

BS7671 Requirements for Electrical Installations IET Wiring Regulations Eighteenth Edition

MCB Measured EFLI (Zs)

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TABLE 41.3 – (Zs) (Ω) maximum earth fault loop impedance for circuit-breakers BS 3871 or BS EN 60898 with U₀ of 230 V, for operation giving compliance with the 0.4 s disconnection time of Regulation 411.3.2.2 and 5 s disconnection time of Regulation 411.3.2.3

Zs (Ω) maximum measured values: circuit breakers BS 3871 or BS EN 60898 or overcurrent characteristic of RCBO BS EN 61009

NB: If measured value exceeds maximum measured values check using procedure in BS7671 Appendix 14 and consult GN3

Rated current (A)	Circuit-breakers to BS 3871 or BS EN 60898 or RCBO to BS EN 61009					
	Type 1	Type 2	Type B	Listed Type 3 otherwise Type 3 same as Type C	Type D	
	0.4s to 5s disconnection time				0.4 s	5s
2	N/A	N/A	N/A	N/A	N/A	N/A
3A Fuses to BS 1362 (Zs 0.4s disconnection time with U₀ of 230 V) = 15.6 (Ω)						
3A Fuses to BS 1362 (Zs 5s disconnection time with U₀ of 230 V) = 22.0 (Ω)						
3	N/A	N/A	14.57 / 11.64	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A	N/A
5	10.93 / 8.73	6.24 / 4.99	N/A	4.37 / 3.49	2.19 / 1.75	4.37 / 3.49
6	9.10 / 7.28	5.20 / 4.16	7.28 / 5.82	3.64 / 2.91	1.82 / 1.45	3.64 / 2.91
10	5.46 / 4.36	3.12 / 2.49	4.37 / 3.49	2.19 / 1.74	1.09 / 0.87	2.19 / 1.74
13A Fuses to BS 1362 (Zs 0.4s disconnection time with U₀ of 230 V) = 2.30 (Ω)						
13A Fuses to BS 1362 (Zs 5s disconnection time with U₀ of 230 V) = 3.64 (Ω)						
15	3.64 / 2.91	2.08 / 1.66	N/A	1.46 / 1.16	0.46 / 0.57	1.46 / 1.16
16	3.41 / 2.72	1.95 / 1.56	2.73 / 2.18	1.37 / 1.08	0.68 / 0.54	1.37 / 1.08
20	2.73 / 2.18	1.56 / 1.24	2.19 / 1.74	1.09 / 0.87	0.55 / 0.43	1.09 / 0.87
25	2.19 / 1.74	1.25 / 0.99	1.75 / 1.39	0.87 / 0.69	0.44 / 0.34	0.87 / 0.69
30	1.82 / 1.45	1.04 / 0.83	N/A	0.73 / 0.57	0.35 / 0.28	0.73 / 0.57
32	1.71 / 1.36	0.98 / 0.77	1.37 / 1.08	0.68 / 0.54	0.34 / 0.27	0.34 / 0.27
40	1.37 / 1.08	0.78 / 0.62	1.09 / 0.87	0.55 / 0.43	0.27 / 0.21	0.27 / 0.21
45	1.21 / 0.96	0.69 / 0.55	N/A	0.48 / 0.38	0.24 / 0.19	0.48 / 0.38
50	1.09 / 0.87	0.62 / 0.49	0.87 / 0.69	0.44 / 0.34	0.22 / 0.16	0.44 / 0.34
60	N/A	N/A	N/A	N/A	N/A	N/A
63	0.87 / 0.68	0.49 / 0.39	0.69 / 0.55	0.35 / 0.27	0.17 / 0.13	0.35 / 0.27
80	0.68 / 0.54	0.39 / 0.31	0.55 / 0.43	0.27 / 0.21	0.14 / 0.10	0.27 / 0.21
100	0.55 / 0.43	0.31 / 0.24	0.44 / 0.34	0.22 / 0.16	0.11 / 0.08	0.22 / 0.16
125	N/A	N/A	0.35 / 0.27	0.17 / 0.13	0.09 / 0.06	0.17 / 0.13
160	N/A	N/A	N/A	N/A	N/A	N/A
200	N/A	N/A	N/A	N/A	N/A	N/A

N/A (Not Applicable) - indicates that the device is not available or not appropriate.