| File E98133 | Vol. 7 | Sec. 3     | Page 1 | Issued:  | 2023-05-14 |
|-------------|--------|------------|--------|----------|------------|
|             |        | and Report |        | Revised: | 2024-06-21 |

DESCRIPTION

PRODUCT COVERED:

USR, CNR Component, Appliance Switches: HE (Mechanical switch)

|         |      |     |      |    |               | Pol/           | Endui | rance |    |      |      |     |
|---------|------|-----|------|----|---------------|----------------|-------|-------|----|------|------|-----|
| Model   | Load | Amp | Volt | Hz | Temp.<br>[°C] | Thr/<br>(Cir.) | 30°C  | 55°C  | IP | DIS  | SPCA | Ed. |
| *xx-HE- |      |     |      |    |               | 2/M            |       |       |    |      |      |     |
| уууу-U  | R    | 16  | 250  | 50 | T120/55       | (1.2)          |       | 10K   | 00 | Full |      | 5   |

EXPLANATION OF COLUMN HEADINGS

Model - Cat. No. - Identifier used by the manufacturer for a specific switch Model or Catalog number.

f/b - followed by, ww/o - With or without,

- Load identify the load according the Testing. R= resistive, RM= resistive and motor, RC= resistive and capacitive, L=tungsten lamp load, Spc= specific load, mA =load below 20mA, SpcL, SpcT = specific lamp load such as US L or T, I= inductive, SpcM= specific motor rating, TV= television, GP= general purpose, GPM= general purpose and motor, GPhp= general purpose and horse power.
- Amps the steady state amp value of the switch. Per pole value may be marked "PP" and is verified by the circuit connection.

Volt - the Voltage (RMS) value.

 $\rm Hz$  - the Frequency or range such as (50-60).

- Temp The declared operating temperature of the switch.
- Pol/Thr/Cir The number of Poles (Pol) and Throws (Thr) represented by the switch construction (where "M" indicates multiple poles (more than 2). The circuit (Cir) is identified by a code explained in the standard and appendix pages (Table 2 of 61058-1).
- IP Degree of protection against ingress of solid objects and dust, and harmful ingress of water.
- DIS Disconnect air gap across open contact, electronic is indicated by "e", micro indicated "micro", FULL indicated with a measurement in mm.
- 30C cycle the number of Endurance cycles completed with a temperature rise less than 30C (on terminals).
- 55C cycle the number of Endurance cycles completed with a temperature rise less than 55C (on terminals).
- SPCA Identifies Special Conditions of Acceptability that must be considered in the end product. A list of typical SPCOAs (represented with a number) are found in the WOYR2 guide card. Conditions other than the typical are represented with a letter and described in the specific volume and section follow-up procedure description.
- ed The switch evaluation was completed to the indicated UL standard revision date (such as 2009).

| File E98133 | Vol. 7 | Sec. 3     | Page 2 | Issued: | 2023-05-14 |
|-------------|--------|------------|--------|---------|------------|
|             |        | and Report |        |         |            |

Products designated USR have been investigated using requirements contained in UL Standard for Switches for Appliance, UL 61058-1 edition 5 and UL 61058-1-1 edition 1.

Products designated CNR have been investigated using requirements contained in Canadian Standard CAN/CSA-C22.2 No. 61058-1:17 and CAN/CSA-C22.2 No. 61058-1-1:17.

Switch Declaration: Use table for general and indicate differences below.

| Model                | HEU    |                       |          |
|----------------------|--------|-----------------------|----------|
| Ambient Temp. C      | 120/55 | Type Reference        | U.T.     |
| Total Cycles         | 10000  | Glow Wire Temp. C     | 850      |
| IP rating            | 00     | PTI                   | 250 IIIa |
| Electric shock Class | II     | Over Voltage Category | II       |
| Pollution degree     | 3      | Impulse withstand     | 2500     |
| Macro                |        | Volt                  |          |
| Pollution degree     | 3      | Disconnect            | Full     |
| Micro                |        |                       |          |
| Actuation            | Rotary | Test Circuit          | 1.2      |

| Terminal | Туре    | Wire               | Flexible/ | Wire     | Prepared or | Specific  |
|----------|---------|--------------------|-----------|----------|-------------|-----------|
|          |         | range              | Rigid     | type     | Unprepared  | test amps |
| All      | Tab     | 0.5 -              | Flexible  | Stranded | Prepared    | N/A       |
|          | 6.3x0.8 | $2.5 \text{ mm}^2$ |           |          |             |           |

NOMENCLATURE (marked on swith):

| XX | HE | УУУУ | U  |
|----|----|------|----|
| I  | II | III  | IV |

| I   | Number of line: from 3 to 19         |
|-----|--------------------------------------|
| II  | Series designation: HE               |
| III | Specific model: from 0000 to 9999    |
| IV  | Model covered by UL certification: U |

## FIGURE & ILLUSTRATIONS:

The following Figures & Illustrations are included in this Report.

| Figure and Il | llustr | ration Index                            |
|---------------|--------|---|
| Figure        | 1      | Rotary switches, HE series, top view    |
| Figure        | 2      | Rotary switches, HE series, Bottom view |