

### Features

- Compact single tier BUS bar protection system
- Incorporates Reyrolle DAD-N numeric high impedance differential relay
- Built in CT supervision
- Trip rated programmable output contacts
- Integrated supply supervision
- Integrated fault & disturbance waveform recording
- SCADA communications
- High speed operation
- Wide range of settings
- High stability
- Integrated 3 Phase Metrosils & stabilizing resistors
- Adjustable stabilizing resistors
- Integrated multi trip relay
- Optional trip supply supervision
- Pre assembled & wired in 4U high 19" sub rack
- Made in Australia

Technical Bulletin

# **Numeric High Impedance BUS Protection Rack**

1M124

## Application

High impedance protection schemes are widely used for the protection of BUS bars, generators, motors & power transformers. BUS bar protection schemes utilizing electromechanical high impedance differential relays are often used due to their simplicity, reliability & comparatively low cost. Numeric high impedance differential relays are now available & offer advantages of event & fault disturbance records as well as integrated CT supervision. While the application of electro mechanical schemes is likely to continue at least in the role of the Y protection scheme where duplicate protection is employed, numeric protection schemes are becoming more popular.

The 1M124 system is an integrated protection scheme which overcomes the issue of space constraints on the protection panel & the problem of where & how to mount the Metrosil & stabilizing resistor elements.

All of these functions have been incorporated into a single tier, 4U high, 19 inch sub rack frame.

# Description

The 1M124 is made up of the following standard elements manufactured by RMS:

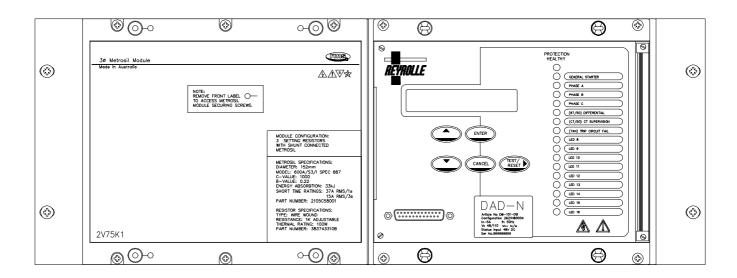
- 1 x DAD-N Three phase numeric high impedance differential relay
- 1 x 2V75 3 phase Metrosil module with integrated stabilizing resistors
- 1 x 4M800 4U 19 inch sub rack frame

The specifications, options & ordering codes can be found in the technical bulletins for each of these components.

The completed protection system is supplied pre assembled & with inter wiring between the components.

Contact an RMS representative for pricing & further technical details.

Also refer to the 1M123 electro mechanical High Impedance BUS Protection Rack which utilizes RMS 2V73 protection relays & is intended for the back up Y protection function.







#### **Australian Content**

Unless otherwise stated the product(s) quoted are manufactured by RMS at our production facility in Melbourne Australia. Approximately 60% of our sales volume is derived from equipment manufactured in house with a local content close to 90%. Imported components such as semi-conductors are sourced from local suppliers & preference is given for reasonable stock holding to support our build requirements.

#### Quality Assurance

RMS holds NCSI (NATA Certification Services International), registration number 6869 for the certification of a quality assurance system to AS/NZS ISO9001-2000. Quality plans for all products involve 100% inspection and testing carried out before despatch. Further details on specific test plans, quality policy & procedures may be found in section A4 of the RMS product catalogue.

#### Product Packaging

Protection relays are supplied in secure individual packing cardboard boxes with moulded styrene inserts suitable for recycling. Each product & packing box is labeled with the product part number, customer name & order details.

#### Design References

The products & components produced by RMS are based on many years of field experience since Relays Pty Ltd was formed in 1955. A large population of equipment is in service throughout Australia, New Zealand, South Africa & South East Asia attesting to this fact. Specific product & customer reference sites may be provided on application.

#### **Product Warranty**

All utility grade protection & auxiliary relay products, unless otherwise stated, are warranted for a period of 24 months from shipment for materials & labour on a return to factory basis. Repair of products damaged through poor application or circumstances outside the product ratings will be carried out at the customer's expense.

#### **Standard Conditions of Sale**

Unless otherwise agreed RMS Standard Terms & Conditions (QF 907) shall apply to all sales. These are available on request or from our web site.



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