18th Edition and how it can impact you

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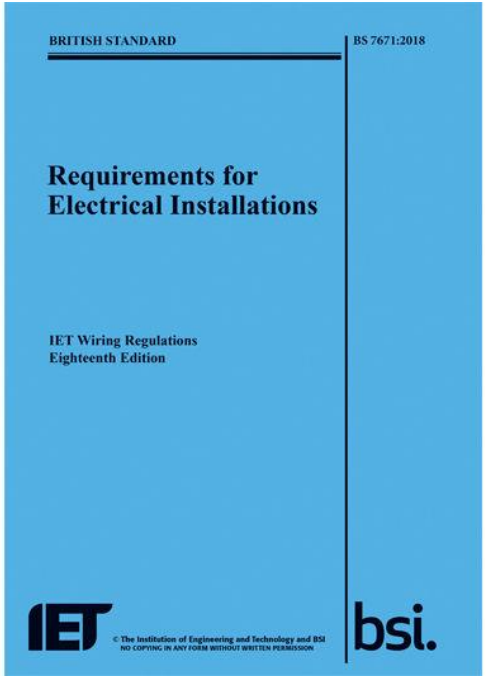


Who are we?

- ECA are the Trade Association for the electrotechnical industry
- We were formed in 1901
- Work closely with EDA and other industry partners

ECA

What is it?

- The IET Wiring Regulations is the Standard to which designers and installers of electrical installations work to
- It is not the law, but can be used to prove compliance with the law, namely the Electricity at Work Regulations 1989
- Therefore designers, engineers and electricians should work to it
- Wholesalers can help this by providing the right products

When is it out?

- The 18th Edition of the Wiring Regulations is due out 1st July 2018
- Full implementation is required after 1st January 2019
- Between these dates, designers can work to the 17th or the 18th, but not both

So what has changed?

- In short, lots
- The book is now over 600 pages long, an increase of approx 200 pages from the 17th Edition
- There are new and updated requirements
- With many new opportunities

Why has it changed?

- IEC and CENELEC harmonisation continues
- Chance to update some Regulations that were not clear
- Chance to incorporate new products or ideas
- All British Standards must move and adapt, or they become quickly obsolete

So what has changed?

- There are some key elements that will impact designers, suppliers and installers
- Suppliers need to be aware of these changes to offer the right products to their clients
- The following is a brief overview of the headline changes

What are the opportunities for you?

- **Metallic cable supports**
- All wiring systems shall be supported to against premature collapse in the event of fire
- Previously this was just in escape routes
- This will result in an increased use of metallic clips, wraps, cleats and supports

What are the opportunities for you?

- **Surge protection devices**
- Updated section on SPD
- More emphasis placed on risk assessment, and potentially more SPDs needed, certainly more information available

What are the opportunities for you?

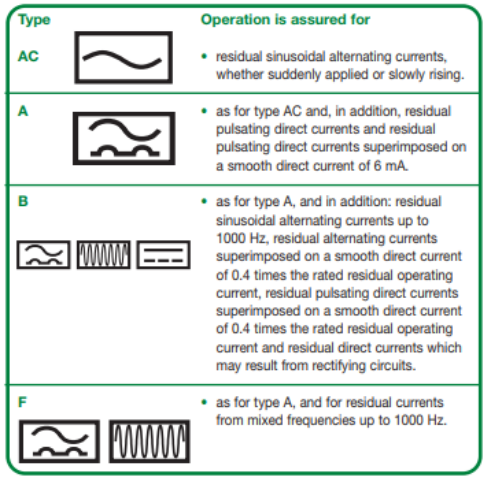
- **Arc Fault Detection Devices**
- AFDDs are a new recommended product
- These devices are new to the UK, often double pole and must be used in conjunction with other devices
- They are just a recommendation, not a requirement

What are the opportunities for you?

- **Earth electrodes (rods)**
- Additional information about the requirements of Electric Vehicles
- PME is very difficult to use, so TT and electrodes or safety isolating transformers may be needed
- 13 A sockets to be EV compliant and marked

What are the opportunities for you?

- **RCDs**
- New types of RCDs now recognised depending on presence of DC components or higher frequencies
  - Type AC
  - Type A
  - Type B
  - Type F

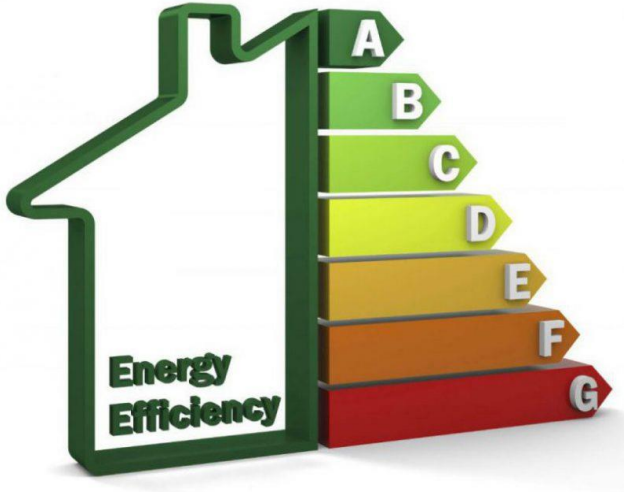


Type	Operation is assured for
AC	• residual sinusoidal alternating currents, whether suddenly applied or slowly rising.
A	• as for type AC and, in addition, residual pulsating direct currents and residual pulsating direct currents superimposed on a smooth direct current of 6 mA.
B	• as for type A, and in addition: residual sinusoidal alternating currents up to 1000 Hz, residual alternating currents superimposed on a smooth direct current of 0.4 times the rated residual operating current, residual pulsating direct currents superimposed on a smooth direct current of 0.4 times the rated residual operating current and residual direct currents which may result from rectifying circuits.
F	• as for type A, and for residual currents from mixed frequencies up to 1000 Hz.

Note - These are not to be confused with B, C and D curve circuit breakers and RCBOs, they are specifically referring to the RCD element

What are the opportunities for you?

- **Energy efficient products**
- New Appendix 17 for Energy Efficiency
- This new appendix extols the virtue of an energy efficient design, not just a functional design
- More emphasis on efficient products
- Will be developed into Part 8



What are you likely to be asked for?

- **New fixings and supports** – increased use of metallic supports needed
- **SPDs** – more information likely to result in increased use
- **AFDDs** – Recommended for numerous installations
- **Earth electrodes** – more emphasis on TT systems for EV charging
- **Socket outlets marked EV** – Required for Electric Vehicles
- **Different types of RCDs** – required for Electric Vehicles and other installations
- **New books** – not just the Regulations but also guides
- **New certificates** – the changes are in some places subtle, but contractors will need new forms
- **Upgraded test equipment** – although no specific requirement to change testers, people using new RCDs may find their test equipment is not suitable

The end

Thank you

Any questions?