

OSM/LUM DECISION SHEET (DSH)

Standard(s) (incl. year)	Subclause(s)	Tracking No.	Year
EN 60598-2-22:2014	22.7.3	DSH 2087A	2019
Category			
LITE			
Subject	Keywords	Developed by	Approved at
Protection device	- Type of protection device - Emergency luminaire - Failure	OSM/LUM-ETF5	2019 ETICS Plenary Meeting
Question			
<p>In chapter 22.7.3 of EN 60598-2-22:2014 it is stated that “Emergency luminaires shall be equipped with a protection device which disconnects the luminaire from the supply in case of any failure within that luminaire”.</p> <p>Q1) Which types of protection devices are considered adequate to achieve compliance with above requirement?</p> <p style="margin-left: 20px;">a) PTC resistors (positive temperature coefficient) b) conductor track fuses (melting/disconnecting of tapered circuit path) c) fusing resistors (not IEC/EN-approved) d) serial resistors (limiting the current) e) approved fuses (e.g. according to EN 60127)</p> <p>Q2) Does this device need to disconnect a circuit galvanically, or is a limitation to a specific fault current also sufficient if selectivity is still ensured?</p>			
Decision			
<p>Q1) All types of protection as mentioned can be accepted.</p> <p>Q2) Complete galvanic disconnection is not necessary. As mentioned, all protection devices stated in Q1 could be accepted.</p>			
Explanatory notes			
<p>The above replies and associated advices have been approved by IEC SC34C WG COMEX and IEC SC34D WG LUMEX at their April 2017 meetings held in Pretoria. These replies also involved consultation of the LUMEX/COMEX Emergency Lighting Panel (ELP).</p> <p>Additional advice:</p> <ul style="list-style-type: none"> • The requirement of Clause 22.7.3 is not applicable to self-contained emergency luminaires. • In principle, luminaires using control gear in compliance with the appropriate IEC 61347 standard should be accepted as meeting the requirement of Clause 22.7.3 without the need for further testing. However, this statement, relevant for centrally supplied luminaires and their control gear only, is to be further considered by ELP, COMEX and LUMEX. In principle it should be possible to adopt the fault condition tests of IEC 61347-1 to confirm that the tested failure conditions will not trip the main circuit protection device. Key to this will be defining the operating characteristic of the protection device that is expected to be in the mains supply circuit. The ELP stated in their 2nd March 2017 minutes, from a practical point of view, control gear in conformity with IEC 61347 standards and used with centrally supplied 			

emergency luminaires is not known to cause problems of unintended operation of the mains circuit protection devices that are commonly used.

- It is important that unintended disconnection of the luminaire from its supply circuit should also be prevented. Therefore the risk of any unintended or nuisance operation of a protection device could also be considered to be a possible safety issue.

Note: This aspect to be further considered by ELP; LUMEX; COMEX.
