

Electronic Motor Protection Relay

NewElec 330 Series



The NewElec 330 Series Low Voltage Electronic Motor Protection Relay is designed to protect wound rotor motors used on winches or overhead cranes.

The motor duty class, starting class, cyclic duration factor, power and load current value are of fundamental importance and permit accurate full load protection and adjustment, along with an inverse thermal curve which caters for cyclic duration factor that offers both stator and rotor protection. This will allow the motor to be used to its full duty class and C.D.F., but still maintain accurate, repeatable protection on small or marginal loads. Maximum load threshold is adjustable between 30% to 100% of the C.T. primary current.

Latched trip LEDs indicate overload and unbalance detection and trip, with a separate trip and thermal lock-out period in process indication.

Available for chassis or flush door mount, the relay has a test facility and may be fitted with a manual or auto reset facility. A thermal trip state indicator is also available as an extra option.

Features Include:

- Thermal Overload Protection
- Unbalanced Current Protection
- Single Phasing Protection
- Calculates True RMS Load Patterns
- Calculates Heating and Cooling Rates
- Full Thermal Memory

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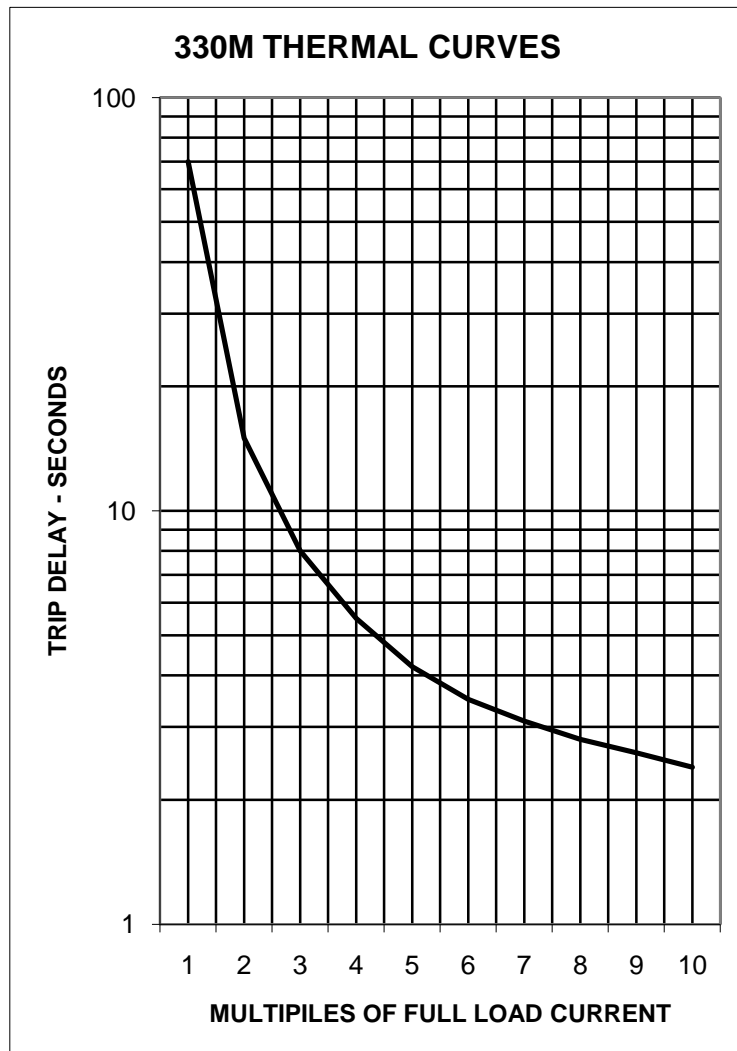
Ordering Details

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

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

Example: 330M F 110 S4 / 150 / 40

Please refer to S-Ratings and Cyclic Duration Factors (C.D.F.) for graphic illustrations referred to in the above



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Technical Information

Product Specifications

Input Converter

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

Maximum Unbalance Ratio Setting

Calibration : 2 to 42% I_e
Accuracy : ± 5%
Trip Delay : 5s ± 1s
Recommended setting : 8 to 15% of dial setting

Control Supply

110 or 220V A.C. : 90 to 115% of specified voltage

Maximum Load Current Setting

Linearity : ± 4%
Repeatability : ± 1%
Detection Level : ± 1%
Calibration : 30 to 100% of Current Transformer ratio

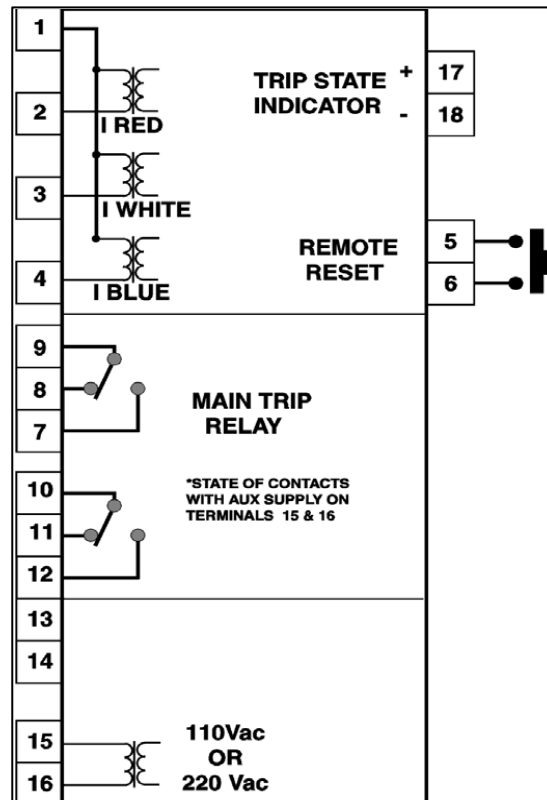
Main Trip Contacts

Ratings : 5 Amps 220Volt A.C.
Configuration : 2 Form C

Fail Safe Operation

Trips on loss of supply

Wiring Diagram



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Dimensional Diagram

