

## Technical data: Discrimination

What is discrimination?

It is the coordination of automatic cut-off devices for a fault that occurs at any point in the network to be eliminated by the upstream circuit breaker, the circuit breaker that is immediately upstream of the fault and by that circuit breaker alone!

In the following tables we show the level of discrimination between two LV circuits that are protected by modular circuit breakers.

This discrimination will be either:

- total: represented by a T (up to the breaking capacity of the downstream device),
- partial: discrimination limit current (Is) indicated. Below this value discrimination is ensured, above this value the upstream device is also involved in breaking,
- zero: no discrimination ensured.

Upstream		CDX/CNX/CHX											
	Trip unit	Thermal Magnetic											
	In (A)	16	25	32	40	50	63	80	100	125	160	200	250

### Downstream

Discrimination limit (kA)

iKQ	≤ 10	0.19	0.3	0.4	0.9	0.9	0.9	1.3	3	T	T	T	T
Curves B, C, D	16		0.3	0.4	0.5	0.5	0.5	1	2	T	T	T	T
	20			0.4	0.5	0.5	0.5	0.63	1.5	T	T	T	T
	25				0.5	0.5	0.5	0.63	1.5	T	T	T	T
	32						0.5	0.63	1	T	T	T	T
	40						0.5	0.63	1	T	T	T	T
	50							0.63	0.8	T	T	T	T
	63							0.8	0.8	T	T	T	T

Upstream		CNX/CHX							
	Trip unit	Electronic trip unit							
	Rating (A)	160				250			
	Setting Ir	80	100	125	160	160	200	250	

### Downstream

Discrimination limit (kA)

iKQ	≤ 10	T	T	T	T	T	T	T
Curves B, C, D	16	T	T	T	T	T	T	T
	20	T	T	T	T	T	T	T
	25	T	T	T	T	T	T	T
	32	T	T	T	T	T	T	T
	40	T	T	T	T	T	T	T
	50	T	T	T	T	T	T	T
	63		T	T	T	T	T	T