Supply Monitoring Series SM 175

- Compact 17.5 mm wide
- Multi-voltage from 3 x 208 to 3 x 480 V
- Controls correct sequence of three phases & own supply voltage
- LED indication for all faults & for change in settings during run time for better security
- 1 C/O configuration
- Selectable Under voltage / Over voltage / Asymmetry levels
- Adjustable time delay



Cat. No.			MK21D5	MC21D5	MA21DN	MD21DF	MG21DH
Parameters							
Supply Voltage (⏚)			3 Phase 3 Wire, 208 - 480 VAC, 45 - 65 Hz				
Supply Variation			-12% to + 10% (of ⏚)				
Power Consumption (Max.)			3 VA				
Settable Nominal Voltage (Un)			N A			208 - 220 - 380 - 400 - 415 - 440 - 480 VAC	
Trip Levels :	Under Voltage		N A			-2% to -20% (Un)	-5% to -25% (Un)
	Over Voltage		N A			+2% to +20% (Un)	+5% to +25% (Un)
	Asymmetry		N A	30% Fixed	5% to 15%	N A	10% Fixed
Setting Accuracy			+/- 5% of full scale				
Time Delay Setting Accuracy: +/- 10% of Full Scale		ON Delay	~ 500 ms		5 s (Fixed)	5 s (Fixed)	0.5 to 100 s
		OFF Delay	~ 100 ms		0.5 to 15 s	0.5 to 15 s	5 s (Fixed)
			In the event of phase sequence or phase loss fault, OFF delay is ~100ms				
Relay Output Contact Rating Mechanical Life Electrical Life			1 C/O (SPDT) 5A (Resistive) @ 250 VAC / 30 VDC 3 x 10^6 1 x 10^5				
Utilization Category		AC - 15	Rated Voltage (Ue): 120/240 V, Rated Current (Ie): 3.0/1.5 A				
		DC - 13	Rated Voltage (Ue): 24/125/250 V, Rated Current (Ie): 2.0/0.22/0.1 A				
Operating Temperature Storage Temperature Humidity (Non Condensing)			- 15° C to +60° C - 20° C to +70° C Max. 95%				
LED Indications	Relay (R)	Healthy	Relay LED Continuous ON (Red Colour)			Power LED Continuous ON (Green Colour)	
		Phase Reverse	Relay LED Flashing (Red Colour)			Power LED Flashing (Green Colour)	
		Asymmetry	N. A.	Relay LED Off (Red Colour)		N A	
	OV		N. A.			OV - Red Colour LED ON	
	UV		N. A.			UV - Red Colour LED ON	
	AS		N. A.				AS-Red Colour LED ON
	All LEDs	OFF	Phase Fail				
		Flashing	N. A.			⏚ / Un Pot changed in running conditions	
Degree of Protection			IP 20 for Terminal, IP 30 for Enclosure				
Dimension (W x H x D) (in mm)			18 X 90 X 59				
Weight (unpacked)			70 g				
Mounting			Base / DIN rail				
Certification			CE cULus LISTED RoHS Compliant				
EMI/ EMC Radio Interference Suppression ESD Electrical Fast Transients Surges Voltage Dips, Interruptions Isolation			CISPR 14-1 Ed. 5.0 (2005-11) Class A IEC 61000-4-2 Ed. 1.2 (2001-04) Level II IEC 61000-4-4 Ed. 2.0 (2004-07) Level IV IEC 61000-4-5 Ed. 2.0 (2005-11) Level IV IEC 61000-4-11 Ed. 2.0 (2004-03) All 7 Levels (AC), IEC 61000-4-29 Ed. 1.0 (2000-08) All 5 Levels (DC) Test voltage between input & output - IEC 60255-5, 2kV				

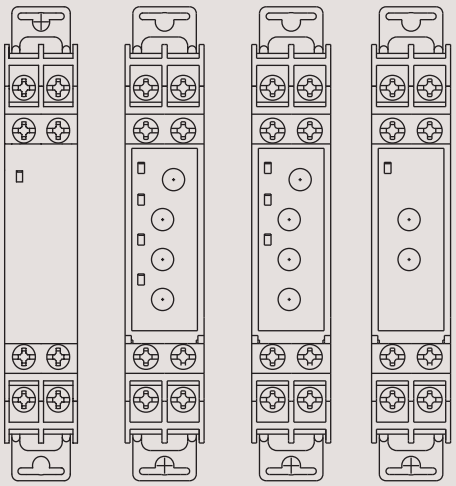
ORDERING INFORMATION

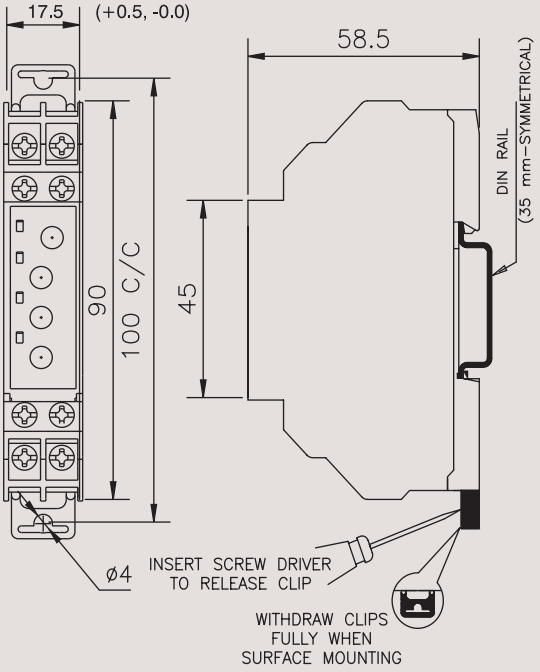
Cat. No.	Description
MC21D5	Phase Sequence, Asymmetry & Phase Loss Monitoring, 1 C/O
MK21D5	Phase Sequence, 1 C/O
MA21DN	Phase Sequence & Asymmetry Monitoring, 1 C/O
MD21DF	Phase Sequence, Under Voltage & Over Voltage Monitoring, 1 C/O
MG21DH	Phase Sequence, Asymmetry & Voltage Monitoring with Fixed OFF Delay (5 s), 1 C/O
MG21DF	Phase Sequence, Asymmetry & Voltage Monitoring with Fixed ON Delay (5 s), 1 C/O

Supply Monitoring Series SM 175

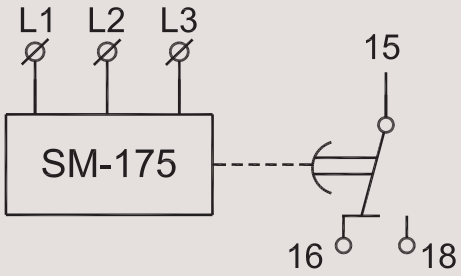


MOUNTING DIMENSION (mm)





CONNECTION DIAGRAM



TERMINAL TORQUE & CAPACITY

Ø3.5.....5.0mm	1.1 Nm(10 lb.in) Terminal screw - M3.5
	2 x 0.2...2.5 mm ^{2} solid wire/single wire ferrule
AWG	1 x 24 to 10