IEC 61058-1
(Third edition – 2000)

Switches for appliances –
Part 1: General requirements

CORRIGENDUM 1

Corrections to IEC 61058-1:2000:

Table 15 – Electrical endurance tests for the different types of electronic switches with or without electrical contact(s)

Replace Table 15 by the following new table:

January 2009

Table 15 – Electrical endurance tests for the different types of electronic switches with or without electrical contact(s)

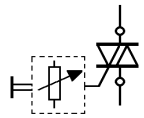
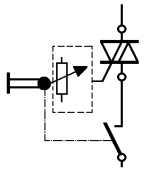
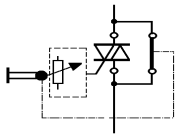
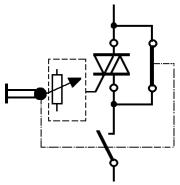
Type of electronic switch[3]		Test conditions					
		Functional test (7.1.17.1)		Simulated test (7.1.17.2) (Tables 17, 18)		Specific test condition of end application (7.1.17.3)	
		Complete switch	Contacts only	Complete switch	Contacts only	Complete switch	Contacts only
SSD [1] without electrical contact(s)		TL1 TC5, TC6, TC8 TE1, TE3	---	TL3 TC5, TC6, TC8 TE1, TE3	---	TL4 TC5, TC6, TC8 TE1, TE3	---
SSD with serial contact(s)		TL1 TC5, TC6, TC8 TE1, TE3	Serial contact: TC1, TC4 with TL2 TE1 to TE3 (SSD short-circuited) [2]	a) TL1 TC5, TC6, TC8 TE1, TE3	a) Serial contact: TL3, TC1, TC4 TE1 to TE3 (SSD short-circuited) [2]	TL4 TC5, TC8 TE1, TE3	Serial contact: TC7 with TL4 TE1 to TE3 (SSD short-circuited) [2]
				b) TL3 TC5, TC6, TC8 TE1, TE3	b) Serial contact: TL3, TC1, TC7 TE1 to TE3 (SSD short-circuited) [2]		
SSD with parallel contact(s)		TL1 TC5, TC6, TC8 TE1, TE3	Parallel contact: TC1, TC4 with TL2 TE1 to TE3 (SSD disconnected)	TL3 TC5, TC6, TC8 TE1, TE3	Parallel contact: TL3, TC1, TC4 TE1 to TE3 (SSD disconnected)	TL4 TC5, TC8 TE1, TE3	Parallel contact: TC7 with TL4 TE1 to TE3 (SSD disconnected)
SSD with serial and parallel contact(s)		TL1 TC5, TC6, TC8 TE1, TE3	Serial contact: TC1, TC4 with TL2 TE1 to TE3 (SSD short-circuited) [2]	a) TL1 TC5, TC6, TC8 TE1, TE3	a) Serial contact: TL3, TC1, TC4 TE1 to TE3 (SSD short-circuited) [2]	TL4 TC5, TC8 TE1, TE3	Serial contact: TC7 with TL4 TE1 to TE3 (SSD short-circuited) [2]
				b) TL3 TC5, TC6, TC8 TE1, TE3	b) Serial contact: TL3, TC1, TC7 TE1 to TE3 (SSD short-circuited) [2]		
			Parallel contact: TC1, TC4 with TL2 TE1 to TE3 (SSD disconnected)		a) and b) Parallel contact: TL3, TC1, TC7 TE1 to TE3 (SSD disconnected)		Parallel contact: TC7 with TL4 TE1 to TE3 (SSD disconnected)

Table 15 *(continued)*

TL = type of test load:

- TL1 = thermal current or maximum rated resistive current, if no thermal current is declared
- TL2 = maximum rated resistive current
- TL3 = rated load (7.1.2)
- TL4 = declared specific load (7.1.2.5)

TC = type of test condition:

- TC1 = increased-voltage test at accelerated speed (17.2.4.1)
- TC2 = test at slow speed (17.2.4.2)
- TC3 = test at high speed (17.2.4.3)
- TC4 = test at accelerated speed (17.2.4.4)
- TC5 = manual functional test: 20 times at maximum manual operating speed to perform the full function of the electronic switch (17.2.4.5)
- TC6 = test at minimum load (17.2.4.6)
- TC7 = test condition according to TC4, number of operating cycles: 1 000 or the declared number of cycles whichever is the lowest (17.2.4.7)
- TC8 = full number of operating cycles at accelerated speed (17.2.4.8)

TE = type of evaluation test:

- TE1 = functional compliance (17.2.5.1)
- TE2 = thermal compliance (17.2.5.2)
- TE3 = insulating compliance (17.2.5.3)

1) SSD = semiconductor switching device.

2) The short circuit shall be performed in a way to allow the terminals and contacts and other parts designed for the maximum rated current to be loaded with the maximum rated current.

3) For combinations of SSD and mechanical contacts, where the function of the SSD and the mechanical contacts are independent of each other, the requirements of this part of IEC 61058 apply for the mechanical contacts.

a/b) Testing shall be completed using either method “a” or method “b”. The same method shall be used for both complete switch and the contacts only testing. Testing with series and parallel contacts, the parallel contact test is added to either method “a” or “b”. Testing to both method “a” and method “b” is not required.

17.2.4.8 Endurance test (TC8)

Replace the text of this subclause by the following:

Full number of operating cycles, the electrical conditions are those specified in table 15, at accelerated speed.

Corrections to IEC 61058-1 Amendment 2:2007:

16 Heating

Replace the text

"Replace Subclause 16.2.2 by the following:"

by the following new text:

"Replace items a) to i)in Subclause 16.2.2 by the following:"

23 Abnormal operation and fault conditions for electronic switches

Add the following new text to the end of 23.1.1.2:

23.1.1.2.1 *Switches for continuous duty, duty type S1, are loaded for 1 h with the conventional fusing current for the fuse which in the installation will protect the switch.*

For switches for short-time duty, duty type S2, the temperature is measured 2 min after the operation of the switch.

For switches for intermittent periodic duty, duty type S3, the temperature is measured after steady state has been reached, or after 4 h, whichever is the shorter time.

The conventional fusing currents to be used for these tests are specified in table 26:

Table 26 – Conventional fusing current versus rated current

Device	Rated current A	Conventional fusing current[1)] A
Cord switches	Up to and including 16	26
Independently mounted switches	Up to and including 16	26
	Over 16 up to and including 32	51
	Over 32 up to and including 63	101
[1)] The values specified originate from IEC 60269-1.		

23.1.1.2.2 *Switches for continuous duty, duty type S1, are loaded in such a way that the current through the switch measures 0,95 times the current with which the protecting device releases after 1 h*

For switches for short-time duty, duty type S2, the temperature is measured 2 min after the operation of the switch.

For switches for intermittent periodic duty, duty type S3, the temperature is measured after steady state has been reached, or after 4 h, whichever is the shorter time.

23.1.1.2.3 *The fuses are replaced by links of negligible impedance and shall be loaded in such a manner that the current through the links shall be 2,1 times the rated current of the fuse.*

For switches for continuous duty, duty type S1, the temperature is measured after steady state has been reached or after 30 min, whichever is the shorter time.

For switches for short-time duty, duty type S2, the temperature is measured 2 min after the operation of the switch.

For switches for intermittent periodic duty, duty type S3, the temperature is measured after steady state has been reached, or after 4 h, whichever is the shorter time.

23.1.1.2.4 *The electronic cord switches and electronic independently mounted switches are loaded either as described in 23.1.1.2.3 with incorporated fuse or as described in 23.1.1.2.2 with another automatic protective device, choosing the test requiring the lowest load.*

IEC 61058-1
(Troisième édition – 2000)

Interrupteurs pour appareils –
Partie 1: Règles générales

CORRIGENDUM 1

Corrections à la CEI 61058-1:2000:

Tableau 15 – Essais d'endurance électrique pour les différents types d'interrupteurs électroniques avec ou sans contacts électriques combinés

Remplacer le Tableau 15 par le nouveau tableau suivant :

Janvier 2009