CTL DECISION SHEET

Standard(s): IEC 61000-3-2 – 2005 - Ed.3	**Sub clause(s): 7**	**N°**	**Year**
		DSH 0760	**2010**
Category : EMC	**Key words:** **-- emergency lighting equipment** **- charge mode** **- luminaire**	**Developed by: ETF10**	
Subject: **Measurement of harmonic current on electronic emergency lighting equipment**		**To be approved at the 2010 CTL Plenary meeting**	

Question:

The question is related to the harmonic current emission test (IEC 61000-3-2) on electronic emergency lighting equipment. When the equipment is in the charging mode, the luminaire is switched off. In this operating condition, do we apply Class A or Class C limits for the harmonic current emission test?

Decision:

In charge mode, the lighting part of the equipment is not operating. In this case, the applicable limit is Class A.

Explanatory notes:

This decision is forwarded to TC77A and TC 34 for confirmation.

The decision is in accordance with clauses 3.19 and 6.3 of IEC 61000-3-2:2005 edition 3.

In emergency lighting equipment, one of the functions is illumination and the second function is charging the battery.

According to Clause 3.19, the lighting function of the emergency luminaries is considered as "lighting equipment." Therefore, the Class C limit should be applied for the test for this function.

The charging function is considered not to be “lighting equipment." Therefore, the Class A limit should be applied for the test for this function.

According to Clause 6.3, we can consider the luminaire with the emergency circuit and the battery charger as individual self contained items that are installed in an enclosure. Then, a test can be performed for:

- the battery charger as Class A and
- the luminaire as Class C.

Sometimes, emergency luminaires use a normal battery charger, not especially designed for luminaires, and a normal luminaire in a common enclosure.

So, if we can separate the two functions, we can use separate classes for the two functions.