

STANDARD INFORMATION

Standard: UL 60730-2-7

Standard ID: Automatic Electrical Controls – Part 2- 7: Particular Requirements for Timers and Time Switches [UL 60730-2-7:2020 Ed.3]

Previous Standard ID: Automatic Electrical Controls for Household and Similar Use - Part 2: Particular Requirements for Timers and Time Switches [UL 60730-2-7:2014 Ed.2+R:31Jul2014]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: July 1, 2026

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: Per our accreditation, Intertek is required to review reports against the standard revisions to confirm compliance. Once compliance is confirmed, the standard reference in the report is updated to show continued compliance to the technical requirements of the standard. Reports not updated to this version by the effective date above will be withdrawn.

Overview of Changes:

- New requirements for Type 1.S or 2.S action
- New requirements for fluorescent lamp loads
- New requirements for synthetic loads
- New requirements for electronic ballast loads
- New requirements for resistance to heat, fire and tracking
- New requirements for electronic controls

Specific details of new/revise requirements are found in table below

Note: If the listing references a Canadian standard, per the Canadian Electrical Code (CSA C22.2#0) Section titled Language of markings, Caution and Warning Markings shall be in English and French.

Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.



STANDARD INFORMATION

CLAUSE	VERDICT	COMMENT
<i>Additions to existing requirements are <u>underlined</u> and deletions are shown <u>lined out</u> below.</i>		
11	Info	Constructional requirements
11.4	Info	Actions
		Type 1.S or 2.S action
		A Type 1.S or 2.S action shall be so designed that, after interruption of the electrical supply for any interval up to the declared period of power reserve, it resumes its intended operating sequence as if no interruption of the supply has occurred.
11.4.103		<u>If the energy store is charged by the supply voltage, then compliance is checked by a functional test, carried out immediately after the operation of the timer switches into power reserve. The previous operation in power reserve shall be the declared period of power reserve. Charging is carried out at rated voltage for 48 h, if no other charging period is declared.</u>
		<u>If the running reserve is provided by a primary battery, compliance shall be verified by calculation of the power reserve by means of the battery capacity and the measured discharge current.</u>
17	Info	Endurance
17.16	info	Test for particular purpose controls
17.16.101	Info	Filament lamp loads
		<i>New clause added;</i>
		Fluorescent lamp loads
17.16.101.2		Timers classified by the manufacturer under 6.2.3 for fluorescent lamp loads with a rating as declared according to Table 1, requirement 7 are submitted to the fluorescent lamp test of 19.2 of IEC 60669-1:1998 and IEC 60669-1:1998/AMD2:2006, with the number of contact cycles as declared by the manufacturer.
17.16.102	Info	Synthetic loads (alternative to 17.16.101)
		<i>New clause added;</i>
17.16.102.2.1		The characteristics of a d.c. test circuit shall be judged from a number of oscillograms (12 or more), and test equipment is acceptable if at least half the oscillograms show the minimum acceptable or a greater current-inrush factor.



CLAUSE	VERDICT	COMMENT
		<i>New clause added;</i>
17.16.102.2.2		The characteristics of an a. c. test circuit shall also be judged from a number of oscillograms (12 or more). Those which indicate that the current is decreasing (that the part of the sine wave in question is approaching the 0 point) should be sufficient to show whether or not the capacity of the test circuit is adequate to produce the minimum acceptable current inrush factor based on observed peak values.
		The characteristics of a synthetic load shall be such that: – for d.c. not less than 9 with a 15 A load, 10 with a 10 A load, and 11 with a 5 A load; – for a.c. not less than 8 times the normal current, when the circuit is closed on a 20 A load.
17.16.102.2.5		In addition, the current in the capacitor/resistance load or the combination load mentioned in 17.16.102.3 shall be at least half the required inrush current at one cycle at rated frequency and no less than twice the steady-state current at 3,5 cycles at rated frequency after the circuit is closed. The current in a straight resistance load shall be the full inrush value for a minimum of 90 % of a cycle of the rated frequency after the switch is closed.
		<i>New clause added;</i>
17.101DV.1		A timer or time switch intended for use with electronic ballasts, self-ballasted LED and Compact Fluorescent Lamps, LED drivers and similar loads with capacitive load characteristics shall be tested in accordance with Table 17.101DV.1 – Table 17.101DV.3.
		<i>New clause added;</i>
17.101DV.2		The synthetic load described in Figure 17.101DV.1 shall be used as the load for testing.
		<i>New clause added;</i>
17.101DV.3		The series coil values must be adjusted based on the input line characteristics to achieve the peak currents listed in Table 17.101DV.1 – Table 17.101DV.3. The series coil shall be sized such that it does not saturate during testing and shall be able to handle the resulting power dissipation with less than 10°C temperature rise. Peak current and pulse width are illustrated in Figure 17.101DV.2.
		<i>New clause added;</i>
17.101DV.4		The circuit shall provide a method to discharge the capacitor bank in between test cycles without influencing the performance of the device under test. This is accomplished by S2 and R2 in Figure 17.101DV.1. S2 should be switched alternately with S1 and R2 should be sized to allow for complete discharge of C during the period that S1 is open.



CLAUSE	VERDICT	COMMENT
21	Info	Resistance to heat, fire and tracking In the USA, insulating material used on a TV timer as any part of the enclosure shall have a flammability classification of FV-0 as determined by IEC 60695-11-10 and shall comply with the requirements of Annex D of Part 1.
21.101		<u>In addition, the proof tracking index (PTI) shall have a minimum performance level characteristic according to the TV timer voltage rating.</u> <u>Other insulating materials used within the enclosure shall comply with the applicable requirements of Annex D of Part 1 based on its application.</u> Wire leads, if provided with TV timers, shall be suitable for the purpose and have flame-resistant properties.
		<i>New annex added;</i>
Annex H		Requirements for electronic controls See standard for details.