

Voltage Monitoring Series SM 800

- LCD Display with Green backlight
- True RMS Measurement @ 2kHz sampling rate
- Protection against Phase loss, Phase Sequence, Phase Asymmetry, Under Voltage, Over Voltage, Neutral fault, Over Frequency & Under Frequency
- Can be configured for 3-Phase 3-Wire or 3-Phase 4-Wire supplies, 145-500VAC (DMA220 50-500VAC)
- Selectable Over Voltage/ Under Voltage, Asymmetry, Phase Loss, Phase Sequence, Over Frequency Under Frequency & Neutral Fault monitoring
- Adjustable Start (ON) and Trip (OFF) Time Delay in seconds/minutes
- 5A Single and Dual relay outputs
- Two Separate Relay outputs with independent Programming
- Password protection
- Log of 5 previous faults for better monitoring
- Fail safe/Non-Fail safe relay configuration
- Latch (Manual-reset) and Non-Latch (Auto-reset) alarm modes





Ordering Information

Cat. No.	Description
DMS110	145-500 VAC, Digital Voltage Monitoring Relay, 1C/O
DMS120	145-500 VAC, Digital Voltage Monitoring Relay, 1C/O + 1C/O
DMA220	50-500 VAC, Digital Voltage Monitoring Relay with 85-300Vac/dc Auxiliary supply, 1C/O + 1C/O

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Cat. No.	DMS110	DMS120	DMA220	
Parameters				
Supply Voltage (Φ)	145 - 500 VAC self-powered from monitored supply		85 - 300 VAC/DC Auxilliary supply	
Frequency	45 to 65 Hz			
Trip Settings	Phase Loss	Configurable (Enable/Disable) (Default : Enable)		
	Phase Reverse	Configurable (Enable/Disable) (Default : Enable)		
	Phase Asymmetry	2 to 50%		
	Under Voltage	4-Wire	Phase - Neutral : 90 to 288 VAC	Phase - Neutral : 50 to 288 VAC
		3-Wire	Phase - Phase : 155 to 500 VAC	Phase - Phase : 85 to 500 VAC
	Under Voltage Hysteresis	3 to 20VAC +/- 2V (7V Default)		
	Over Voltage	4-Wire	Phase - Neutral: 90 to 288 VAC	Phase - Neutral : 50 to 288 VAC
		3-Wire	Phase - Phase : 155 to 500 VAC	Phase - Phase : 85 to 500 VAC
	Over Voltage Hysteresis	3 to 20VAC +/- 2V (7V Default)		
	Under Frequency	45 to 65 Hz		
Over Frequency	45 to 65 Hz			
Frequency Hysteresis	0.1 to 5 Hz			
Asymmetry	Voltage : 5 to 99 VAC (Default 60V)			
	Percentage : 2 to 50%			
Hysteresis for Asymmetry	Voltage : 3 to 99 VAC +/- 2V (Default 7V)			
	Percentage : 2 to 15%			
Power Consumption (Max.)	5 VA			
Time Delay	ON Delay	2sec to 999sec (Default : 5sec)		
	Trip Time (OFF Delay)	0.1 to 999sec (Phase loss & Phase reverse : <100ms) Default : Neutral Loss is <500ms & UV, OV, Asymmetry fault 5sec.		
Output	Relay Output	1 C/O	1 C/O + 1 C/O	
	Contact Rating	5A (Resistive) @ 240 VAC / 30 VDC		
	Electrical Life	1X10 ⁵ Operations		
	Mechanical Life	1X10 ⁷ Operations		
Utilization Category	AC-15 (V)	120/240 V		
	(A)	3/1.5 A		
	DC-13 (V)	24/125/250 V		
	(A)	2/0.22/0.1 A		
Operating Temperature	-10°C to + 60°C			
Storage Temperature	-20°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 67			
Weight	100 g			
Mounting	Base / DIN			
Degree of Protection	IP-20 for Enclosure & Terminals, IP-40 with Front Facia for Dust cover			
Certification	 			

EMI / EMC

Harmonic Current Emissions	IEC 61000-3-2
Voltage Flicker and Fluctuations	IEC 61000-3-3
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
Voltage Dips & Interruptions (DC)	IEC 61000-4-29
Conducted Emission	CISPR 11
Radiated Emission	CISPR 11
Swell	As per GTS Standard's

Environmental

Cold Heat	IEC 60068-2-1
Dry Heat	IEC 60068-2-2
Vibration	IEC 60068-2-6

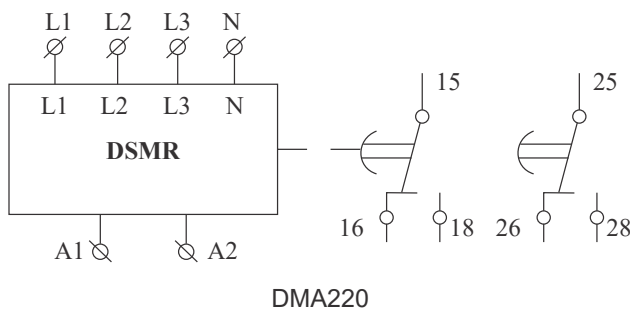
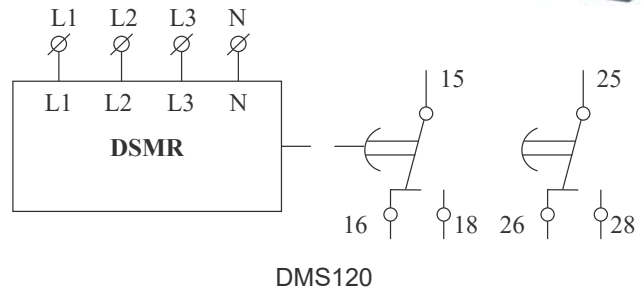
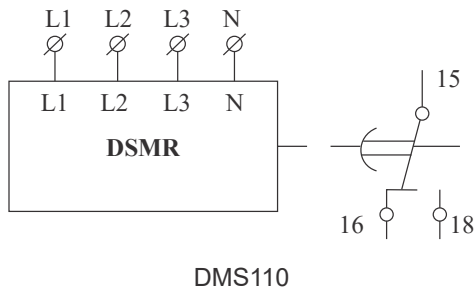
Safety:

Test Voltage Between I/P & O/P	IEC 60947-5-1 / UL 508
Test Voltage Between all Terminals & Enclosure	IEC 60947-5-1 / UL 508
Impulse Voltage Between I/P & O/P	IEC 60947-5-1

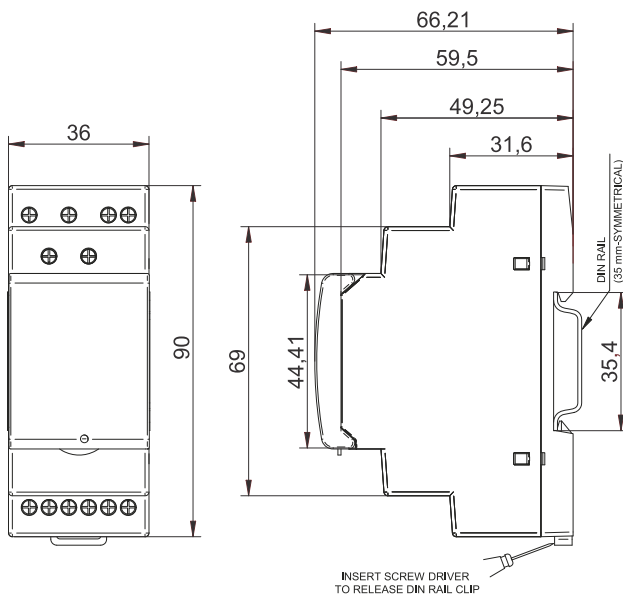
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CONNECTION DIAGRAM



MOUNTING DIMENSION (mm)



TERMINAL TORQUE & CAPACITY

 Ø 4.5mm	0.5 N.m (4.4 lb.in)
	1 x 4mm Solid / Standard Wire
AWG	26 to 10