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REPORT

ON

COMPONENT - MAGNETIC MOTOR CONTROLLERS

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Guangdong, China

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## DESCRIPTION

## PRODUCT COVERED:

\* USR, CNR Component - Across the line magnetic motor controllers, intended for use in industrial control equipment. Cat. No. SL followed by A, followed by Blank, -S, -SH, followed by -1, followed by 3 to 110, followed by D, followed by Blank, M, B, followed by Blank or J, followed by Blank or K, followed by Blank or 1, followed by B, F or Blank, may be followed by any special code.

\* USR, CNR Component - Across the line magnetic motor controllers, Intended for use in industrial control equipment. Cat. No. SL followed by C or I, followed by Blank, -S, -SH, followed by -1, followed by 3, to 110, followed by D, followed by Blank, M, B, followed by Blank or J, followed by Blank or K, followed by Blank or 1, followed by B, F or Blank, may be followed by any special code.

## GENERAL:

These devices are single pole, single-throw, normally open (SPST-NO), 1 Form A; single pole, single-throw, normally close (SPST-NC), 1 Form B; or single pole, double-throw change over, normally open and normally close (SPST-CO), 1 Form C. These devices are intended for use in industrial control equipment.

## Contact ratings

Contact Form: Type 1A

30 A, 240 V ac resistive, 100,000 cycles, 85°C.  
15 A, 240 V ac  
1-1/2 HP 240 V ac  
3/4 HP 120 V ac  
TV-8, 120 V ac  
30 A, 240 V ac, general use, 100,000 cycles, 85°C  
40 A, 277 V ac, resistive, 6,000 cycles, 40°C.  
Pilot Duty: 470 VA, 240 V ac, 100,000 cycles, 70°C.  
Electronic Ballast: 10 A, 277 V ac/120 V ac.

\*

## Contact Form: Type 1C

NO

10, 240 V ac  
20 A, 240 V ac Resistive  
1-1/2 HP 240 V ac  
3/4 HP 125 V ac  
TV-8, 120 V ac  
20 A, 240 V ac, resistive,  
100,000 cycles, 85°C  
20 A, 240 V ac, general use,  
100,000 cycles, 85°C.

## Pilot Duty:

470 VA, 240 V ac, 70°C  
100,000 cycles

## Electronic Ballast:

10 A, 277 V ac  
10 A, 120 V ac

NC

10A, 240 V ac  
1/2 HP 240 V ac  
1/4 HP 125 V ac  
TV-3, 120 V ac  
10 A, 240 V ac, resistive,  
100,000 cycles, 85°C  
10 A, 240 V ac, general use,  
100,000 cycles, 85°C.

275 VA, 240 V ac, 70°C  
100,000 cycles

5 A, 277 V ac  
5 A, 120 V ac

## Contact Form Type 1B

10 A, 240 V ac, resistive, 30,000 cycles, 85°C.  
10 A, 240 V ac, general use, 100,000 cycles, 85°C.  
30 A, 120 V ac, general use, 6,000 cycles, 85°C.  
Pilot Duty: 275 VA, 240 V ac, 100,000 cycles, 70°C.  
Electronic Ballast: 5 A, 277 V ac/120 V ac.

Coil voltage: 3, 5, 6, 9, 12, 15, 18, 24, 48, or 110 V dc

## Ambient Temperature:

Maximum +40°C for relays with Class A, B and F Insulation System.

Maximum +85°C for relays with Class B and F Insulation System.

## Nomenclature

<u>SL</u> (A, C or I)	<u>S</u>	<u>1</u>	<u>12</u>	<u>D</u>	<u>M</u>	<u>J</u>	<u>K</u>	<u>1</u>	<u>=</u>	<u>F</u>	<u>=</u>	<u>XX</u>
I	II	III	IV	V	VI	VII	VIII	IX	X	XI		

## I. Series designation

Variations in type designation from SLA, SLC, or SLI indicate differences in the dust cover which are not controlled in this report.

## II. Protective construction

- \* Blank: Open type (for SLA only)
- S: Sealed type
- SH: Sealed type washable

## III. Number of Poles

1: 1 pole

## IV. Coil Voltage

Any Coil Voltage between 3 - 110 V dc

## V. Coil Sensitivity

D: Standard coil sensitivity

## VI. Contact form

- \* Blank: 1 form C
- M: 1 form A
- B: 1 form B

## VII. Terminal type

Blank: Standard type  
J: Without No. 6 terminal (for SLA only)

## VIII. Cover type

Blank: Standard type  
K: Protection quick connect type (for SLC only)

## IX. Contact Material

- \* Blank: AgSnO<sub>2</sub>
- \* 1: AgCdO

\*

X. Insulation System

B: Class 130 (B)

F: Class 155 (F)

Blank: Standard Type, Class 105 (A)

XI. Special Code

Additional numbers or letters does not affect construction or ratings.

## ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE USE):

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

\* Spacings - Spacings for models SL series have been evaluated as per the standard for industrial control equipment, UL 508, 17<sup>th</sup> edition, spacings applied are: 1.6 mm through-air and 3.2 mm over-surface between any uninsulated live part and an uninsulated live part of opposite polarity, uninsulated grounded part other than the enclosure, or exposed metal part.

## Conditions of Acceptability

- \*1. Model SLA is intended to be mounted in industrial control equipment. Spacings have been evaluated to UL 1950 3rd. ed. Tables 5 and 6 for Material Group III, Pollution Degree 3. Spacings between contacts have not been evaluated, and shall be evaluated in the end product.
2. These devices shall be mounted in an appropriate enclosure.
3. The spacings from exposed live-metal parts to the enclosure walls shall be in accordance with the requirements for the overall equipment.
4. The terminals of these relays are not suitable for field wiring.