

Use in 400 Hz Multi 9

The greater part of Multi 9 circuit breakers are used on 400 Hz networks. Short-circuit currents at 400 Hz generator terminals do not, in general, exceed the nominal current by more than 4 times. Therefore, breaking capacity problems are very rare.

Multi 9 circuit breakers

■ The C120 and NG125 circuit breakers cannot be used on 400 Hz network.

For the others :

■ no thermal derating

■ increase of magnetic thresholds:

□ coefficient 1.5 for DPN, DPN N and DPNa

□ coefficient 1.48 for C60

□ coefficient 1.40 for NC100

■ residual current circuit breakers from the Multi 9 range can be used on 400 Hz networks. It should be noted that the mA threshold varies depending on the network's frequency (see curves below).

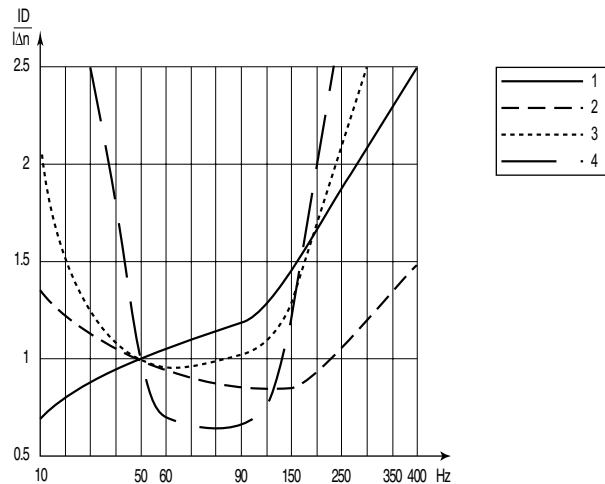
Note:

In 400 Hz, the test circuit for residual current devices may present the risk of not functioning when actioning the test button because of threshold variation.

According to international studies (IEC 60479-2), the human body is less sensitive to a 400 Hz current that passes through the body; so well that, even though the residual current device has had its frequency desensitised, these devices still ensure the protection of persons. The method for choosing residual current devices in 400 Hz is thus the same as that for 50 Hz.

RCCB-ID

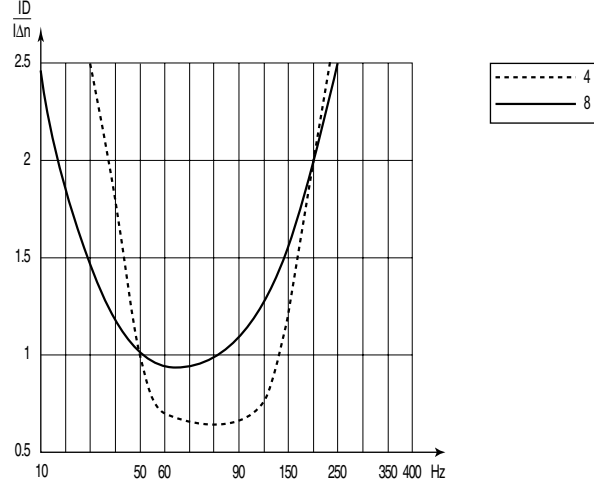
Operating residual current variation curves



Type	Rating (A)	Curve n°				
		Sensitivity (mA)		100	300	500
		10	30			
AC						
	25	2	1	-	1	1
	25-40	-	1	1	1	1
	63-80-100	-	2	1	1	1
A						
	16-25-40-63	-	3	-	2	2
A si, SiE						
		-	4	-	4	-
Selective	(AC, A)					
		-	-	-	2	2

DPN Vigì, DPN N Vigì, DPNa Vigì

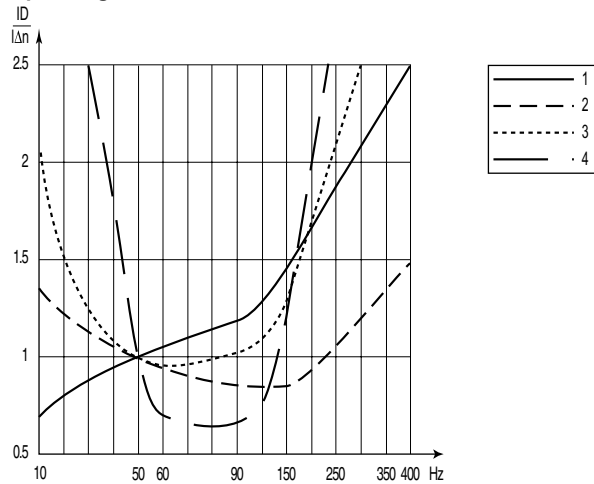
Operating residual current variation curves



Type	Rating (A)	Curve n°		
		10	30	300
AC	25	8	8	8
A si	-	-	4	4

Vigì C60 module

Operating residual current variation curves



Vigì C60 module 130/230 V - 50 Hz						
Type	Rating (A)	Curve n°				Sensitivity (A)
		10	30	100	300	
AC	25	2	1	1	-	-
	63	-	2	1	-	-
Vigì C60 module 230/400 V - 50 Hz						
AC	25	2	1	1	-	-
	40-63	-	2	1	-	-
A	25-63	3	3	2	2	-
All types						
Sélectif	-	-	4	2	2	2
Vigì C60 module						
A si	-	-	4	-	4	4