



Trip Circuit Supervision Relay

XR351

Description

The Trip Circuit Supervision Relay was developed for specific applications, and is suitable for use with the type AR relay range. It is an electro-mechanical relay with a consistent positive action and a long service life that complies with IEC 60255 requirements. The XR351 has 3 attracted armature elements. It incorporates a time delay on de-energisation (to keep the relay in an operated condition during temporary reduction in the battery voltage).

Applications

- Supervision and ensuring the integrity of the trip circuit of a breaker
- Continuous supervision, during both, open and closed position of circuit breaker
- Preclosing supervision to prevent circuit breaker from being closed where the trip relay has not been reset

Features

- Low burden
- Versatile design
- Preclose supervision
- Consistent positive action
- Epsilon drawout case



Figure 1: Trip Circuit Supervision Relay XR351



Wiring Diagram

RELAY FRONT

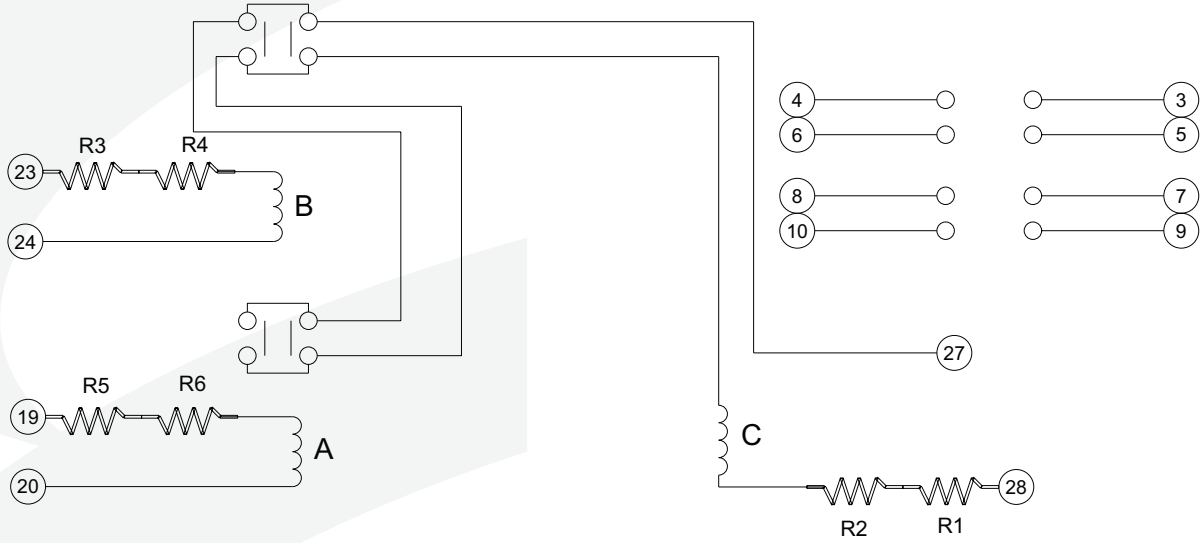
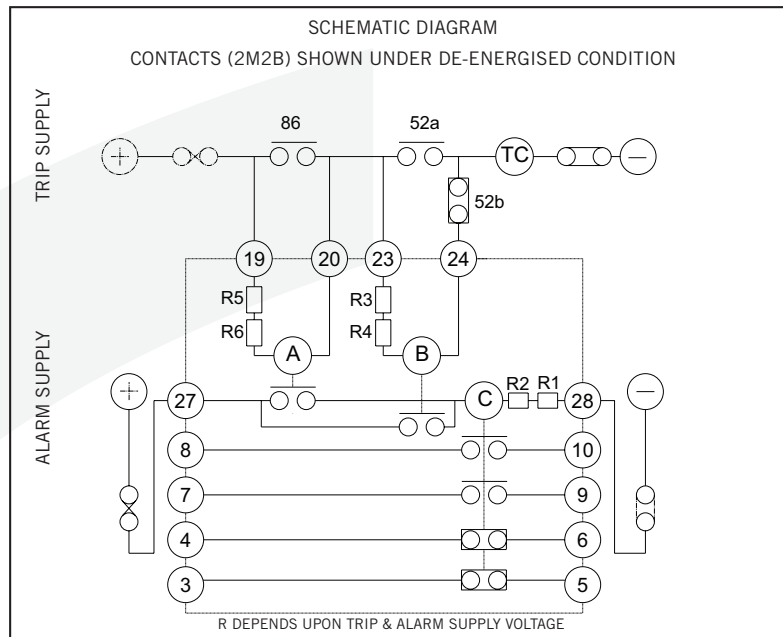


Figure 2: Typical wiring diagram



Technical Information

Rated Voltage, Vn	30V, 48V, 110V, 220V DC
Temperature	IEC60068-2-1&2
Operating Range	80% to 120% of Vn
Reset Time	400 ms when supply is switched from Vn to OFF

Rated Voltage	Trip Circuit Condition		Alarm Circuit
	C.B. Open	C.B. Closed	
30V DC	1W	1W	2W
48V DC	1W	1W	2W
110V DC	1W	2W	4W
220V DC	2W	4W	9W

Thermal Withstand 1.2Vn continuously

Indication

Hand reset flag

Contact Arrangement

Alarm output, 4 in any combination of normally open and normally closed. Preclose supervision, 1 normally open.

Contact Rating

Make and carry continuously

1250VA AC or 1250W DC with limits of 660V and 5A

Make and carry for 3 seconds

7500VA AC or 7500W DC with limits of 660V and 30A

Break

1250VA AC or 100W DC (resistive) or 50W (inductive) (L/R=0.04) DC with limits of 250V and 5A

Environment temperature IEC 60068 - 2 - 1 & 2

Storage - 25 C to + 70 C

Operating - 10 C to + 55 C

Humidity IEC 60068-2-3

56 days at 95% RH and 40 C

Vibration IEC 60255-21-1

Relay meets the requirements vibration of class 1 at response and endurance.

Shock and Bump IEC 60255-21-2

Relay meets the requirements with respect to shock & bump testing for class 1 severity.

Transient IEC 60255-5

Over voltage

5KV 1.2/50µs 0.5 joules between all terminals and earth or between any two terminals without damage or flashover.

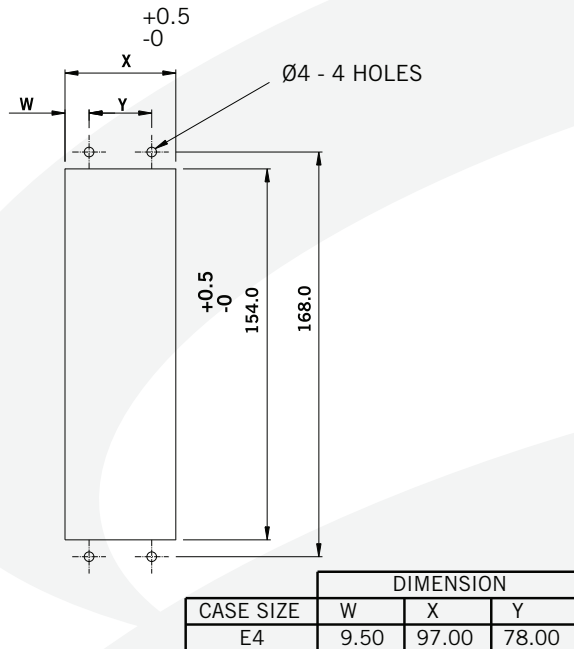
Insulation IEC 60255-5

2KV rms for 1 minute between all terminals and earth.
1KV rms for 1 minute across normally open contacts.

Operational / Mechanical life

The relays will withstand in excess of 10,000 operations, within the maximum contact loading specified, at a rate of 600 operations per hour.

Cutout Details



Note:

1. All dimensions are in mm
2. All dimensions are measured equidistant from centre line
3. Maximum depth of equipment inside panel : 225mm

The policy of EASUN REYROLLE is one of continuous improvement and development. The company therefore reserves the right to supply equipment which may differ slightly from that described and illustrated in the publication.

Ordering Information

- Rated voltage
- Contact arrangement

Rating V DC	Coil Resistance [Ohm]			Resistors value [Ohm]					
	A	B	C	R1	R2	R3	R4	R5	R6
30	400	400	450			100		100	
48	400	400	1572			350		350	
110	4800	4800	1572	2000		2300		2300	
220	4800	4800	1572	2000	3100	2300	7000	2300	7000

These resistors are supplied loose with the relays (for non draw-out case). It is important to ensure that the resistors are correctly connected.

Quality Certifications

ISO 9001 – 2008

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The specifications and product information contained in this document are subject to change without notice.
In case of inconsistencies between documents, the version at www.erlphase.com will be considered correct. (D04231 R.1)

