# Technical Specifications of High-Speed Tripping Relay

Protective relays are precise measuring devices, the contacts of which should not be expected to switch large electrical loads. In some cases, the protective relay may trip a circuit breaker directly, or according to the coil rating and the number of circuits to be energized, may do so using a tripping relay. The relay interfaces the protection to provide the higher contact capacity, additional contacts for tripping multiple circuit breakers, control functions, signalling and interlocking.

Very reliable hinged armature relays designed to directly operate circuit breaker trip coils. Built to very high specifications, relay range provides a highly flexible and reliable link between the protective relays and the circuit breakers.

**Features**

- High speed operation
- High degree of mechanical stability
- Positive action without chatter
- Compact

**Application**

High speed tripping duties where a number of simultaneous switching operations are required.

A fast-operating multi contact attracted armature relay with a high degree of mechanical stability. High burden relay with hand reset contact is recommended.

High burden relays are recommended in high security circuit breaker tripping circuits. The high burden provides immunity against operation due to capacitance discharge currents. Low burden relays are generally used when a number of simultaneous operations are to be initiated by a single protective relay having insufficient contacts of its own and where series connected operation indicators are not used.

## Coil rating

24, 30, 48, and 110 or 220 V DC as standard.

## Voltage Band For Satisfactory Operation

50 to 120% of rated voltage

Operating Time

10 milliseconds nominal, at rated voltage. (12.5mSec for 24 & 30V models).

Relay coil short time rated. Hand reset coil cut off contact provided in series with operating coil.

120% of rated voltage, continuous

Hand reset operation indicator provided

| |
|---|
| 4 pairs of hand reset output contacts in following combinations 4 N/O, 3N/O+ 1 N/C, 2 N/O + 2 N/C |
| 8 pairs of hand reset output contacts in the following combinations 8 N/O, 7 N/O + 1 N/C, 6 N/O + 2 N/C, 5 N/O + 3 N/C, 4 N/O + 4 N/C |
| 12/20 pairs of hand reset output contacts in following combination 12 N/O, 10 N/O + 2 N/C, 8 N/O + 4 N/C, 6 N/O + 6 N/C for VAJHM 33 relay, 20 N/O, 18 N/O + 2 N/C, 16 N/O + 4 N/C, 14 N/O + 6 N/C, 12 N/O + 8 N/C, 10 N/O + 10 N/Cfor VAJHM 53 relay |
| 4 pairs of self reset output contacts in following combinations 4 N/O , 3 N/O +1 N/C , 2 N/O + 2 N/C |
| 8 pairs of self reset output contacts in following combinations 8 N/O, 7 N/O+1 N/C, 6 N/O + 2 N/C, 5 N/O + 3 N/C + 4 N/O + 4 N/C |

Contact Ratings

| | Make and carry continously | Make and carry for 3 seconds | Break |
|---|---|---|---|
| AC | 1250 VA with maxima of 5 amps & 660 volts | 7500 VA with maxima of 30 amps & 660 volts | 1250 VA with maxima of 5 amps & 660 volts |
| DC | 1250 watts with maxima of 5 amps & 660 volts | 7500 watts with maxima of 30 amps & 660 volts | 100 watts(resistive),50 watts(inductive) with maximam of 5 amps & 660 volts |

Insulation

The relay shall meets the requirements of IS.3231: 196/IEC 255-5 Series C-2KV

for 1 minute.

**Case and Finish**

non-draw out/draw out cases suitable for flush or projection mounting. Non-draw out cases are finished bright black and draw out cases finished eggshell black and are tropicalized. A cradle mounted trip isolating switch is fitted in draw out cases to prevent inadvertent tripping of circuit breaker, while withdrawing the relay unit from the case.