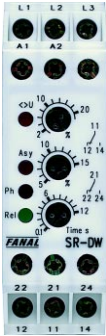


3 Phase Voltage Monitor SR-DW Motor Protector



Representative photo

- Protects Against: Phase Loss, Phase Reversal, Overvoltage, Undervoltage, and Voltage Unbalance
- 35 mm DIN Rail Mounting
- DPDT Isolated 5 A Relay Contacts
- Green LED (relay) Glows when All Conditions are Acceptable
- Line Voltage 127 ... 400 V AC, in 4 Ranges
- Simple 3 Wire Connection for Delta or Wye Systems

Description

The SR-DW protects sensitive 3 phase loads from adverse voltage conditions. It continuously measures the voltage of each of the three phases. Protection is provided against phase loss, phase reversal, over, under and unbalanced voltages. The SR-DW is fully adjustable so the proper protection can be selected for each load. Four LEDs are included to indicate voltage and phase faults. A trip delay is included to prevent nuisance tripping.

Operation

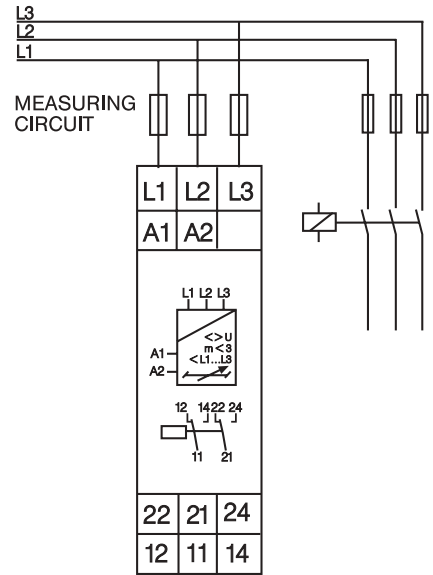
The output relay is energized and the green LED glows when all voltages are acceptable and the phase sequence is correct. Undervoltage, overvoltage, and voltage unbalance must be sensed for continuous trip delay period before the relay and the green LED are de-energized. Re-energization is automatic upon correction of the fault condition. The output relay will not energize if a fault condition is sensed as power is applied.

■ Approvals:

Supply Voltage	Input Voltage	Unbalance	Trip Delay	Part Number
127 V AC	3 x 208 ... 230 V AC	5 ... 15%	0.1 ... 12 s	F 012 466 000
220 V AC	3 x 208 ... 230 V AC	5 ... 15%	0.1 ... 12 s	F 012 466 100
230 V AC	3 x 380 ... 415 V AC	5 ... 15%	0.1 ... 12 s	F 012 466 200
400 V AC	3 x 380 ... 415 V AC	5 ... 15%	0.1 ... 12 s	F 012 466 900

Technical Data

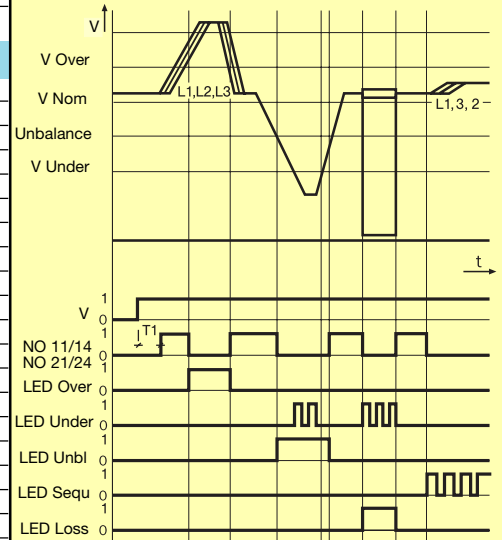
Line Voltage	
Type	3 phase Delta or Wye with no connection to neutral
Line Voltage (Input Voltage)	3 x 208 ... 230 VAC; 3 x 380 ... 415 VAC
Supply Voltage	127 ... 400 V AC; +/-20%
Line Frequency	50 ... 60 Hz
Phase Sequence	ABC
Overvoltage, Undervoltage & Voltage Unbalance	
Type	Voltage detection
Overvoltage & Undervoltage:	
Undervoltage Trip Point	80 ... 98% of line voltage
Overvoltage Trip Point	102 ... 120% of line voltage
Voltage Unbalance (Asymmetry):	
Trip Unbalance	Adjustable from 5 ... 15%
Trip Delay:	
Range	Adjustable from 0.1 ... 12 s
Tolerance	Adjustable-Guaranteed range
Response Time -- Supply Voltage Applied	≤ 80 ms
Reset	Automatic
Restart Delay	0.5 s
LED Indicators -- 4	
Red	Over & undervoltage
Red	Unbalance (Asymmetry)
Red	Phase loss & sequence
Green	Relay energized
Output	
Type	Electromechanical relay
Form	2 x Isolated single pole double throw (2 x SPDT)
Rating	
AC 1	5 A @ 230 V AC
AC 15	1.5 A @ 230 V AC
Maximum Voltage	≤ 250 V AC
Protection	
Isolation Voltage	VDE 0160 Input to output
Protection to DIN 40 050/ IEC 529	Enclosure IP 30 Terminals IP 10
Mechanical	
Mounting	EN 50 022 DIN 3 Rail
Termination	2 #14 AWG (1.5 mm ²) wire per terminal
Environmental	
Operating Temperature	-20°C ... +55°C
Weight	≅ 6.5 oz (185 g)



Connection diagram for 3 phase voltage monitoring

Three-phase network to be monitored
Supply voltage

Time Diagram



T1 = Restart Delay
NO = Normally Open Contact 11/14, 21/24
V = Voltage
t = Time

