

Mark ENEC

The ENEC mark (European Norm Electrical Certification) is used in Europe as a uniform safety mark with uniform testing conditions for electric products. The 16 European states stated below and their certification bodies accept the ENEC agreement: B, CH, D, DK, E, F, GB, GR, H, I, IR, N, NL, P, S, SF.



Mark CE

It is not an approval mark, but CE marking indicates the product's compliance with requirements applicable to that product. CE marking is the prerequisite for putting products into circulation. The test of product safety carried out by an independent accredited testing institution is confirmed by a test mark.



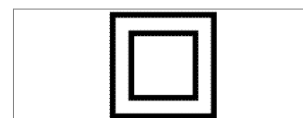
Protection class I

All exposed metallic parts have to be interconnected in an electrically conductive way and connected to the mains protective grounding conductor.



Protection class II

The lamp has no exposed metallic parts that may be live in case of faults, due to the use of corresponding insulating materials. A protective grounding wire is not present. Protection against electric shock is ensured by a special insulation in construction.



Protection class III

The lamp is operated at a low voltage of up to 42V supplied by a safety transformer or a battery.



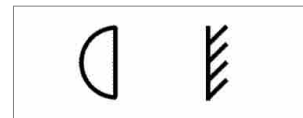
Electromagnetic Compatibility

Marking denotes electromagnetic compatibility (mains feedback, interference suppression, interference immunity).



Lamp clearance

The distance from the illuminated area as stated on the lamp has to be basically met as a minimum distance.



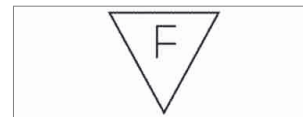
MM Marking

Products provided with MM marking are intended for installation or mounting on furniture consisting of materials whose flammability properties are unknown. They are designed such that mounting areas or other adjacent areas of furniture will not exceed a temperature of 95°C during normal operation.



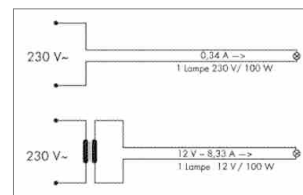
F Marking

Products provided with F marking are suitable for mounting on components made of non-flammable, hardly flammable or normally flammable construction materials according to DIN 4102.



Current Input

The current input of a HV halogen lamp (12 V) is a multiple of that of an AL incandescent lamp (230 V). Due to high currents, the length of lines for NV plug-in connection systems (12 V) must not exceed 4000 mm. If the distance between a transformer and a (12 V)/100 W lamp is extended to more than 4 m, a larger line cross section (more than 0.75 mm²) is required. In this way, a visible reduction of the lamp power can be avoided.



Ambient temperature

Lamps heat up. Therefore they have to be installed according to EN 60598-VDE 07010/071 such that the temperature measured at mounting areas will not exceed 90 °C in an emergency.

