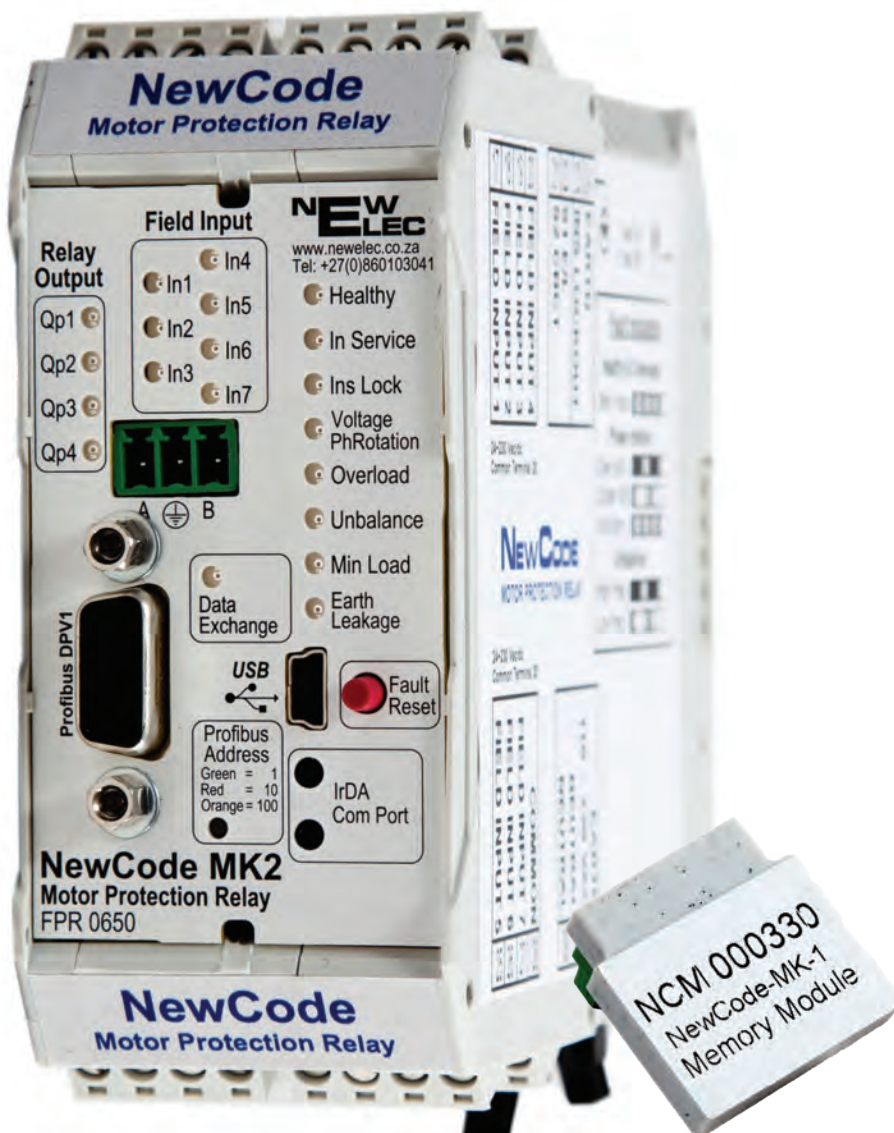


NEW ELEC

MOTOR PROTECTION & CONTROL TECHNOLOGY

Company Profile



A South African Company to be Proud of



*“Innovative Solutions From
South Africa’s Leading Motor Protection Specialists”*

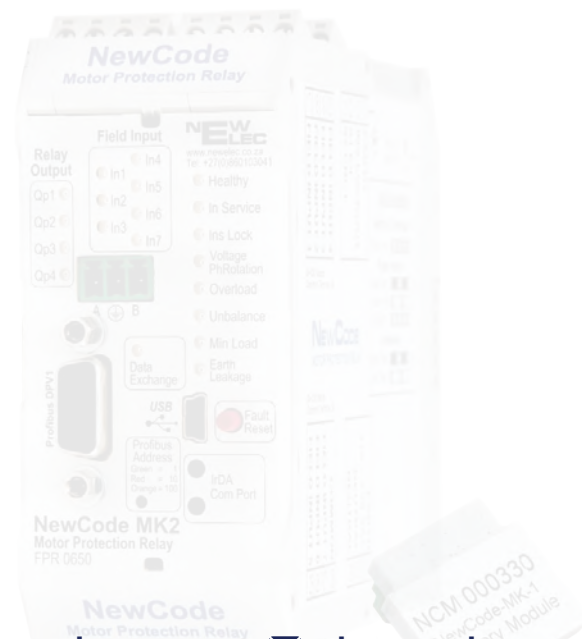


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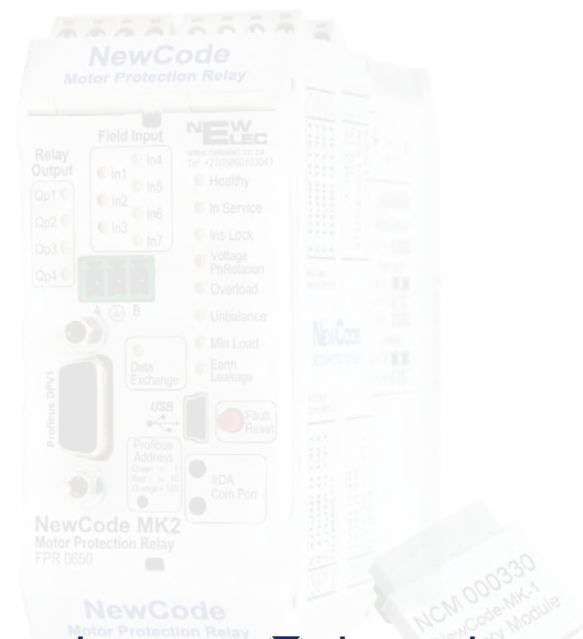
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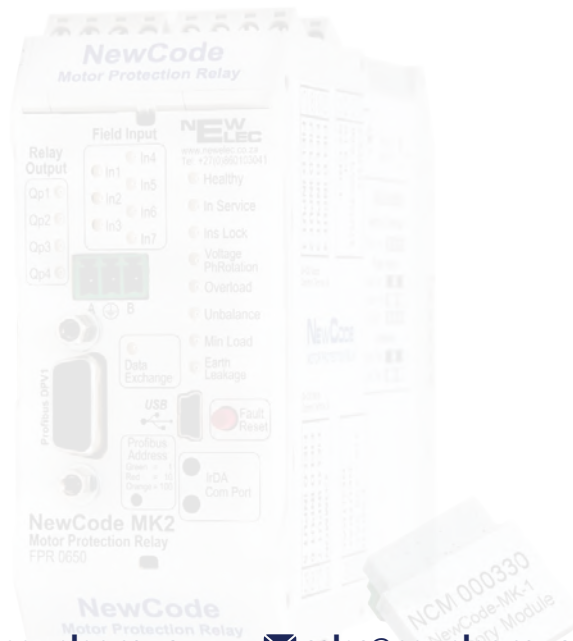
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 Voltage Phase Symmetry
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 Screen Conveyors
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 Apparent
 Vibration Screen
 Stacker Reclaimer
 Power
 NewElec
 Canbus
 LED
 Real Power Used
 Cranes
 Event and Fault
 Thermal Memory
 Slurry Pumps
 Aeration Fans
 Central Pivot Pumps
 Earth Leakage Protection
 Mill Motors
 Material Extraction Fans
 Material Handling Cranes
 Locked Rotor Load Loss
 Power Factor
 Fans
 Mag Pumps
 Pumps
 Conveyor Magnetic Loop
 Dewatering Pumps
 Short Circuit
 Multi Protocol
 NewElec



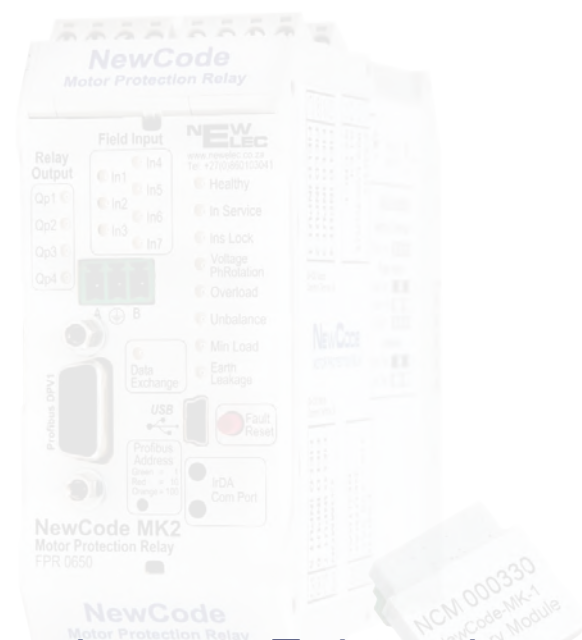
About

NewElec is a privately owned company that designs and manufactures a wide range of superior electronic motor protection relays with passion and dedication for both local and International markets. We pride ourselves as being able to take a concept and bring it and mature it into a production product, our product life cycle is 25 to 30 years not allowing component obsolescence to dictate product life span but by redesigning from within the product with newer technology to maintain and extend product life span thus avoiding costly and unscheduled upgrades on our customers.

We thrive on providing solutions NewElec's goal, for the past 45 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.

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.


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.







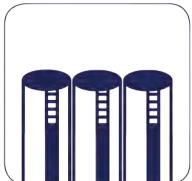

*South African Designed and
Locally Manufactured Superior
Motor Protection and Control Relay*





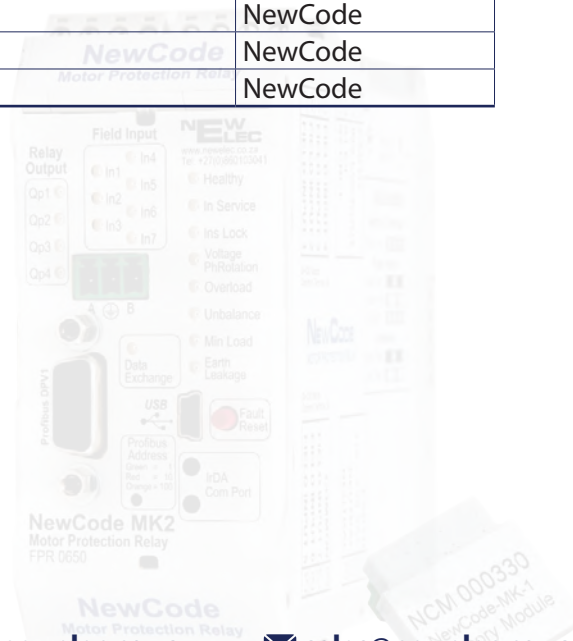
Application Specific Protection Offered

Industry	Application	Recommended 3 Phase Protection Relay	Comprehensive Alternative
 <p>Mining</p>	Conveyor Motor	MA	NewCode
	Conveyor Magnetic Loop	MA KD KE	NewCode
	Screen Conveyors	MA KD KE	NewCode
	Vibration Screen	MA KD KE	NewCode
	Stacker Reclaimer	MA KD KE	NewCode
	Crusher Motor	MA KD KE	NewCode
	Pumps	MA KD KE	NewCode
	Centrifugal Pumps	MA KD KE	NewCode
	Centrifugal Pumps (Mixed Flow and Raidial Flow)	MA KD KE	NewCode
	Slurry Pumps	MA KD KE	NewCode
	Mag Pumps (magnetite)	MA KD KE	NewCode
	Dewatering Pumps	MA KD KE	NewCode
	Submersable Pumps	MA KD KE	NewCode
	Submersable Pumps (Multi Stage Pumps)	MA KD KE	NewCode
	Positive Displacement Pumps	MA KD KE	NewCode
	Fans	MA KD KE 327M Series	NewCode
	Centrefuge Fans	MA KD KE 327M Series	NewCode
	Aeration Fans	MA KD KE 327M Series	NewCode
	Induced Draft Fans	MA KD KE 327M Series	NewCode
	Cranes	MA KD KE 330M Series	NewCode
	Overhead Cranes	MA KD KE 330M Series	NewCode
	Material Handling Cranes	MA KD KE 330M Series	NewCode
	Compressors	MA KD KE	NewCode
Earth Leakage Protection	GA Relay		





Industry	Application	Recommended 3 Phase Protection Relay	Comprehensive Alternative
 <p>Water Affairs</p>	Pumps	MA KD KE	NewCode
	Centrifugal Pumps	MA KD KE	NewCode
	Centrifugal Pumps (Mixed Flow and Raidial Flow)	MA KD KE	NewCode
	Slurry Pumps	MA KD KE	NewCode
	Mag Pumps (magnetite)	MA KD KE	NewCode
	Dewatering Pumps	MA KD KE	NewCode
	Submersable Pumps	MA KD KE	NewCode
	Submersable Pumps (Multi Stage Pumps)	MA KD KE	NewCode
	Positive Displacement Pumps	MA KD KE	NewCode
	Compressors	MA KD KE	NewCode
	Aeration Fans	MA KD KE 327M Series	NewCode
	Centrafuge	MA KD KE	NewCode
 <p>Petro Chemical</p>	Pumps	MA KD KE	NewCode
	Centrifugal Pumps	MA KD KE	NewCode
	Centrifugal Pumps (Mixed Flow and Raidial Flow)	MA KD KE	NewCode
	Submersable Pumps	MA KD KE	NewCode
	Positive Displacement Pumps	MA KD KE	NewCode
	Fans	MA KD KE 327M Series	NewCode
	Cranes	MA KD KE 330M Series	NewCode
	Compressors	MA KD KE	NewCode
 <p>Refineries</p>	Conveyor Motor	MA	NewCode
	Conveyor Magnetic Loop	MA KD KE	NewCode
	Screen Conveyors	MA KD KE	NewCode
	Vibration Screen	MA KD KE	NewCode
	Pumps	MA KD KE	NewCode
	Centrifugal Pumps	MA KD KE	NewCode
	Centrifugal Pumps (Mixed Flow and Raidial Flow)	MA KD KE	NewCode
	Slurry Pumps	MA KD KE	NewCode
	Mag Pumps (magnetite)	MA KD KE	NewCode
	Dewatering Pumps	MA KD KE	NewCode
	Submersable Pumps	MA KD KE	NewCode
	Submersable Pumps (Multi Stage Pumps)	MA KD KE	NewCode
	Positive Displacement Pumps	MA KD KE	NewCode
	Fans	MA KD KE 327M Series	NewCode
	Centrefuge Fans	MA KD KE 327M Series	NewCode
	Aeration Fans	MA KD KE 327M Series	NewCode
	Induced Draft Fans	MA KD KE 327M Series	NewCode
Cranes	MA KD KE 330M Series	NewCode	
Overhead Cranes	MA KD KE 330M Series	NewCode	
Material Handling Cranes	MA KD KE 330M Series	NewCode	
Compressors	MA KD KE	NewCode	





Industry	Application	Recommended 3 Phase Protection Relay	Comprehensive Alternative
 <p>Pulp & Paper</p>	Conveyor Motor	MA	NewCode
	Vibration Screen	MA KD KE	NewCode
	Pumps	MA KD KE	NewCode
	Centrifugal Pumps	MA KD KE	NewCode
	Centrifugal Pumps (Mixed Flow and Radial Flow)	MA KD KE	NewCode
	Pulp Pumps	MA KD KE	NewCode
	Dewatering Pumps	MA KD KE	NewCode
	Submersable Pumps	MA KD KE	NewCode
	Submersable Pumps (Multi Stage Pumps)	MA KD KE	NewCode
	Positive Displacement Pumps	MA KD KE	NewCode
	Fans	MA KD KE 327M Series	NewCode
	Centrefuge Fans	MA KD KE 327M Series	NewCode
	Aeration Fans	MA KD KE 327M Series	NewCode
	Induced Draft Fans	MA KD KE 327M Series	NewCode
	Cranes	MA KD KE 330M Series	NewCode
	Overhead Cranes	MA KD KE 330M Series	NewCode
	Material Handling Cranes	MA KD KE 330M Series	NewCode
Compressors	MA KD KE	NewCode	
 <p>Mills</p>	Conveyor Motor	MA	NewCode
	Screen Conveyors	MA KD KE	NewCode
	Vibration Screen	MA KD KE	NewCode
	Fans	MA KD KE 327M Series	NewCode
	Centrefuge Fans	MA KD KE 327M Series	NewCode
	Aeration Fans	MA KD KE 327M Series	NewCode
	Induced Draft Fans	MA KD KE 327M Series	NewCode
	Overhead Cranes	MA KD KE 330M Series	NewCode
	Material Handling Cranes	MA KD KE 330M Series	NewCode
	Compressors	MA KD KE	NewCode
	Mill Motors	MA KD KE	NewCode
Material Extraction Fans	MA KD KE	NewCode	
 <p>Agriculture</p>	Pumps	MA KD KE	NewCode
	Centrifugal Pumps	MA KD KE	NewCode
	Centrifugal Pumps (Mixed Flow and Radial Flow)	MA KD KE	NewCode
	Central Pivot Pumps	MA KD KE	NewCode
	Dewatering Pumps	MA KD KE	NewCode
	Submersable Pumps	MA KD KE	NewCode
	Submersable Pumps (Multi Stage Pumps)	MA KD KE	NewCode
	Positive Displacement Pumps	MA KD KE	NewCode

Industry	Application	Recommended 3 Phase Protection Relay	Comprehensive Alternative
 <p>Material Handling</p>	Conveyor Motor	MA	NewCode
	Conveyor Magnetic Loop	MA KD KE	NewCode
	Screen Conveyors	MA KD KE	NewCode
	Vibration Screen	MA KD KE	NewCode
	Stacker Reclaimer	MA KD KE	NewCode
	Crusher Motor	MA KD KE	NewCode
	Pumps	MA KD KE	NewCode
	Centrifugal Pumps	MA KD KE	NewCode
	Centrifugal Pumps (Mixed Flow and Radial Flow)	MA KD KE	NewCode
	Slurry Pumps	MA KD KE	NewCode
	Mag Pumps (magnetite)	MA KD KE	NewCode
	Dewatering Pumps	MA KD KE	NewCode
	Submersable Pumps	MA KD KE	NewCode
	Submersable Pumps (Multi Stage Pumps)	MA KD KE	NewCode
	Positive Displacement Pumps	MA KD KE	NewCode
	Fans	MA KD KE 327M Series	NewCode
	Centrefuge Fans	MA KD KE 327M Series	NewCode
	Aeration Fans	MA KD KE 327M Series	NewCode
	Induced Draft Fans	MA KD KE 327M Series	NewCode
	Cranes	MA KD KE 330M Series	NewCode
Overhead Cranes	MA KD KE 330M Series	NewCode	
Material Handling Cranes	MA KD KE 330M Series	NewCode	
Compressors	MA KD KE	NewCode	
 <p>Cable Theft Detection</p>	Mining Industry	KD	NewCode
	Metro Water Distribution Plants	KD	NewCode
	Water Treatment Plants	KD	NewCode
	Material Handling Plant	KD	NewCode
	Agriculture	KD	NewCode
	Mills	KD	NewCode
	Mini-sub Cable Distribution	KD	NewCode



Product Profile

Product	Description
	<p>GA MS0</p> <p>Pioneers of the harmonic suppression circuit characteristics, the GA MS0 Earth Leakage protection relay with Integrated CBCT enables more sensitive earth leakage protection of high kilowatt motors started direct-on-line as well as variable speed drive applications without nuisance tripping.</p>
	<p>NewCode</p> <p>The NewCode relay is an ISO 9001:2000 compliant, locally designed and manufactured three phase electronic motor protection relay. The relay is fully configurable with the aid of free front-end software or a man-machine interface unit (MMI).</p>
	<p>MB Relay</p> <p>The MB relay is an ISO 9001:2000 compliant, locally designed and manufactured three phase electronic motor protection relay. Intergrated CT Module Block and Earth Leakage core, the MB Relay is used in a wide variety of applications and caters for Profibus, Canbus and Modbus.</p>
	<p>KD Relay</p> <p>The KD Relay is a comprehensive low voltage electronic motor protection relay encompassing new and unique features. Designed for conveyor, compressor, crusher, fan and pump motor protection, these relays boast a wide range of user-selectable protection features. Cable Theft Detection is a new feature within the range of capabilities of the KD Relay. Records up to 2000 events and 60 last faults.</p>

Product	Description
	<p>Proloc II</p> <p>OEM Designed Produce ProLoc II relay is a micro-controller based precision instrument with protection, control logic, starter logic and communication functions.</p>
	<p>KE Relay</p> <p>Small footprint integrated CT direct measurement up to 50 A with extendable current range using interposing CTs. Target market includes all pumping and compressor applications</p>
	<p>GA Relay</p> <p>Pioneers of the harmonic suppression circuit characteristics, the GA Earth Leakage protection relay enables more sensitive earth leakage protection of high kilowatt motors started direct-on-line as well as variable speed drive applications without nuisance tripping.</p>
	<p>MA Relay</p> <p>Used as either a stand alone electronic motor protection relay or as part of an automated process communicating to a PLC, the MA motor control relay is equipped with 5 digital inputs accepting field supply voltages from 24 to 220V A.C. or D.C. and 4 potential free C/O contacts, 2 of which are programmable. The MA relay boasts with one of the widest set of application protection used over most motor driven industries</p>

Product	Description
	<p>K Series Relays</p> <p>The KA, KB and KC series of electronic motor protection and control relays are housed in a small footprint, DIN rail mounted enclosure. Fixed thermal curves (Class 15 cold - Class 5 Hot) with thermal pre-loading, match the HOT and COLD stall times of the motor during operation. This relay was designed for pumping applications that would traditionally have used a combination of thermal bi-metal, undercurrent and voltage sensing devices.</p>
	<p>100M</p> <p>The 100M Series electronic motor protection relay is a compact relay ideally suited for fitting into gate-end boxes for protecting underground coal cutting machinery, transformers and their related supply cables.</p>
	<p>OLR 8 and UCR 80</p> <p>The OLR 8 and UCR 80 series of electronic motor protection relays monitor one phase of a 3 phase motor through a 1 Amp secondary input from a current transformer.</p>
	<p>320 - 327 M</p> <p>The 320 - 327M Series of electronic motor protection relays provide comprehensive protection required by motors running constantly at full load and occasionally beyond their limitations. Motors driving crushers, ball mills or high inertia loads especially with long run-up starting times are ideal applications. Typically used to protect conveyor motors with soft start starters or DOL, fan motors with extended run-up time. crusher and ball mill motors as well as compressor motors with cyclic loading.</p>

Product	Description
	<p>330 Series Relay</p> <p>The NewElec 330 Series low voltage electronic motor protection relay is designed to protect wound rotor motors used on winches or overhead cranes, and winders, taking into consideration their unique duty class, starting class, cyclic duration factors and motor loading.</p>
	<p>LA Relay</p> <p>The LA electronic motor protection relay provides superior thermal overload and phase unbalance protection in applications that would traditionally have used thermal bi-metal relays. The LA Relay is used for pump motors, compressor motors with cyclic loading as well as thermal motor protection with in Class 5 hot curve.</p>
	<p>N Series Relay</p> <p>The N Series electronic motor protection relays are housed in a versatile enclosure which caters for door mount, chassis mount or C.T. module mounting. The N Series provides overload protection for cyclic or sustained loads as well as unbalanced current, single phasing, earth leakage as well as earth fault protection.</p>
	<p>EC Series Relay</p> <p>The NewElec EC series of electronic motor protection relays will monitor the insulation integrity of protected motor windings and feeder cable cores to earth while the motor is standing.</p>

Recent Launches

Cable Theft Detection Feature

Over and above the full protection features offered by the KD relay, we boast with an added feature on the KD relay enabling "Cable Theft Detection" this is a new feature added to our KD Relay that sets off a siren or alarm when cabling or even the motor is being tampered with or stolen, we all know the value of copper leading to increased cable theft in effect causing "Down Time" snowballing into serious loss of revenue periods.



GA PLUS Earth Leakage Protection Relay

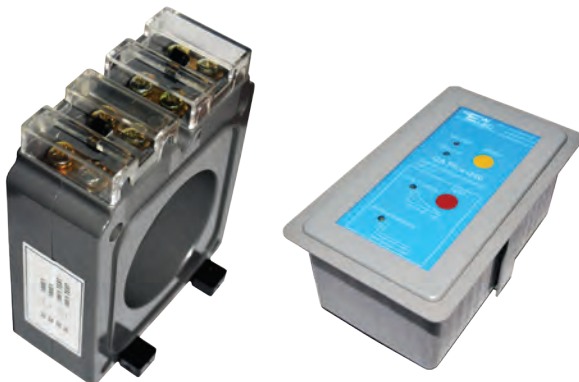
The NewElec GA Earth Leakage relay provides earth leakage protection also known as ground fault protection designed to protect personnel and equipment by rapid disconnection of main supply to faulted equipment a unique feature is the integrated distinguishing between Earth leakage and Earth fault routing trips to incoming circuit breaker rather than the fault level limited main circuit contactor. Pioneers of the harmonic suppression circuit characteristics, the GA Earth Leakage protection relay enables more sensitive earth leakage protection of high kilowatt motors started direct-on-line as well as variable speed drive applications without nuisance tripping, this is achieved utilising band pass filters as well as incorporation of a screen winding on the CBCT to ensure even flux distribution under high starting current conditions

The GA Plus comes fitted with an integrated Test push button connected to the test winding on the CBCT allowing one to test functionality of GA Plus and trip circuits a rear accessed RS232 interface allowing

customers to configure output trip relay configuration options, including latched or non-latching main trip contact, fail-safe or non fail-safe options, as well as 110V-220V or 380V-525V A.C. auxiliary supply voltages.

The trip contact current rating is a sturdy 6A at 220V and 3A at 525V A.C. A latched 'contactor trip' change-over contact can only be reset by pressing the control panel mounted pushbutton.

Sensitivities range from 30mA to 1000mA with user selectable instantaneous or IDMT curve selection while using the same earth leakage core.



GA MSO Earth Leakage Protection Relay

Pioneers of the harmonic suppression circuit characteristics, the GA MSO Earth Leakage protection relay with Integrated CBCT enables more sensitive earth leakage protection of high kilowatt motors started direct-on-line as well as variable speed drive applications without nuisance tripping.



Available in diverse configuration options, including latched or non-latching main trip contact, fail-safe or Non Fail-safe options, as well as 110V-220V or 380V-525V A.C. auxiliary supply voltages.

The trip contact current rating is a sturdy 6A at 220V and 3A at 525V A.C. A latched 'contactor trip' change-over contact can only be reset by pressing the control panel mounted pushbutton.

Sensitivities range from 30mA to 1000mA with user selectable instantaneous or IDMT curve.

Earth Leakage Test Button

The NewElec Earth Leakage Test Unit was developed to comply with the NRCs Department: Electrotechnical (VC 8035), 16- Oct-87, Sec 4.13 regulation. [Compulsory specification for earth leakage protection units]



“The test facility shall be so connected in the circuit as to ensure that the sensing device, the amplifier, and the circuit-breaker mechanism are all tested for failure or deterioration. The test facility shall be so designed that a current equivalent to 125-175 % of the rated earth leakage tripping current flows through the sensing device when the test button is operated with the EL circuit-breaker energized at its rated voltage.”

The objective of this unit is to diminish the time taken to test the earth leakage device, utilizing an earth leakage testing tool and to add a measure of safety so that the test is carried out without the opening of the cubicle door. The NewElec Earth Leakage Test Unit actually creates a real-time earth leakage fault.

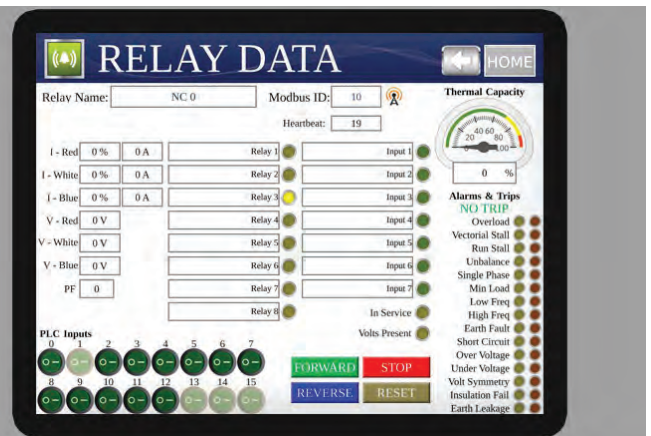
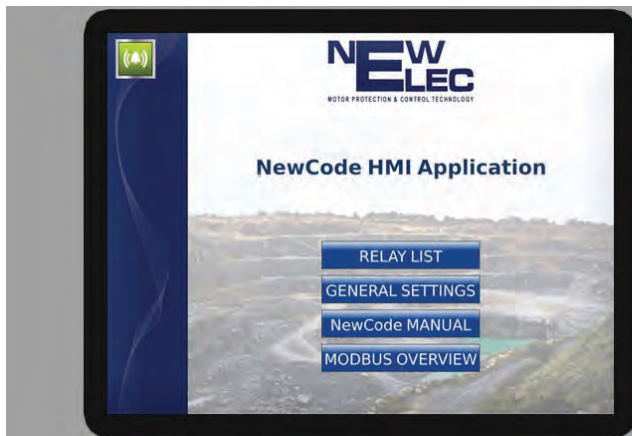
The physical ELTU Kit consists of a small bolt-down enclosure (60 x 60 x 20mm) with blue and red wires and yellow and red LEDs. Included in the kit is a 22 mm yellow Push Button, with a two pole Normally Open (N/O) contact block.

The schematic wiring diagram reflects a typical circuit that comprises of the NewElec GA Earth Leakage Relay. The unit is Universal and can be adapted for any other brand Earth Leakage device.

Why Wait to Automate Initiative

WWTA® or WHY WAIT TO AUTOMATE is a new initiative by NewElec allowing you to automate your old or existing plant while keeping your existing switchgear, staff and wiring. The MA Relay as well as the NewCode Motor Protection Relay can be utilised in the automation process connecting up to 32 NewCode Relays to a PLC for remote access.

This also eliminates opening MMC doors, improving safety. The drive can also be stopped/started from a safe location in the substation



Enclosure Manufacture

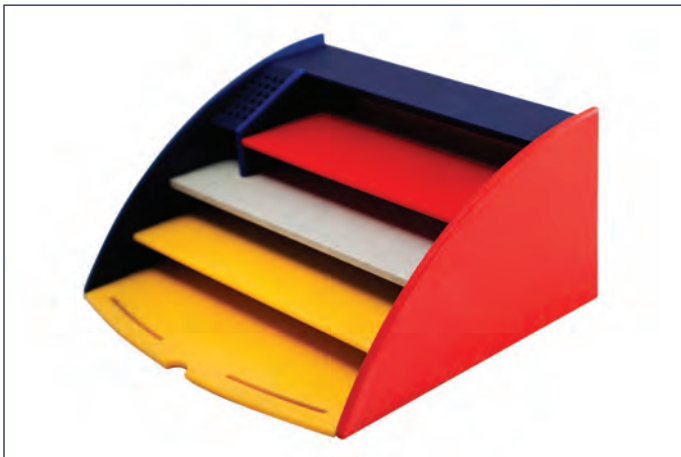
NewElec manufactures custom-built electrical enclosures using computer-controlled manufacturing equipment, eliminating the need to manufacture expensive tools and moulds, resulting in faster development times.

Toolless technology compares favourably with injection moulded parts in appearance, finishing, and durability with a minimal non-recurring engineering charge. If changes are made with thermoforming, or injection moulding technologies, a charge would be made for a new mould each time the product needed to be modified. With PMPT, there is no need for a new mould, as NewElec's in-house engineers are able to modify the part quickly with minimal cost.

- Optimized designs and elegant housings
- Customised plastic housings
- Flexible, affordable
- Quick turnaround process
- ABS, acrylics, PS, HIPS etc.
- Ready for installation



Enclosure Manufacture



Customer Portfolio

Newelec caters to a diverse customer base ranging from Mining, Manufacturing and Construction.



Accreditations and Memberships



BBBEE

- Newelec Pretoria Pty Ltd is a Level 8 BBBEE contributor
- Newelec conforms to broad-based black economic empowerment (BBBEE) guidelines regarding recruitment.
- Newelec growth has been underpinned by its BBBEE Code of Good Practice with employment opportunities for previously disadvantaged groups being its top priority.
- Newelec also follows BBBEE guidelines for procurement and sourcing, which it sees as a business imperative, essential for the success of business and the continued growth of the South African economy.
- Newelec has achieved the highest level of excellence by being awarded the ISO9001:2008 certified.

Meet the Team



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Stuart Loudon
Managing Director
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Stuart Loudon, Managing Director

Johan Botma established NewElec in 1978, with his extensive experience in commissioning of crane and mine winder applications he recognized that there was a crucial requirement for superior quality, Locally Manufactured Protection relays.

In 1980 Stuart joined NewElec adding to the company his experience in performance testing and evaluation of induction and mill drives power electronics and instrumentation.

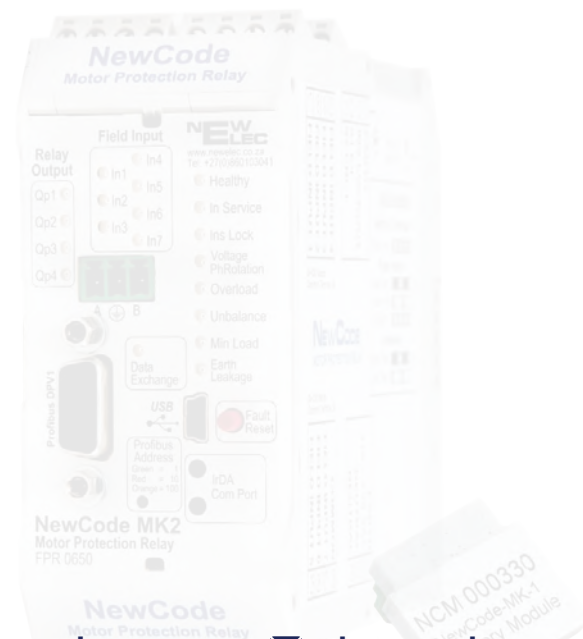
Innovative and forward thinking, Stuart is always committed to designing and manufacturing superior motor protection relays for local and International markets among which are the 327M, NH, LA Relay and NewCode.

For the past 45 years, Stuart has been dedicated to exceed the expectations of every client, OEM and end user locally by qualifying the products designed in International Test Labs.

Stuart is continuously involved in the selection of the required protection relay offering ongoing aftersales and technical support.

NewElec strives to be a platform for design and innovation by creating a fertile patch for the next generation of forward thinking individuals who would want to prove their salt in the International Mining Industries.

Specific
Measurable
Attainable
Realistic
Time



NEW ELEC

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Company Profile

