



**MAXIMUM DISCONNECTION TIMES - TABLE 41.1 OF BS 7671 : 2008**

System	50 V to 120 V (Seconds)		> 120 V to 230 V (Seconds)		> 230 V to 400 V (Seconds)		> 400 V (Seconds)	
	a.c.	d.c.	a.c.	d.c.	a.c.	d.c.	a.c.	d.c.
TN	0.8	Note 1	0.4	5	0.2	0.4	0.1	0.1
TT	0.3	Note 2	0.2	0.4	0.07	0.2	0.04	0.1

Note 1: Disconnection is not required for protection against electric shock but may be required for other reasons, such as protection against thermal effects.

Note 2: Where compliance with this regulation is provided by an RCD, the disconnection times in accordance with Table 41.1 relate to prospective residual fault currents significantly higher than the rated residual operating current of the RCD (Typically 2 x residual operating current).

**MAXIMUM EARTH FAULT LOOP IMPEDENCE (Z<sub>s</sub>) TO ENSURE RCD OPERATION  
IN ACCORDANCE WITH REGULATION 411.5.3 FOR NON-DELAYED RCD'S TO BS EN 61008-1  
AND RCBO'S TO BS EN 61009-1 FOR FINAL CIRCUITS NOT EXCEEDING 32 A  
TABLE 41.5 OF BS 7671 : 2008**

Rated Residual Operating Current (mA)	Maximum Earth Fault Loop Impedence Z <sub>s</sub> (ohms)			
	50 V to 120 V	> 120 V to 230 V	> 230 V to 400 V	> 400 V
30	1667*	1667*	1533*	1667*
100	500*	500*	460*	500*
300	167	167	153	167
500	100	100	92	100

\* The resistance of the installation earth electrode should be as low as practicable. A value exceeding 200 ohms may not be stable. Refer to Regulation 542.2.2

**TIME / CURRENT PERFORMANCE CRITERIA FOR RCD'S TO BS EN 61008-1 AND 61009-1  
VALUES GIVEN IN TABLE 3A OF BS 7671 : 2008**

RCD Type	Rated Residual Operating Current (mA)	Residual Current (mA) x1	Trip Time (ms)	Residual Current (mA) x2	Trip Time (ms)	Residual Current (mA) x5	Trip Time (ms)
General Non-Delay	10	10	300 max.	20	150 max.	50	40 max.
	30	30		60		150	
	100	100		200		500	
	300	300		600		1500	
	500	500		1000		2500	
Delay 'S'	100	100	130 min.	20	60 min.	50	40 min.
	300	300	500 max.	60	200 max.	150	150 max.
	500	500		1000		2500	