



Product iQ  
**tip**

**Power Search**  
Hand pick specific criteria for your search query

[LEARN MORE](#)

# WOYR2.E212007 - SWITCHES, APPLIANCE AND SPECIAL USE - COMPONENT

## Switches, Appliance and Special Use - Component


See General Information for Switches, Appliance and Special Use - Component

### KAP COMPONENTES ELETRICOS LTDA

E212007

Rua Carmo do Rio Verde 78  
04729-010 Sao Paulo, SP BRAZIL  
Investigated to ANSI/UL 1054

Cat. No.	Amps	Volts	Hz	Load	Endur- ance	Temp C	POL/ THR	Per Pole/ Circuit Code	SPCOA
<b><i>MM f/b 1 or 2, f/b A, D, E, G, J, L, R, T, U, V or Y, may be f/b 1 to 99, f/b E or N, f/b blank or 1 to 8, f/b F, I or S</i></b>									
	5	250	60	GP	6K	85	1/M	-/-	A1

Marking: Company name, catalog, model or part number, electrical ratings and the Recognized Component Mark,  on the product or on the smallest unit container in which the product is packaged.

Last Updated on 2017-05-19

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Assemblies, Constructions, Designs, Systems, and/or Certifications (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from UL" must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "© 2018 UL LLC".

UL e logo da UL são marcas registradas da UL LLC ©2018 Todos Direitos Reservados.  
Sobre Política de Privacidade Termos e Condições Access Your Data



## WOYR2.GuideInfo - SWITCHES, APPLIANCE AND SPECIAL USE - COMPONENT

### [Switches - Component] (Snap Switches - Component) Switches, Appliance and Special Use - Component

See General Information for Snap Switches - Component

The devices covered under this category are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. THE FINAL ACCEPTANCE OF THE COMPONENT IS DEPENDENT UPON ITS INSTALLATION AND USE IN COMPLETE EQUIPMENT SUBMITTED TO UL.

#### GENERAL

This category covers mechanical and electronic switches intended for nonindustrial use, for factory installation in devices or appliances.

The endurance cycles indicated in the individual Recognitions indicate the number of cycles completed and a corresponding temperature rise (30°C and/or 55°C).

Switches intended to be used in UL 60335 applications and additionally tested to the relevant requirements in ANSI/UL 60335-1, "Safety of Household and Similar Electrical Appliances, Part 1: General Requirements," are so identified in the individual certifications. The additional tests may include ball pressure, glow wire, and/or PTI.

#### RATINGS

Switches are rated for ac, dc, or both, and may be rated up to 2 hp maximum.

For switches investigated to ANSI/UL 61058-1, "Switches for Appliances - Part 1: General Requirements," ANSI/UL 61058-1-1, "Switches for Appliances - Part 1-1: Requirements for Mechanical Switches," and ANSI/UL 61058-1-2, "Switches for Appliances - Part 1-2: Requirements for Electronic Switches," the current (amp) limits are maximum 63 A up to 480 V.

For switches investigated to ANSI/UL 1054, "Special-Use Switches," the current (amp) limits are maximum 60 A up to 250 V, and maximum 30 A from 251 to 600 V.

#### PRODUCT MARKINGS

The switch or smallest unit container in which the switch is packaged is marked with:

- (a) Manufacturer's identifier (such as name or trademark, as described in the UL file)
- (b) Catalog or model number (or equivalent)
- (c) Electrical ratings

The manufacturer may be required to provide additional documentation for the end-product application to communicate the manufacturer's product claims and declarations.

## CONDITIONS OF ACCEPTABILITY

Unless specified otherwise in the individual Recognitions, consideration is to be given to the following Conditions of Acceptability (CoA) when these components are employed in the end-use equipment. Numbering is specific for switches investigated to ANSI/UL 61058-1 (and the applicable Part 2s) or ANSI/UL 1054.

ANSI/UL 61058-1	ANSI/UL 1054	Condition of Acceptability
1	1	The switch terminals have been investigated for use only with copper wire or copper alloy quick-connect terminals. The connector shall be properly matched to the tab.
—	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.
2	3	The spacing 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.
3	4	For switches employing integral leads, the minimum temperature rating of the leads is 60°C.

## Special Conditions of Acceptability

The following are the Special Conditions of Acceptability for switches, identified by number in the individual Recognitions under the column heading "SPCoA." Switches with a Condition of Acceptability other than noted below are identified by a letter and described in the Follow-up Procedure Report. Numbering is specific for switches investigated to ANSI/UL 61058-1 (and the applicable Part 2s) or ANSI/UL 1054.

ANSI/UL 61058-1	ANSI/UL 1054	Special Conditions of Acceptability
1	—	These switches incorporate prepared connectors, such as crimp-on connectors or solder-tinted wire
—	1	These switches incorporate <b>nonstandard quick-connect tabs</b> that have been investigated with a specific nonstandard connector attached to wires of a specified size.
2	2	These are <b>lighted switches</b> employing a lamp. The usable lamp life has not been investigated.
3	3	These switches have <b>openings in the housing</b> 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	4	These are diaphragm-actuated <b>water-level switches</b> 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	5	Speed-control circuits have been investigated for risk of fire and shock. The suitability of the speed control for a particular appliance shall be investigated in the end-use application.
6	6	These switches employ <b>screw-type pressure-wire connectors or push-in terminals</b> . The terminals have been investigated for use with solid and/or solder-dipped stranded conductors of a specified size (shown within parentheses in mm <sup>2</sup> or AWG).

—	7	These switches employ an <b>integral potentiometer</b> . 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.
7	8	These switches employ <b>auxiliary contacts</b> that have not been investigated.
8	—	These switches were investigated for the IP rating when mounted in a representative end-product enclosure as defined by the manufacturer. The suitability of the protection from solid objects or water for parts enclosed in the end product shall be considered in the end-use investigation.

Additional Special Conditions of Acceptability may be included in the Recognition Report available from the manufacturer.

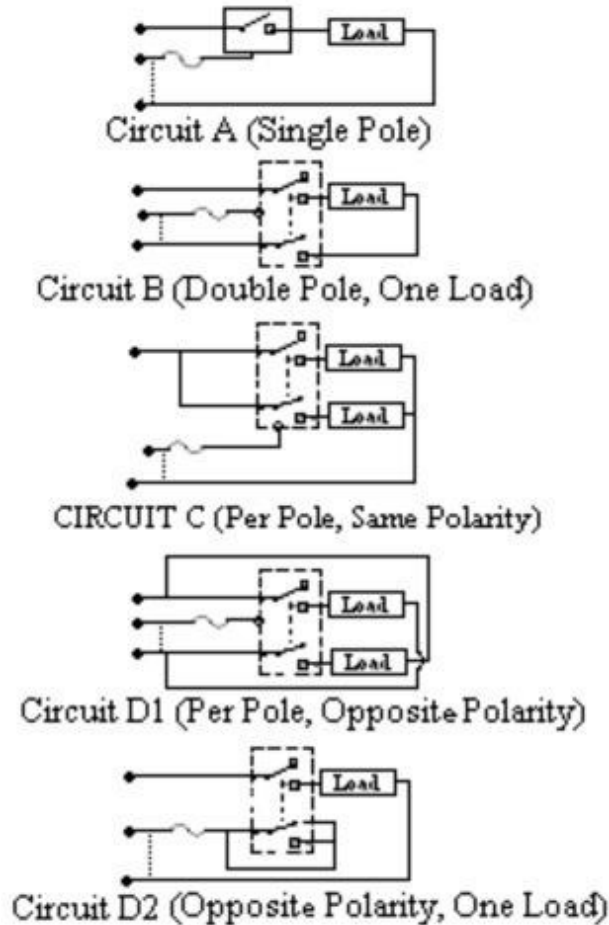
## ABBREVIATIONS

The following abbreviations may be used in the individual Recognitions. "Y" indicates the abbreviation is applicable to the specific UL Standard, and "N/A" indicates the abbreviation is not applicable.

ANSI/UL 61058-1	ANSI/UL 1054	Abbreviation and Definition
Y	Y	<b>f/b</b> = followed by
Y	Y	<b>ww/o</b> = with or without
Y	Y	<b>R</b> = Resistive load (power factor (PF) = 0.98 to 1.0) (for ANSI/UL 1054: "res.," "heater," "non ind," "Htr" or "H")
Y	N/A	<b>RM</b> = Resistive and motor (PF = not less than 0.6 or 0.9)
Y	N/A	<b>RC</b> = Combination of resistive and capacitive ac
Y	N/A	<b>L</b> = Tungsten (lamp), ac only (inrush x 16 or x 10 by voltage rating)
Y	N/A	<b>Spec</b> = Declared specific load
Y	N/A	<b>mA</b> = Current not exceeding 20 mA
Y	Y (VL)	<b>Spcl</b> = Declared ac lamp load (such as tungsten with inrush less than x 16); switches investigated to ANSI/UL 1054 may use a "VL" or "L" abbreviation to indicate ac tungsten loads
Y	Y (VT)	<b>Spct</b> = Declared ac and dc lamp load (such as tungsten with inrush less than x 16); switches investigated to ANSI/UL 1054 may use a "VT" or "T" abbreviation to indicate ac and dc tungsten loads
Y	N/A	<b>I</b> = Inductive (PF = not less than 0.6)
Y	N/A	<b>SpCM</b> = Specific motor load (lock rotor and PF = not less than 0.6)
Y	Y	<b>TV</b> = CRT (television) and tungsten (lamp), ac only, with additional endurance cycles
Y	Y (Inductive)	<b>GP</b> = General purpose (PF = 0.75 to 0.8), not representing motor or lamp load (for ANSI/UL 1054: "inductive" or "general use")
Y	N/A	<b>GPM</b> = General Purpose or Motor (PF = not less than 0.6) or combination
Y	Y	<b>hp</b> or <b>GPhp</b> = GP or hp (PF = 0.4 to 0.5) or combination

Y	Y (Per Pole/Circuit Code)	# <b>PP</b> = Per pole; identifies switches tested with the specified amps per pole. The identifier is added to the Amps column. The identifier "PP" is not added for single- or multipole switches that were not tested for the rated amps in each pole. (ANSI/UL 1054: "Per Pole")
---	---------------------------	---

### ANSI/UL 1054 Circuit Code Illustration



### RELATED PRODUCTS

General-use snap switches or flush-mounted switches installed in a wiring system per ANSI/NFPA 70, "National Electrical Code," are covered under Switches, Surface (WOKT) and Switches, Flush (WMUZ), respectively.

Pendant and through-cord switches (with one "on" and one "off" position) are covered under Switches, Pendant (WNIX).

Solid-state dimmers and special-use dimmers are covered under Dimmers, General-use Switch (EOYX) and Appliance Controls (ATNZ), respectively.

Manual motor controllers are covered under Motor Controllers, Manual (NLRV).

Switches intended for industrial applications are covered under Power Circuit and Motor-mounted Apparatus (NMTR).

Knife switches are covered under Switches, Knife (WIOV).

Clock-operated switches are covered under Switches, Clock Operated (WGZR).

Temperature-indicating and -regulating switches are covered under Temperature-indicating and -Regulating Equipment (XAPX2) and Controllers, Refrigeration (SDFY2).

Nonindustrial photoelectric switches for lighting control and/or motion-sensitive switches intended for nonindustrial applications are covered under Switches, Photoelectric (WJCT).

Plug-in, locking-type photocontrols for use with area lighting intended for parking lot and roadway lighting are covered under Photocontrols, Plug-in, Locking Type (WJFX).

Centrifugal switches that control a motor-start winding, and auxiliary contacts provided for the direct or indirect control of a heating element are covered under Motors for Appliance Applications (PRGY2).

Membrane switches, including tactile and nontactile, intended for installation in devices or appliances are covered under Switches, Membrane (WHSM2).

## REQUIREMENTS


The basic standard used to investigate products in this category is ANSI/UL 1054, "Special-Use Switches," or ANSI/UL 61058-1, "Switches for Appliances - Part 1: General Requirements."

The following standards may also be used in conjunction with ANSI/UL 61058-1:

ANSI/UL 61058-1-1, "Switches for Appliances - Part 1-1: Requirements for Mechanical Switches"

ANSI/UL 61058-1-2, "Switches for Appliances - Part 1-2: Requirements for Electronic Switches"

## UL MARKING

Components Recognized under UL's Component Recognition Program are identified by markings consisting of the Recognized company's identification and catalog, model or other product designation on the product or on the smallest unit container in which the product is packaged. In addition, components produced under the UL Component Recognition Program will also bear the Recognized Component Mark .

The Listing or Classification Mark of UL is not authorized for use on, or in connection with, Recognized Components. Only those components that actually bear the "Marking" should be considered as being covered under the Component Recognition Program.

\* \* \* \* \*

UL, in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. UL shall not incur any obligation or liability for any loss, expense or damages, including incidental or consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Guide Information.

Last Updated on 2017-11-15

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Assemblies, Constructions, Designs, Systems, and/or Certifications (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from UL" must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "© 2018 UL LLC".

UL e logo da UL são marcas registradas da UL LLC ©2018 Todos Direitos Reservados.  
Sobre Política de Privacidade Termos e Condições Access Your Data