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Project 08CA49010

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REPORT

ON

COMPONENT - MAGNETIC MOTOR CONTROLLERS

Dongguan Sanyou Electrical Appliances Co. Ltd.
Guangdong, China

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DESCRIPTION

PRODUCT COVERED:

USR/CNR - Across the line magnetic motor controllers, intended for use in industrial control applications, Type SMI, followed by the letter "-S" or "-SH", followed by the number -1 or -2, followed by 03 to 48, followed by the letters "D" or "L", followed by the letter "M" or Blank, followed by Blank, followed by -F, -B or Blank, maybe followed by any special codes.

GENERAL:

*These devices are open type, magnetically operated, single pole, single-throw (SPST) for 1 Form A relays, and double pole, single throw (DPST) for 2 Form A relays, with normally open contacts and single pole, double-throw (SPDT) for 1 Form C relays, and double pole, double-throw (DPDT) for 2 Form C relays, with normally open and normally closed contacts.

ELECTRICAL RATING:

Contacts -

Single-Pole:

10 A, 250 V ac, Resistive, 100K cycles, N.O. & 50K N.C., 85°C.
10 A, 250 V ac, General Use, 100K cycles, N.O., 85°C.
10 A, 250 V ac, General Use, 50K cycles, N.C., 85°C.
1/3 Horsepower, 120 V ac, N.O. & N.C., 30K cycles, 85°C.
10 A, 30 V dc, Resistive, 100K cycles, N.O. & N.C., 85°C.
5 A, 250 V ac, General Use, 100K cycles, N.O. & 50K N.C., 85°C.
TV-3, 250 V ac, 25K cycles, N.O., 40°C.
TV-2, 250 V ac, 25K cycles, N.O., 40°C.
Pilot Duty: 250 VA, 250 V ac, N.O. & N.C., 85°C.

Double-Pole:

5 A, 250 V ac, Resistive, 100K cycles, N.O. & N.C., 85°C.
5 A, 250 V ac, General Use, 100K cycles, N.O. & N.C., 85°C.
5 A, 24 V dc, Resistive, 100K cycles, N.O. & N.C., 85°C.
2 A, 120 V ac, General Use, 100K cycles, N.O. & N.C., 85°C.
2 A, 240 V ac, General use, 100K cycles, N.O. & N.C., 85°C.
Pilot Duty: 125 VA, 250 V ac, N.O. & N.C., 85°C.

Coil - 3-48 V dc

Ambient Temperature: 85°C

Nomenclature -

SMI - S - 1 12 D M Blank - F - XX
I II III IV V VI VII VIII IX

I. Series Designation

II. Protective construction

SH: Sealed type washable
S: Sealed type

III. Number of poles

1: 1 pole
2: 2 poles

IV. Coil Voltage

Any voltage between 3 V dc to 48 V dc.

V. Coil sensitivity

D: 0.72 W
L: 0.54 W

VI. Contact form

* Blank: Form C
* M: Form A

VII. Contact material

Blank: Silver-tin oxide (AgSnO₂)

VIII. Insulation System

B: Class 130(B)
F: Class 155(F)
Blank: Standard Type (Class 105)

IX. Special Code

Additional numbers or letters, which don't affect construction or ratings.

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Use - For use only in (or with) complete equipment where the acceptability of the combination has been determined by Underwriters Laboratories Inc.

USR indicates investigation to the Standard for Industrial Control Equipment, UL 508, 17th Edition.

CNR indicates investigation to the Standard for Industrial Control Equipment, CAN/CSA C22.2 No. 14-05, 10th Edition.

This device has been judged on the basis of the required spacings in the Standard for Industrial Control Equipment, UL 508, Seventeenth Edition, revision dated July 11, 2005, which would cover the component itself if submitted for unrestricted Listing.

Conditions of Acceptability -

1. A suitable enclosure should be provided for these devices in the end product.
2. The relay terminals are not suitable for field wiring. The relay terminals are to be factory wired only, and the suitability of the connection (including spacings between factory connectors) shall be determined.
3. These devices are suitable to be used in an ambient temperature of maximum 85°C.
- *4. Only units with model designations ending in "M" (Form A, N.O.) shall be considered suitable for use at TV-2/T3, at 250 V ac.