



### FEATURES

- Self-powered, two-terminal operation
- Dual operating ranges: 240-310Vac at 50/60Hz or 85-140Vac at 400Hz
- 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
- Approvals to UL/cUL/IEC/61010-1

### Functional Specifications

<b>Input</b>	
Voltage Range ①	240-310Vrms (47-99Hz) 85-140Vrms (350-450Hz)
Current Consumption	50mArms (max.)
<b>UL/IEC61010-1</b>	Measurement category II
<b>Performance</b>	
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.)
<b>Mechanical</b>	
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
6-32 screw torque	6-8 in-lb (0.7 – 0.9N-m)
<b>Environmental</b>	
Operating Temperature	-25 to +60°C
Storage Temperature	-40 to +75°C
Humidity (Non-condensing)	0 to 95%

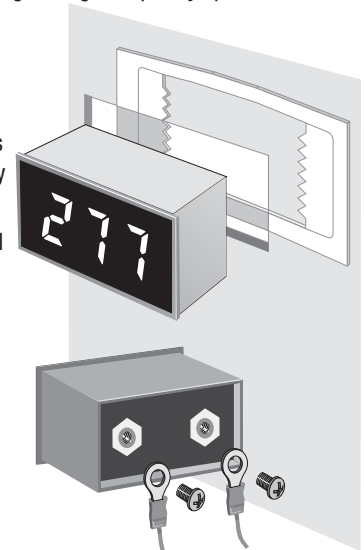
① Operation and accuracy at inputs above or below this range are not specified.



Murata Power Solutions' DMS-20PC-2-LM is a component-size, self-contained, low-cost ac voltmeter specifically designed for high-voltage or high-frequency operation. The DMS-20PC-2-LM's unique power-supply circuitry allows a single model to operate from either 240 to 310Vac with 50/60Hz inputs or from 85 to 140Vac with 400Hz inputs. 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-2-LM employs half-wave sinusoidal averaging (rms calibrated) to achieve a display resolution of 1Vac over its full operating range. Packaged in a red-filter case with a built-in bezel, the meter is epoxy encapsulated for ruggedness.

This low-cost, extremely versatile digital voltmeter is ideal for use in emergency power equipment, 277Vac fluorescent lighting systems, 400Hz aircraft installations, and any other application requiring accurate, high-voltage or high-frequency, ac line monitoring.

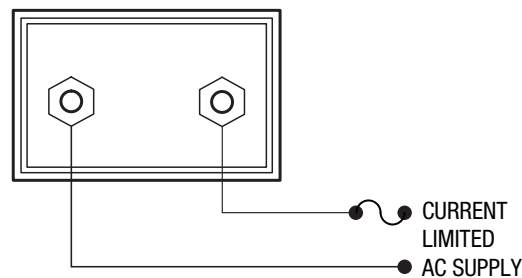


Typical panel mount installation  
Suggested wiring (user supplied)

### Ordering Information

<b>DMS-20PC-2-LM-C</b>	High-voltage ac line monitor with screw terminals and screws
<b>DMS-BZL3-C</b>	Panel mount bezel
<b>DMS-BZL4-C</b>	Panel mount bezel with sealing gasket
<b>DMS-20-CP</b>	Panel cutout punch

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



Typical Connection Diagram

## Self-Powered LED Display High-Voltage, 50/60/400Hz AC Line Monitor

**Power Supply Polarity, Fusing, Wiring, and Grounding:** DMS-20PC-2-LM's two ac-supply terminals are not polarity sensitive, that is, they have no "AC LO" or "AC HI" designations. These units 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. 300V UL rated wire suitable for the intended application is required.

DMS-20PC-2-LM ac voltmeters are not internally fused. The rear threaded standoff input-terminals are to be used only for powering the voltmeter's inter-

nal circuitry; they must not be used to supply power to external loads. Depending on the ac supply line-voltage in the user's installation, the supply wires feeding these voltmeters must be fused with a 0.25A/250V or a 0.25A/600V time delay/time lag fuse, in accordance with applicable regulatory codes.

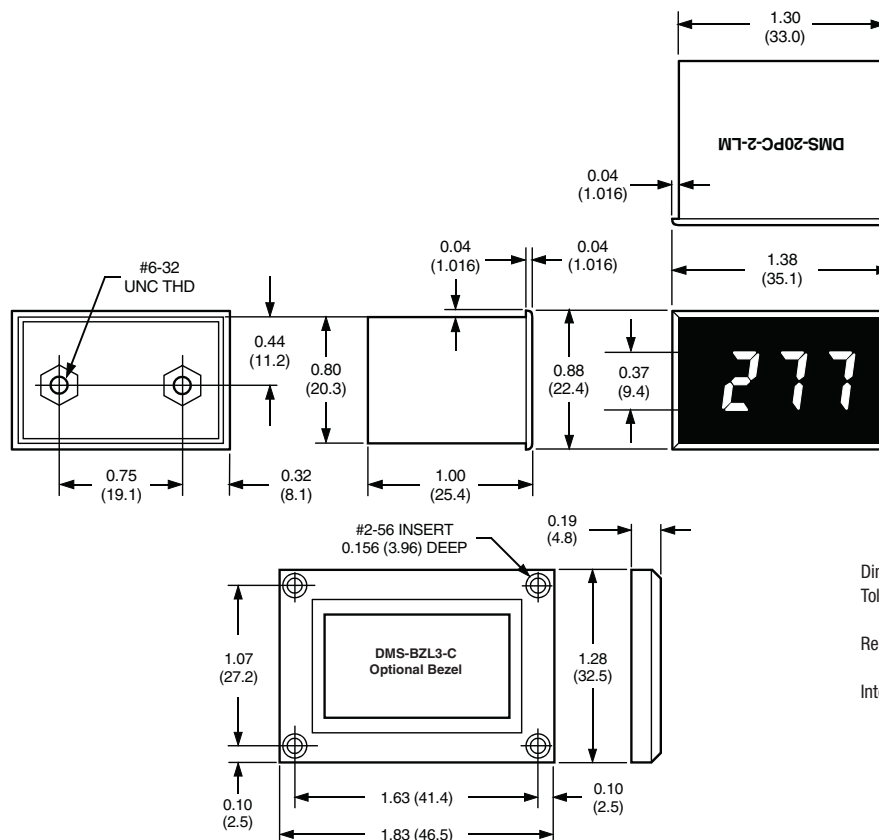
The recommended wire size is 16AWG to 20AWG (1.31mm<sup>2</sup> to 0.52mm<sup>2</sup>) stranded copper wire. Wires must be properly stripped and attached to the threaded standoffs such that their insulation is not pinched by the supplied 6-32 screws. Rated tightening torque for the 6-32 screws is 7 to 8 pound-inches (0.8 to 0.9N-m).

### 1. Description of safety marks:

-  Caution, risk of electrical shock
-  Caution, risk of danger
-  Equipment is protected throughout by double or reinforced insulation

### 2. Cleaning Instructions: Gently clean with dry cloth only.

### 3. Caution: if the equipment is used in a manner not specified by Murata Power Solutions, the protection provided by the equipment may be impaired.



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

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



**This product is subject to the following operating requirements and the Life and Safety Critical Application Sales Policy:**  
Refer to: <http://www.murata-ps.com/requirements/>

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.  
© 2015 Murata Power Solutions, Inc.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Digital Panel Meters](#) category:*

*Click to view products by [Murata](#) manufacturer:*

Other Similar products are found below :

[M00558-00](#) [70.360.4828.0](#) [72331-00](#) [85310-25](#) [86642-00](#) [87268-13](#) [87316-00](#) [87719-26](#) [98107-56](#) [HB8260-R36-90](#) [DMS-20ACV-3-R-C](#)  
[EM11DINAV81XR1X](#) [25.325.3253.1](#) [25.325.4253.1](#) [25.330.0453.1](#) [20046-20](#) [20182-23](#) [AP1021](#) [25.320.5053.0](#) [25.350.3453.1](#)  
[25.394.3653.1](#) [25.521.3253.0](#) [28006-01](#) [04.630.1080.0](#) [20078-20](#) [EM11DINAV81XO1X](#) [85874-26](#) [87166-00](#) [87895-00](#) [28000-03](#) [K3GN-](#)  
[NDT1-FLK 24VDC](#) [82322K-11](#) [86641-00](#) [87004-00](#) [HB8280R2490](#) [HB8260R4890](#) [SCE016MD3MV0W10](#) [20125-21](#) [86640-00](#) [PG-100-](#)  
[103GP](#) [PG-100-102RP](#) [PG-100B-102R-H](#) [PG-100B-103R](#) [PG-100B-102R](#) [PG-100N-103R-W](#) [PG-100N-103R](#) [PG-100N-102R](#) [PG-100-](#)  
[102GH](#) [PG-100-103RP](#) [PG-100B-103R-M](#)