Voltage Monitoring Series SM 301

- Protects against Phase Loss, Phase Reversal & Phase Asymmetry
- No Auxiliary Supply needed
- Voltage Sensing principle
- 1 C/O & 2 C/O Configurations
- Designed to meet Industrial and Agricultural segment applications

Ordering Information

Cat. No.	Description
MA51BC	415 VAC, Single Phasing Preventor with 65 VAC Asymmetry, 1 C/O
MA51BK	415 VAC, Single Phasing Preventor with 40 VAC Asymmetry, 1 C/O
MC21B5	415 VAC, Single Phasing Preventor with 65 VAC Asymmetry, 2 C/O
MA59B5	415 VAC, Phase Loss Monitoring with Non Fail Safe Type, 1 C/O

Voltage Monitoring Series SM 301

Cat. No.			MA51BC	MA51BK	MC21B5
Parameters					
Supply Voltage (⏚)			415 VAC		
Frequency			50/60 Hz		
Power Consumption (Max.)			15 VA		
Trip Settings	Phase Loss		Yes	Yes	Yes
	Phase Sequence		Yes	Yes	Yes
	Phase Asymmetry		65 V (± 10V)	40 V (± 10 V)	65 V (± 10V)
	Hysteresis		10 to 18 V	10 to 18 V	10 to 18 V
Time Delay	ON Delay		2 s (± 2 s)	2 s (± 2 s)	< 550 ms
	Trip Time (OFF Delay)		7 s (± 2 s)	7 s (± 2 s)	< 550 ms
Output	Relay Output		1 C/O	1 C/O	2 C/O
	Contact Rating		5A (For 'NO') & 3A (For 'NC') @ 250 VAC / 28 VDC (Resistive)		5A @ 250 VAC / 28 VDC (Resistive)
	Electrical Life		$1X10^5$		
	Mechanical Life		$3X10^6$		
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		
LED Indication			Red → Relay ON (Healthy), See Note 1		
Operating Temperature Storage Temperature			- 15° C to + 50° C - 20° C to + 65° C		
Humidity (Non Condensing)			95% (Rh)		
Enclosure			Flame Retardant UL 94-V0		
Dimension (W x H x D) (in mm)			36 X 90 X 60		
Weight (unpacked)			120 g		
Mounting			Base / DIN rail		
Degree of Protection			IP20 for Terminals, IP 40 for Enclosure		
Certification			CE RoHS Compliant		

EMI / EMC

Harmonic Current Emissions	IEC 61000-3-2
ESD	IEC 61000-4-2
Radiated Susceptibility	IEC 61000-4-3
Electrical Fast Transients	IEC 61000-4-4
Surges	IEC 61000-4-5
Conducted Susceptibility	IEC 61000-4-6
Voltage Dips & Interruptions (AC)	IEC 61000-4-11
Conducted Emission	CISPR 14-1
Radiated Emission	CISPR 14-1

Environmental

Cold Heat	IEC 60068-2-1
Dry Heat	IEC 60068-2-2

Note 1:- ON: Relay ON, OFF: Phase Loss, Blinking: Asymmetry (200 ms, On/Off), Flashing: Phase Sequence (1 s, On/Off)