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Alpha



Alpha Series

High Performance Electro Mechanical Relays ▲ Auxiliary ▲ Tripping ▲ Supervision ▲ Pilot Wire

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Description

The Alpha range is a new generation of electro-mechanical relays specifically designed for high voltage protection and control applications.

High performance and reliability remains paramount while production lead times have been reduced.

A wide voltage operating range and user selectable low or high burden tripping relay operation reduces the number of model variations.

The Alpha range is packaged in a draw out case system and can be either flush panel or rack mounted.

Application

The effect of a fault on a power system is dependent on the speed with which the fault can be detected and isolated. Modern protection schemes incorporate ever increasing functionality through the application of digital techniques to protection relay technology. The requirement for highly reliable tripping and control relay elements does however remain and often constitutes a significant cost and space requirement when considering protection panel designs.

The Alpha system fulfils this need by providing a compact, flexible and high performance solution, while at the same time reducing the cost and lead times normally associated with this class of device.

Application of the Alpha multi-contact high-speed trip relays ensures fast operation of less than 8 ms. The unique patented design and topology ensures minimal contact bounce.

Features

- Rugged modular construction
- Auxiliary relay single and dual element versions
- High speed tripping relay version
- Supervision relay versions
- Pilot wire send and receive versions
- 5 and 12 contacts available
- Self reset, hand reset and hand/electrical reset versions
- High visibility electro-mechanical flag indication
- Rated operating and reset voltage available for 30/32, 48/50, 110, 125, 220, 240 or 250 Volts DC nominal auxiliary supplies
- Wide voltage operating range
- Rack or flush mounting
- Compact size E2 draw out case
- M4 screw terminals
- Fine silver Contacts designed and manufactured to ensure low resistance and high reliability
- Contacts with magnetic blowouts available with enhanced DC break capabilities for inductive loads
- Optional gold plated contacts suitable for low currents
- Optional coil operation LED
- Optional trip counter
- Optional electrical reset isolation switch
- Simple to specify and order



Visit www.rmspl.com.au for the latest product information.

Due to RMS continuous product improvement policy this information is subject to change without notice. Alpha_Series/lss. C/13/09/11 - 2/5

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Cross Reference Charts

		Alpha AR Code
MVAA11	AR111	AR00-00-12
MVAA13	AR112	AR00-00-22
MVAA14	AR106	AR00-00-32
MVAA15	AR113	AR00-00-42
MVAA21	AR211	AR25-00-12
MVAA23	AR212	AR25-00-22

		Alpha TR Code
MVAJ11, 051, 101	TR112	TR12-00-12
MVAJ13, 053, 103	TR121	TR12-00-22
MVAJ14, 054, 104	TR131	TR12-00-32
MVAJ15, 055, 105	TR141	TR12-00-42
MVAJ21, 051, 101	TR212	TR12-00-12
MVAJ23, 053, 103	TR221	TR12-00-22
MVAJ24, 054, 104	TR231	TR12-00-32
MVAJ25, 055, 105	TR241	TR12-00-42

		Alpha XR Code
MVAX11		XR5-00-1
MVAX12	XR152, 153	XR5-00-4
MVAX31	XR350, 351	XR5-00-6

		Alpha PR Code
MVAW	TEC	PR5-S
MVAW		PR5-R

Alpha Models Available

AR AUXILIARY

- AR5 Single element
5 contacts
- AR12 Single element
12 contacts
- AR25 Dual element
2x 5 contacts



TR HIGH SPEED TRIP

- TR5 5 contacts
High or low burden
- TR12 12 contacts
High or low burden



XR SUPERVISION

- XR5-1 Trip relay supervision
- XR5-4 Trip supply supervision
- XR5-6 Trip circuit supervision



PR PILOT WIRE

- PR5-S Pilot wire intertrip send relay
5 contacts
- PR5-R Pilot wire intertrip receive relay
5 contacts



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Documentation

The following Technical Bulletins are available from the RMS web site for the Alpha Series relay range.

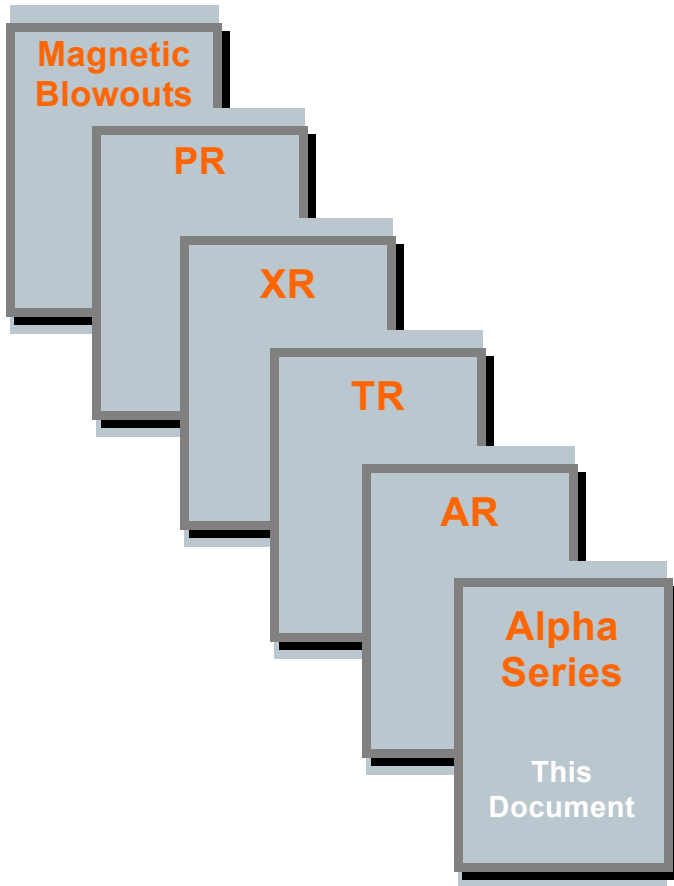


Figure 1: Alpha module construction

Construction

The Alpha relay represents a new generation of electro-mechanical relays designed specifically for application where high performance and reliability is paramount. While the fundamental and proven electro-mechanical mechanism has been maintained, the implementation of modern manufacturing techniques combined with an innovative architecture has provided a very flexible and competitive alternative to older generation tripping relays.

Figure 1 provides a snap shot of the major patented design innovations incorporated in the Alpha.

Inspection of the contacts is possible by drawing out the relay module from the case as shown in figure 2. The contacts, while protected and isolated at the rear terminal block end of the module are readily visible so that they can be checked for any sign of burning, pitting or over heating.

Manual operation of the contacts is also possible with the module removed from the case. This allows checking of the contact alignment and over travel.

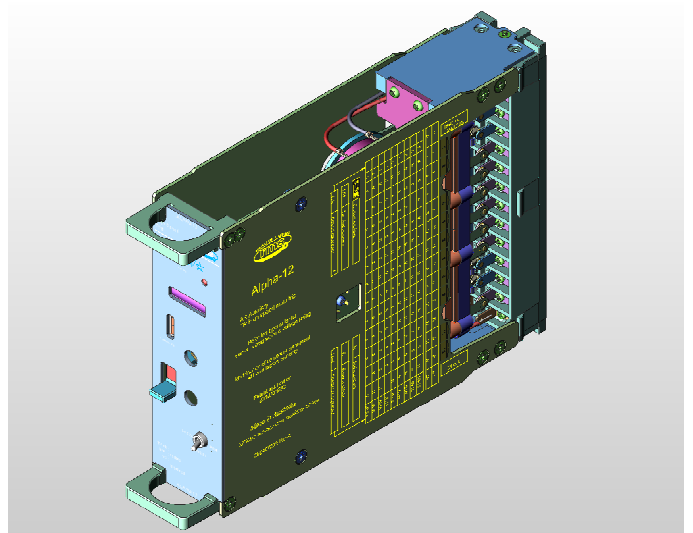
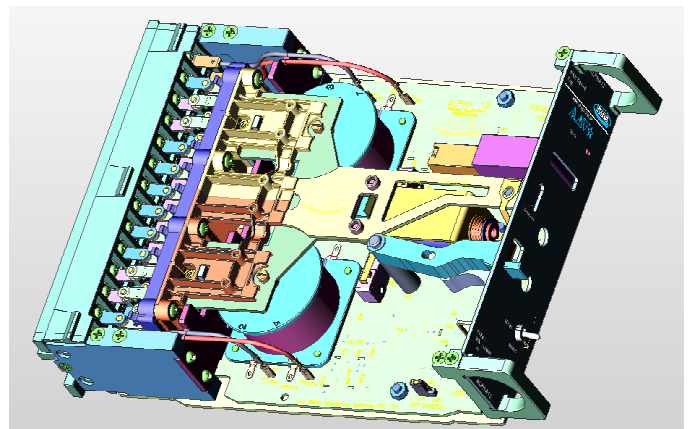


Figure 2: Alpha draw out module

Visit www.rmspl.com.au for the latest product information.



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