

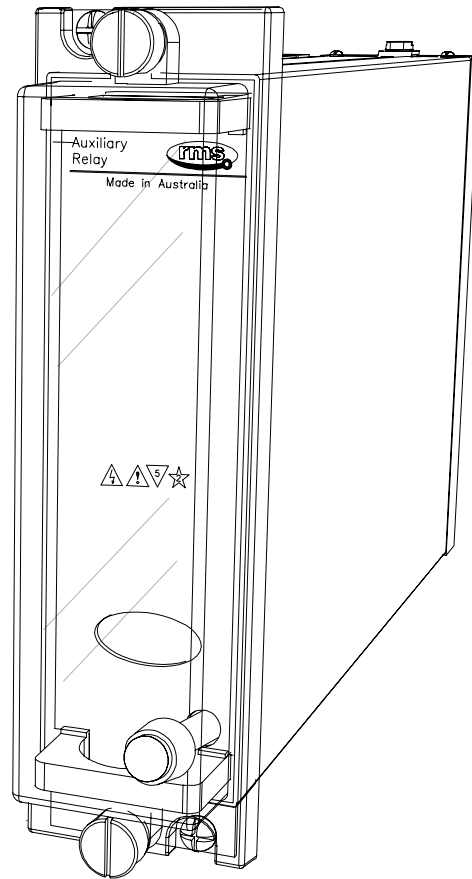
Features

- High speed operation
- Low burden
- Electrical reset contacts
- Independent hand reset flag
- 5 or 10 contacts
- 2HSM506 specification

Application

The effect of a fault on a power system is dependent on the speed with which the fault can be detected & isolated. The 6RJ Series multi-contact high-speed trip relays are used for this isolating function providing simultaneous tripping outputs.

A high speed coil provides fast operation (<10ms at nominal voltage), with specially constructed anti bounce buffers ensuring effective damping of the contacts to avoid excessive bounce.



2M28 draw out case

Low Burden 5 & 10 Contact Tripping Relay

The 6RJ14 is a low burden hand reset high speed tripping relay suitable for applications where immunity to capacitance discharge & high minimum operation currents is not required.

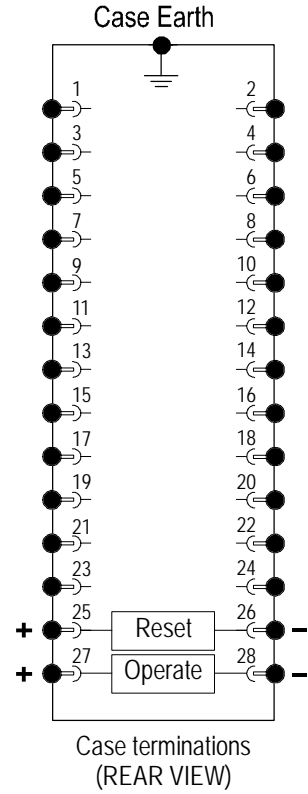
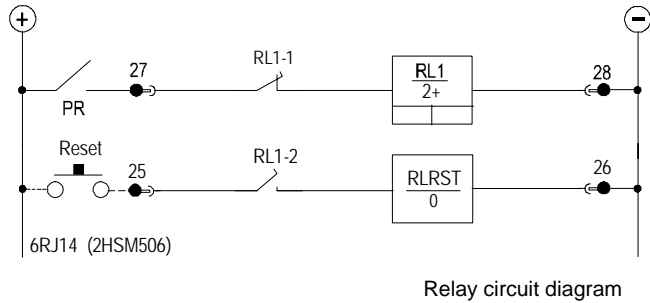
The high speed relay coil is automatically protected from thermal damage by a series cut throat contact once the relay contacts have picked up & latched.

The contacts can only be reset via the electrical reset input. The electrical reset coil is automatically protected from thermal damage by a series cut throat contact once the relay contacts have been reset.

The trip flag can only be reset via the independent front panel reset push button after the contacts have been reset. This feature allows the flag indication to be maintained as a record of trip operation even if the contacts have been electrically reset by remote control or an auto recluse scheme.

The 6RJ13 version may be specified where the contacts & flag are reset simultaneously.

Terminal Wiring



6RJ14-5 Terminal Numbers					
Contacts	1-3	2-4	5-7	6-8	9-11
5M	M	M	M	M	M
4M+1B	M	M	M	M	B
3M+2B	M	M	M	B	B
2M+3B	M	M	B	B	B
1M+4B	M	B	B	B	B
5B	B	B	B	B	B

6RJ14-10 Terminal Numbers										
Contacts	1-3	2-4	5-7	6-8	9-11	10-12	13-15	14-16	17-19	18-20
10M	M	M	M	M	M	M	M	M	M	M
9M+1B	M	M	M	M	M	M	M	M	M	B
8M+2B	M	M	M	M	M	M	M	M	B	B
7M+3B	M	M	M	M	M	M	M	B	B	B
6M+4B	M	M	M	M	M	M	B	B	B	B
5M+5B	M	M	M	M	M	B	B	B	B	B
4M+6B	M	M	M	M	B	B	B	B	B	B
3M+7B	M	M	M	B	B	B	B	B	B	B
2M+8B	M	M	B	B	B	B	B	B	B	B
1M+9B	M	B	B	B	B	B	B	B	B	B
10B	B	B	B	B	B	B	B	B	B	B

OPERATING BURDEN (Burden during pick up at nominal)

Low burden relays: 50W Maximum
 Reset coils: <40W Maximum

OPERATED BURDEN

Hand reset contacts: Zero
 Reset coils: Zero

COIL THERMAL RATING

The operate circuit is designed to withstand continuous application of 120% of nominal voltage. The high speed operate coil element (50 watt max.) has a thermal rating of 30 seconds, however this is protected by use of the instantaneous series cut-off contact arrangement.

OPERATING TIME

Less than 10ms at nominal rated operating voltage.

CONTACT OPERATION

Latching contacts with reset coil for remote electrical reset. Continuous application of a control voltage to both the trip & reset inputs must be avoided otherwise thermal damage to both coils may occur.

FLAG OPERATION

Drops on coil energisation. Independent hand reset button. Contacts must be in the reset position before the flag can be reset.

OPERATING VOLTAGE RANGE

Guaranteed operation between 65% & 120% of nominal rated operating voltage.

NOMINAL OPERATING VOLTAGES

24, 32, 48, 110, 125, 220 240 & 250V DC available.

AC VOLTAGES

Standard 6RJ relays are not intended for operation with AC voltages. Application of continuous AC voltage below the pick up level will cause excessive power dissipation in the capacitor discharge resistor & likely result in thermal damage to the device.

MINIMUM OPERATING CURRENT

Low burden relays: 50mA

ELECTRICAL RESET

Operate voltage: As per specified operate voltage.
 Reset cut off: Instantaneous with main relay reset.

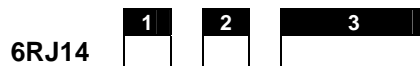
Continuous application of both the high speed pick up coil & the reset coil will defeat the cut throat contact & result in overheating & thermal damage to both coils & associated circuit.

CONTACTS

5 or 10 contacts
 User to specify combination of make & break contacts

Ordering Codes

Generate the required ordering code as follows:
 e.g. 6RJ14-10-D-8M2B



1 NUMBER OF CONTACTS

- 5 5 contacts
- 10 10 contacts

2 NOMINAL OPERATE VOLTAGE

- | | |
|-----------|-----------|
| A 24V DC | E 125V D |
| B 32V DC | G 220V DC |
| C 48V DC | H 240V DC |
| D 110V DC | F 250V DC |

3 CONTACT ARRANGEMENT (Not to exceed maximum)

Specify the number of "MAKES" followed by M; i.e. 8M
 Specify the number of "BREAKS" followed by B; i.e. 2B

6R RELAY CONTACT RATINGS

Make & Carry Continuously

3,000 VA AC resistive with maximums of 660V & 12A
 3,000 W DC resistive with maximums of 660V & 12A

Make & Carry for 3 Seconds

7,500 VA AC resistive with maximums of 660V & 30A
 7,500 W DC resistive with maximums of 660V & 30A

AC Break Capacity

3,000 VA AC resistive with maximums of 660V & 12A

DC Break Capacity (Amps)

Voltage		24V	48V	125V	250V
Resistive rating		12	2	0.5	0.25
L/R=40ms	Maximum break	12	1	0.25	0.15

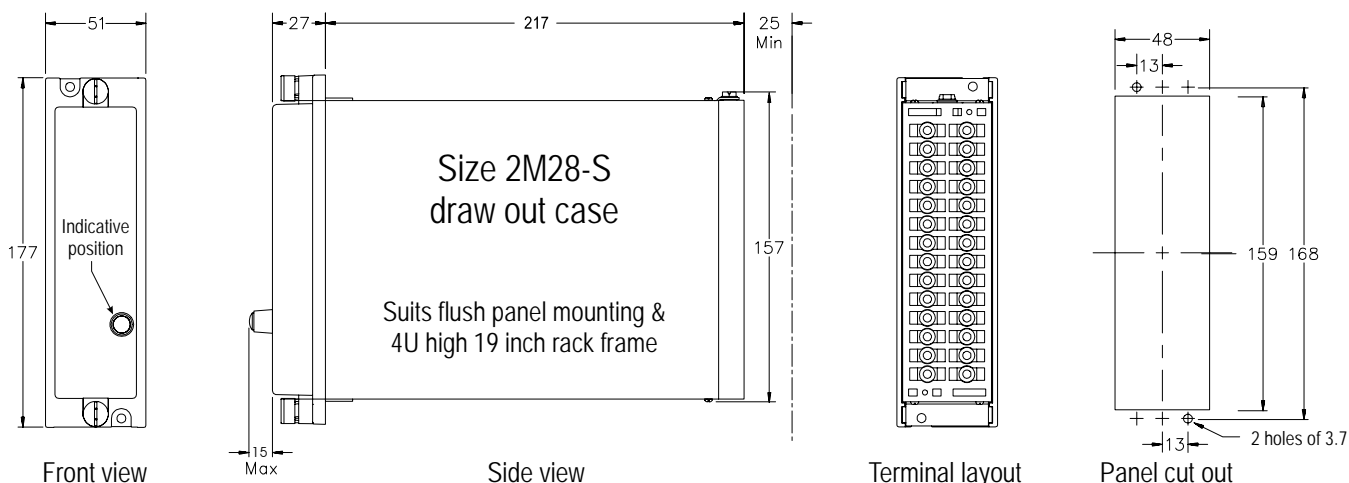
INSULATION WITHSTAND in accordance with IEC 255-5:

2KV RMS & 1.2/50 5KV impulse between:

- ◆ all terminals & frame
- ◆ each contact group
- ◆ all contacts & coil

CASE SIZE

2M28-S draw out case



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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