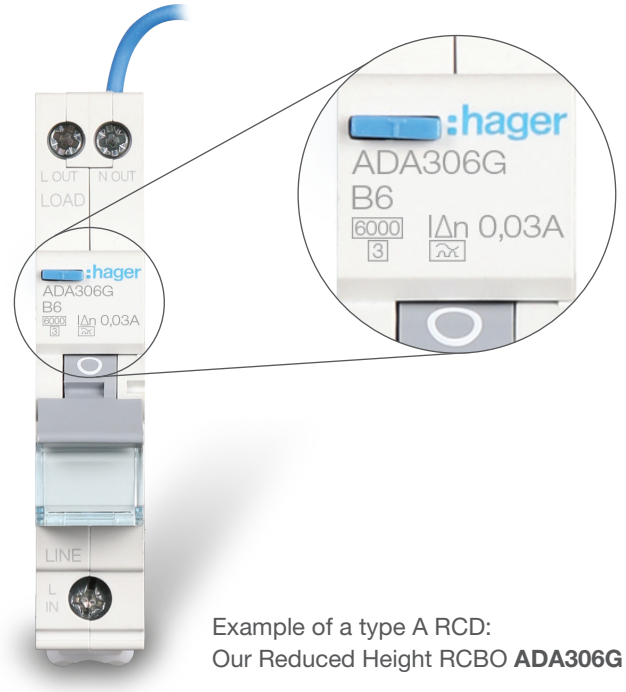
Hager Solution

Due to the style of circuits, the nature of loads connected to these circuits and the frequent use of RCDs to protect a group of circuits, Hager believe that the majority of electrical circuits in residential and commercial applications will require a type A RCD solution.

For this reason Hager provide comprehensive type A solution across our full range of RCD including RCCBs, RCBOs and RCD add on blocks.



Example of a type A RCD:
Our Reduced Height RCBO **ADA306G**

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AAGRCD718

Types of RCD

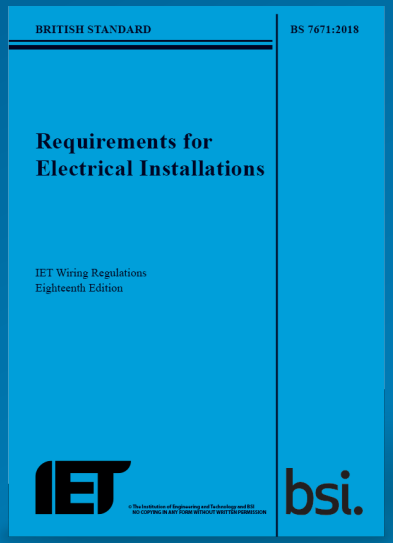
At a Glance

A look at RCD types and the 18th Edition

531.3.3 Types of RCDs

"Different types of RCDs exist, depending on their behaviour in the presence of DC components and frequencies."

BS 7671 references Type AC, Type A, Type F, Type B



The Different Types

RCD's exist in various different forms and react differently depending on the presence of DC components or different frequencies. The following RCD's are available with the respective symbols and the designer or installer is required to select the appropriate device for the specific application:

Type AC - General purpose use

RCD can detect & respond to AC sinusoidal wave only.

Type A – Equipment incorporating electronic components

RCD can detect & respond as for type AC, PLUS pulsating DC components.

Type F – Equipment with frequency controlled speed drives

RCD can detect & respond as for type A, PLUS high frequency residual current.

Type B –Electric vehicle chargers, PV supplies.

RCD can detect & respond for type F, PLUS smooth DC residual current.

RCD	Examples of type of equipment / load
Type AC	Resistive, Capacitive, Inductive loads generally without any electronic components, typically: • Immersion heater • Oven/Hob with resistive heating elements • Electric shower • Tungsten & halogen lighting
Type A	Single phase with electronic components, typically: • Single phase invertors • Class 1 IT and Multimedia equipment • Power supplies for Class 2 equipment • Appliances such as a washing machine that is not frequency controlled e.g. d.c. or universal motor • Lighting controls such as a dimmer switch and home and building electronic systems LED drivers • Induction hobs • Electric Vehicle charging where any smooth DC fault current is less than 6 mA **Type A is also suitable for Type AC applications.**
Type F	Frequency controlled equipment / appliances, typically: • Some washing machines, dishwashers and driers e.g. containing synchronous motors* • Some class 1 power tools • Some air conditioning controllers using variable frequency speed drives **Type F is also suitable for Type AC and Type A applications.**
Type B	Three phase electronic equipment typically: • Inverters for speed control • UPS • Electric Vehicle charging where any smooth DC fault current is greater than 6mA • Photo voltaic • Power Electronic Converter Systems (PECS) typically: • Industrial machines • Cranes **Type B is also suitable for Type AC, Type A and Type F applications.**