

NEW ELEC



MOTOR PROTECTION & CONTROL TECHNOLOGY

LA Motor Protection Relay...



A South African Company to be Proud of



Physical Address: 298 Soutter Street, Pretoria West
Tel: 083 454 6949, +27 12 327 1729 Fax: +27 (0)12 327 1733 Toll Assist: 0860 10 30 41
www.newelec.co.za sales@newelec.co.za

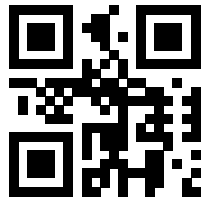


MOTOR PROTECTION & CONTROL TECHNOLOGY

+27 12 327 1729
Toll Assist: 0860 10 30 41

 www.newelec.co.za

 GPS Coordinates:
-25.752984, 28.162957



Innovative solutions from South Africa's Leading Motor Protection Specialists

About NewElec

NewElec designs and manufactures a wide range of superior electronic motor protection relays for both local and International markets. NewElec's goal, for the past 38 years, has been to exceed the expectations of every client by OFFERING quality products, outstanding customer service and greater value, thus optimizing system functionality and improved operational efficiency.

As experts in motor protection, NewElec is involved in every stage of the client's selection of the required protection relay offering ongoing functional and technical support. Our R&D division is continually designing the most up to date motor protection products to meet customer requirements.

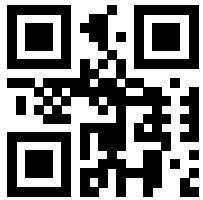
NewElec's electronic motor protection relays can be found in refineries, mining, steel, petrochemical, pulp and paper, sugar mills, agriculture and material handling industries to name a few, both locally and internationally. The NewElec product range includes software programmable LV motor protection relays for process control applications, protection relays for LV and MV motors, relays for pump motor protection, as well as earth leakage protection relays.

NewElec is continually expanding and has recently installed a manufacturing division for its relay housings. This ensures that the final product meets NewElec's precise requirements.

With headquarters in Pretoria West, Gauteng, South Africa, NewElec was established in May 1978 and is accredited with ISO 9002.

A South African Company to be Proud of





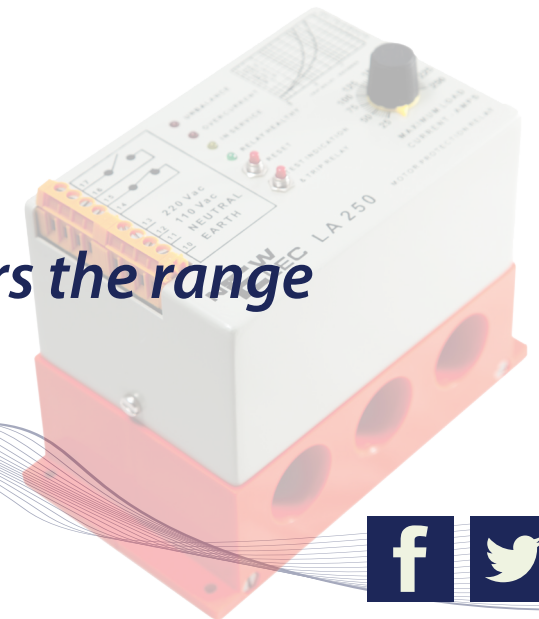
Why was it designed?

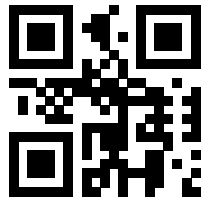
To provide superior thermal and unbalance current protection in applications that would traditionally have used thermal bimetal relays.

This microprocessor based thermal overload relay designed to IEC 60255-8 provides:

- Overload protection for cyclic and stable loads*
- Unbalance current and single-phasing protection*

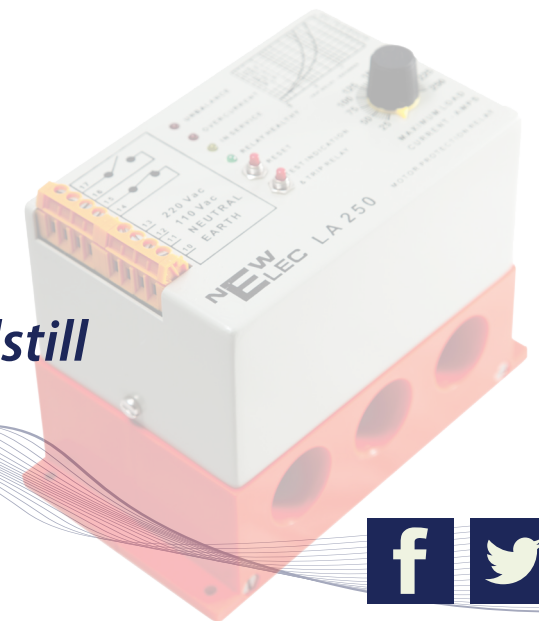
*A single feed through primary 22 mm aperture covers the range
1 to 250 amps*

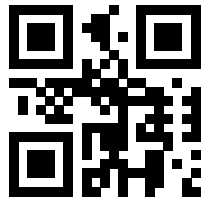




Feature Highlights

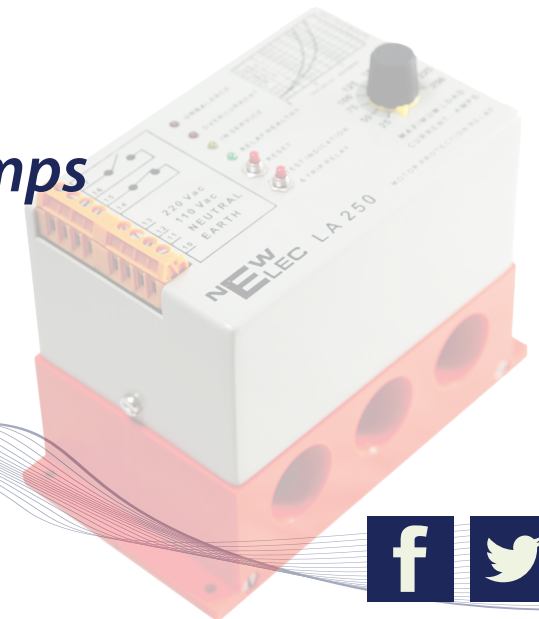
- *Overload protection cyclic and sustained thermal curve Class 15 Cold – 5 Hot*
- *Thermal memory as per IEC 60255-8*
- *Thermal memory decay caters for running and standstill conditions*
- *Locked rotor protection*
- *Unbalance current single phasing protection (20%)*
- *Stable operation with VSD and soft starters*
- *Fail-safe trip relay configuration indicates relay healthy*
- *Latched LED trip diagnosis*
- *Test main trip relay - toggle 1sec pulse when motor is at standstill*

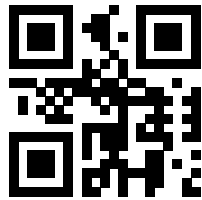




Benefits

- *Accurate overload protection during any phase of operation*
- *Unbalance current protection*
- *Phase loss single-phasing protection*
- *Descriptive fault / level monitoring indication LEDs*
- *User-friendly calibration settings*
- *Requires no additional CTs for load currents 1 to 250 amps*
- *Current range from 1 to 250 amps in 4 models*



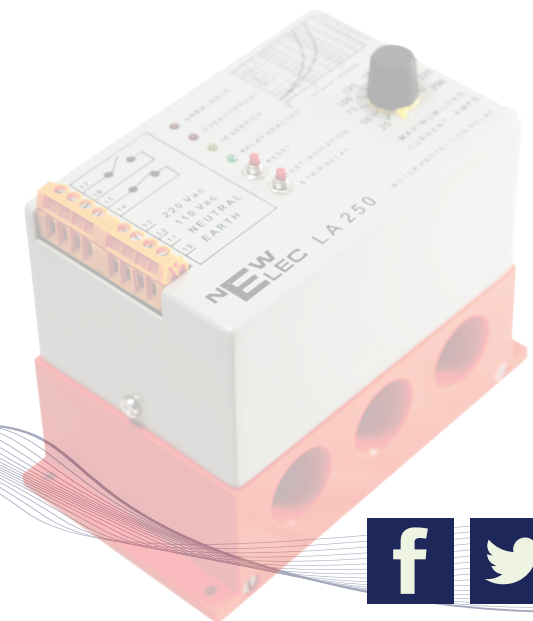


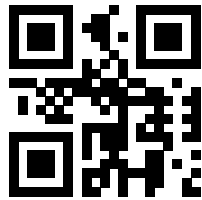
Typical Applications

Pump motors

Thermal motor protection within Class 5 Hot curve

Compressor motors with cyclic loading





Innovative solutions from South Africa's Leading Motor Protection Specialists

Specifications

Input Current

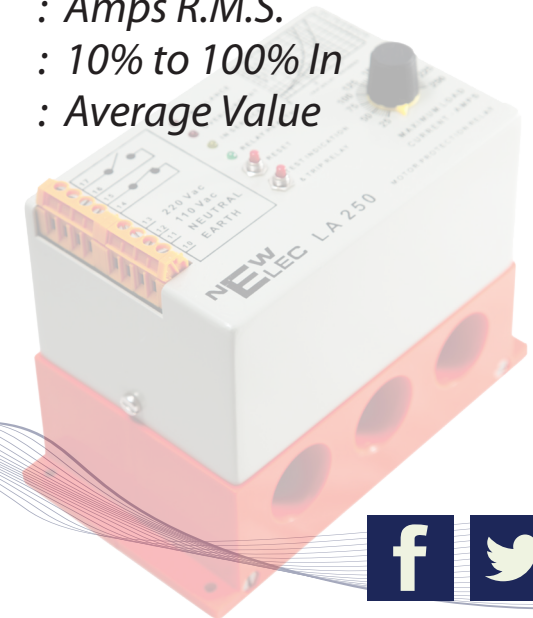
From NewElec Current Transformer Module Block

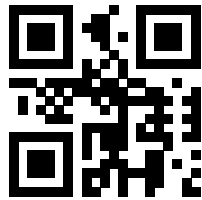
Overload Curve Accuracy

$\pm 5\%$: 1,2 to 10 (I_e)
 $\pm 7\%$: 1 to 1,2 (I_e)

Maximum Load Current Setting

Level Setting Accuracy : $\pm 2\%$
Repeatability : $\pm 1\%$
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





Specifications Contd.

Overload Withstand Ratings

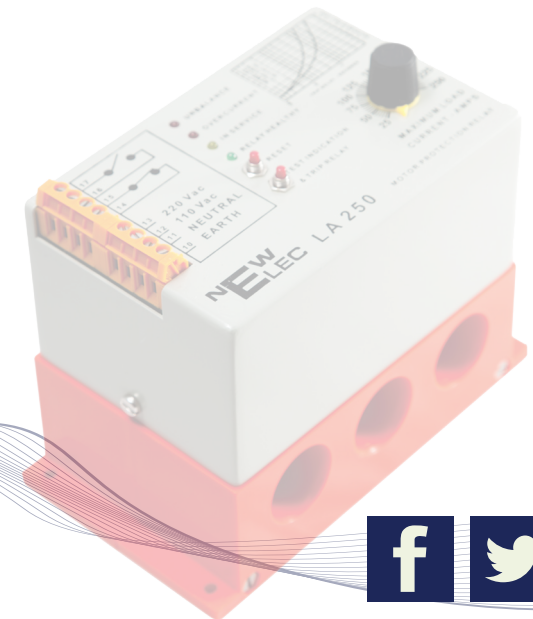
LA 10	: 50 Amp cont.
LA 50	: 100 Amp cont.
LA 100	: 200 Amp cont.
LA 250	: 500 Amp cont.

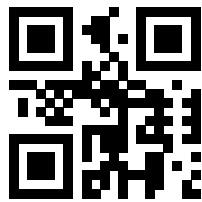
Auxiliary Supply

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

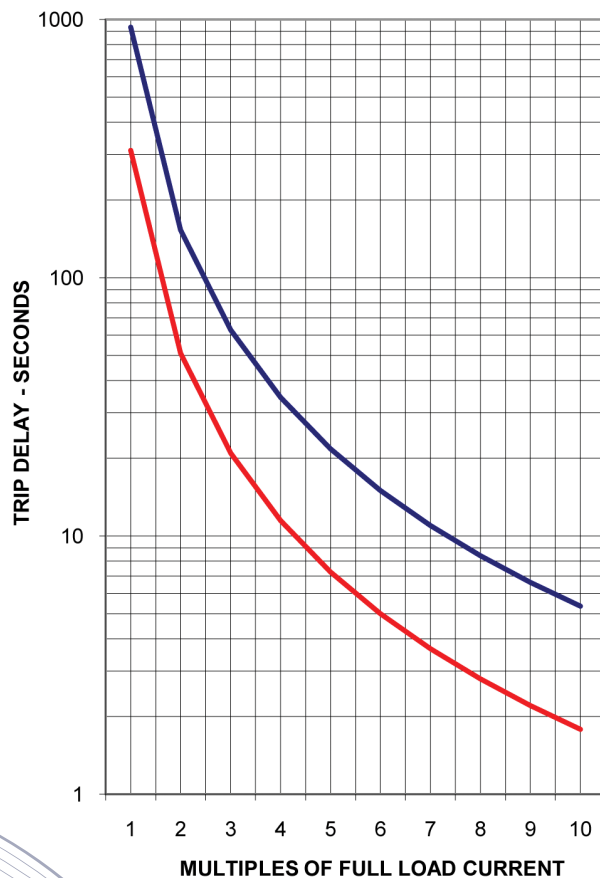
Environmental Withstand

Insulation	: IEC 255-5 / A
Impulse Voltage	: IEC 255-5 / Class 3





Specifications Contd.



Overload Reset Delay

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

Unbalanced Current

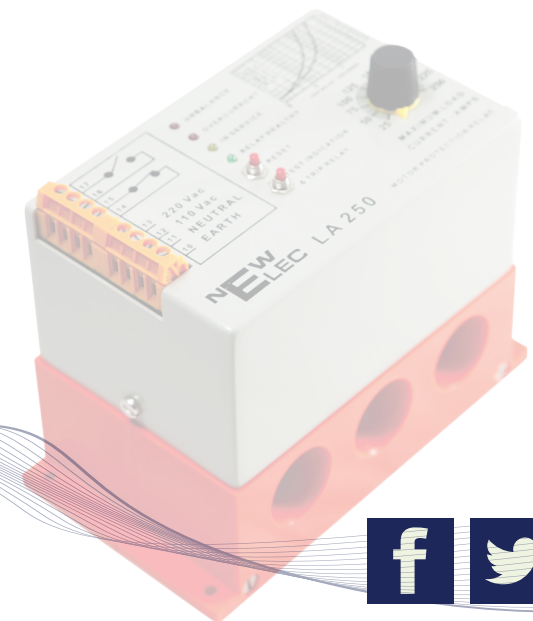
Setting (I₂) : 20% (I_{LOAD})
Calibration : Amps
Detection Level : 102% (I₂)
Repeatability : ± 2%
Trip Delay : 4 seconds
Delay Accuracy : ± 0,05 seconds

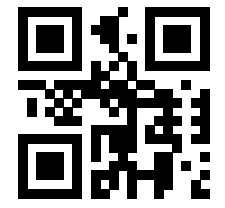
Interference

High Frequency : IEC 255-22-1
Electromagnetic : IEC 255-22-3

Contact Ratings

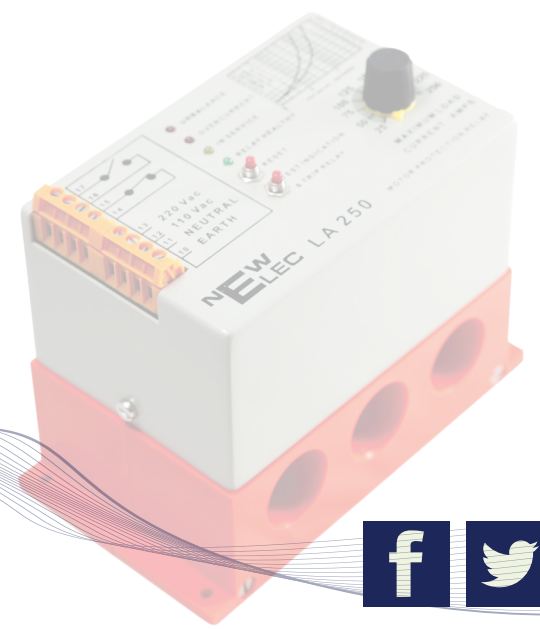
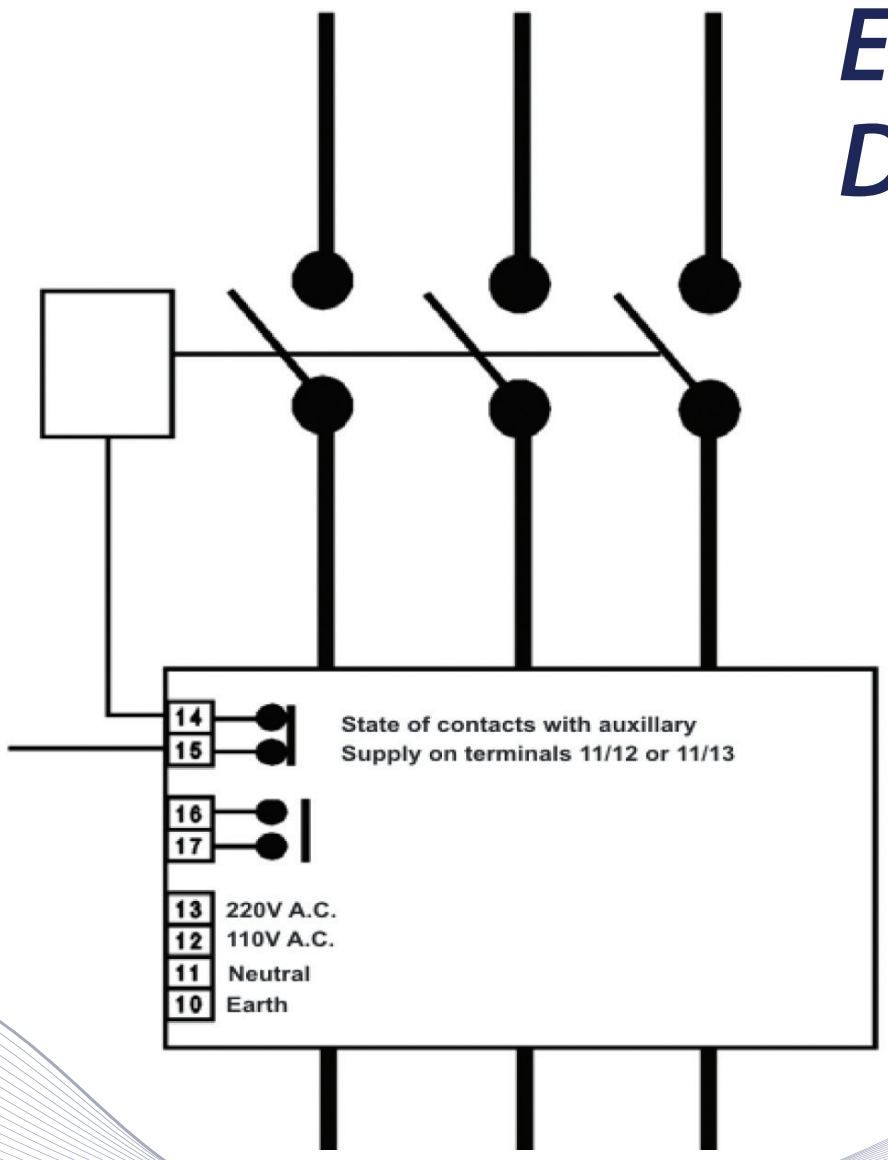
Main Trip Relay : 5 Amps 220V AC
Configuration : 1 n/o + 1 n/c
Terminals : n/c 14 and 15
 : n/c 16 and 17
Isolation : 2kV separate circuits
 : 1kV across contacts

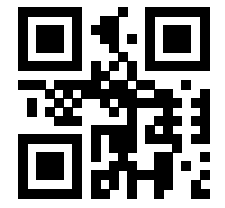




Innovative solutions from South Africa's Leading Motor Protection Specialists

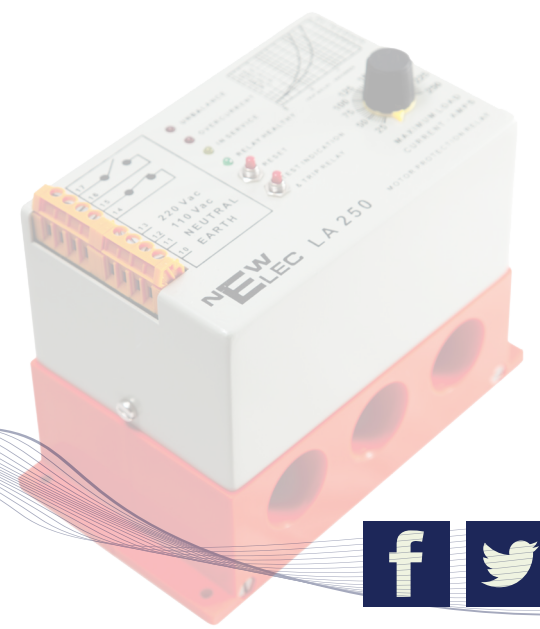
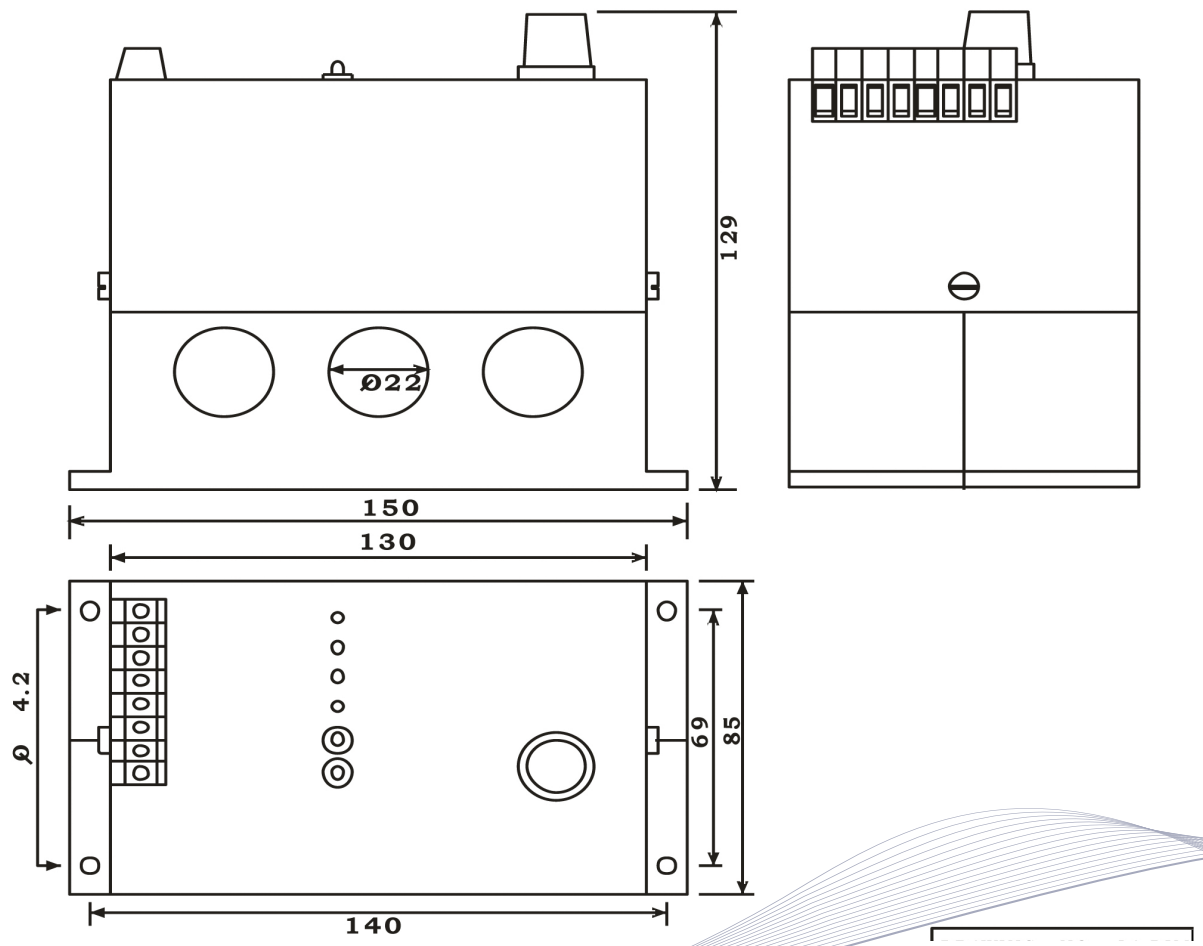
Electrical Connection Diagram

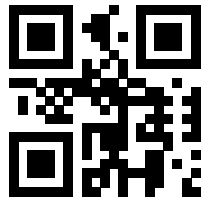




Innovative solutions from South Africa's Leading Motor Protection Specialists

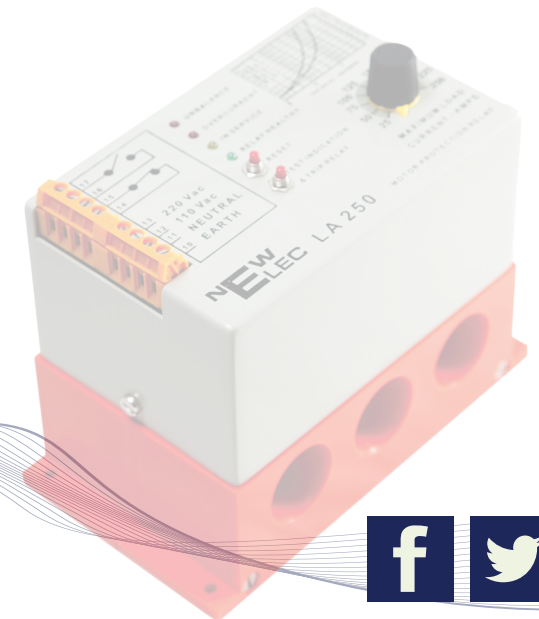
Dimensional Diagram

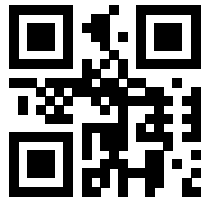




Ordering Information

<i>MODEL</i>	<i>AMPERAGE RANGE</i>
<i>LA 10</i>	<i>1 to 10 Amp</i>
<i>LA 50</i>	<i>5 to 50 Amp</i>
<i>LA 100</i>	<i>10 to 100 Amp</i>
<i>LA 250</i>	<i>25 to 250 Amp</i>



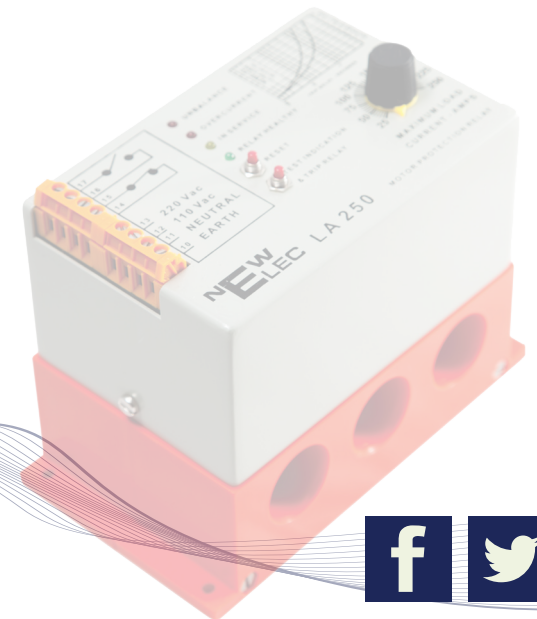


Innovative solutions from South Africa's Leading Motor Protection Specialists

We provide a 1 year renewable guarantee

We repair products out of guarantee for 50% of their list price and renew the guarantee

Local support



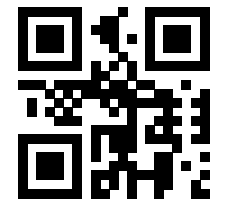
NEW ELEC

MOTOR PROTECTION & CONTROL TECHNOLOGY

+27 12 327 1729
Toll Assist: 0860 10 30 41

 www.newelec.co.za

 GPS Coordinates:
-25.752984, 28.162957

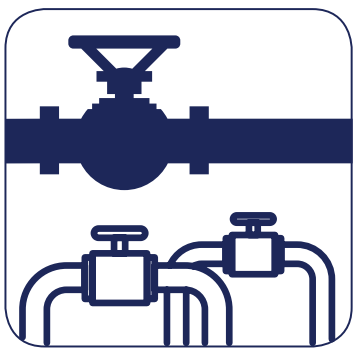


Innovative solutions from South Africa's Leading Motor Protection Specialists

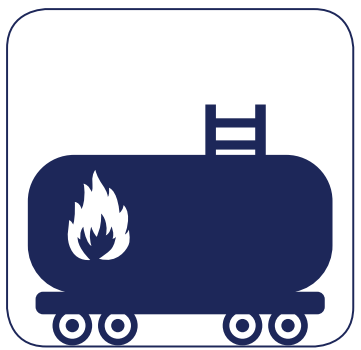
Applications particularly well suited for use in conjunction with the NewElec range of electronic motor protection relays.



Mining



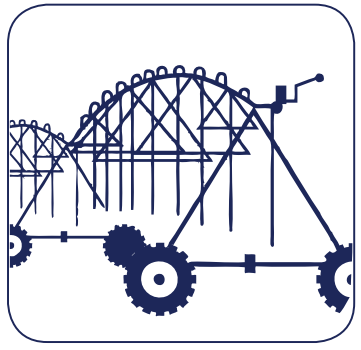
Water Affairs



Petro Chemical



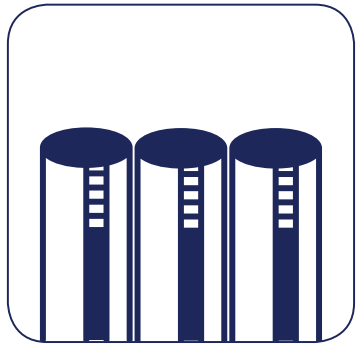
Refineries



Agriculture



Material Handling



Mills



Cable Theft Detection



Pulp & Paper

A South African Company to be Proud of

