5.3.11.1 Values up to and including 10 000 A

Up to and including 10 000 A the values of the rated conditional residual short-circuit current $I_{\Delta c}$ are standard and are

3 000 – 4 500 – 6 000 – 10 000 A.

The values of 500 A, 1 000 A and 1 500 A are also standard for RCCBs incorporated in or intended for association with socket-outlets.

The associated power factors are specified in Table 19.

5.3.11.2 Values above 10 000 A

For values above 10 000 A up to and including 25 000 A a preferred value is 20 000 A.

The associated power factors are specified in Table 19.

Values above 25 000 A are not considered in this standard.

5.3.12 Limit values of break time and non-actuating time for RCCB of type AC and A

5.3.12.1 Limit values of break time and non-actuating time for alternating residual currents (r.m.s. values) for type AC and A

Limit values of break time and non-actuating time for alternating residual currents (r.m.s. values) for type AC and A RCCB are given in Table 1.

NOTE In the US, where the tripping times are specifically related to current, the following formulas apply: $T = \left(\frac{20}{I}\right)^{1,43}$ for high-resistance faults and $T = 1,25\left(\frac{10}{V}\right)^{1,43}$ for low resistance faults.

Table 1 – Limit values of break time and non-actuating time for alternating residual currents (r.m.s. values) for type AC and A RCCB

			Limit values of break time and non-actuating time (s) for type AC and A RCCB in event of alternating residual currents (r.m.s. values) equal to						
Type	I_n A	$I_{\Delta n}$ A	$I_{\Delta n}$	2 $I_{\Delta n}$	5 $I_{\Delta n}$	5 $I_{\Delta n}$ or 0,25 A[a]	5 A - 200 A[b]	500 A	
General	Any	< 0,03	0,3	0,15		0,04	0,04	0,04	Maximum break times
		0,03	0,3	0,15		0,04	0,04	0,04	
		> 0,03	0,3	0,15	0,04		0,04	0,04	
S	≥ 25	> 0,03	0,5	0,2	0,15		0,15	0,15	
		> 0,03	0,13	0,06	0,05		0,04	0,04	Minimum ~~non-operating~~ non-actuating times

a Value to be decided by the manufacturer for this test.

b The tests are only made during the verification of the correct operation as mentioned in 9.9.2.4.

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