INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

_____

IEC 60947-5-1
Edition 4.0 2016-05

Low-voltage switchgear and controlgear –

Part 5-1: Control circuit devices and switching elements – Electromechanical control circuit devices

IEC 60947-5-1
Édition 4.0 2016-05

Appareillage à basse tension –

Partie 5-1: Appareils et éléments de commutation pour circuits de commande – Appareils électromécaniques pour circuits de commande

CORRIGENDUM 1

5.2.2 Terminal identification and marking

Replace the existing text by the following new text:

Subclause 7.1.8.4 of IEC 60947-1:2007 applies, with the additional requirements stated in Annex M.

5.2.2 Identification et marquage des bornes

Remplacer le texte existant par le nouveau texte suivant :

Le Paragraphe 7.1.8.4 de l'IEC 60947-1:2007 s'applique, avec les exigences additionnelles identifiées dans l'Annexe M.

Table 8 – Immunity tests

Replace the existing table by the following new table:

IEC 60947-5-1:2016-05/COR1:2016-07(en-fr)

Table 8 – Immunity tests

Type of test	Basic standard	Test level required		Acceptance criteria
Electrostatic discharge immunity test	IEC 61000-4-2	8 kV / air discharge or 4 kV / contact discharge		B [k]
Radiated radio-frequency electromagnetic field immunity test 80 MHz to 1 GHz	IEC 61000-4-3	10 V/m		A
Radiated radio-frequency electromagnetic field immunity test 1,4 GHz to 2 GHz	IEC 61000-4-3	3 V/m		A
Radiated radio-frequency electromagnetic field immunity test 2 GHz to 2,7 GHz	IEC 61000-4-3	1 V/m		A
Electrical fast transient/burst immunity test (with capacitive coupling clamp)	IEC 61000-4-4	2 kV / 5 kHz on power ports [a] 1 kV / 5 kHz on signal ports [b]		B [k]
Surge immunity test (1,2/50 µs - 8/20 µs) [c]	IEC 61000-4-5	2 kV (line to earth) 1 kV (line to line)		B
Conducted disturbances induced by radiofrequency fields immunity test (150 kHz to 80 MHz)	IEC 61000-4-6	10 V		A
Power frequency magnetic field immunity test [d]	IEC 61000-4-8	30 A/m		A
Voltage dips immunity test [h]	IEC 61000-4-11	Class 2 [e, f] 0 % during 0,5 cycle	Class 3 [e, f] 0 % during 0,5 cycle	B [k, l]
		Class 2 [e, f] 0 % during 1 cycle	Class 3 [e, f] 0 % during 1 cycle	B
		Class 2 [e, f, g] 70 % during 25/30 cycles	Class 3 [e, f, g] 40 % during 10/12 cycles 70 % during 25/30 cycles 80 % during 250/300 cycles	C
Voltage interruptions immunity test [h]	IEC 61000-4-11	Class 2 [e, f, g] 0 % during 250/300 cycles	Class 3 [e, f, g] 0 % during 250/300 cycles	C
Immunity to harmonics in the supply	IEC 61000-4-13	No requirements [i]		

[a] Power port: the point at which a conductor or cable carrying the primary electrical power needed for the operation of the electronic circuit or the switching element or associated equipment is connected.

[b] Signal port: the point at which a conductor or cable carrying information for transferring data or signals is connected to the electronic circuit or the switching element.

[c] Not applicable for extra-low voltage a.c. ports (≤ 30 V) and extra-low voltage d.c. input/output ports (≤ 60 V), when the secondary circuits (isolated from the a.c. mains) are not subject to transient overvoltages.

[d] Applicable only to equipment containing devices susceptible to power frequency magnetic fields.

e	Class 2 applies to points of common coupling and in-plant points of common coupling in the industrial environment in general. Class 3 applies to in-plant couplings in industrial environment only. This class should be considered when a major part of the load is fed through converters; welding machines are present; large motors are frequently started or loads vary rapidly. The manufacturer shall state the applicable class.
f	The given percentage means percentage of the rated operational voltage, e.g. 0 % means 0 V.
g	The value before the solidus (/) is for 50 Hz and the value behind is for 60 Hz tests.
h	Applicable for a.c. equipment only.
i	Requirements are under study for the future.
k	For keeping the functionality at the system level (e.g. automation or process) the state of the switching element shall not change for more than 1 ms for d.c. devices or one half-cycle of supply frequency for a.c. devices.
l	For devices with power consumption of more than 750 mW, the recovery time of the switching element may be longer than one half-cycle but shall be less than the maximum recovery time.

Tableau 8 – Essais d'immunité

Remplacer le tableau existant par le nouveau tableau suivant :