

Voltage Monitoring Series SM 175

- Compact 17.5 mm Wide
- Multi Voltage: Three Phase 3 Wire @ 208-480 VAC and Three Phase 4 Wire @ 120-277 VAC
- Can be configured for 3 Phase 3 Wire or 3 Phase 4 Wire system
- Protection against Phase loss, Phase Reverse, Phase Asymmetry, Under Voltage & Over Voltage
- Selectable Under Voltage / Over Voltage, Asymmetry and Phase Sequence
- LED Indication for all Faults & for change in settings during runtime for better security
- Adjustable ON/OFF Time Delay in seconds / minutes
- 1 C/O Configuration



Ordering Information

Cat. No.	Description
MAG03D0424	208-480 VAC, UV/OV, Phase Loss, Phase Sequence Monitoring, Phase Asymmetry, 1 C/O
MAG03D0425	415 VAC (3P,3W) / 240 VAC (3P,4W), UV/OV, Phase Loss, Selectable Phase Sequence, Phase Asymmetry, 1C/O
MAG03D0426	415 VAC (3P,3W) / 240 VAC (3P,4W), UV/OV, Selectable Phase Sequence & Phase Asymmetry, ON Delay and OFF Delay (in sec/minutes), 1C/O

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Cat. No.	MAG03D0424	MAG03D0425	MAG03D0426		
Parameters					
Supply Voltage (ϕ)	208 to 480 VAC (3P,3W) 120 to 277 VAC (3P,4W)	415 VAC(3P,3W) / 240 VAC(3P,4W)			
Supply Variation	+/- 23% (of ϕ)				
Frequency	50/60 Hz				
Reference Voltage	Settable	Fixed	Fixed		
Trip Settings	Phase Loss	Yes	Yes	Yes	
	Phase Sequence	Yes	Settable	Settable	
	Phase Asymmetry	10% Fixed	10% Fixed	10% Fixed / 5% to 25% Settable	
	Under Voltage	2% to 22% (of ϕ)	5% to 25% (of ϕ) / 60% (of ϕ) Fixed	5% to 25% (of ϕ)	
	Over Voltage	2% to 22% (of ϕ)	110%(of ϕ) Fixed / 5% to 25%(of ϕ)	110%(of ϕ) Fixed / 5% to 25% (of ϕ)	
	Hysterisis (Phase Asy.)	2.7% Fixed			
Hysterisis (UV/OV)	2% Fixed	2% to 12% Fixed	2.7% Fixed		
Power Consumption (Max.)	16 VA @ 415 VAC				
Time Delay	ON Delay	(0 to 15 Sec) selectable / 5 sec (selectable DIP switch)		(0 to 15) selectable sec / min	
	Trip Time (OFF Delay)	5 sec / (0 to 15 Sec) selectable (selectable DIP switch)		(0 to 15) selectable sec / min	
100ms max for Phase loss & Phase Sequence					
Output	Relay Output	1 C/O			
	Contact Rating	5A @ 250 VAC / 30 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 Indications on front plate	Respective fault condition will be indicated by LED immediately & Relay will be tripped after specified trip time only.				
		Power LED/RV (Green)	UV (Red LED)	OV (Red LED)	ASY/PR (Red LED)
	Power ON	ON	OFF	OFF	OFF
	Phase reverse	ON	OFF	OFF	ON
	Asymmetry	ON	OFF	OFF	Slow BLINK
	UV	ON	ON	OFF	OFF
	OV	ON	OFF	ON	OFF
	B Phase Loss	Slow BLINK	OFF	OFF	OFF
Voltage Int.	OFF	OFF	OFF	OFF	
* Above mentioned LED status are considering single fault at a time. In case of multiple faults LED will glow according to their fault status.					
Operating Temperature	- 20°C to +60°C				
Storage Temperature	- 25°C to +70°C				
Humidity (Non Condensing)	95% (Rh)				
Enclosure	Flame Retardant UL 94-V0				
Dimension (W x H x D) (in mm)	17.5 X 90 X 66.5				
Weight (unpacked)	72 g				
Mounting	Base / DIN rail				
Degree of Protection	IP 20 for Terminal, IP 40 for Enclosure				
Certification	 				

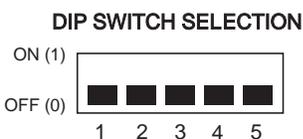
EMI / EMC	
Harmonic Current Emissions	IEC 61000-3-2
ESD	IEC 61000-4-2
Radiated Susceptibility	IEC 61000-4-3
Electrical Fast Transients	IEC 61000-4-4
Surges	IEC 61000-4-5
Conducted Susceptibility	IEC 61000-4-6
Voltage Dips & Interruptions (AC)	IEC 61000-4-11
Conducted Emission	CISPR 11
Radiated Emission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

Environmental	
Cold Heat	IEC 60068-2-1
Dry Heat	IEC 60068-2-2
Vibration	IEC 60068-2-6
Repetitive Shock	IEC 60068-2-27
Non-Repetitive Shock	IEC 60068-2-27

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Selection of Function: Operating Mode & timing can be selected by using DIP switches



CAT. ID : MAG03D0424

1	<input type="checkbox"/>	480	277
1	<input type="checkbox"/>	440	256
1	<input type="checkbox"/>	415	240
1	<input type="checkbox"/>	400	230
1	<input type="checkbox"/>	380	220
1	<input type="checkbox"/>	240	139
1	<input type="checkbox"/>	220	127
1	<input type="checkbox"/>	208	120
1 2 3		Ph - Ph (VAC)	Ph - N (VAC)
1	<input type="checkbox"/>	Settable OFF Delay	Fix ON Delay
1	<input type="checkbox"/>	Settable ON Delay	Fix OFF Delay
4		Delay	
1	<input type="checkbox"/>	Ph - Ph	
1	<input type="checkbox"/>	Ph - N	
5		Supply Type	

CAT. ID : MAG03D0425

1	<input type="checkbox"/>	Settable UV with fix OV *
1	<input type="checkbox"/>	Settable OV with fix UV *
1	<input type="checkbox"/>	Inner Mode
1	<input type="checkbox"/>	Outer Mode
1 2		Function
1	<input type="checkbox"/>	Phase Seq. Disable
1	<input type="checkbox"/>	Phase Seq. Enable
3		Function
1	<input type="checkbox"/>	Settable OFF Delay
1	<input type="checkbox"/>	Fix ON Delay
1	<input type="checkbox"/>	Settable ON Delay
1	<input type="checkbox"/>	Fix OFF Delay
4		Delay
1	<input type="checkbox"/>	Ph - Ph
1	<input type="checkbox"/>	Ph - N
5		Supply Type

* Note : When POT - P1 is set as UV or OV through DIP S/W setting, then POT-P2 is used to set hysteresis ranging from 2% to 12%.

CAT. ID : MAG03D0426

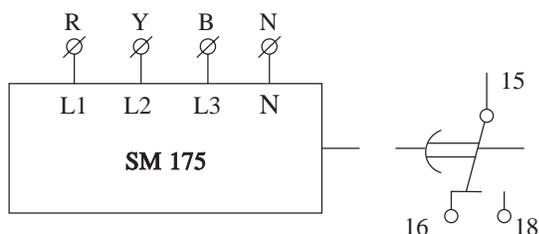
1	<input type="checkbox"/>	Phase Seq. Disable
1	<input type="checkbox"/>	Phase Seq. Enable
1		Function
1	<input type="checkbox"/>	Settable UV(POT-P1) with fix assymetry
1	<input type="checkbox"/>	Settable ASY (POT-P1) with fix UV
2		Function
1	<input type="checkbox"/>	Settable (POT-P2) ON Delay in sec
1	<input type="checkbox"/>	Settable (POT-P2) ON Delay in min
3		Delay
1	<input type="checkbox"/>	Settable (POT-P3) OFF Delay in sec
1	<input type="checkbox"/>	Settable (POT-P3) OFF Delay in min
4		Delay
1	<input type="checkbox"/>	Ph - Ph
1	<input type="checkbox"/>	Ph - N
5		Supply Type

Part No: MAG03D0425

Inner Mode: If user requires both UV and OV protection along with the healthy status of relay between UV and OV range then the user can set Inner mode configuration by selecting DIP switch 1 - high & 2 as low. For this setting P1 potentiometer will work as UV threshold and P2 potentiometer will work as OV threshold with fixed recovery hysteresis of 2% for both.

Outer Mode: If user requires both UV and OV protection along with the unhealthy status of relay between UV and OV range then the user can set outer configuration by selecting both DIP switches high. For this setting P1 potentiometer will work as UV threshold and P2 potentiometer will work as OV threshold with fixed recovery hysteresis of 2% for both.

CONNECTION DIAGRAM



MAG03D0424, MAG03D0425, MAG03D0426