

# 330 Series Motor Protection Relay...









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.







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## Why was it designed?

This motor protection range was established to meet the protection demands of wound rotor motors used on winches, overhead cranes and winders, taking into consideration their unique duty class, starting class, cyclic duration factors and motor loading.







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## Feature Highlights

- Overload protection permitting the motor to be used to its full capacity
- Accurate thermal protection taking account of motor duty class and CDF
- Unbalance and phase loss protection with user-selectable detection thresholds (2 to 40 %)
- Calculates true RMS load patterns
- Full non-volatile thermal memory
- Useful thermal / load indicator can be mounted inside operator cabin
- Motor load setting calibrated in percentage (30 to 100% of CT primar current)
- Easy to set motor unbalance trip threshold dial
- Latched fault diagnosis trip LED indications







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## Benefits

- An excellent crane motor protection relay that continuously calculates heating and cooling rates and ensures that motor loading and CDF are maintained within the tolerable thermal envelope of the protected motor
- Provision of sufficient unbalance tolerance setting to permit inching
- Crane cubicle mounted load / thermal measurement meter assists crane operator to steer away from an impending trip condition resulting in less down time
- Easy to set load and unbalance setting dials
- Latched trip diagnosis LEDs for maintenance personnel









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## Typical Applications

All crane, winch and winder motor applications whereaccurate, reliable overloading and unbalance protection is required











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## **Specifications**

#### **INPUT CONVERTER**

Overload capacity : 6 x In for 5 min Frequency response : 42 to 66 Hz

#### **MAXIMUM LOAD SETTING**

Linearity: +- 4%Repeatability: +- 1%Detection level: +- 1%

Calibration : 30 to 100% of current transformer ratio

#### **CONTROL SUPPLY**

110 or 220 Volt a.c : 90 to 115% of specified voltage

#### **MAIN RELAY CONTACTS**

Ratings : 5 Amp at 220 Volt a.c Configuration : 2 Form C



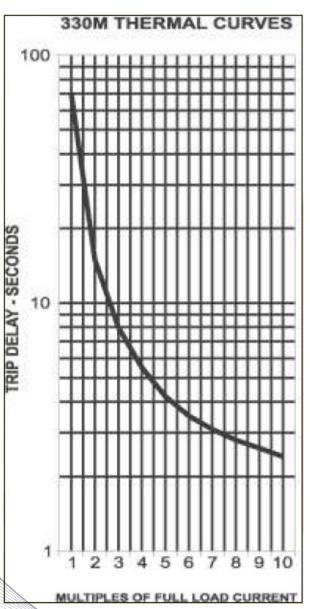






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## Specifications Contd.

#### MAXIMUM UNBALANCE RATIO SETTING

Calibration : 2 to 42% le

Accuracy :+- 5%

Trip delay :5s +- 1s

Recommended setting :8 to 15% of dial setting

#### **FAIL SAFE OPERATION**

Trips on loss of supply





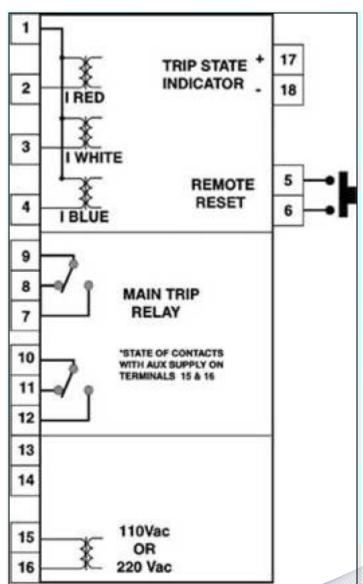






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# Electrical Connection Diagram

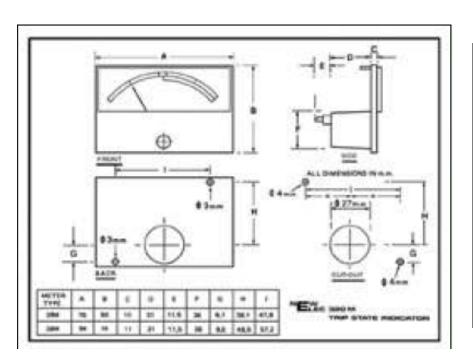


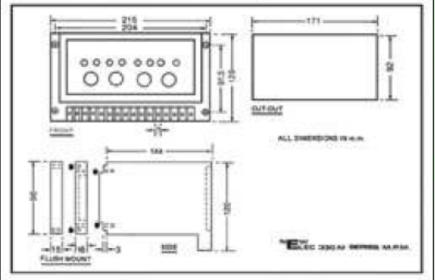




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## Dimensional Diagram











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## **Ordering Information**

Model	Mounting	<b>Control Supply</b>	Thermal Rating
330M	F : Flush	110:110V A.C. 5va	S3: Intermittent periodic operation
	C: Chassis	220 : 220V A.C. 5va	S4: As S3 but with starting
			S5: As S3 but with electric breaking

Code	Cyclic Duration Factor	
150: 150 Complete starts per hour	25:25 % C.D.F.	
300 : 300 Complete starts per hour	40:40% C.D.F.	
	60:60% C.D.F.	









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### 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** 









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







**Water Affairs** 



**Petro Chemical** 



Refineries



**Agriculture** 



Material Handling



Mills



**Cable Theft Detection** 



**Pulp & Paper**