and screws
DMS-20-CP	Panel cutout punch
DMS-BZL3	Panel mount bezel
DMS-BZL4	Panel mount bezel with sealing gasket

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

Mechanical Specifications

Dimensions in inches (millimeters)
Tolerances: 2 PL Dec ±0.02 (±0.51)
                    3 PL Dec ±0.010 (±0.254)
Recommended panel cutout dimensions:
        1.336 (33.93)W × 0.838 (21.29)H
Internal corner radii 0.032 (0.81) Max.

1.30 (33.0)

DMS-20PC-3-LM

DATEL

0.04 (1.016)

1.38 (35.1)

0.04 (1.016)   0.04 (1.016)

0.88 (22.4)   0.37 (9.4)

480

#6-32 UNC THD

0.44 (11.2)

0.80 (20.3)

0.75 (19.1)   0.32 (8.1)   1.00 (25.4)

#2-56 INSERT 0.156 (3.96) DEEP

0.19 (4.8)

1.07 (27.2)

DMS-BZL3 Optional Bezel

1.28 (32.5)

0.10 (2.5)   1.63 (41.4)   0.10 (2.5)

1.83 (46.5)

DS-0388B   1/99