

Order Number

Serial Number

PRODUCT/TEST MANUAL

3Y31K7

TRIPLE ELEMENT REED RELAY

Issue Level	Date	Summary of changes
A	16/06/04	Initial issue.

Due to RMS continuous product improvement policy this information is subject to change without notice.

Author	Checked & Registered	.pdf file created	Released
ERL	DG	DG	

1. BROAD DESCRIPTION OF RELAY

The 3Y31K7 is a triple element reed relay with operate times less than 2.5 mS. This relay is used as a slave relay unit to provide high contact closure current ratings.

2. SPECIFICATIONS

DC Auxiliary Supply	50 VDC -16% + 30%
Supply Burden (At 50 DC)	Less than 2.5 watts
Speed of operation	Less than 2.5 mS.
Operating Contacts	One normally open contact/element

Output Relay Contact Ratings

Make and Carry

2 Amps continuous at 125 VDC nominal

DC Break Capacity

0.5 Amps Resistive

0.2 Amps Inductive L/R 40 mS

Maximum Contact Capacity (Amps)

20 Amps for 0.5 seconds @ 5 Amps/mS rise

Insulation Withstand

In accordance with AS2481-
with AS2481-1981 (Clause 5-4),
1.2/50 5KV.

Noise Immunity

The 3Y31K7 relay has been
designed to withstand the high
frequency interference test detailed
in AS2481-1981 (Clause 5-5).

Case Type

ZA12

3. ASSOCIATED DRAWINGS

182-031-107 Wiring Diagram

4. TEST EQUIPMENT REQUIRED

DC Auxiliary Supply

Ammeter

HV Test Equipment

Electronic Counter (for measuring operate & release times)

5. HIGH VOLTAGE TESTING

b) Apply three 5KV 1/50us pulses of each polarity between terminal Groups 1 and 2 in Table 1.

TABLE 1	
GROUP 1	GROUP 2
11&12,4&5	3&6,2&7
11&12,3&6	4&5,2&7

6. TEST PROCEDURE

6.1 PICK UP TEST

- a) Connect the 50 VDC auxiliary supply via the device for measuring operate time to terminals 11 & 12 (11 is positive)
- b) Measure the operate time, this should be less than 2.5 ms
- c) Repeat b) for relay 2 & 3
- d) Repeat the above tests for the remainder of the batch ensuring all operate times are under the maximum.

	Relay 1	Relay 2	Relay 3
Maximum	< 2.5 mS	<2.5 mS	< 2.5 mS
Pass	<input type="text"/>	<input type="text"/>	<input type="text"/>

6.2 DROP OUT TEST

- a) Connect the 50 VDC auxiliary supply via the device for measuring dropout time to terminals 11 & 12 (11 is positive)
- b) Measure the dropout time from removal of the 50 VDC auxiliary supply, this should be less than 2.5 mS.
- c) Repeat b) for relay 2 & 3
- d) Repeat the above tests for the remainder of the batch ensuring all dropout times are under the maximum.

	Relay 1	Relay 2	Relay 3
Maximum	< 2.5 mS	<2.5 mS	< 2.5 mS
Pass	<input type="text"/>	<input type="text"/>	<input type="text"/>

6.3 BURDEN

Ensure that the operated burden of the relay is less than 50 mA

Verify

7. GENERAL & FUNCTIONAL

- a) Batch quantity
- b) Quantity tested
- c) Check that the relays are electrically sound and mechanically robust as per Standard Inspection & Test Schedule 903-000-026.

Pass

TESTED BY: _____ DATE: _____

8. CONNECTION DIAGRAM

