

What's new for Arc Fault Detection Devices (AFDDs) in BS 7671:2018+A2:2022

AFDDs provide important additional protection against fire that other protection devices cannot provide.

A major change in IET Wiring Regulations, BS 7671: 2018+A2:2022, is that the use of AFDDs has changed to being mandatory for some socket-outlet circuits in certain types of premises, and recommended in all other types of premises for the prescribed socket-outlet circuits.

Regulation 421.1.7 now states:

Arc fault detection devices (AFDD) conforming to BS EN 62606 shall be provided for single-phase AC final circuits supplying socket-outlets with a rated current not exceeding 32 A in:

- Higher Risk Residential Buildings (HRRB)
- Houses in Multiple Occupation (HMO) i
- Purpose-built student accommodation ii
- Care homes iii

NOTE 1: Higher Risk Residential Buildings are assumed to be residential buildings over 18 m in height or in excess of six storeys, whichever is met first. It is anticipated that in many areas higher risk residential buildings will be defined in legislation which can be subject to change over time, as well as in risk management procedures adopted by fire and rescue services. Current legislation should be applied.

For all other premises, the use of AFDDs conforming to BS EN 62606 is recommended for single-phase AC final circuits supplying socket-outlets not exceeding 32 A.

Where used, AFDDs shall be placed at the origin of the circuit to be protected.

The use of AFDDs does not obviate the need to apply one or more measures provided in other clauses in BS 7671.

NOTE 2: For busbar systems conforming to BS EN 61439-6 and Powertrack systems to BS EN 61534, the AFDD may be placed at a location other than the origin of the circuit.



BS 7671:2018+A2:2022 provides the following definition of recommendation

Recommendation = Should

Recommendation is the expression within the content of a document conveying that among several possibilities one is recommended as particularly suitable, without mentioning or excluding others.

There is a misleading view being communicated within the industry that use of such terms as 'recommended', 'additional' and 'specified' demotes the requirements within the associated regulations.

This is not the case; such terms are used extensively throughout BS 7671, there is no suggestion that use of any of these terms within BS 7671 demotes the requirements of any regulations applying these terms. Requirements and recommendations within regulations using such terms must be applied appropriately. Care must be taken to ensure that the regulations are applied as written and not based on misleading interpretations of the regulations.

Contact a BEAMA member for more information.

Download the BEAMA AFDD guide from www.beama.org.uk or scan the QR code



Regulation 532.6 retains the current wording:

532.6 Arc fault detection devices (AFDDs)

Where specified, arc fault detection devices shall be installed:

- (i) at the origin of the final circuits to be protected, and
- (ii) in AC single-phase circuits not exceeding 230 V.

AFDDs shall comply with BS EN 62606. Coordination of AFDDs with overcurrent protective devices, if necessary, shall take account of the manufacturer's instructions.

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Definitions

i). Houses in multiple occupation (HMO):

Your home is a house in multiple occupation if both of the following apply:

- At least 3 tenants live there, forming more than 1 household you share toilet, bathroom or kitchen facilities with other tenants.

Your home is a large HMO if both of the following apply:

- At least 5 tenants live there, forming more than 1 household you share toilet, bathroom or kitchen facilities with other tenants.
- A household is either a single person or members of the same family who live together.

ii). Purpose-built student accommodation (PBSA):

PBSA is housing built specifically by private developers for students to live in, usually taking the form of cluster flats (many rooms with shared kitchen and living areas), or private studios, both with attached leisure facilities and these days 'cool' added bonuses like cinemas, gyms, and games rooms.

iii). Care homes:

There are 2 main types of care home:

- Residential homes
- Nursing homes

Some care homes offer both residential and nursing care places. Care homes may be run by private companies, voluntary or charity organisations, or sometimes by local councils.

Residential homes

These provide accommodation and personal care, such as help with washing, dressing, taking medicines, going to the toilet. Some care homes also offer activities, such as day trips.

Nursing homes

These also provide personal care but there will always be 1 or more qualified nurses on duty to provide nursing care. These are sometimes called care homes with nursing.

Some nursing homes offer services for people that may need more care and support. For example, people with severe learning disabilities, severe physical disabilities or both a complex medical condition that needs help from a qualified nurse – such as someone who has a colostomy or who is fed through a tube.

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