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QUICK GUIDE

Requirements for RCD Protection

30 mA

- All socket outlets rated at not more than 32 A and for unsupervised general use
- Mobile equipment rated at not more than 32 A for use outdoors
- All circuits in a bath/shower room
- Preferred for all circuits in a TT system
- All cables installed less than 50 mm from the surface of a wall or partition (in the safe zones) if the installation is un-supervised, and also at any depth if the construction of the wall or partition includes metallic parts
- In zones 0, 1 and 2 of swimming pool locations
- All circuits in a location containing saunas etc.
- Socket outlet final circuits not exceeding 32 A in agricultural locations
- Circuits supplying Class II equipment in restrictive conductive locations
- Each socket outlet in caravan parks and marinas and final circuit for houseboats
- All socket outlet circuits rated not more than 32 A for show stands etc.
- All socket outlet circuits rated not more than 32 A for construction sites (where reduced low voltage etc. is not used)
- All socket outlets supplying equipment outside mobile or transportable units
- All circuits in caravans
- All circuits in circuses etc.
- A circuit supplying Class II heating equipment for floor and ceiling heating systems
- All lighting circuits in domestic dwellings must be RCD protected

500 mA

- Any circuit supplying one or more socket outlets of rating exceeding 32 A, on a construction site

300 mA

- At the origin of a temporary supply to circuses etc.
- Where there is a risk of fire due to storage of combustible materials
- All circuits (except socket outlets) in agricultural locations

100 mA

- Socket outlets of rating exceeding 32 A in agricultural locations

Where loop impedances are too high, RCD ratings can be calculated.

There are currently four basic types of RCD. Class AC devices are used where the residual current is sinusoidal - this is the normal type which is most widely used. Class A types are used where the residual current is sinusoidal and/or includes pulsating direct currents - this type is applied in special situations where electronic equipment is used. Class B is for specialist operation on pure direct current or on impulse direct or alternating current. Class S RCDs have a built-in time delay to provide discrimination.


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