



Serial Number

Number in Batch

3A22K35

6R AUXILIARY RELAY

Issue Level	Date	Summary of changes
A	25/10/2011	Initial release

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1. ASSOCIATED DRAWINGS

Refer to Job Card and associated documentation.
Relay Connection Diagram

2. HIGH VOLTAGE TESTING

- a) Apply 2kV RMS 50Hz between terminal Groups 1 and 2 in Table 1 for 1 minute.
- b) Apply three 5kV 1/50us pulses of each polarity between terminal Groups 1 and 2 in Table 1.

TABLE 1

GROUP 1

Each Coil
Each contact set
All terminals

GROUP 2

All other connections and Frame
All other connections and Frame
Frame

PASS

3. TEST PROCEDURE

Check the job card for any special requirements of the relay to be tested.

- a) Connect all specified MAKE contacts in series, and connect to contact sensor/ timer.
- b) Manually operate the relay by pushing the armature towards the pole face of the relay. Ensure that the contacts have sufficient over travel by ensuring that all of the contacts have made before the armature is fully home.

Check

- c) Check operation of relay at specified minimum and maximum DC operating voltage, when the relay is energised (via 27+, 28-) according to the following table. Also check operation of all BREAK contacts. Separately energise (13+, 14-) and repeat test. Also check that the armature is fully home.

Model	Nominal Voltage	Minimum voltage (75% nom.)	Maximum voltage (120%)
6RM2XXXX-D	110V	82	132

Check

- d) Connect the counter / timer to measure the operate time of the relay. Press the “test” button on the matrix test fixture and adjust the trigger and vertical sensitivity on the CRO to obtain a waveform which displays the time between the trigger point and the contact closure.

Both pick up and drop out times are important (for each element), and depend on the contact arrangement and whether 1W or 2W coils are specified. This should be as per the following:

6RM contact stack	1W coils pick up time (ms)		1W coils Drop out time (ms)		2W coils pick up time (ms)		2W coils pick up time (ms)	
	Min	Max	Min	Max	Min	Max	Min	Max
4 N/O	36	44	12.6	15.4	27	33	13.5	16.5

Check



- e) Check that the operating burden (for each element) when the relay is operated at nominal voltage is as according to the following table:

Model	Contact Mechanism	I@ Vnom= 110V
6RM201 6RM202 6RM203 1W coil	Self Reset	~9mA (each element)
6RM201 6RM202 6RM203 2W coils	Self Reset	~18mA (each element)

Check

5. GENERAL & FUNCTIONAL

- a) Check for presence of magnetic blowouts on contacts, as per the following ordering code:

6RM2XXX1: Magnetic blowouts fitted.

- b) Check that the label has been labelled correctly as per the wiring diagram.

Check

- c) Check that the relay is electrically sound and mechanically robust as per Standard Inspection & Test Schedule 903-000-026.

Check

PASS

TESTED BY: _____ DATE: _____