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REPORT

on

COMPONENT - Switches, Appliance and Special Use

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## DESCRIPTION

## PRODUCT COVERED:

USR, CNR Component, Appliance Switches: (mechanical micro switch)

Model	Load	Amp	Volt	Hz	Temp C	Pol/ Thr/ (Cir)	Endurance		IP	DIS	SPCA
							30C	55C			
831700	GP	10	125- 250	50/60	130	1/1 or 2 (1.2 or 2.2)	-	10k	40	μ	A, B
	hp	1/4 hp	125- 250	50/60	55	1/1 or 2 (1.2 or 2.2)	6K	-	40	μ	A, B
	RM	10 (2)	125- 250	50/60	125	1/1 or 2 (1.2 or 2.2)	-	10K	40	μ	A, B
	RM	6 (1)	125- 250	50/60	125	1/1 or 2 (1.2 or 2.2)	-	50K	40	μ	A, B
	RM	3 (3)	125- 250	50/60	125	1/1 or 2 (1.2 or 2.2)	-	50K	40	μ	A, B
831700 SP9765	RM	12 (6)	125- 250	50/60	125	1/1 <b>or 2</b> (1.2 <b>or</b> <b>2.2)</b>		10K	40	μ	A, B

Model	Load	Amp	Volt	Hz	Temp C	Pol/ Thr/ (Cir)	Endurance		IP	DIS	SPCA
831704	GP	5	125- 250	50/60	130	1/1 or 2 (1.2 or 2.2)		10K	40	μ	A, B
	hp	1/10	125- 250	50/60	55	1/1 or 2 (1.2 or 2.2)	6k		40	μ	A, B
	RM	5 (1)	125- 250	50/60	125	1/1 or 2 (1.2 or 2.2)	-	50k	40	μ	A, B
	RM	2 (1)	125- 250	50/60	150	1/1 or 2 (1.2 or 2.2)	-	50k	40	μ	A, B
831708, 831709	GP	1	125- 250	50/60	130	1/1 or 2 (1.2 or 2.2)		10K	40	μ	A, B
	RM	5 (1)	125- 250	50/60	125	1/1 or 2 (1.2 or 2.2)	-	50K	40	μ	A, B
831700 SP4998	GP	5	125	50/60	130	1/1 or 2 (1.2 or 2.2)		10K	40	μ	A, B
	RM	2 (2)	125- 250	50/60	85	1/1 or 2 (1.2 or 2.2)	-	50K	40	μ	A, B
	RM	3 (3)	125- 250	50/60	85	1/1 or 2 (1.2 or 2.2)	-	25k	40	μ	A, B

Model	Load	Amp	Volt	Hz	Temp C	Pol/ Thr/ (Cir)	Endurance		IP	DIS	SPCA
A831700	RM	3(3)	125- 250	50/60	125	1/1 or 2 (1.2 or 2.2)	-	50k	40	μ	A, B

Note 1: Product marking: part numbers may be prefixed by "U"

Basic model 83170 f/b 0 through 9 can be f/b 00 through 99, with or without Suffix SP or SF 0000 through 9999. The suffix indicates variations which would not affect the electrical or mechanical function of the switch.

Note 2: the horse power ratings are taken over from old certification to UL 1054. There is no constructional change.

#### 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.

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.

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	Series 83170		
Ambient Temp. C	See table page 1	Type Reference	C.T.
Total Cycles	See table page 1	Glow Wire Temp. C	850
IP rating	See table page 1	Material group	IIIa
Electric shock Class	I	Over Voltage Category	II
Pollution degree Macro	3	Impulse withstand Volt	2500
Pollution degree Micro	2	Disconnect	See table page 1
Actuation	Linear (push- button)	Test Circuit	See table page 1

Terminal	Type	Wire range	Flexible/ Rigid	Wire type	Prepared or Unprepared	Specific test amps
1, 2, 4	Quick Connect Terminal (2.8 x 0.5)	Table 4	Flexible	Solid/stranded	prepared	N/A
1, 2, 4	Solder iron	Table 4	Flexible	Solid/stranded	unprepared	N/A
1, 2, 4	Solder bath	Table 4	Flexible	Solid/stranded	unprepared	N/A

## NOMENCLATURE:

83170	0	00	SP	0000
I	II	III	IV	V

I	Basic model
II	0 through 9, different actuator force and design
III	00 through 99, different function and connections
IV	SP or SF - customer specified, not safety relevant
V	0000 through 9999 - customer specified, not safety relevant

Details refer to Ill. 1.

## FIGURE &amp; ILLUSTRATIONS:

The following Figures & Illustrations are included in this Report.

Figure	
Fig. 1	Overall View of basic model
Fig. 2	Internal view of the basic
Fig. 3	Internal view of the basic model with PCB pin
Ill. 1	Switch specification

Model Differences: refer to Ill. 1.

## TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Use - The switches covered by this Report are for use only in complete equipment where the suitability of the combination is determined by UL.

STANDARD CONDITIONS OF ACCEPTABILITY: (See Section General or LIS guide Page)

SPECIAL CONDITIONS OF ACCEPTABILITY: (See section General or LIS guide Page)

Specific Conditions of Acceptability should be identified in page 1 column SPCA. Below are the conditions that apply to this description, items 1 to 8 or unique conditions are identified by a alphabetical letter.

- A. The switch provides only basic insulation which shall be assured in the end use product.
- B. IP40 testing was completed on the complete switch without an end product enclosure.