Technical Data Sheet

Omicron SPPR
Single Phasing Preventer Relay

Omicron SPPR is an advanced Single Phasing Preventor Relay designed to safeguard electrical systems from voltage-related faults. It provides reliable protection against phase unbalance, phase failure, and incorrect phase sequence conditions. All fault conditions are self-resetting, ensuring smooth and automatic system recovery. The relay features multiple LEDs for clear fault indication, enabling quick diagnosis and maintenance.

RoHS CE

Application

- Motor protection
- Server rooms
- Control system
- Industrial equipments
- Conveyor systems

Product Features

- **System Type**
- 3 Phase 3 Wire

- **Protection feature**
- Phase Unbalance Protection
- Phase Failure Protection
- Phase Sequence Protection

- **Self Powered**
- No need of external power supply

- **Auto Reset**
- Automatically resets after the fault condition is cleared.

- **LED Indication**
- LED indication for Healthy, Phase Unbalance, Phase Fail and Phase Sequence condition.

Technical Specifications

Input Voltage	
Operating Voltage Range	150 - 550VAC (L-L
Nominal Voltage	415VAC (L-L)
Nominal Frequency	50 / 60 Hz
Operating Frequency Range	45 to 65 Hz
VA rating	<12VA (Per phase)
Max continous input voltage	550VAC (L-L)
Short term overload withstand (1Sec)	2 x Nominal input voltage
Functional Parameters	
Phase Fail	>100V (difference between two L-L voltages)
Phase Unbalance	>40V (difference between two L-L voltages)
Phase Sequence	Yes
Hysteresis	5V - 12V
Reset	Auto on removal of fault condition
Power ON Delay	<300 msec
Reset Delay	<300 msec
Trip Delay	<300 msec
Accuracy	
Tripping Accuracy	+/- 10V
Relay Contacts	
Type Of Relay	1 CO SPDT
Relay Contact Rating	NO : 6A@250VAC/30VDC NC : 6A@250VAC/30VDC
Environmental Conditions	
Operating Temperature	-20°C to +70°C
Storage Temperature	-40°C to +85°C
Relative Humidity	Upto 95% RH
Degree of protection	IP20 - Terminals
Auxiliary Supply	
Type	Self Powered
Reference Conditions for Accuracy	
Reference Temperature	23°C ± 2°C
Input Voltage	Un ± 1%
Input Waveform	Sinusoidal (Distortion Factor <2%)
Input Frequency	50 Hz ± 1%
Mechanical Attributes	
Dimensions	18 X 98.6 X 66.5

Technical Specifications

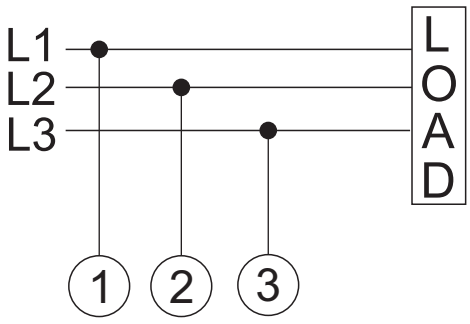
Applicable Standards

Product Stadard	IEC 60255-1
Conducted RF	IEC 61000-4-6
Radiated Emision	CISPR 11
Electrical fast transient	IEC 61000-4-4
Electrostatic Discharge	IEC 61000-4-2
Surge Immunity	IEC 61000-4-5
Voltage DIP/Short interruption	IEC 61000-4-11
Rated Power Frequency	IEC 61000-4-8
HV Test	2.2kV AC, 50Hz for 1 minute betweeen all electrical circuits

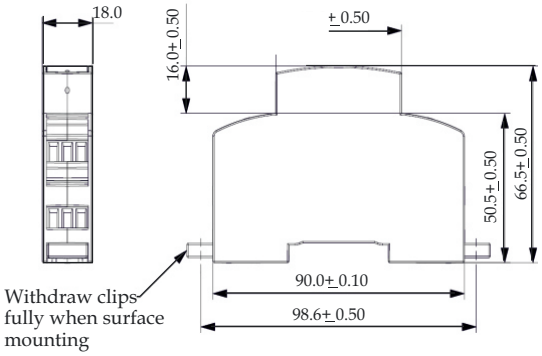
LED Indication

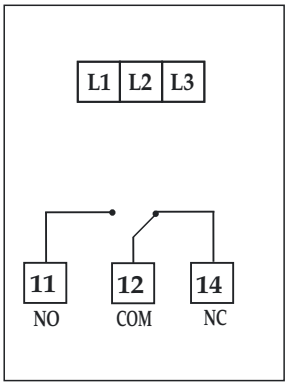
Conditions	RELAY	L1	L2	L3
Healthy	ON	OFF	OFF	OFF
R Phase Loss	OFF	ON	OFF	OFF
Y Phase Loss	OFF	OFF	ON	OFF
B Phase Loss	OFF	OFF	OFF	ON
R Phase Unbalance	OFF	BLINK	OFF	OFF
Y Phase Unbalance	OFF	OFF	BLINK	OFF
B Phase Unbalance	OFF	OFF	OFF	BLINK
Incorrect Sequence	OFF	BLINK	BLINK	BLINK

Electrical Connections



Dimensions





Note- Relay Contacts shown are in power off condition

Wiring Guidelines :

Input Wire Size :	1 to 2.5 Sq.mm
Voltage Tightning Torque:	0.4Nm

Ordering information

Product Code	SP10	S	4	A	3	1	1	00000ST
Model	SPPR							
System Type	3 Phase 3 Wire							
Input Voltage	150 TO 550V (L-L)							
Input Frequency	50/60Hz							
Relay configuration	Normally Energized							
Relay Output	1 Relay (1 CO SPDT)							

sifam tinsley
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