

承 認 書

SPECIFICATION FOR APPROVAL

*客戶名稱 : 立创商城
Customer name

*產品名稱 : 跷板开关DPST 15x21mm Through Hole
Product Description

*產品型號 : SS21-BBIWP2-R
Product part number

*客戶料號 : C309182
Customer's material number

*數量 : 0PCS
Quantity

*日期 : 2019-1-16
Date

供應商負責人簽名		客戶負責人確認簽回	
製作人	莫丽琴	承認人	
審核	李跃鑫	審核	
批准	王瑞宝	批准	

皓宇(香港)有限公司
HAOYU (HONG KONG) LIMITED
东莞市弘皓电子有限公司
DONGGUAN HOOYA ELECTRONICS CO. LTD

東莞市石碣鎮四村第一工業區
Sicun 1st Industrial park, Sicun,
Shijie Town, Dongguan

電 話 : (86) 769-82310511-2
Tel No

傳 真 : (86) 769-82310510
Fax No

郵 箱 : haoyu888@21cn.com
E - mail

核 准 :
Approved



索引(INDEX)

1)承认书首页(HOME PAGE)-----	1
2) 索引 (INDEX) -----	2
3)规格书(SPECIFICATION)-----	3-5
4)工程图(DRAWING) -----	
5) 物质成份表(MSDS)-----	
6) 低毒测试报告(NOXIOUS TEST REPORT)-----	

LEGION ELECTRONIC & HARDWARE CO., LTD.

翹板式開關 測試規格

SS21 SERIES SWITCHES TEST SPECIFICATION

1. TEST CONDITION (測試環境):

THE SWITCH IS TESTED AT A TEMPERATURE RANGE OF 5~35°C AND RELATIVE HUMIDITY RANGE OF 45~85%. OPERATING TEMPERATURE RANGE 0~85°C; STORAGE TEMPERATURE RANGE: 10 ~ 55°C (NORMAL HUMIDITY AND PRESS)

- * 環境溫度範圍 : 5 ~ 35°C * 相對濕度範圍 : 45 ~ 85%
- * 操作溫度範圍 : 0 ~ 85°C * 儲存溫度範圍 : 10 ~ 55%

2. RATING (額定):

- (1) . 10A 125/250VAC FOR UL;C-UL
- (2) . 12(4)A 250V~T85/55 FOR ENEC17;NEMKO;CQC

3. ELECTRICAL PERFORMANCE (電氣性能):

3-1. CONTACT RESISTANCE (接觸電阻):

MEASURED BY FALL OF POTENTIAL METER AT DC 0.2 V/1A SHOULD BE LESS THAN 20mΩ INITIAL.

- * 以微電阻計在 **DC 0.2V/1A** 的測試規格值下，接觸電阻值應該小於 **20mΩ**.

3-1 INSULATION RESISTANCE (絕緣電阻):

MEASURED WITH DC 500V APPLIED BETWEEN TERMINALS OF OPEN CONTACTS AND BETWEEN TERMINALS OF OPPOSITE POLARITY, SHOULD BE MORE THAN 100MΩ.

- * 絕緣電阻計於 **DC 500V 設定值**下量測於開路的端子或不同迴路的端子，其絕緣電阻值應該大於 **100MΩ**.

3-3 DIELECTRIC STRENGTH (耐電壓):

THE SWITCH SHALL WITHSTAND WITHOUT BREAKDOWN A POTENTIAL OF AC 1500V 0.5mA FOR 1 MINUTE BETWEEN TERMINALS OF OPEN CONTACTS AND TERMINALS OF OPPOSITE POLARITY, AC 3000V 0.5mA FOR 1 MINUTE BETWEEN TERMINALS AND METAL COVER.

- * 不同極的兩支端子開路時，必須通過一分鐘 0.5mA 1500VAC 的耐電壓。
- * 端子與外殼，必須通過一分鐘 0.5mA 3000VAC 的耐電壓。

4. MECHANICAL PERFORMANCE(機械性能) :

4-1. OPERATION FORCE(操作力量) :

NON-PULSE(不回彈) : SINGLE POLE(單極)200±100gf DOUBLE POLE(雙極) : 500±200gf

4-2. TERMINAL STRENGTH (端子強度):

A STATIC FORCE OF 2.27 Kgf (PCB TYPE)OR 8.5Kgf(QUICK CONNECTOR) BEING APPLIED IN ONE DIRECTION ON THE TIP OF THE TERMINAL FOR 1 MINUTE. THE TERMINAL MAY BE DEFORMED, BUT SHALL NOT SUSTAIN ANY TROUBLE AS DEVIATION AND BREAKING OF TERMINAL, AND BREAKING OF INSULATION MATERIAL.

- * 施以固定 PCB 端子 2.27Kgf/快插端子 8.5 Kgf 的力量於同一方向在端子的頂端一分鐘，端子允許變型，

但是不可以有任何位移(偏向)與端子斷裂及絕緣材料的破裂。

5. OVERLOAD AND ENDURANCE TEST (過負載與壽命測試):

THE SWITCH SHALL BE OPERATED ACCORDING TO FOLLOWING TABLE

* 開關應該依照下列表格的操作方式進行測試。

UL & C-UL STANDARD (北美標準)

CONDITION 測試狀況	VOLTAGE 測試電壓	CURRENT 測試電流	P.F. 功率因素	OPERATION SPEED 操作速率	NUMBER OF OPERATION 操作次數	SAFETY APPLICATION 適用安規
OVERLOAD 過負載	125VAC	15A	0.75~0.8	8 CYCLES PER MINUTE 每分鐘 8 次	50 CYCLES 50 次	UL&C-UL
	250VAC					
ENDURANCE 壽命測試	125VAC	10A	0.75~0.8	8 CYCLES PER MINUTE 每分鐘 8 次	6000 CYCLES 6000 次	UL&C-UL

EUROPE STANDARD (歐洲標準)

INCREASED VOLTAGE TEST AT ACCELERATED SPEED (增加伏特數的加速測試)

CONDITION 測試狀況	VOLTAGE 測試電壓	CURRENT 測試電流	P.F. 功率因素	OPERATION SPEED 操作速率	NUMBER OF OPERATION 操作次數	SAFETY APPLICATION 適用安規
MAKING 閉路	287.5VAC	24A	0.6	15 CYCLES PER MINUTE 每分鐘 15 次	100 Cycles 100 次	ENEC17/ NEMKO
BREAKING 開路		12A	0.95			

TEST AT LOW SPEED (低速測試)

MAKING 閉路	250VAC	24A	0.6	15CYCLES PER MINUTE 每分鐘 15 次	100 Cycles 100 次	ENEC17/ NEMKO
BREAKING 開路		12A	0.95			

TEST AT ACCELERATED SPEED (加速測試)

MAKING 閉路	250VAC	24A	0.6	15 CYCLES PER MINUTE 每分鐘 15 次	9800 Cycles 9800 次	ENEC17/ NEMKO
BREAKING 開路		12A	0.95			

6. TEMPERATURE TEST (溫升試驗):

THE TEMPERATURE TEST SHOULD BE TAKEN AFTER ENDURANCE TEST WITH ITS RATED CURRENT AND VOLTAGE.

THE TEMPERATURE RISING SHALL NOT BE MORE THAN 55°C.

* 溫升測試應該於壽命測試結束後隨即測試，以同樣的電流與電壓量測，溫升值必須低於攝氏 55°.

7. SOLDERING (焊錫特性):

IMMERSE THE TERMINAL LEADS INTO MOLTEN SOLDER AT TEMPERATURE OF $230\pm 5^{\circ}\text{C}$ FOR 3 ± 0.5 SECONDS. MORE THAN 75% OF PART IMMersed SHOULD BE COVERED WITH SOLDER.

* 端子浸入 $230\pm 5^{\circ}\text{C}$ 溫度溶化的焊錫中 3 ± 0.5 秒, 75%以上的部分應該被焊錫包覆.

8. SOLDERING HEAT RESISTANCE OF BASE (基座抗熱性):

TEMPERATURE AND DURATION OF DIPPING

TYPE OF TERMINAL 端子型式	TEMPERATURE 溫度	DIPPING TIME 焊錫時間
TERMINAL FOR PCB WIRING * PCB 端子	$260^{\circ}\text{C}\pm 5^{\circ}\text{C}$ Max.	3 SECONDS Max.
TERMINAL FOR LEAD WIRING * 焊線端子	$350^{\circ}\text{C}\pm 5^{\circ}\text{C}$ Max.	3 SECONDS Max.

THERE SHALL NOT BE EXTREME DEFORMING IN APPEARANCE.

ELECTRICAL PERFORMANCE OF THE ABOVE ITEM 3 SHALL BE ASSURED.

* 基座不可以有極度變形狀況發生.

* 上文第 3 項的電子性能應該被保證.

9. NOTICE (開關使用注意事項) :

9-1. When welding, any pressure applied to the terminals may cause conditions as looseness, deformation of terminals and electrical degradations.

給端子進行焊接時，如果在端子上施加負荷，因條件不同會有鬆動、變形、及電特性退化的可能，請在使用時注意。

9-2. When welding, water-soluble flux may causes corrosion to switches.

For second time welding job, please proceed welding after it is recovered to room temperature.

焊接時，水溶劑助焊劑有可能腐蝕開關的可能，請避免使用。

進行二次焊接時，請在第一次焊接部份恢復到常溫之后再進行。

9-3. Continuous heating may cause loose off, deformation of terminals and electrical degradations.

連續加熱可能使外圍部變形、端子鬆動，脫落及電特性降低。

9-4. Do not clean it with water.

不能用水清洗

9-5. After final assembly as a completed product, please make sure that there's no erosion

gas/materials released from peripheral parts/materials as it may causes contact failure of switches.

如果使用開關的整機的周邊材料產生腐蝕性氣體，有可能造成接觸不良等現象，所以請事先進行充分確認。

9-6. Storage (儲存和保管)

a. Keep it storage under normal temperature, humidity and prevent from direct sunshine, erosion gas. Products sure be used within 6 months.

產品以交貨時的狀態在常溫，常濕，不受直射陽光照射，不產生腐蝕性氣體的場所保管，自交貨起 6 個月以內為限度，請盡可能快的使用。

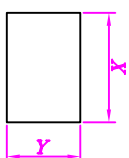
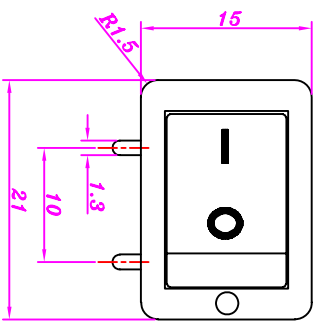
b. For small quantity which taken from main packages, please keep it in plastic bags and sealed. And have it storage under up-mentioned environment.

開封后用塑料袋與外界氣體隔斷，請在與上述相同環境下保管，並盡快使用。

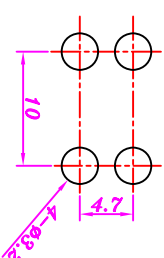
c. Do not pile up package more than 2 levels.

請不要過分地堆積。

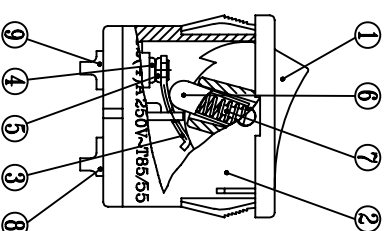
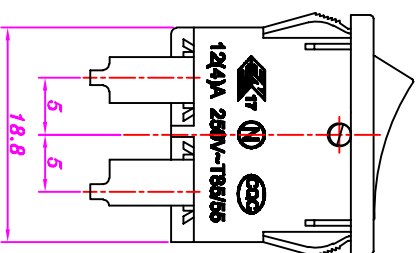
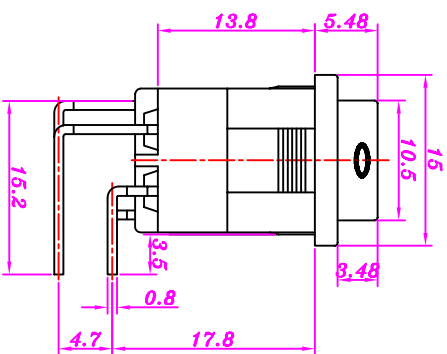
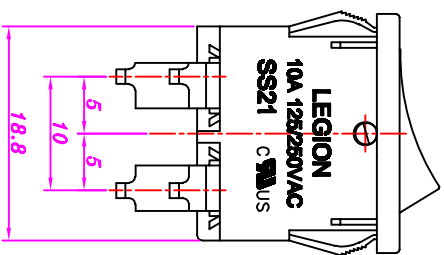
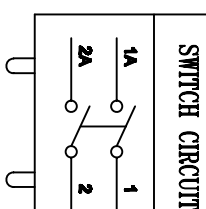
修訂日期 REVISED DATE	修訂內容 DESCRIPTION	修訂者 REVISED BY	文件編號 FILE NO.	制定 WRITE BY	審核 CHECKED BY	核准 APPROVED BY
07-Mar-2014	修改 C-UL 适用安规范围	唐彪	SPEC-003	易雅琦 2008/11/25		
15-May-2010	增加操作溫度及儲存溫度	陈先明	版次 VERSION			
30-May-2015	取消 ENEC10;VDE 安规	唐彪	A 版 4 次			



PANEL THICKNESS	X	Y
0.75~1.25mm	19.2 ^{+0.1} mm	12.9 ^{+0.1} mm
1.25~2.0mm	19.4 ^{+0.1} mm	12.9 ^{+0.1} mm
2.0~3.0mm	19.8 ^{+0.1} mm	12.9 ^{+0.1} mm



PCB LAYOUT



NO.	PART NAME	MATERIAL	QTY	FINISHING
9	FULCRUM TERMINAL	BRASS ALLOY		Sn-PLATED
8	FULCRUM TERMINAL	BRASS ALLOY		Sn-PLATED
7	SPRING	STAINLESS STEEL WIRE		
6	ROLLER	BRASS ALLOY		Ni-PLATED
5	SILVER CONTACT	COPPER ALLOY		Ag CLAD
4	SILVER CONTACT	COPPER ALLOY		Ag CLAD
3	CONTACT	COPPER ALLOY		PICKING
2	HOUSING	PA66/UL 94V-0		
1	ACTUATOR	PA66/UL 94V-0		

TOLERANCE UNLESS SPECIFIED	ANGULAR	NO	DATE	REVISIONS	BY	APPD
UP TO 5mm: ±0.1	±1°	1				
ABOVE 5mm: ±0.2						

TITLE: MODEL: SSS21-BBWP2-R

UNIT : MM

SCALE: 1:1

ROHS COMPLIANT

CHK'D

DWN

APPD



HAOYU(HONGKONG)LIMITED
皓宇(香港)有限公司

PRO.AGL:



REV: A0



产品认证证书

证书编号: CQC10002046596

申请人名称及地址

六钧电子有限公司
香港英皇道300号五洲大厦4楼M室

制造商名称及地址

东莞市六钧电子五金有限公司
广东省东莞市石碣镇黄泗围大洲村海圻路

生产企业名称及地址

东莞市六钧电子五金有限公司 (V013100)
广东省东莞市石碣镇黄泗围大洲村海圻路

产品名称和系列、规格、型号

跷板开关

SS21系列 12(4)A 250VAC 50Hz T85/55 1E4 耐热3级 PTT175 插片端子 污染等级2
系列描述见附件

产品标准和技术要求

GB15092.1-2010

认证模式

产品型式试验+初次工厂检查+获证后监督

上述产品符合CNCA-V01-012:2003认证规则的要求,特发此证。

发证日期: 2012年12月06日 有效期至: 2016年12月06日

证书有效期内本证书的有效性依据发证机构的定期监督获得保持。

本证书为变更证书,证书首次颁发日期: 2010年06月09日

主任: 



中国质量认证中心

中国·北京·南四环西路188号9区100070

<http://www.cqc.com.cn>

C 0042088



PRODUCT CERTIFICATE

No.: CQC10002046596

NAME AND ADDRESS OF THE APPLICANT

LEGION ELECTRONIC CO.,LIMITED
Room M,4/F.,Continental Mansion,300 King's Road, Hong Kong

NAME AND ADDRESS OF THE MANUFACTURER

DONG GUAN LEGION ELECTRONIC & HARDWARE CO.,LTD
HAITANG RD,DA HUANG SHI WEI DA ZHOU VILLAGE SHI JIE TOWN DONG GUAN CITY GUANG
DONG PROVINCE

NAME AND ADDRESS OF THE FACTORY

DONG GUAN LEGION ELECTRONIC & HARDWARE CO.,LTD(V013100)
HAITANG RD,DA HUANG SHI WEI DA ZHOU VILLAGE SHI JIE TOWN DONG GUAN CITY GUANG
DONG PROVINCE

NAME, MODEL AND SPECIFICATION

ROCKER SWITCH
SS21系列 12(4)A 250VAC 50Hz T85/55 1E4 耐热3级 PT1175 插片端子 污染等级2 系列描述
见附件

THE STANDARDS AND TECHNICAL REQUIREMENTS FOR THE PRODUCTS

GB15092.1-2010

CERTIFICATION MODEL

Type Testing of Product + Initial Factory Inspection + Follow up Factory Inspection

This is to certify that the above mentioned products have met the requirements of certification
rules CNCA-V01-012:2003.

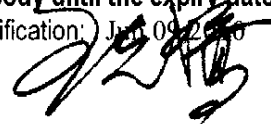
Date of issue: Dec.06,2012

Date of expiry: Dec.06,2016

Validity of this certificate is subject to positive result of the regular follow up inspection by
issuing certification body until the expiry date.

Date of original certification: Jun.09,2010

President:


Wang Kejiao



CHINA QUALITY CERTIFICATION CENTRE

Section 9, No.188, Nansihuan Xilu, Beijing 100070 P.R.China

<http://www.cqc.com.cn>

C 0042088

CB TEST CERTIFICATE CERTIFICAT D'ESSAI OCProduct
Produit

Rocker Switch

Name and address of the applicant
Nom et adresse du demandeurLegion Electronic Co., Ltd.
Room M,4/F., Continental Mansion, 300 King's Road
Hong KongName and address of the manufacturer
Nom et adresse du fabricantDong Guan Legion Electronic & Hardware Co., Ltd.
Yayuan Road, the first industrial zone, Four village,Shijie
town
Dongguan City, Guangdong Province
ChinaName and address of the factory
Nom et adresse de l'usineDong Guan Legion Electronic & Hardware Co., Ltd.
Yayuan Road, the first industrial zone, Four village,Shijie
town
Dongguan City, Guangdong Province
ChinaNote: When more than one factory, please report on page 2
Note: Lorsque il y plus d'une usine, veuillez utiliser la deuxième page Additional information on page 2Ratings and principal characteristics
Valeurs nominales et caractéristiques principales

12(4)A 250V AC

Trademark (if any)
Marque de fabrique (si elle existe)

LEGION

Type of Manufacturer's Testing Laboratories used
Type de programme du laboratoire d'essais constructeurModel / Type Ref.
Ref. De type

SS21 Series

Additional information (if necessary may also be reported on page 2)
Les informations complémentaires (si nécessaire, peuvent être indiqués sur la deuxième page)

Rocker switch for Class II appliances, Code 1.2 or 1.4, 1E4 cycles, full disconnection, level 3, T85/55, PTI 175, IP20, with tab terminals

 Additional information on page 2A sample of the product was tested and found to be in conformity with
Un échantillon de ce produit a été essayé et a été considéré conforme à la

IEC 61058-1(ed.3);am1;am2

As shown in the Test Report Ref. No. which forms part of this Certificate
Comme indiqué dans le Rapport des essais numéro de référence qui constitue partie de ce Certificat

285594

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme **National de Certification**Gaustadalléen 30
NO-0373 Oslo, Norway

Date: 09-07-2015

Signature: Juan Z. Kleppenes
Certification Department

Licence for use of the here shown ENEC conformity mark :



Based on:

Agreement on the use of a commonly agreed Mark on Conformity for equipment complying with European Standards as of 12 November 1991 (in short ENEC Agreement), as revised latest by ENEC group April 16. 1997.

Nemko hereby grants the following manufacturer as licensee the right to affix this ENEC mark on the product(s) specified below.

Product	Rocker Switch
Applicant	Legion Electronic Co., Ltd. Room M,4/F., Continental Mansion, 300 King's Road Hong Kong
Manufacturer	Dong Guan Legion Electronic & Hardware Co., Ltd. Yayuan Road, the first industrial zone, Four village, Shijie town Dongguan City, Guangdong Province China
Factory	Dong Guan Legion Electronic & Hardware Co., Ltd. Yayuan Road, the first industrial zone, Four village, Shijie town Dongguan City, Guangdong Province China
	<input type="checkbox"/> See next page(s)
Ratings	12(4)A 250V AC
Trade mark	LEGION
Model / Type Ref.	SS21 Series
Principal characteristics	Rocker switch for Class II appliances, Code 1.2 or 1.4, 1E4 cycles, full disconnection, level 3, T85/55, PTI 175, IP20, with tab terminals
	<input type="checkbox"/> See next page(s)

A sample of the product was tested and found to be in conformity with INST EN 61058-1:2002;A2

The conditions for this licence are that the ENEC-marked products conform with the applicable Standard(s) as stated in the Test Report with Order No: 285594

and that Articles 8 and 9 of the ENEC Agreement are fulfilled by the manufacturer. The mark signifies the compliance of the completed products with these conditions. Further information is given in the attached Annex, which forms an obligatory part of this licence document. This licence has been issued under the presumption and conditional on the fact that the licensee holds all necessary legal rights with regard to the product presented for testing and certification.

Additional model(s) See next page(s)

Date of issue 09-07-2015



Juan Z. Kleppenes
Certification Department

CERTIFICATE

No. P15219978



Order No. 285594

Page 1/1

Product	Rocker Switch
Applicant	Legion Electronic Co., Ltd. Room M,4/F., Continental Mansion, 300 King's Road Hong Kong
Manufacturer	Dong Guan Legion Electronic & Hardware Co., Ltd. Yayuan Road, the first industrial zone, Four village,Shijie town Dongguan City, Guangdong Province China
Factory	Dong Guan Legion Electronic & Hardware Co., Ltd. Yayuan Road, the first industrial zone, Four village,Shijie town Dongguan City, Guangdong Province China <input type="checkbox"/> See next page(s)
Ratings	12(4)A 250V AC
Trade mark	LEGION
Model / Type Ref.	SS21 Series
Principal characteristics	Rocker switch for Class II appliances, Code 1.2 or 1.4, 1E4 cycles, full disconnection, level 3, T85/55, PTI 175, IP20, with tab terminals <input type="checkbox"/> See next page(s)
A sample of the product was tested and found to be in conformity with	INST EN 61058-1:2002;A2
Validity	This certificate documents conformity with the standards shown, and also applies as license for use of Nemkos name and certification mark. The certificate and license is valid as long as the applicable conditions are complied with, and provided that any changes to the product are notified to Nemko for acceptance prior to implementation. New standards or amendments to the standards may imply that the product design must be updated and/or that re-testing and re-certification is necessary.
Additional information	<input type="checkbox"/> See next page(s)
Additional model(s)	<input type="checkbox"/> See next page(s)

Date of issue 09-07-2015

Juan Z. Kleppen

Certification Department

Nemko AS

Gaustadalléen 30, P.O. Box 73 Blindern, 0314 Oslo, Norway
TEL +47 22 96 03 30 FAX +47 22 96 05 50 EMAIL info@nemko.com
ENTERPRISE NUMBER NO974404532

LEGION ELECTRONIC CO LTD

Room M, 4Th Fl, Continental Mansion, 300 King's Rd, Hong Kong HK

SS21, flb suffixes

Amps	Volts	Hz	Load	Endurance
10	125	60	GP	6K
10	250	60	GP	6K

Temperature(C): 65

PerPole/Circuit Code: P/P/C

POLYTHR: 2/1

SPCOA: -

Report Date: 1998-04-03

Last Revised: 2011-04-22

© 2015 UL LLC

**Conditions of Acceptability**

Unless specified otherwise in the individual Recognitions, consideration is to be given to the following Conditions of Acceptability when these components are employed in the end-use equipment.

1. The switch terminals have been investigated for use only with copper wire or copper alloy quick-connect terminals.
2. Switches employing standard size quick-connect tabs shall be mated with the appropriate standard size quick-connect connector. The tab is provided with a detent. The connector shall be properly matched to the tab.
3. The spacings between any connections when installed on the switch terminals and the adjacent mounting surface shall be judged using the spacing requirements contained in the end-product standard.
4. For switches employing integral leads, the temperature rating of the leads is 60°C, unless the leads are surface-marked with a higher rating.
5. The switch has been subjected to a minimum of 6000 cycles endurance test.

Special Conditions of Acceptability (that may apply to the above product)

The following are the Special Conditions of Acceptability for switches identified by number in the individual Recognitions indicated in the "SPCOA" field above. Switches with a Special Condition of Acceptability other than noted below are preceded by a letter and described in the Individual Recognition Report from the manufacturer.

1. The switch incorporates nonstandard quick-connect tabs that have been investigated with a specific nonstandard connector attached to wires of a specified size.
2. These are lighted switches employing a lamp. The usable lamp life has not been investigated.
3. The switch has openings in the housing adjacent to arcing parts. Caution is needed if the end-use application involves combustible dust or adjacent combustible materials that could be ignited by switch arcing.
4. These are diaphragm-actuated water level switches suitable for use at a maximum temperature (shown within parentheses in degrees Celsius) and for exposure to typical laundry detergent. If the switch is mounted below the water level and has an integral metal case, the metal case shall be considered a live part.
5. These are speed control switches investigated only as to the switching function. Suitability of the speed control circuit for a particular appliance shall be investigated in the end-use application.
6. The switch employs screw-type pressure wire connectors or push-in terminals. The terminals have been investigated for use with solid and/or solder-dipped stranded conductors of a specified size (shown within parentheses 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 shall be investigated for compliance with the end-use product standard.
8. The switch employs auxiliary contacts that have not been investigated.

(that may apply to the above product)

Special Conditions of Acceptability for File E153399

The following are the Special Conditions of Acceptability for switches specific to this file number. The "SPCOA" field above indicates which of these special conditions apply to the product shown.

Note 2 - These are lighted switches employing a lamp. The usable lamp life has not been evaluated.

Note 6 - The switch employs push-in terminals. These have been evaluated for use with solid and solder dipped stranded conductors of a specified size (shown within parenthesis in AWG).