

File E42016  
Project 96RT5715

August 26, 1996

REPORT  
ON  
COMPONENT - SPECIAL USE SWITCH

Crouzet Corporation  
Carrolton, TX

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## DESCRIPTION

## PRODUCT COVERED:

USR/CNR - Special-Use Switches, Component.

Cat No	Electrical Rating	Temp. °C	Pol/ Thr	PP	Endur	SPCOA
<b>U83160.7</b>	8 A, 250 V ac General use 125/250 V ac, 1/2 HP (inductive) 10.1 A / 30 V dc, Resistive	100	1/1 or 1/2	—	6K	A1
SP 3698	8 A, 250 V ac, General use 1/2 HP, 125/250 V ac (inductive)	100	1/1 or 1/2	—	6K	—

Special-Use Micro Switches, Type V3D, Cat. Nos. 83260, f/b 7, f/b 00-99, with or without SP000-SP9999, f/b I, R or C, f/b X1, W2, W3, W5, W6, may be f/b 260A, 260E or 260F.

Cat No	Electrical Rating	Temp. °C	Pol/ Thr	PP	Endur	SPCOA
83260.7(+)	8 A, 250 V ac 1/2 HP, 125/250 V ac 10.1 A, 30 V dc	100	1/1 1/2	—	6K	-

(+) - Represents product nomenclature that describes Cat. No. variations that do not affect the electrical ratings.

## EXPLANATION OF PRODUCT COVERED TABLE:

Abbreviations, if used:

f/b - followed by

ww/o - with or without

Res. - Resistive load. 98-100 percent power factor.

POL/THR - No. of Poles/No. of Throws. "M" stands for Multi-Pole or Multi-Throw, e.g. 2/M indicates 2 Pole, multi-throw.

PP - "PP" stands for Per Pole, PP in this column indicates that each pole is capable of switching the rated current.

ENDUR - Endurance Rating.

SPCOA - Special Conditions of Acceptability; the applicable special COAs are indicated in this column in number form. The corresponding COAs are given in the following pages.

USR - Indicates switches that have been investigated to the Standard for Special-Use Switches, UL 1054.

CNR - Indicates switches that have been investigated to the Canadian Standard for Special-Use Switches, CSA C22.2 No 55.

GENERAL:

The devices covered by this Report are single-pole, single- and double-throw, special-use switches.

ENGINEERING 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 Underwriters Laboratories Inc.

USR indicates product complies with the Standard for Special-Use Switches, UL 1054.

CNR indicates product complies with the Canadian Standard for Snap Switches, CSA 22.2 No 55.

## STANDARD CONDITIONS OF ACCEPTABILITY

General - The following Conditions of Acceptability apply to all switches covered by this Report.

1. The switch terminals have been investigated for use only with copper wire or copper alloy quick-connect terminals.

2. A standard sized quick-connect tab (per Table 7.1 of UL1054) is to be mated with the appropriate standard size quick-connect connector. The tab is provided with a detent that shall be properly matched to the connector.

3. The spacing between any terminals and a flat mounting surface has been judged in accordance with UL 1054 (Special Use Switches). However, the spacing requirements between the connection when installed on the terminal and the mounting surface shall comply with the end-use Standard spacings.

4. For switches with integral leads, the temperature rating of the leads is 60°C minimum unless the leads are surface marked with a higher rating.

5. The switch has been subjected to a minimum 6000 cycle Endurance Test.

## SPECIAL CONDITIONS OF ACCEPTABILITY

General - One or more of the following Conditions of Acceptability apply as indicated in the Product Covered table on Page 1 of this Report under SPCOA (Special COA/S) column.

1. The nonstandard quick-connect tabs (i.e., other than noted in Table 7.1 of UL 1054) have been investigated with a specific nonstandard connector attached to wires of a specified size.

2. These are lighted switches employing a lamp. The lamp life should be evaluated when required by the end-use product Standard.

3. The switch has openings in the housing adjacent to arcing parts. The end-us application may involve environments (such as excessive dust or adjacent combustible material) that would exclude an opening in the switch housing.

4. These are diaphragm activated water level switches. Samples of the diaphragm have been subjected to aging tests for use at a specific temperature (Shown within parenthesis in °C) and have also been examined for tensile strength and elongation after exposure to detergent. However, if the switch is mounted below the level of water which indirectly actuates it and the switch has an integral metal case, the metal case is to considered a live part.

5. These are speed control switches. The investigation was limited to the switching function of the switch. In the final application it should be determined that the speed control circuit can be used in other than the fill speed position. Open and shorted components of the speed control circuit shall be evaluated for compliance with the end-use Standard.

6. The switch employs screw-type pressure wire connectors or push-in terminals. These have been evaluated for-use with solid and/or solder dipped stranded conductors of a specified size (shown within the parenthesis in AWG).

7. These switches employ an integral potentiometer. The investigation was limited to the switching function of the switch. The insulating, materials and spacings of the integral potentiometer should be investigated for compliance with the end-use product Standard.

8. The switch employs auxiliary contacts located externally of the main switch contact chamber. The auxiliary contacts were not tested as part of this investigation. The suitability of the auxiliary contacts must be determined in accordance with the end product Standard.

A1. Cat. No. **U83160.7** has been tested for 10,000 cycles endurance at 10.1 A / 30 Vdc. However, the switch is not under a follow-up program for this number of operations.