



... .. simplicity is blue



Digital Meter- MD Series

Digital Panel Meters

MD Series

Volt, Amp, Power Factor, Frequency, Combined Volt-Amp-Frequency & Watt Meters

The MD Series of Digital Panel Meters provides dedicated measurement for the monitoring of electrical power systems. Built with simplicity in mind, the MD Series Digital Meters are easy to install and operate. They are suitable for use on electrical switch-boards, equipment control panels, motor control panels and generator control boards.









Features

True RMS measurement, User Selectable CT Ratio, Bright Easy to Read LED Display, Finger Proof Self-Lifting Connection Terminals








MD Series meters

Electrical Specification		
Type of measurement	True RMS Value	
Accuracy	Class 1.0 Standard Class 0.5 upon request 0.1Hz for Frequency meter	
Display type	High brightness 7 Segment LED Display 4-Digits numeric reading	
Burden	0.2VA on Line Power 1VA on Aux Power	
Input Voltage Range	50V to 480V AC	
Input Current Range	50mA to 5A (also available 1A AC)	
Aux Supply	175V to 280V AC	
CT Primary	5 - 5000A	
Ambient Temperature	-10 to +55°C	
Humidity	< 95% Non-Condensing	
Maximum Overload	Voltage 1.2 times rated continuous Current 2 times rated continuous	
Dielectric Strength	2.0kV for 1minute	
Mechanical Specification		
Meter Dimension (including bezel)	Height x Width 48x96mm (MD-V1/4, MD-A1/4, MD-A1/4SW) 96x96mm (MD-V1/9, MD-V3, MD-A1/9, MD-A1/9SW, MD-VAF)	
	Depth behind bezel 54mm (MD-V1/4, MD-A1/4, MD-A1/4SW, MD-V1/9, MD-V3, MD-A1/9, MD-A1/9SW) 82mm (MD-VAF)	
Panel cut-out	Height & Width 42x90mm (MD-V1/4, MD-A1/4, MD-A1/4SW) 91x91mm (MD-V1/9, MD-V3, MD-A1/9, MD-A1/9SW, MD-VAF)	
Unit Weight	175gm (MD-V1/4, MD-A1/4, MD-A1/4SW) 210gm (MD-V1/9, MD-V3, MD-A1/9, MD-A1/9SW) 410gm (MH-VAF)	
Compliance with Standards		
Accuracy Class	Electricity metering equipment (AC) General requirement True RMS Measurement	IEC 62052-11 IEC 62053-21
Protection Class	Degree of Protection Provided by Enclosure	IEC 60529
Device Safety	Safety requirements for electrical equipment for measurement, control, and laboratory use	IEC EN 61010
Electromagnetic Compatibility	Testing and measurement techniques	IEC 61000-4-1
	Electrostatic discharge	IEC 61000-4-2
	Immunity to electromagnetic RF fields	IEC 61000-4-3
	Immunity to electrical fast transients	IEC 61000-4-4
EMC Radiated Interference	Radiated Interference suppression	IEC 50081 Class B

Voltage, Ampere & Multi-Function Meter

Selection Guide									
Models & Type		MD-V1/9	MD-V1/4	MD-V3	MD-A1/9	MD-A1/4	MD-A1/9SW A1/4SW	MD-A3	MD-VAF
Measure	Voltage	■	■	■					■
	Current				■	■	■	■	■
	Frequency								■
	Input Range	10V – 480V AC			0-20A		50mA – 5A (Also available for 1A AC) (Note: MD-VAF 50-500VAC, 5A or 1A AC, 45-65Hz)		
Display	Display Range	0V – 500V AC			0-20A		5-5000A		
Electric Network	Single Phase	■	■		■	■	■	■	■
	3-Phase 3-Wire			■				■	■
	3-Phase 4-Wire			■				■	■
AUX Supply	230-240V AC	■	■	■	■	■	■	■	■
Display Control	One Line Fixed	■	■	■	■	■	■		
	Selectable, Line/Average							■	
	Selectable L1, L2, L3			■				■	■
Size	96x96mm	■		■	■		■	■	■
	48x96mm		■			■	■	■	
Connection Diagram		Fig. 1	Fig. 1	Fig. 4	Fig. 1	Fig. 1	Fig. 1	Fig. 5	Fig. 3,4,5

Power Factor, Frequency & Watt Meter

Selection Guide								
Model & Type		MD-PF33	MD-PF34	MD-F1/9	MD-F1/4	MD-W11	MD-W33	MD-W34
Measure	Power Factor	■	■					
	Frequency			■	■			
	Watt					■	■	■
	Input Range	10-480V AC		10-480V AC		10-480V, 5A		
Display	Range	0.5 Lag – Unity – 0.5 Lead		20-100Hz		0-9999 (W/ kW/ MW)		
Electric Network	Single Phase		■	■	■	■		
	3-Phase 3-Wire	■					■	
	3-Phase 4-Wire		■					■
AUX Supply	75-280V AC			■	■			
	230/240V AC	■	■			■	■	■
Display Control	One Line Fixed			■	■	■		
	Selectable L1, L2, L3	■	■				■	■
Size	96x96mm	■	■	■		■	■	■
	48x96mm				■			
Connection Diagram		Fig. 3,7	Fig. 6	Fig. 1	Fig. 1	Fig. 3	Fig. 7	Fig. 6

Note: Other range / type available upon request.

Digital Panel meters

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Volt, Amp, Power Factor, Frequency & Watt meter

Connection Diagram

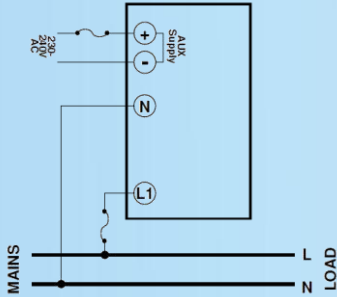


Fig-1
(Single Phase – Volt, Frequency)

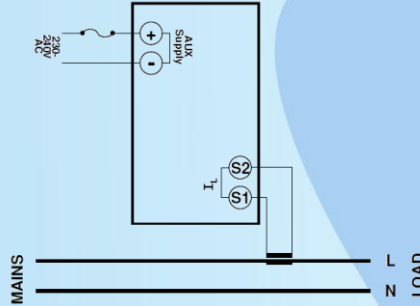


Fig-2
(Single Phase - Amp)

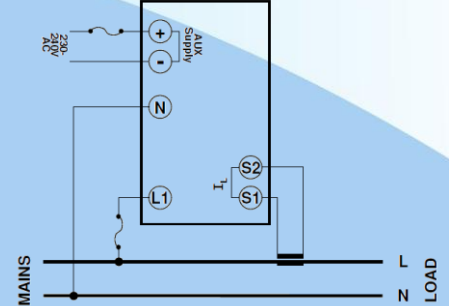


Fig-3
(Single Phase – Watt, PF)

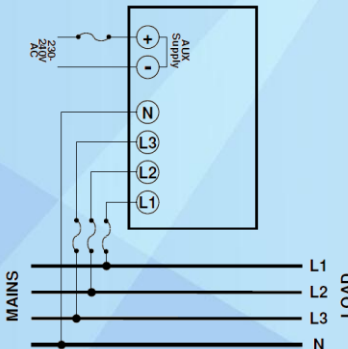


Fig-4
(Three Phase – Volt, Frequency)

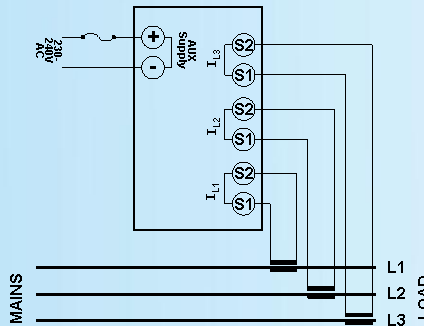


Fig-5
(Three Phase - Amp)

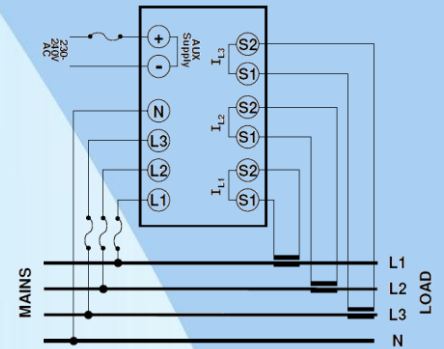


Fig-6
(Three Phase 4-Wire – Watt, PF)

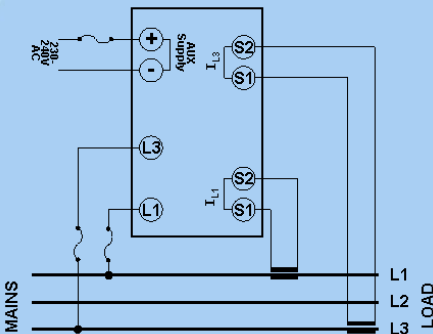


Fig-7
(Three Phase 3-Wire – Watt, PF)

Authorized Dealer: