

NEW ELEC

MOTOR PROTECTION & CONTROL TECHNOLOGY

LA Series Electronic Motor Protection Relay



A South African Company to be Proud of

About

The LA motor protection relay provides superior thermal overload and phase unbalance protection in applications that would traditionally have used thermal bi-metal relays.

This microprocessor-based electronic motor protection relay, designed to IEC 60255-8, provides overload protection for cyclic or sustained loads, as well as providing unbalance current and single phasing protection.

The integral three phase current transformer module block with 22mm primary apertures facilitates 'straight through' conductor routing from the main contactor to the electric motor in the range of 1 to 250 Amps.

Features Include:

- Thermal Overload Protection
- Locked Rotor Protection
- Running Stall / Jam Protection
- Unbalanced Current / Single Phasing
- Fail-safe Trip Relay Configuration
- Stable Operation with VSD / Soft Starters
- No additional CTs up to 250 Amps
- Descriptive Fault Indication LEDs
- Indication and Trip Test Facility



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Technical Specifications

Input Current

From NewElec Current Transformer Module Block

Overload Curve Accuracy

± 5% : 1,2 to 10 (I_e)
± 7% : 1 to 1,2 (I_e)

Overload Withstand Ratings

LA 10 : 50 Amp cont.
LA 50 : 100 Amp cont.
LA 100 : 200 Amp cont.
LA 250 : 500 Amp cont.

Auxiliary Supply

Range : 110V or 220V AC
Operating Range : 85% to 120%
Burden : 3VA
Frequency Range : 45 to 65Hz
Isolation : 2kV 1 minute
IEC 255-5 / A
Impulse Withstand : Transient 5kV
IEC 255-5 / Class 3

Fault Indication

Operation : Latch on trip
Resetting Fault Indication : Latch

Maximum Load Current Setting

Level Setting Accuracy : ± 2%
Repeatability : ± 1%
Detection Level : 102% of (I_e)
Operational Level : 104% of (I_e)
Calibration : Amps R.M.S.
Setting Range : 10% to 100% I_n
Response : Average Value

Overload Reset Delay

Running : 1 X t heating
Standing : 2 X t heating

Unbalanced Current

Setting (I₂) : 20% (I_{LOAD})
Calibration : Amps
Detection Level : 102% (I₂)
Repeatability : ± 2%
Trip Delay : 4 seconds
Delay Accuracy : ± 0,05 seconds

Contact Ratings

Main Trip Relay : 5 Amps 220V AC
Configuration : 1 n/o + 1 n/c
Terminals : n/c 14 and 15
: n/c 16 and 17
Isolation : 2kV separate
circuits
: 1kV across
contacts

Environmental Specifications

Insulation : IEC 60255-5 / A
Impulse Voltage : IEC 60255-5 / Class 3
High Frequency : IEC 60255-22-1
Electromagnetic : IEC 60255-22-3

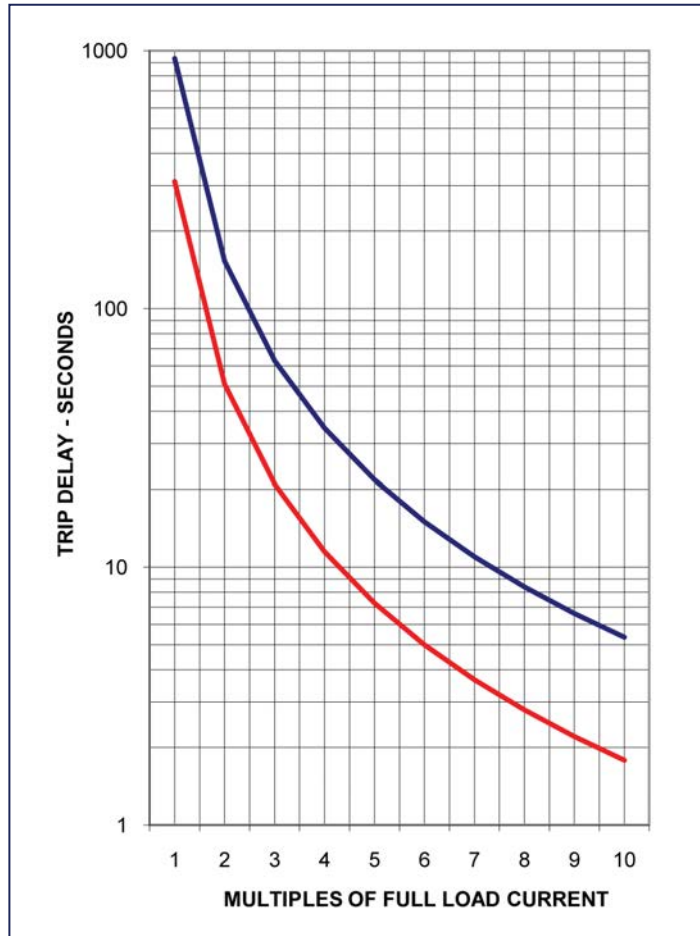
Approvals

Manufactured to ISO 9001: 2000 Standards
Copy ISO certificate available on request

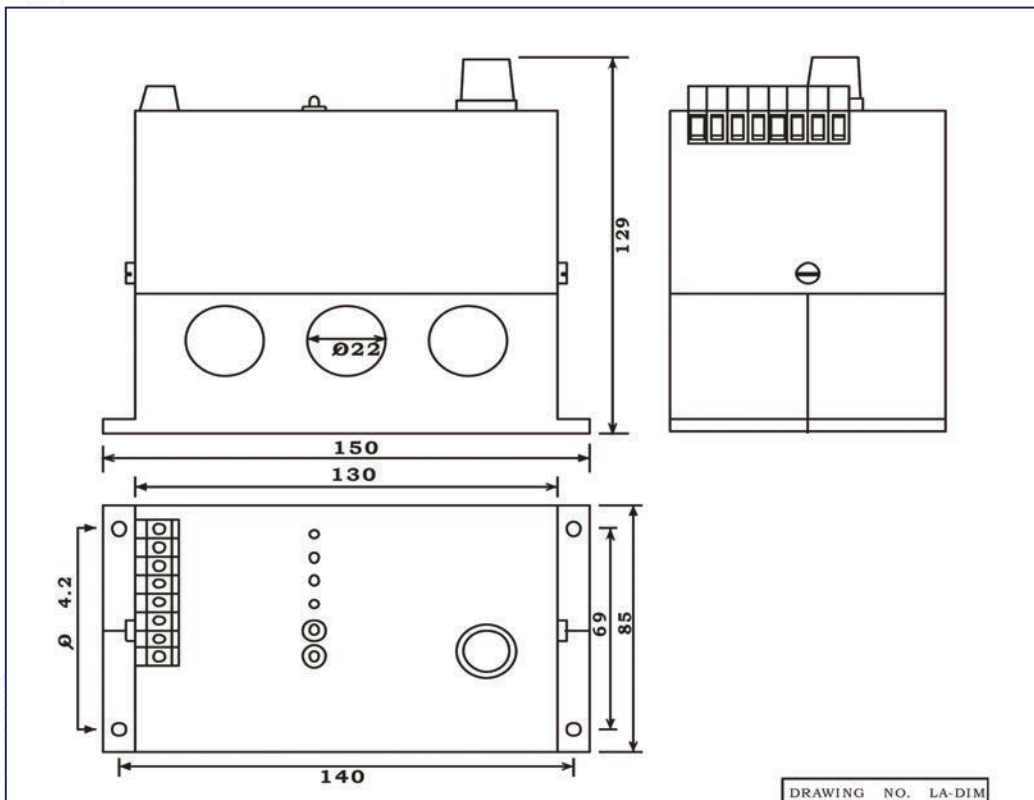
Part Numbers

<u>Model</u>	<u>Range</u>	<u>CTs</u>
LA 10	1 to 10 Amps	Not required
LA 50	5 to 50 Amps	Not required
LA 100	10 to 100 Amps	Not required
LA 250	25 to 250 Amps	Not required

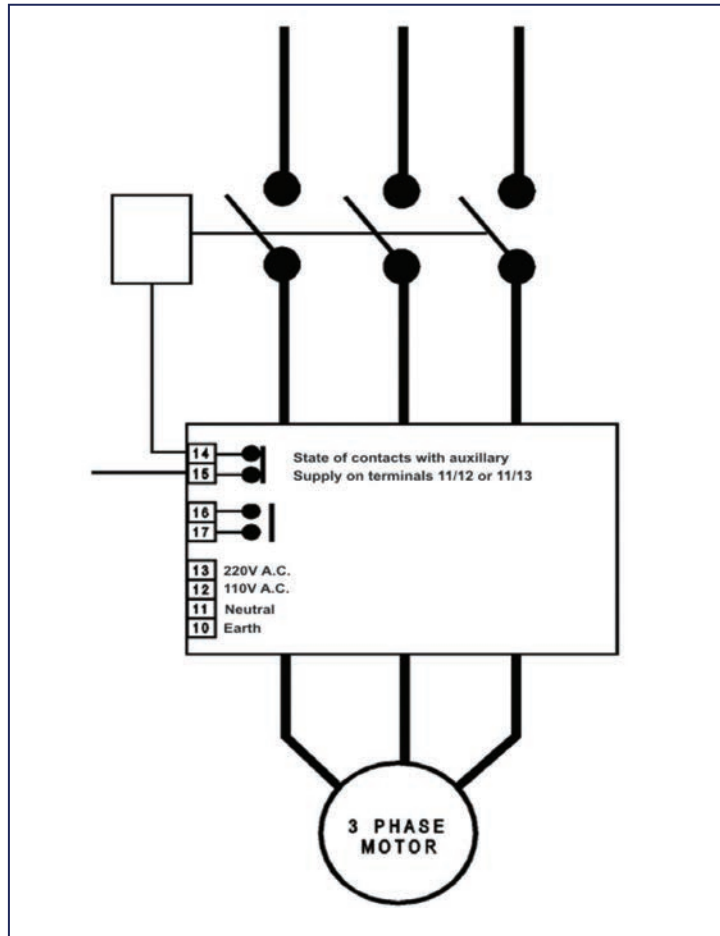
Thermal Curves



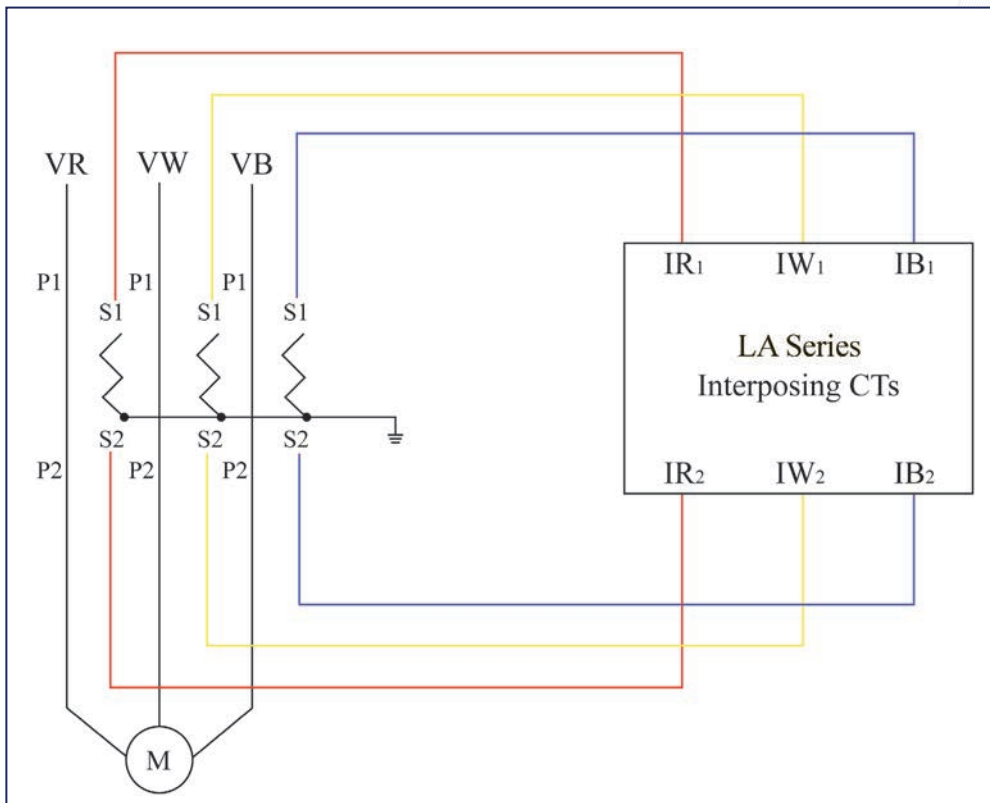
Dimensions



Wiring Diagram



Interposing CTs



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