

Interference immunity

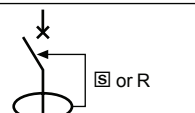
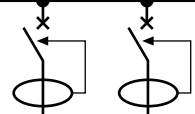
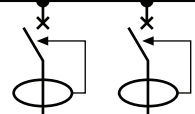
Schneider Electric provides various equipment technologies capable of overcoming the consequences of interference of all kinds.

Operating conditions		Examples	Types			
			AC 	A 	SI 	B 
Loads						
	With no special characteristics	- General-purpose power sockets - Incandescent lighting - Household appliances: microwave oven, dishwasher, clothes dryer - Electric heating, water heater	■	■	■	■
	Including a rectifier	- Household appliances: induction cooking appliances, washing machines (variable speed) - Single-phase variable speed drives	—	■	■	—
	Single phase	- Three-phase variable speed industrial drives - Three-phase uninterruptible power supplies	—	—	—	■
	Three phase	- Fluorescent lighting powered by extra low voltage transformer, by electronic ballast - Variable luminosity lighting - Powerful IT equipment - Single-phase variable speed industrial drives - Air conditioning - Telecommunications equipment - Capacitor banks	—	—	■	■
	Generating high-frequency interference (current peaks, harmonics)	- Microcomputer systems - Computer peripherals (printers, scanners, etc.)	—	—	■	■
Electrical environment						
	Vicinity of equipment generating transient overvoltages	- High-powered switching devices - Reactive energy compensation banks	—	—	■	■
	Circuits powered by an uninterruptible power supply	Backed-up networks	—	—	■	■
	"Isolated neutral" (IT) earthing system	—	—	—	■	■
	Major risk of lightning strokes	- Buildings protected by a lightning protection system - Mountainous or humid regions - Regions with high keraunic level	—	—	■	■
Atmosphere						
	Ambient temperature which could be less than -5°C	—	—	■	■	■
	Presence of corrosive agents (AF2 to AF4) or dust	- Indoor swimming pools - Yacht harbours, marinas, camping grounds - Water treatment - Chemical industries, heavy industries, paper mills - Mines and cellars, road tunnels - Markets, stock raising, food processing industries	—	—	■ (1)	—

(1) SiE for C120 and NG125 circuit-breakers

Discrimination

Residual current devices of average sensitivity (100 mA and more) are available in a selective (S) and delayed (R) version. This option ensures that, in the event of an earth fault downstream of the installation, only the defective part is switched off. The table below shows (in green) which upstream/downstream equipment combinations provide this discrimination.

Sensitivity (mA) - Downstream		Sensitivity (mA) - Upstream													
		Instantaneous						Selective S					Delayed R		
		30	100	300	500	1000	3000	100	300	500	1000	3000	1000	3000	
	Instantaneous	30	-	-	-	-	-	-							
		100	-	-	-	-	-	-	-						
		300	-	-	-	-	-	-	-	-					
		500	-	-	-	-	-	-	-	-	-		-		
		1000	-	-	-	-	-	-	-	-	-		-		
		3000	-	-	-	-	-	-	-	-	-	-	-	-	
	Selective S	100	-	-	-	-	-	-	-	-	-	-			
		300	-	-	-	-	-	-	-	-	-	-	-		
		500	-	-	-	-	-	-	-	-	-	-	-		
		1000	-	-	-	-	-	-	-	-	-	-	-		
		3000	-	-	-	-	-	-	-	-	-	-	-	-	
	Delayed R	1000	-	-	-	-	-	-	-	-	-	-	-	-	
		3000	-	-	-	-	-	-	-	-	-	-	-	-	