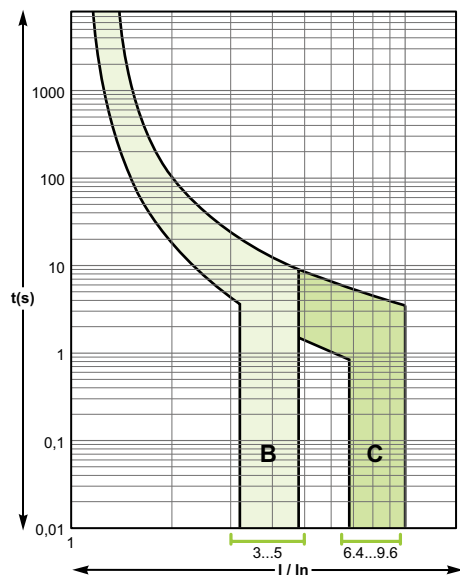

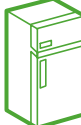











Time current tripping curves



Miniature circuit breakers

MCB selection chart for household appliances

| Appliance | Capacity | MCB rating (A) | Tripping curves |
|---|------------|----------------|-----------------|
| Air conditioner  | 1 ton | 16 | |
| | 1.5 ton | 20 | |
| | 2 ton | 20 | |
| | 3 ton | 25 | |
| Refrigerator  | 165 litres | 2 | "C" |
| | 285 litres | 2 | |
| Water heater  | 1 kW | 6 | |
| | 3 kW | 16 | |
| Electric kettle  | 1.5 kW | 10 | "B" |
| Food processor (50 % load)  | 200 W | 1 | |
| Vacuum cleaner  | 50 W | 0.5 | "C" |
| | | | |
| Toaster  | 1.2 kW | 6 | |
| Cooking range  | 750 W | 4 | "B" |
| | 2 kW | 10 | |
| | 4.5 kW | 25 | |
| Room heater  | 1 kW | 6 | |
| | 2 kW | 10 | |
| Washing machine  | 300 W | 2 | "C" |
| | 1.3 kW | 10 | |
| Electric iron  | 750 W | 6 | "B" |
| | 1.25 kW | 6 | |

Miniature circuit breakers

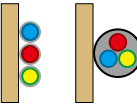
Selection of circuit breakers according to the cables to be protected (BS 7671)

- PVC-insulated, copper, flexible or rigid cable.
- Ambient temperature:
 - 30°C in the open air (methods A, B, C, E)
 - 20°C if buried (method D),
- For other situations, refer to BS 7671 standard (or UK wiring regulations).

Function

- Protection from short-circuits.
- Protection of cable from overload.

MCB current rating Single-phase circuit

| Cable cross section (in mm ²) | 1.5 | 2.5 | 4 | 6 | 10 | 16 | 25 | 35 | |
|---|---|-----|----|----|----|----|----|-----|-----|
| Type of installation Maximum rating of the circuit breaker used there (in Ampere) | | | | | | | | | |
| A: in conduit or directly in thermally insulated wall, moulding, architrave, window frame | | | | | | | | | |
| Single core |  | 10 | 16 | 25 | 32 | 40 | 50 | 80 | 80 |
| Multicore |  | 10 | 16 | 25 | 32 | 40 | 50 | 70 | 80 |
| B: in conduit in a wall, in conduit trunking or cable duct on a wall, in building cavity | | | | | | | | | |
| Single core |  | 16 | 20 | 32 | 40 | 50 | 70 | 100 | 125 |
| Multicore |  | 16 | 20 | 25 | 32 | 50 | 50 | 80 | 80 |
| C: direct on a wall, suspended from ceilings, on unperforated cable tray, in masonry wall | | | | | | | | | |
| Single core or multicore |  | 16 | 25 | 32 | 40 | 63 | 80 | 100 | 125 |
| D: in conduit in the ground | | | | | | | | | |
| Multicore or single core |  | 20 | 25 | 32 | 40 | 50 | 70 | 80 | 80 |
| D: directly in the ground | | | | | | | | | |
| Multicore or single core |  | 20 | 25 | 32 | 40 | 63 | 80 | 100 | 125 |
| E: in free-air, on cable ladder, on perforated cable tray | | | | | | | | | |
| Multicore |  | 20 | 25 | 40 | 40 | 70 | 80 | 100 | 125 |