

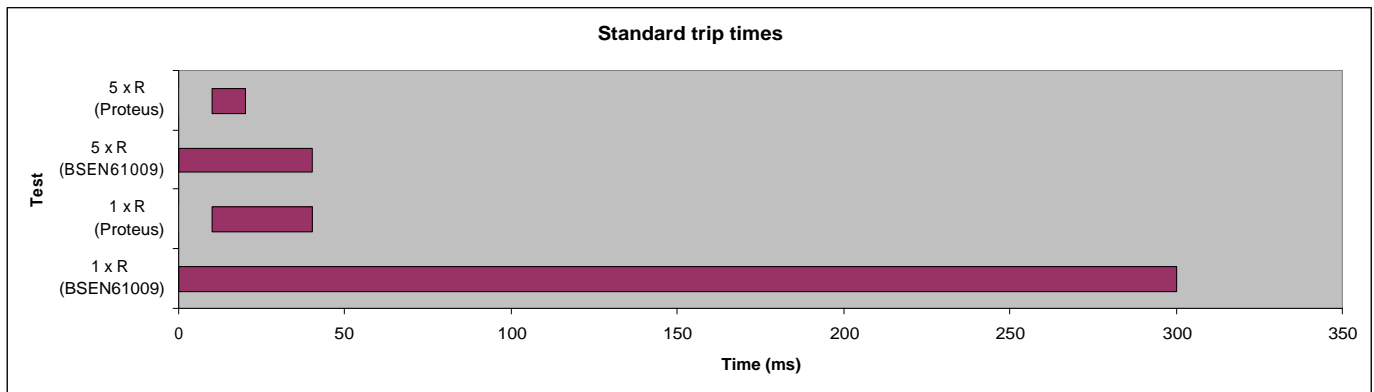
## Standard values of break time and non-actuating time as per BS EN 61009-1

Type	In  A	Idn  mA	Standard values of break time(s) and non-actuating times(s) at a residual current (I <sub>dn</sub> ) equal to:				
			Idn	2 Idn	5 Idn	500A	
General	Any value	Any value	300ms	150ms	40ms	40ms	Maximum break times

### Graphical representation

As can be seen Proteus RCBO products trip well within the time limits defined by BSEN61009.

The 1 x R and 5 x R are standard site installation tests which are carried out by electricians / competent persons when RCBOs are fitted.



### 'Ramp test'

Some installation testers have the facility to measure the actual 'mA' earth leakage current at which the RCBO does trip. It should be noted that in accordance with BSEN61009 the band of current that an RCBO is expected / allowed to trip within is:

$$\frac{1}{2} \times I_{dn} < \text{Trip current} < I_{dn}$$

Where I<sub>dn</sub> = earth leakage current rating. Therefore for a 30mA device the RCBO can acceptably trip out if it sees any current between 15 and 30mA. Generally Proteus RCBOs will operate between 20 and 25mA, however due to manufacturing tolerance and the nature of the sensitive magnetic sensing core this trip current can extend outside these designed limits to values as low as 17mA and as high as 28mA, still however within British Standard specification for performance.