

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	1.15 ohm	100 m2	Unlimited fused spurs with 13A connection unit
32A	25A	MCB Type B	4.0/1.5	176m	A, C	1.15	150 m2	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	6.13 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	3.68 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	3.68 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	1.84 ohm	50 m2	Sockets up to 3500 W
25A	23A	MCB Type B	4.0/1.5	40m	100, 101, 102, A, C	1.47	75 m2	Sockets up to 5500 W
32A	30A	MCB Type B	4.0/1.5	33m	C	1.15 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	1.15 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	1.15 ohm		Showers up to 7.2 KW
40A	40A	MCB Type B	10.0/4.0	66m	A, 100, 102, C	0.92 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	2.29 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	6.13 ohm	
10A	8.5 A	MCB Type B	1.5/1.0	39m	100, 101, 102, 103, C, A	3.68 ohm	
16A	15A	MCB Type B	2.5/1.5	39m	100, 101, 102, C, A	2.29 ohm	
20A	18A	MCB Type B	2.5/1.5	41m	100, 102, A, C	1.84 ohm	
25A	24A	MCB Type B	4.0/1.5	40m	100, 102, A, C	1.47 ohm	
32A	30A	MCB Type B	6.0/2.5	50m	100, 102, A, C	1.15 ohm	Sub main, loads up to 7.2 KW
40A	40A	MCB Type B	10.0/4.0	65m	100, 102, A, C	0.92 ohm	Sub main, loads up to 9.5 KW
50A	50A	MCB Type B	16.0/6.0	82m	100, 102, A, C	0.73 ohm	Sub main, loads up to 11.5 KW