

DM6000 series

Functions and characteristics



DM6000 series digital panel meter front display (above), and rear (below)



The PowerLogic DM6000 series digital panel meters offer the basic measurement capabilities required to monitor an electrical installation.

Characterized by their rugged construction, compact size, and low installation costs, these state-of-the-art meters are ideal for control panels, motor control centres and genset panels.

The PowerLogic DM6000 series digital meter is available in two different versions to better fit specific applications:
DM6000, basic version;
DM6200, basic version plus an RS485 port for Modbus communication.

- Applications**
- Power monitoring operations.
 - Equipment monitoring.
 - Preventive maintenance.

Main characteristics

- Easy to read display**
The bright, alphanumeric 15mm high LED display provides 3 lines for measurement values with 4 digits per line. This display auto-scales for Kilo, Mega and Giga values. Auto scrolling mode allows for easy reading.
- Analogue load bar**
The colour-coded analogue load bar indicates the percentage of load through 12 LED segments.
- Turbo Key access to information**
The Turbo Key gives access to the most commonly viewed parameters or enter set up mode with a single push of the button.
- Quick and easy installation**
Setup is done through the front panel keys. Quick entry to setup during power up by TURBO key. Direct connection for metering voltage inputs up to 480 Vac L-L.
- Colour-coded terminal board labeling**
The colour-coded label on the terminal board helps ensure accurate wiring.
- Secure settings**
Safeguard access to setup parameters with unique password protection. A keypad lock lets you display a user-selected page by default.

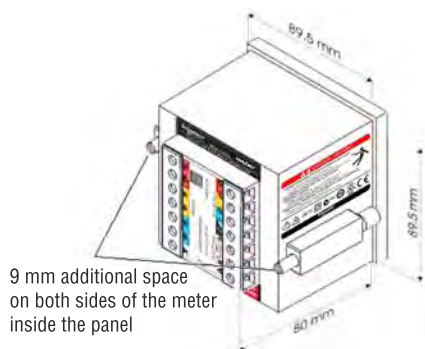
Part numbers

Description	Schneider Electric
DM6000 digital meter with basic readings; no communications	METSEDM6000
Same as DM6000 plus an RS485 communication port	METSEDM6200

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Functions and characteristics (cont.)

PE60239



PowerLogic DM6000 series digital panel meter dimensions.

Selection guide		DM6000	DM6200
General			
Use on LV and HV systems		■	■
Current and voltage accuracy		1.0 %	1.0 %
Number of samples per cycle		20 at 50 Hz	20 at 50 Hz
Instantaneous rms values			
Current	Per phase & Neutral	■	■
Voltage	Average Phase to Neutral & Phase to Phase	■	■
Frequency		■	■
Power factor	Average & per phase	■	■
Unbalance	Current, voltage	■	■
Phase angle	Between V & I, Ph1, Ph2, Ph3	■	■
RPM	For generator only, speed calculated on generator voltage output and number of machine poles.	■	■
Other measurements			
ON hours	Operating time for meter in hours	■	■
INTR	Number of interruptions	■	■
Display			
LED display		■	■
Communication			
RS-485 port		-	1
Modbus protocol		-	■

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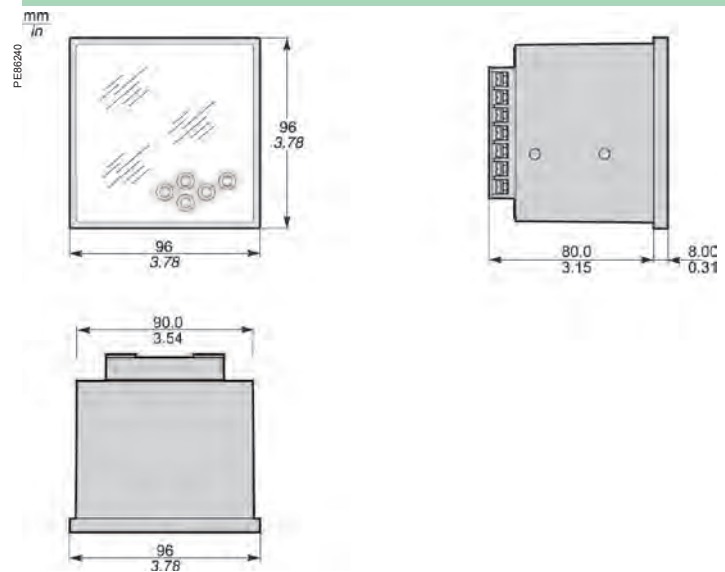
Functions and characteristics (cont.)

Electrical characteristics			
Type of measurement		True RMS up to the 15th harmonic 20 samples per cycle at 50 Hz	
Measurement accuracy*	Current and voltage		1.0 % of reading
	Frequency		0.1 % of reading
	Power factor		1.0 % of reading
* Additional error of 0.05% of full scale, for meter input current below 100mA			
Data update rate			1 second
Input-voltage characteristics	Inputs		V1, V2, V3, Vn
	Measured voltage		80 - 480 V AC L-L without PTs Up to 999 kV with external PTs
	Permissible overload		1.10 Un (480 V L-L)
	Burden		0.2 VA per phase max.
	Impedance		VLL - 4 Mohms, VLN – 2 Mohms
	Frequency range		45 - 65 Hz
Input-current characteristics	CT ratings	Primary	1 A - 99.0 kA
		Secondary	1 A - 5 A
	Measurement range		50 mA - 6 A (5 mA is the starting)
	Permissible overload		10 A continuous
	Burden		0.2 VA per phase max.
	Impedance		< 0.1 ohm
	Power supply	AC	
DC		44 - 277 V DC	
Ride-through time		100 ms at 50V	
Burden		3 VA max.	
Mechanical characteristics			
Weight			0.500 kg (shipping), 0.400 kg (unpacked)
IP degree of protection			Front: IP 51; Back: IP 40
Dimensions			Bezel: 96 x 96 mm Depth: 80 mm behind bezel Panel cutout: 92 x 92 mm
Environmental conditions			
Operating temperature			-10°C to +60°C
Storage temperature			-25°C to +70°C
Humidity rating			5 to 95 % RH non-condensing
Altitude			2000 m
Measurement CAT			III
Pollution degree			2
Protection class			2
Electromagnetic compatibility			
Electrostatic discharge			IEC 61000-4-2
Immunity to electromagnetic RF fields			IEC 61000-4-3
Immunity to electrical fast transients			IEC 61000-4-4
Immunity to surge waves			IEC 61000-4-5
Conducted disturbance immunity			IEC 61000-4-6
Damped oscillatory waves immunity			IEC 61000-4-12
Impulse voltage withstand			6kV for 1.2/50 µs per IEC 60060-1
Conducted and radiated emissions			CISPR11 Class A
Safety and standards			
Safety construction			Self extinguishable V0 plastic; UL 508
CE certification IEC61010			Yes
Complies with Regulation (EC) n° 1907/2006 of Dec 18 2006 named REACH (related to the Registration, Evaluation, Authorization and restrictions applicable to Chemical substances)			
Communication			
RS-485 port			2 terminals only; Baud rate up to 19,200 bps Protocols: Modbus RTU
Display characteristics			
Integrated LED display			View 3 parameters together on 3 line, 4 digits per line display. Auto-scaling capability for Kilo, Mega, and Giga values. User-selectable default display page. Password protection for setup parameters.
Analogue load bar			Colour-coded analogue indicator provides an option to select the full scale of the load bar based on the sanctioned power limit

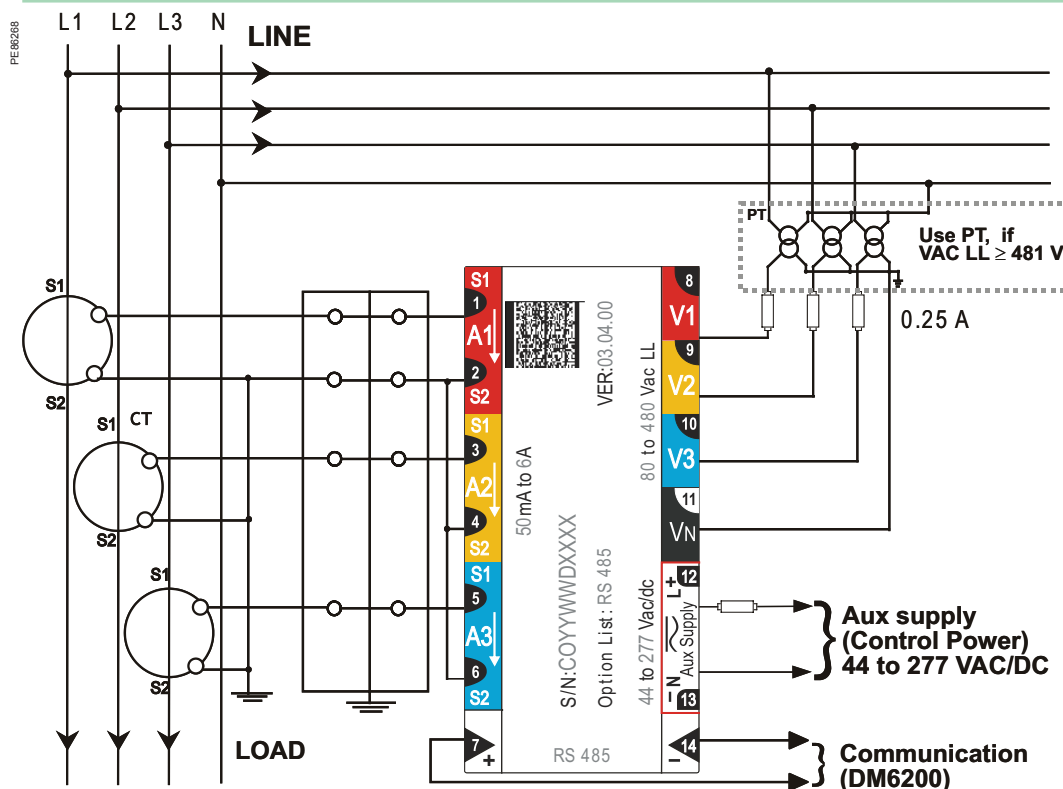
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Installation and connections

DM6000 series meter dimensions

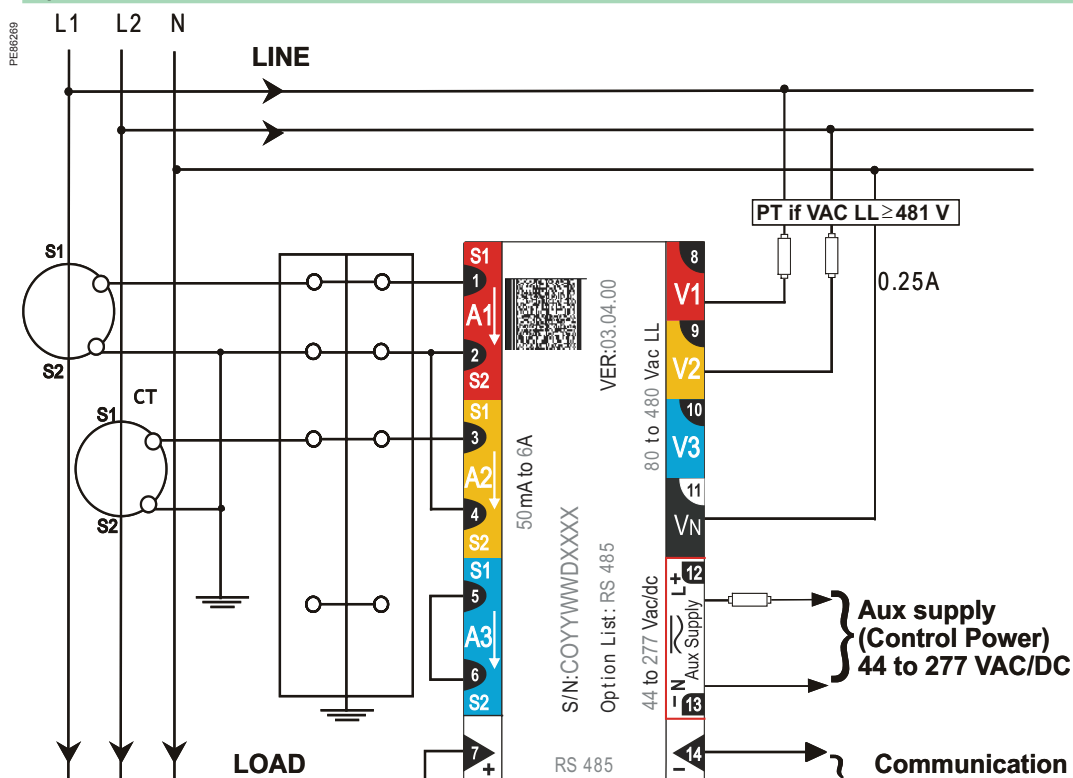


3 phase 4-wire WYE connection with 3CTs and 3PTs



Connection representation only. Other types of connection are possible.
Refer to the DM6000 series Quick Start Guide for details.

2 phase 3-wire connection with 2 CTs



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Installation and connections

