



FAN MANUFACTURERS ASSOCIATION - a FETA association

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Safety approvals/standards for fans Guidance paper from the FMA

The purpose of this guidance paper from the Fan Manufacturers Association is to identify some of the European and International safety standards that members' products can comply with.

BS EN 12101-3:2015

Smoke and heat control systems. Specification for powered smoke and heat control ventilators (Fans).

This European standard specifies requirements and gives methods for testing powered smoke and heat exhaust ventilators that are intended to be installed as part of a powered smoke and heat exhaust ventilation system. It also provides a procedure for approving a range of powered smoke and heat exhaust ventilators and their motors, from a limited number of tests.

Typical Applications - used for emergency smoke extract and emergency car park fans

BS EN 14986:2017. Design of fans working in potentially explosive atmospheres

This European standard specifies requirements for fans working in potentially explosive atmospheres.

Typical Applications - long case axial or centrifugal fans.

BS EN 60204-1:2006+A1:2009

Safety of machinery. Electrical equipment of machines. General requirements.

BS EN 60204-1 gives safety guidance and recommendations on electrical equipment for machinery. This includes safety requirements for electrical, electronic and computer controlled equipment and systems for machines – but excludes power circuits where electricity is used directly as a working tool. These electrical equipment regulations only refer to non-portable machines designed to operate in conjunction with other machinery. BS EN 60204-1 gives specific instructions for the safe maintenance of the point where electrical or electronic equipment connects to the machine. And these instructions only refer to machinery that operates with nominal supply voltages below 1,000V for alternating current or 1,500V for direct current, or with nominal supply frequencies below 200 Hz.

Typical Applications - used for commercial and industrial axial and centrifugal fans

BS EN 60335-1:2012+A11:2014

Household and similar electrical appliances. Safety. General requirements.

BS EN 60335-1:2012+A11:2014 gives general requirements to ensure the safety of electrical household appliances – providing their rated voltage is not more than 250 V for single-phase and 480 V for other appliances. These best practice recommendations for electrical safety look at common hazards of household equipment or electrically-operated devices that could cause injury to persons in and around the house. The use of appliances by unsupervised children, or young children playing with electrical household equipment, is not covered in this standard.

Typically used for residential intermittent extract fans

BS EN 60335-2-80:2003+A2:2009

Household and similar electrical appliances. Safety. Particular requirements for fans

This International Standard deals with the safety of electric fans for household and similar purposes, their rated voltage being not more than 250 V for single-phase appliances and 480 V for other appliances.

NOTE 101 Examples of fans that are within the scope of this standard are

- ceiling fans;
- duct fans;
- partition fans;
- pedestal fans;
- table fans.

This standard also applies to separate controls supplied with fans.

Appliances not intended for normal household use but which nevertheless may be a source of danger to the public, such as appliances intended for use in shops, in light industry and on farms, are within the scope of this standard.

Typically used for residential intermittent extract fans

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and Secretary of ISO/TC 117 Fans