

## Typical circuits for domestic use

**Type B** devices are generally suitable for domestic applications. They may also be used in light commercial applications where switching surges are low or non-existent.

### Ring main

In	Ib	Protective Device	Cable csa	Max. Length	Allowed installation methods	Max measured Zs (rule of thumb)	Max area covered	Spurs
32A	20A	MCB Type B	2.5/1.5	106m	A, 100, 102, C	1.08 ohm	100 m <sup>2</sup>	Unlimited fused spurs with 13A connection unit
32A	25A	MCB Type B	4.0/1.5	176m	A, C	1.08 ohm	150 m <sup>2</sup>	Unlimited fused spurs with 13A connection unit

### Lightning circuits

In	Ib	Protective Device	Cable csa	Max. Length	Allowed installation methods	Max measured Zs (rule of thumb)	For use
6A	4 A	MCB Type B	1.0/1.0	43m	103, 101, A, 100, 102, C	5.82 ohm	Up to 10 100W tungsten lights or 5 discharge lights, or 50 20W energy saving lamps, in small area (two bedroom flat)
10A	5A	MCB Type B	1.5/1.0	104m	103, 101, A, 100, 102, C	3.49 ohm	Up to 12 100W tungsten lights or 6 discharge lights, , or 50 20W energy saving lamps, in big area
10A	8.2 A	MCB Type B	1.5/1.0	52m	103, 101, A, 100, 102, C	3.49 ohm	Up to 20 100W tungsten or 10 discharge lights , or 100 20W energy saving lamps in medium area

### Radial Circuits for Sockets

In	Ib	Protective Device	Cable csa	Max. Length	Allowed installation methods	Max measured Zs (rule of thumb)	Max area covered	Use
20A	16A	MCB Type B	2.5/1.5	40m	A, 100, 102, C	1.74 ohm	50 m2	Sockets up to 3500 W
25A	23A	MCB Type B	4.0/1.5	40m	100, 101, 102, A, C	1.39 ohm	75 m2	Sockets up to 5500 W
32A	30A	MCB Type B	4.0/1.5	33m	C	1.08 ohm	75 m2	Sockets up to 7000 W

### Cooker Circuit

In	Ib	Protective Device	Cable csa	Max. Length	Allowed installation methods	Max measured Zs (rule of thumb)	Max area covered	Use
32A	30A	MCB Type B	6.0/2.5	53m	A, 100, 102, C	1.08 ohm		Cooker up to 14.4 KW with diversity allowed by Table 3.1 of EIDG

### Shower circuits – fixed load

In	Ib	Protective Device	Cable csa	Max. Length	Allowed installation methods	Max measured Zs (rule of thumb)	Max area covered	Use
32A	30A	MCB Type B	6.0/2.5	50m	A, 100, 102, C	1.08 ohm		Showers up to 7.2 KW
40A	40A	MCB Type B	10.0/4.0	66m	A, 100, 102, C	0.87 ohm		Showers up to 9.6 KW

### Immersion and storage heater circuits

In	Ib	Protective Device	Cable csa	Max. Length	Allowed installation methods	Max measured Zs (rule of thumb)	Max area covered	Use
16A	12.5 A	MCB Type B	2.5/1.5	54m	101, A, 100, 102, C	2.18 ohm		For 3KW use

### Radial circuits for general use

In	Ib	Protective Device	Cable csa	Max. Length	Allowed installation methods	Max measured Zs (rule of thumb)	For use
6A	4.1 A	MCB Type B	1.0/1.0	43m	100, 101, 102, 103, C, A	5.82 ohm	
10A	8.5 A	MCB Type B	1.5/1.0	39m	100, 101, 102, 103, C, A	3.49 ohm	
16A	15A	MCB Type B	2.5/1.5	39m	100, 101, 102, C, A	2.18 ohm	
20A	18A	MCB Type B	2.5/1.5	41m	100, 102, A, C	1.74 ohm	
25A	24A	MCB Type B	4.0/1.5	40m	100, 102, A, C	1.39 ohm	
32A	30A	MCB Type B	6.0/2.5	50m	100, 102, A, C	1.08 ohm	Sub main, loads up to 7.2 KW
40A	40A	MCB Type B	10.0/4.0	65m	100, 102, A, C	0.87 ohm	Sub main, loads up to 9.5 KW
50A	50A	MCB Type B	16.0/6.0	82m	100, 102, A, C	0.69 ohm	Sub main, loads up to 11.5 KW