Supply Monitoring Series SM500 - Neutral Loss Protection

- Phase loss (failure) detection.
- Neutral loss detection.
- Phase reverse detection.
- Phase asymmetry.
- Adjustable Over & Under voltage trip level.
- LED indication for all failure conditions.
- Automatic recovery on fault removal.



Cat. No.		MAC04D0100				
Parameters						
Supply Voltage (⏚)		415 VAC (Ph-Ph); 3 Phase, 4 Wire				
Frequency		47 to 53 Hz				
Power Consumption (Max.)		10 VA (max)				
Trip Settings	Phase Loss	Yes				
	Phase Sequence	Yes				
	Phase Asymmetry	94V±4V (Ph-Ph)				
	Under Voltage	55% to 95% (of ⏚)				
	Over Voltage	105% to 125% (of ⏚)				
	Hysterisis	7 V (± 2 V)				
Time Delay	ON Delay	5 s ±1 s (Fixed)				
	Trip Time (OFF Delay)	For Phase failure phase Imbalance Under voltage / Over Voltage	5 s ±1 s (Fixed)			
		For Neutral Fail	500 ms -1s			
Output	Relay Output	2 C/O				
	Contact Rating	5A @ 250 VAC / 28 VDC (Resistive)				
	Electrical Life	$1X10^5$				
	Mechanical Life	$1X10^7$				
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 Indications on front plate		Respective fault condition will be indicated by LED immediately & Relay will be tripped after specified trip time only.				
		GREEN	UV	OV	Blink: ASY, ON: REV	
	Power ON	ON	OFF	OFF	OFF	
	Phase reverse	ON	OFF	OFF	ON	
	Asymmetry	ON	OFF	OFF	BLINK	
	UV	ON	ON	OFF	OFF	
	OV	ON	OFF	ON	OFF	
	Phase Fail	BLINK	OFF	OFF	OFF	
	Phase Fail *	BLINK	ON	OFF	BLINK	
	Neutral Fail	ON	BLINK	BLINK	BLINK	
	* Phase fail indications when I/P voltages are below UV set point and below asymmetry					
Operating Temperature		-10° C To + 60° C				
Storage Temperature		-10° C To + 70° 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		IP 20 for Terminals, IP 40 for Enclosure				
Certification		CE RoHS Compliant				
EMI / EMC						
Harmonic Current Emissions		IEC 61000-3-2	Ed. 3.2 (2009-04) Class A			
ESD		IEC 61000-4-2	Ed. 2.0 (2008-12) Level II			
Radiated Susceptibility		IEC 61000-4-3	Ed. 3.2 (2010-04) Level III			
Electrical Fast Transients		IEC 61000-4-4	Ed. 3.0 (2012-04) Level IV			
Surges		IEC 61000-4-5	Ed. 2.0 (2005-11) Level IV			
Conducted Susceptibility		IEC 61000-4-6	Ed. 3.0 (2008-10) Level III			
Voltage Dips & Interruptions (AC)		IEC 61000-4-11	Ed. 2.0 (2004-03) All 7 Levels			
Conducted Emission		CISPR 14-1	Ed. 5.2 (20011-11) Class A			
Radiated Emission		CISPR 14-1	Ed. 5.2 (20011-11) Class A			
Environmental						
Cold Heat		IEC 60068-2-1	Ed. 6.0 (2007-03)			
Dry Heat		IEC 60068-2-2	Ed. 5.0 (2007-07)			
Vibration		IEC 60068-2-6	Ed. 7.0 (2007-12) 5g			
Repetitive Shock		IEC 60068-2-27	Ed. 4.0 (2008-02) 40g, 6ms			
Non-Repetitive Shock		IEC 60068-2-27	Ed. 4.0 (2008-02) 30g, 15ms			

ORDERING INFORMATION

Cat. No.	Description
MAC04D0100	415V AC, Neutral Loss Protection with Phase and Voltage Control, 2 C/O