

Digital / Analog Protection Relays



Features

Protection Relays (900 Series)



- True RMS Measurement
- LCD with backlight

Certification

CE | RoHS

IEC 61326-1 - (EMI/EMC)
IEC61010 - 1 (Safety standard)




900VPR-U

Voltage Protection Relay





- 3Ø Voltage Monitoring (Including Frequency)
- 2 Relay outputs
- Universal supply: 85 - 270V AC/DC

Selection Criteria for VPR series

	<p>900VPR-2</p> <ul style="list-style-type: none"> • Under voltage, Over voltage, Under frequency, Over frequency • Phase asymmetry, Phase failure & Phase sequence • Self powered • Power on delay, Trip time delay & Delay on release • Operating Range : 160 - 300V AC (L-N) 280 - 520V AC (L-L) • 3Ø-3 wire, 3Ø-4 wire 	<p>Certification</p> <p>CE</p> <hr/> <p>RoHS</p> <p>IEC 61326-1 - (EMI/EMC) IEC 61010 - 1 (Safety standard)</p>
<p>35mm</p> 	<p>900VPR-U</p> <ul style="list-style-type: none"> • Under voltage, Over voltage, Under frequency, Over frequency • Phase asymmetry, Phase failure, Neutral loss & Phase sequence • Auxiliary supply : 85 - 270V AC/DC • Power on delay, Trip time delay & Recovery time delay • Operating Range : 50 - 288V AC (L-N) 85 - 500V AC (L-L) • 3Ø-3 wire, 3Ø-4 wire 	
	<p>VPRD2M</p> <ul style="list-style-type: none"> • Under voltage, Over voltage • Phase asymmetry, Phase failure & Phase sequence • Self powered • Power on delay, Trip time delay & Recovery time delay • Operating Range : 127 - 288V AC (L-N) • 1Ø-2 wire, 3Ø-4 wire 	

Selection Criteria for VPR series

<div>35mm</div> 	<p>VPRA2M</p> <ul style="list-style-type: none"> ● Under voltage, Over voltage ● Phase asymmetry, Phase failure & Phase sequence ● Self powered ● Power on delay, Trip time delay & Recovery time delay (fixed) ● Operating Range : 127 - 288V AC (L-N) ● 1Ø-2 wire, 3Ø-4 wire 	<p>Certification</p> <p>CE</p> <hr/> <p>RoHS</p> <p>IEC 61326-1 - (EMI/EMC) IEC 61010 - 1 (Safety standard)</p>
<div>17.5mm</div> 	<p>600VPR (3Ø) / 600VPR-1 (1Ø)</p> <ul style="list-style-type: none"> ● Under voltage, Over voltage ● Phase failure, Phase sequence ● Self powered ● Power on delay, Trip time delay ● Operating Range : 310 - 520V AC (L-L) for 3Ø 180 - 300V AC (L-N) for 1Ø ● 3Ø-3 wire / 1Ø-2 wire 	
	<p>600PSR</p> <ul style="list-style-type: none"> ● Phase failure, Phase sequence, Phase asymmetry ● Self powered ● Phase failure trip <154V AC (L-L) ● Phase asymmetry :30V Fixed ● Operating Range : 154 - 500V AC (L-L) ● 3Ø-3 wire 	

900VPR-U

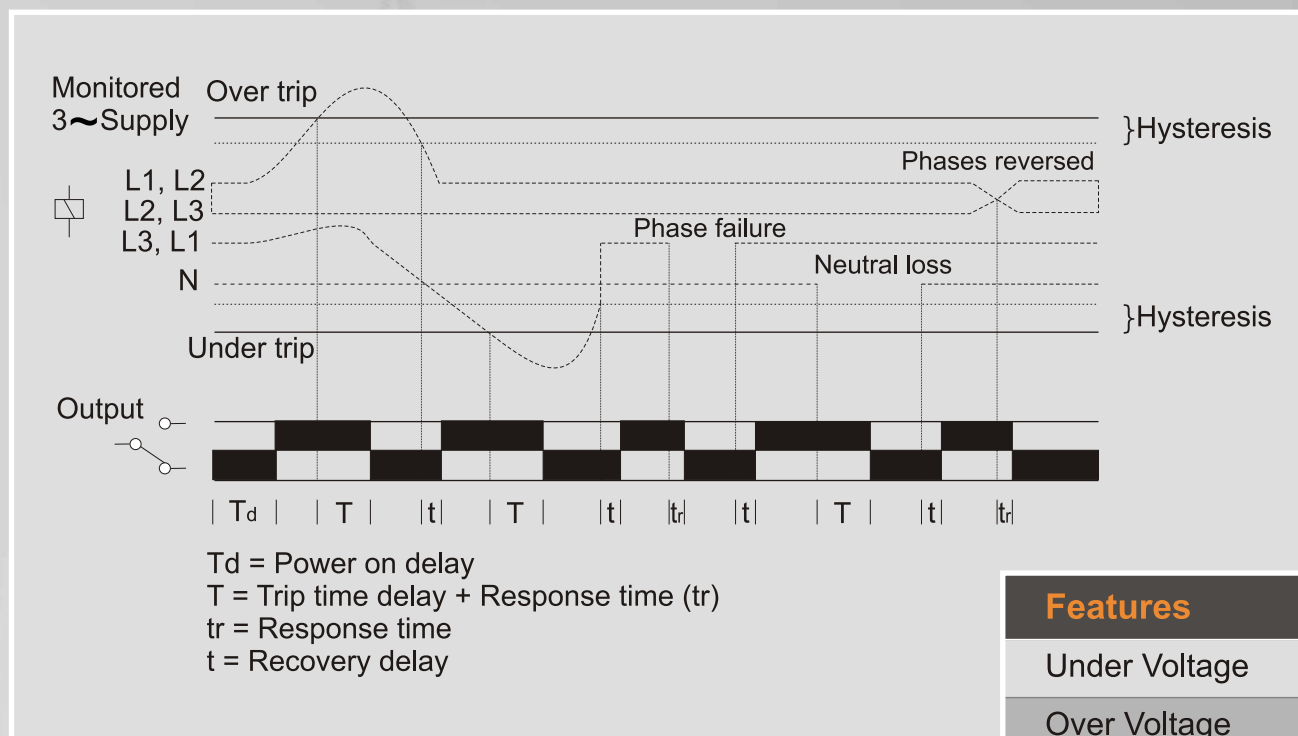
Features

- Under voltage, Over voltage, Under frequency, Over frequency
- Phase asymmetry, Phase failure, Neutral loss & Phase sequence
- Auxiliary supply : 85 - 270V AC/DC
- True RMS measurement
- Power on delay, Trip time delay & Recovery time delay
- Adjustable switching hysteresis
- Two Separate alarm relays



900VPR-U

Function & Timing Diagram

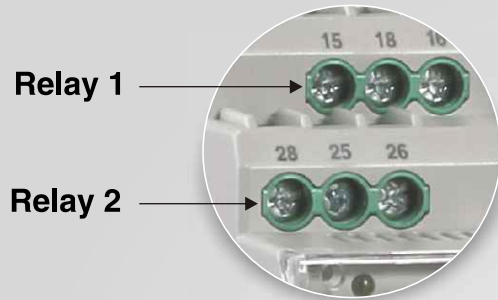


Features	Display
Under Voltage	UV
Over Voltage	OV
Under Frequency	UF
Over Frequency	OF
Phase Asymmetry	PAS
Phase Sequence	P.SQ
Phase Failure	P.FL

900VPR-U

Display & Operational Features

2.5 sq mm wire terminal



35mm



Liquid crystal display



LED indications
(Trip indications)

True RMS
average voltage

Transparent
Cover

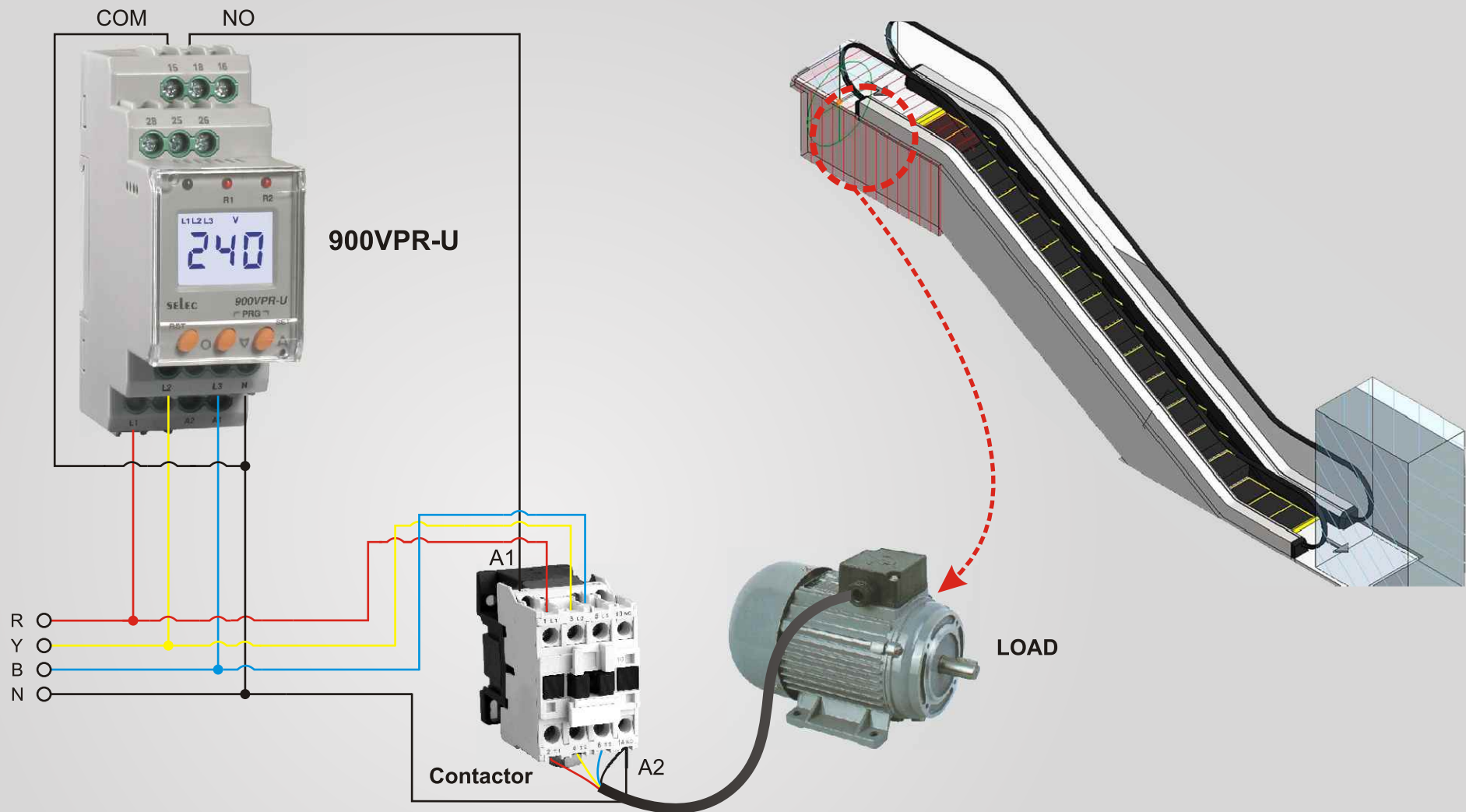


One touch reset key



Programming Keys

Wiring illustration



900VPR

Applications

- Control Panel
- Protection of Electrical Installation
- Power Generation Monitoring
- Generator, Inverter
- Transformer

All motor monitoring & Protection application:

- Escalator, High Lift
- Crusher Plant
- Cutting Machine
- Machine control
- Motor Starter

900ELR-2

Earth Leakage Relay

selec[®]
Creating Best Value



Features	Display
Trip Current Range	RNG
Set trip value for Earth Leakage	5V
Instantaneous trip selection	INS
Relay Operation mode	MOD

- Leakage Current Monitoring in 1Ø & 3Ø systems

900ELR-2

Features

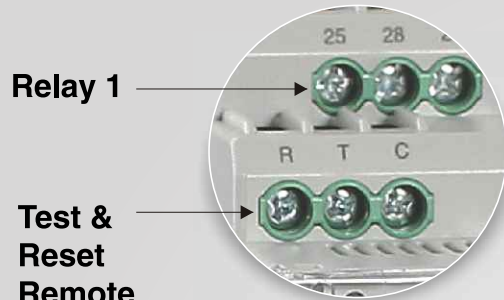
- Leakage current monitoring in 1Ø & 3Ø systems
- True RMS measurement
- CBCT connection monitoring
- Power on delay, Trip time delay & Delay on release
- Adjustable switching hysteresis
- Test and Reset via front / remote
- LCD with backlight
- Two Separate alarm relays



900ELR-2

Display & Operational Features

2.5 sq mm wire terminal



Test & Reset Remote terminals



Transparent Cover



LCD with backlight

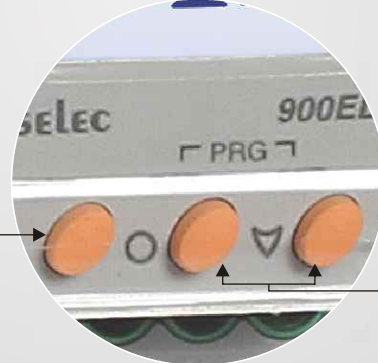


LED indications (Trip & Pre alarm indications)

Leakage current

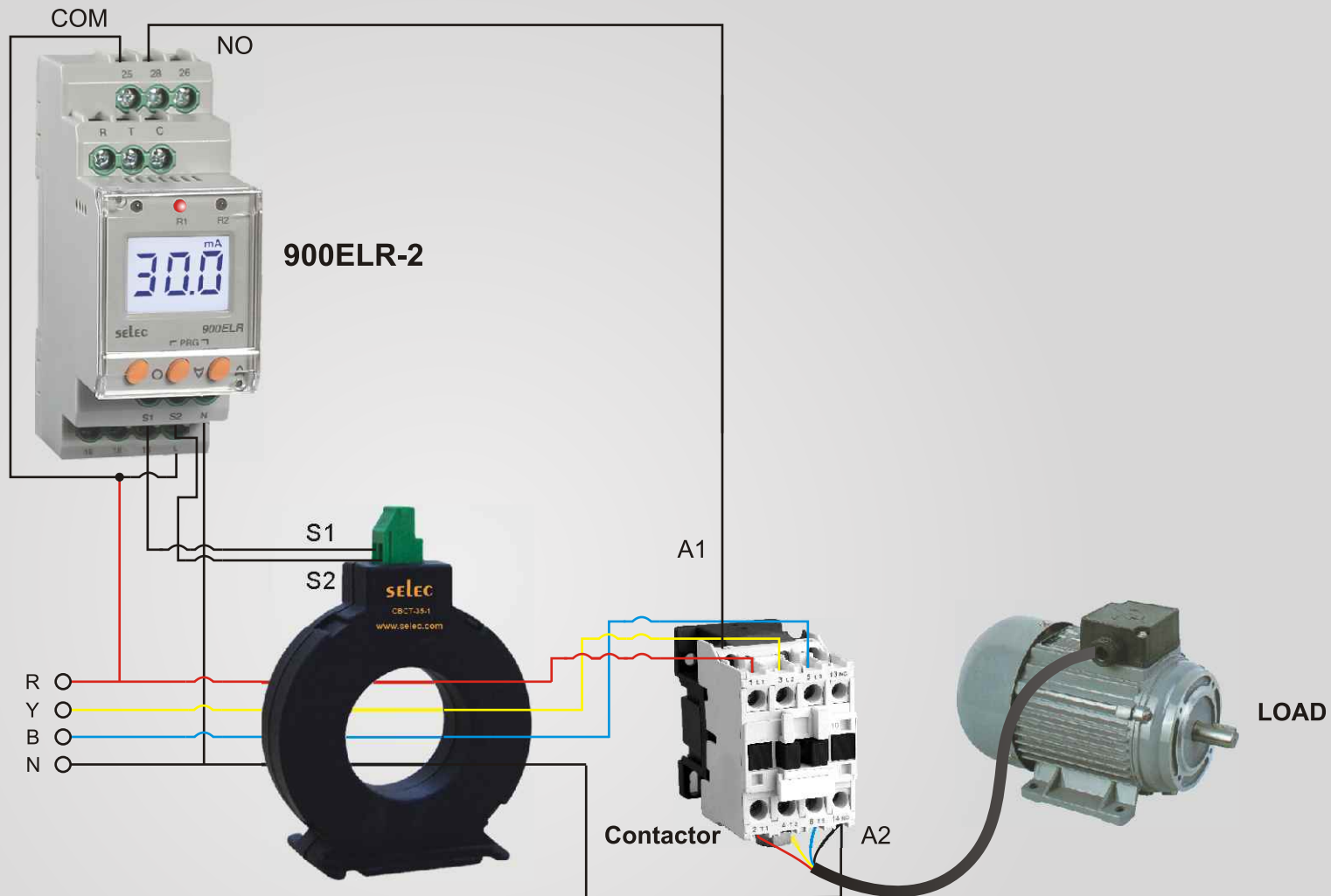
True RMS measurement

Test & Reset via front key



Programming Keys

Wiring illustration



900ELR

Applications

- Monitoring of leakage current in machines & electrical appliances or installation
- Electrical equipments such as

- Feeders
- Generators
- Transformers
- Motor Starter

All Industries such as

- - Oil refineries
 - Mining & Control engineering
 - Cement plant
 - Steel plant
 - Chemical plant
 - Pulp industries

900CPR




Current Protection Relays



Features	Display
Over Current	OC
Under Current	UC
Current Asymmetry	AS
Time Settings	EM

- 1Ø / 3Ø Current Monitoring

Selection Criteria for CPR series

	<p>900CPR-1</p> <ul style="list-style-type: none"> ● Under current, Over current monitoring in 1Ø ● True RMS measurement ● Auxiliary supply : 230V AC \pm15% ● Power on delay, Trip time delay & Recovery time delay ● Adjustable switching hysteresis ● One alarm relay with NC or NO operation selectable 	
	<p>900CPR-1-U</p> <ul style="list-style-type: none"> ● Under current, Over current monitoring in 1Ø ● True RMS measurement ● Auxiliary supply : 85 - 270V AC/DC ● Power on delay, Trip time delay & Recovery time delay ● Adjustable switching hysteresis ● One alarm relay with NC or NO operation selectable 	<p>Certification</p> <p>CE RoHS</p> <p>IEC 61326-1 - (EMI/EMC) IEC61010 - 1 (Safety standard)</p>
	<p>900CPR-3</p> <ul style="list-style-type: none"> ● Under / over current monitoring in 1Ø & 3Ø ● Current asymmetry protection (for 3Ø system only) ● True RMS measurement ● Auxiliary supply : 230V AC / 110V AC ; \pm15% ● Power on delay, Trip time delay & Recovery time delay ● Adjustable switching hysteresis ● One alarm relay with NC or NO operation selectable 	

35mm

900CPR-1

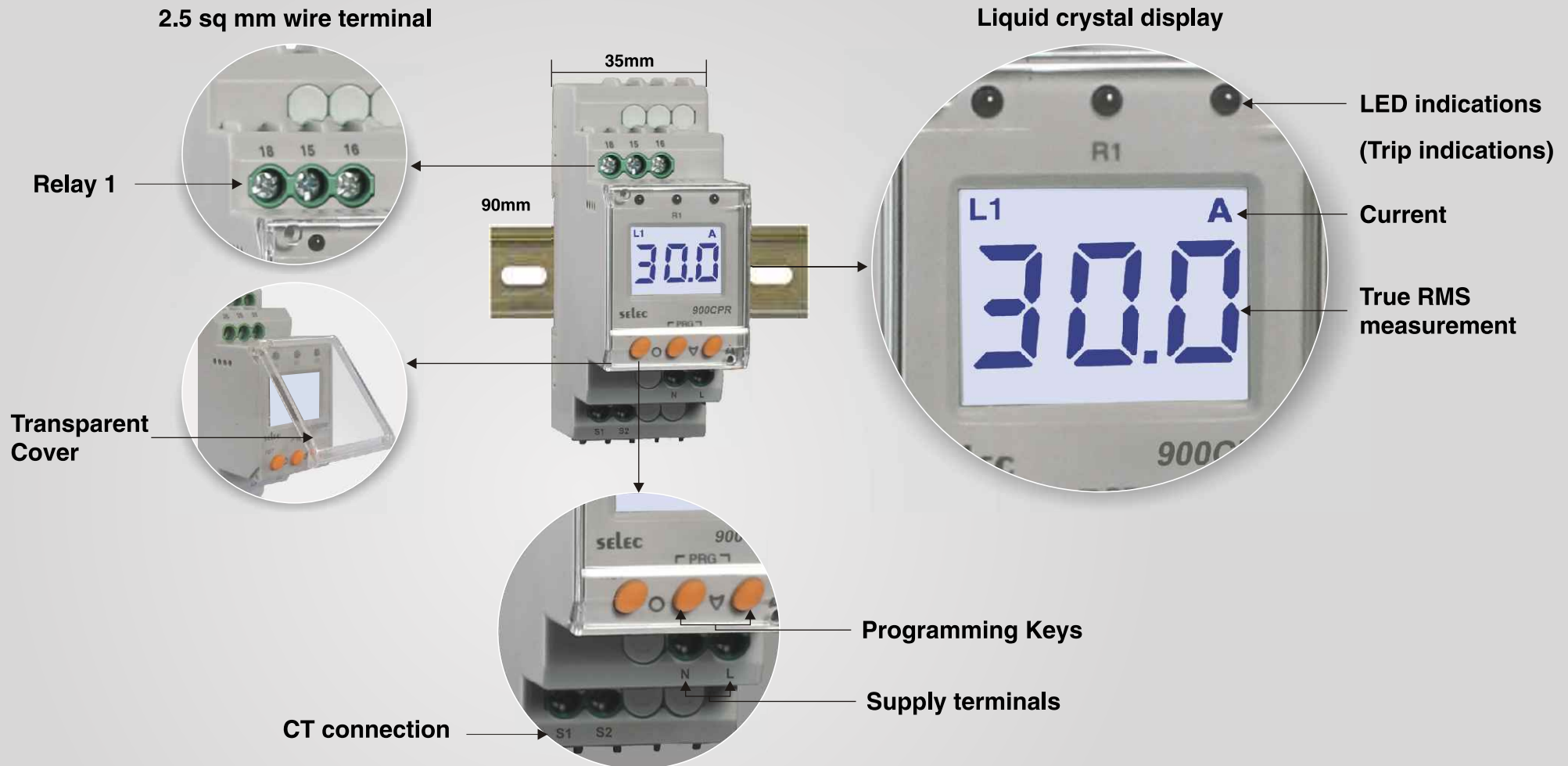
Features

- Under current, Over current monitoring in 1Ø
- True RMS measurement
- Power on delay, Trip time delay & Recovery time delay
- Adjustable switching hysteresis
- One alarm relay with NC or NO operation selectable

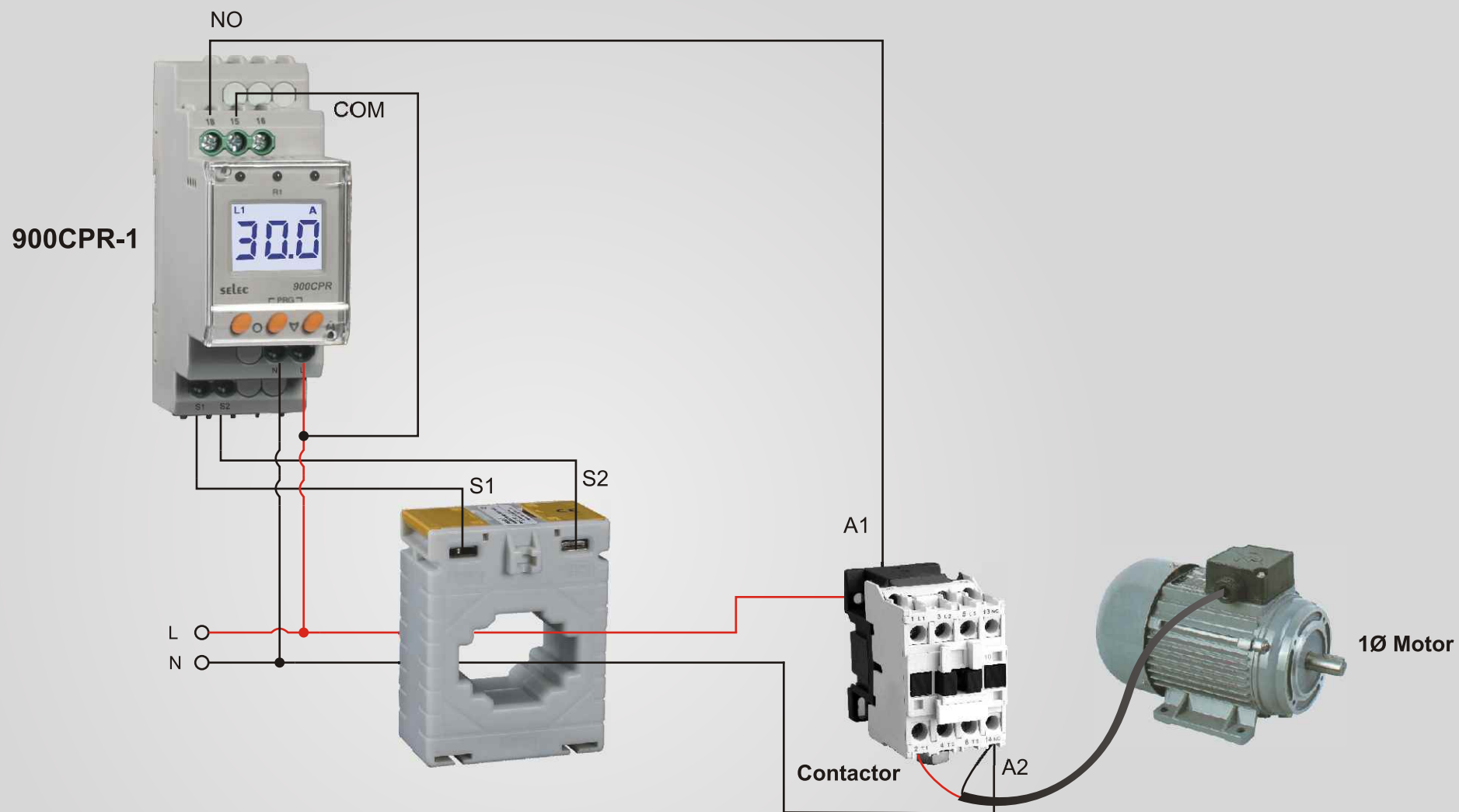


900CPR-1

Display & Operational Features



Wiring illustration



900CPR

Applications

- Motor
- Distribution Feeders
- Agriculture Pump Protection
- Transformer, Water Heater
- Control Panel
- Panel Boards
- Air conditioning & Refrigeration equipment

Analog Protection Relay

17.5 / 35mm Din Rail Mount

selec[®]
Creating Best Value



- 1Ø / 3Ø Voltage monitoring

Analog Protection Relays Series



- True RMS Measurement
- High Accuracy Digitized Settings

Certification

CE | RoHS

IEC 61326-1 - (EMI/EMC)
IEC61010 - 1 (Safety standard)

VPRA2M

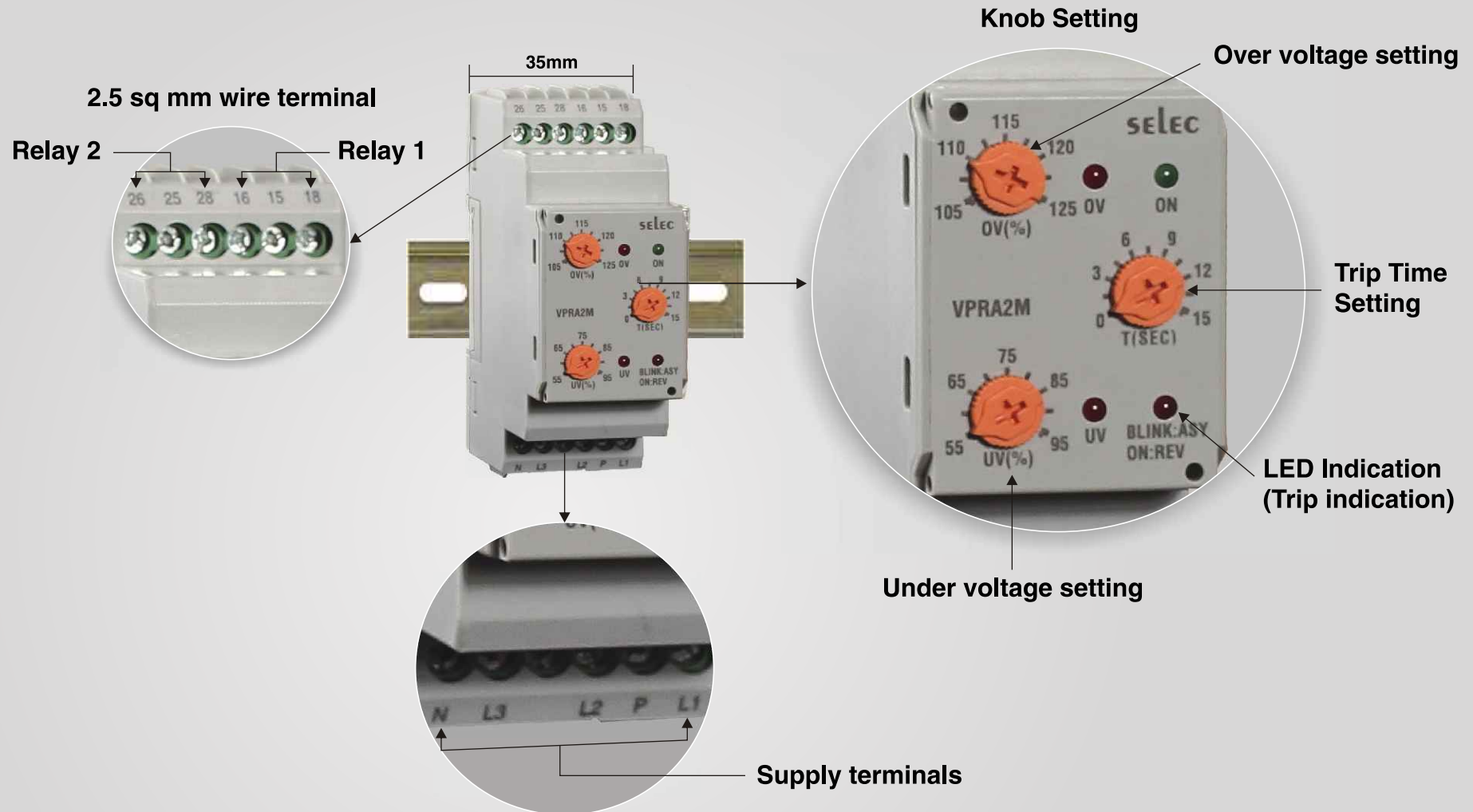
Features

- Under voltage, Over voltage
- Phase asymmetry, Phase failure & Phase sequence
- Self powered
- True RMS measurement
- Power on delay, Trip time delay & Recovery time delay
- Fixed hysteresis: 7V ($\pm 2V$) of trip voltage
- Two relays with 1 setpoint

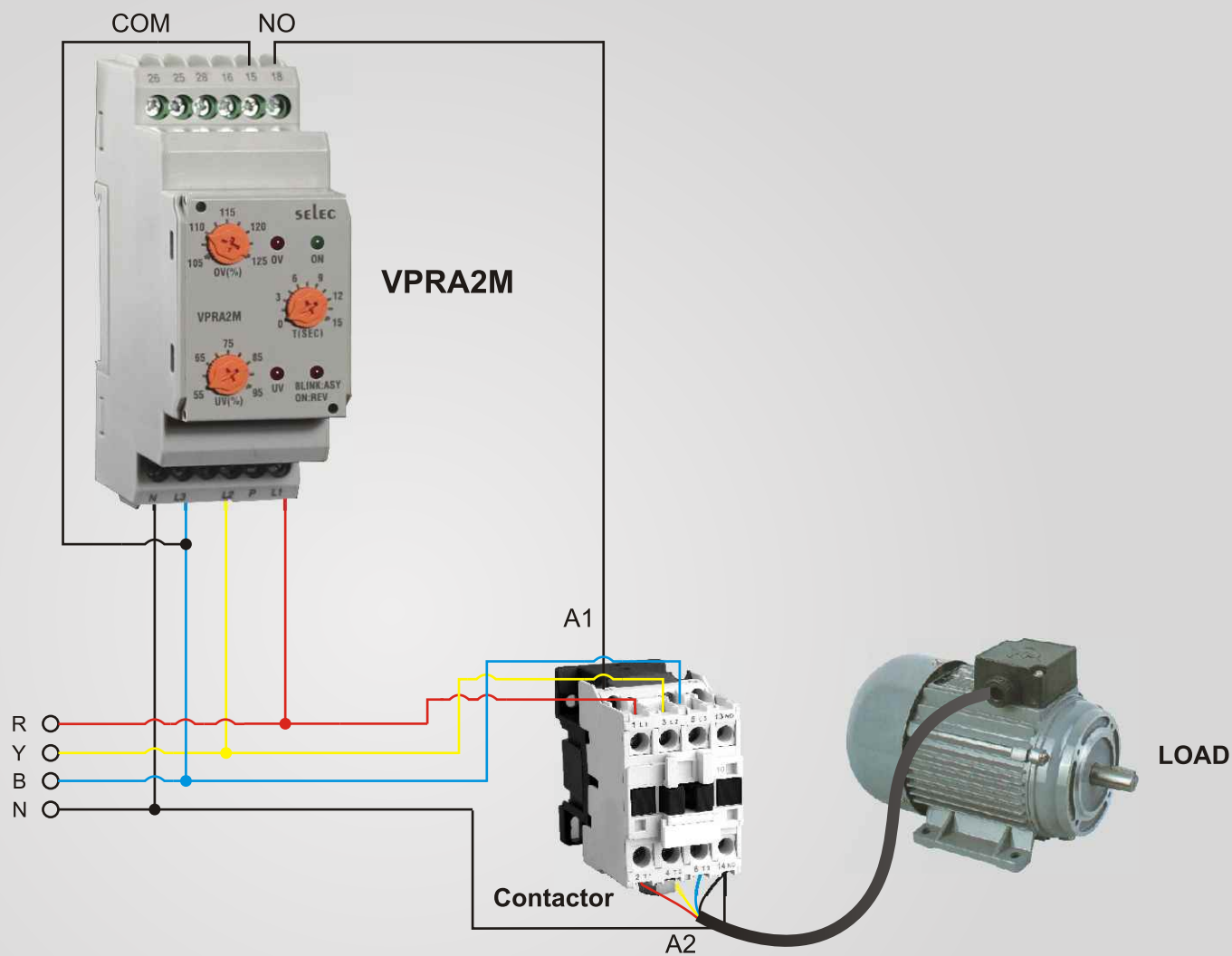


VPRA2M

Display & Operational Features



Wiring illustration



600VPR / 600PSR

Features

Voltage Protection Relay

- Under voltage, Over voltage
- Phase sequence, Phase failure
- Trip time delay



17.5 mm

Phase Sequence Relay

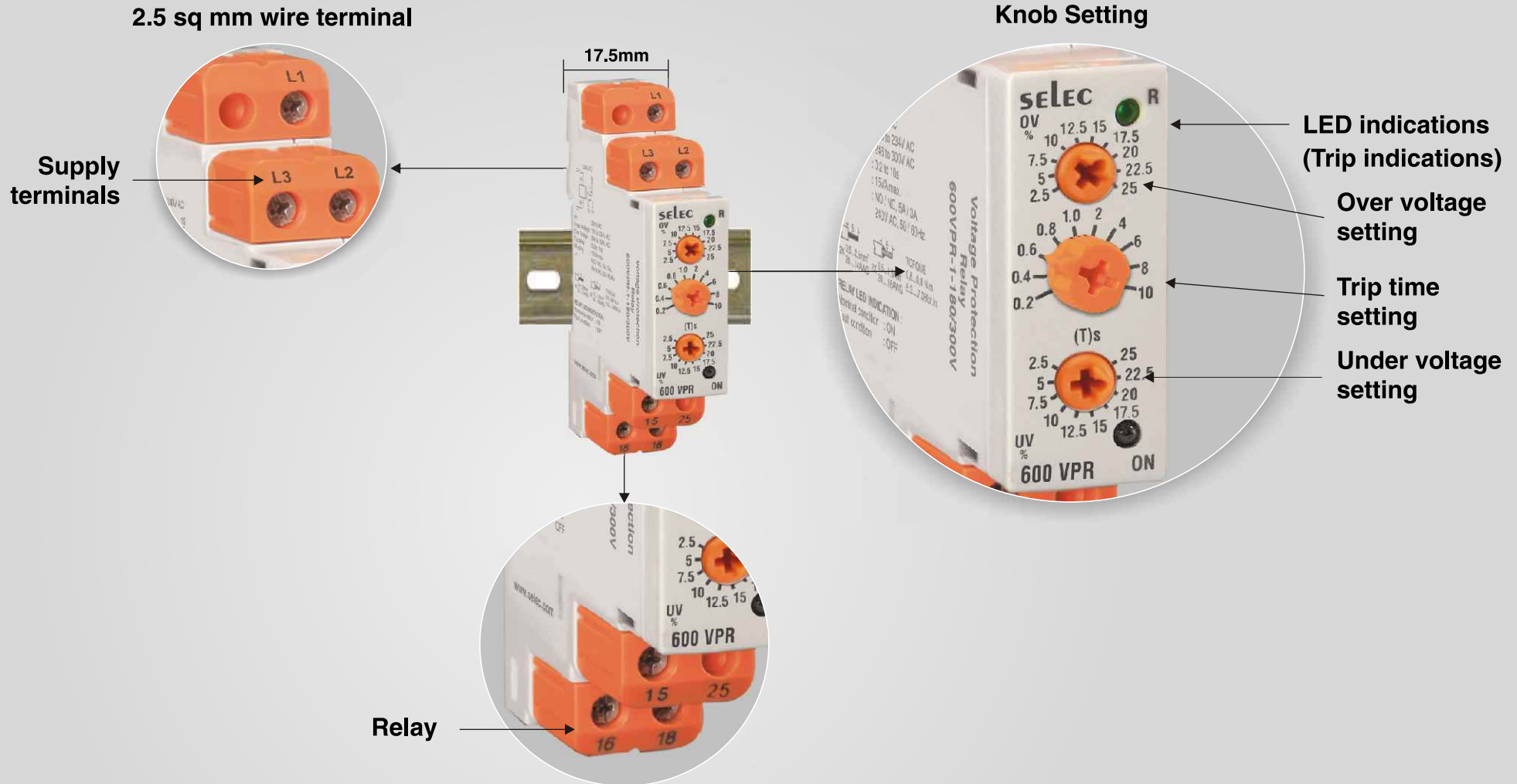
- Phase sequence
- Phase failure
- Phase asymmetry: 30V (fixed)



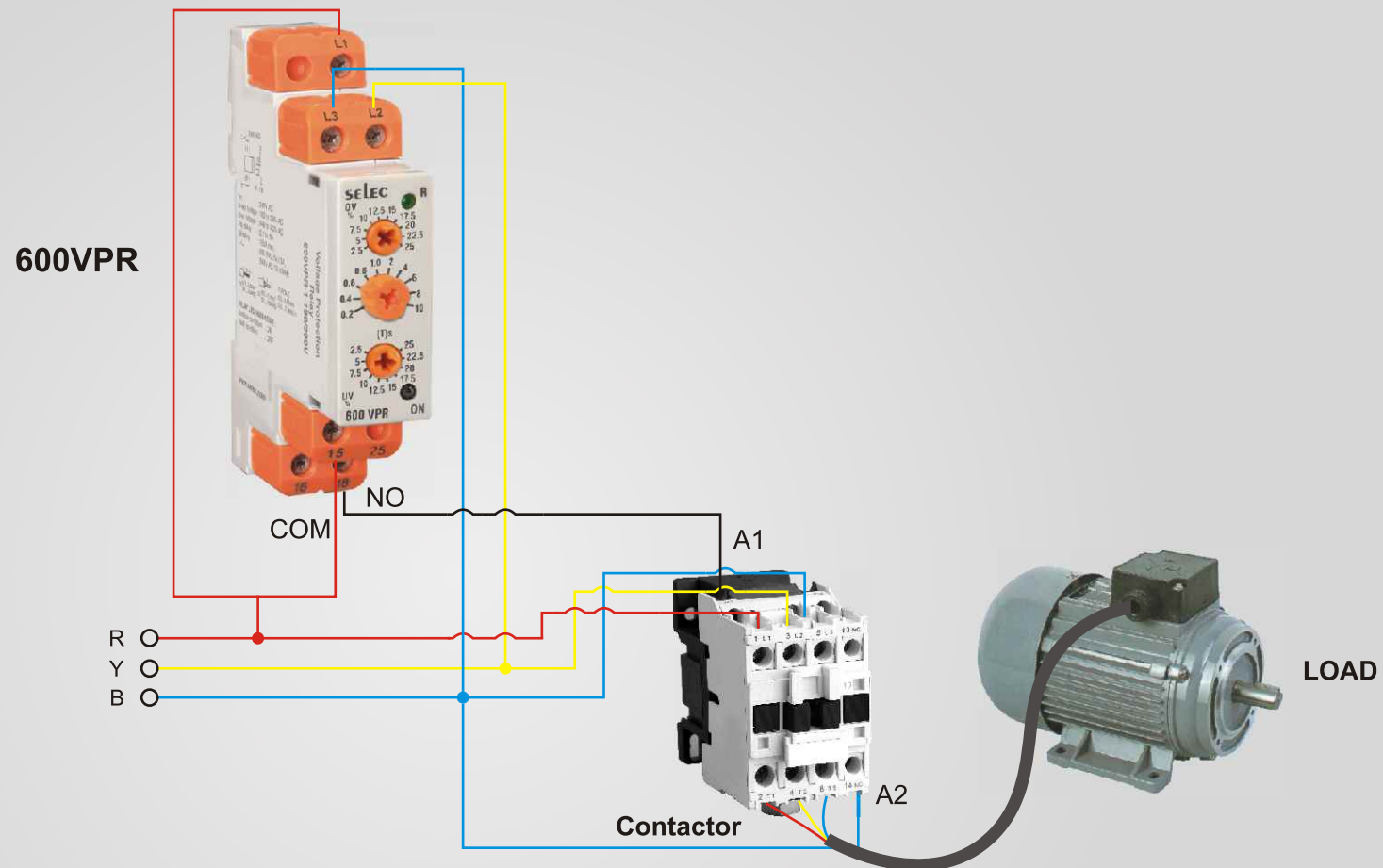
17.5 mm

600VPR

Display & Operational Features



Wiring illustration



VPRA2M / 600VPR

Applications

- Motor control application such as
 - Inverter
 - UPS
 - Hoist Motor Control
 - Valve Actuator Motor
 - Motor Starter
 - 3Ø Split AC machines
 - Agricultural Pump Starters
- All control panels such as
 - Rectifier Panel
 - Battery Charger Panel
 - 3Ø AC Panel
 - DG Set Panel
- Injection Molding Machine
- Machine Tools