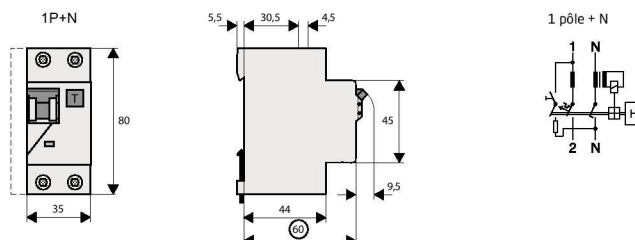




Fiche technique :
Disjoncteurs différentiels FL9

Dimensions (mm)



- Coupure indépendante de la tension réseau
- Compatible avec peignes standards
- Double borne confort (cage/vis) sur le dessus et le dessous
- Alimentation par le haut ou le bas
- Bornes libres même avec le peigne
- Obturateur isolant empêchant l'introduction du câble sous la borne
- La couleur du levier de commande indique le courant nominal
- Indication de position du contact
- Vaste gamme d'accessoires à montage ultérieur
- Protection contre des formes particulières de courants de défaut continus pulsés

A 1

Matériel modulaire et de tableaux électriques

Données techniques

Caractéristiques électriques	
Exécutions selon Homologation	IEC/EN 61009 N° d'agrément courant indiqué sur le boîtier.
Coupure	Instantané, insensible aux surcharges transitoires 250A 8/20µs
Tension nominale U_e	230 V AC
Fréquence nominale	50 Hz
Valeurs limites tension de service	196-253 V AC
Courants de défaut nom. $I_{\Delta n}$	10, 30, 100, 300 mA
Courant de non-coupure de défaut $I_{\Delta n}$	$0.5 I_{\Delta n}$
Courants de défaut nominaux $I_{\Delta n}$	30, 100, 300, 500, 1000 mA
Sensibilité	Courant alternatif et courant pulsé
Pouvoir de coupure nominal	2 - 40 A
Résistance nominale aux ondes de surtension U_{imp}	6 kV AC (1.2/50µs)
Caractéristique	B, C
Préfusible max. (court-circuit)	100 A gL (>10 kA)
Durée de vie électrique	≥ 4,000 manoeuvres
Durée de vie mécanique	≥ 20,000 manoeuvres

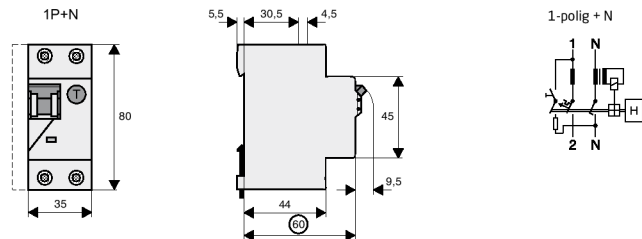
Caractéristiques mécaniques	
Cote d'encastrement du cache	45 mm
Cote du socle de l'appareil	80 mm
Largeur d'encastrement	35 mm (2Mod.)
Montage	le clips pour barre DIN à trois positions permet le démontage d'un disjoncteur différentiel sans ôter le peigne
Bornes sur le haut et le bas	Bornes à cage/vis
Protection des bornes	IP20 câblé
Section des bornes	1 - 25 mm ² rigide
Epaisseur du rail	0.8 - 2 mm
Température ambiante admissible	-25°C à +40°C
Tenue au climat	selon IEC/EN 61009

SG02706



Differentieelautomaten FL9

Afmetingen (mm)



- Uitschakeling netspanning-onafhankelijk
- Compatibel qua vorm en railaansluiting met standaard kamgeleiders
- Dubbele comfortklem lift/raam boven en onder
- Vrije keuze kamrailpositie boven of onder
- Vrije klemmenruimte ook met gemonteerde rail
- Afgeschermd kooiklemmen die een correcte aansluiting verzekeren
- De kleur van de schakelhefboom geeft de nom. stroom aan
- Contactstandmelding rood - groen
- Omvangrijk toebehorenprogramma naderhand aanbouwbaar
- Beveiligt bij speciale, niet afgevlakte vormen gelijkfoutstromen

Technische gegevens

Elektrisch

Uitvoeringen conform	IEC/EN 61009
Homologatie	Actueel goedkeuringsnr. conform opdruk
Afschakeling	onvertraagd 250A (8/20 μ s) stroomstootvast
Nom. spanning U_e	230 V AC
Nom. frequentie	50 Hz
Grenswaarde bedrijfsspanning	196-253 V AC
Courants de défaut nom. $I_{\Delta n}$	10, 30, 100, 300 mA
Courant de non-coupage de défaut $I_{\Delta n}$	0.5 $I_{\Delta n}$
Nom. foutstromen $I_{\Delta n}$	30, 100, 300, 500, 1000 mA
Gevoeligheid	AC Pulsstroom
Nom. stroom	2 - 40 A
Nom. stootspanningsvastheid U_{imp}	6 kV AC (1.2/50 μ s)
Karakteristiek	B, C
Max. voorzekerings (kortsluiting)	100 A gL (>10 kA)
Levensduur elektrisch	\geq 4,000 standwisselingen
mechanisch	\geq 20,000 standwisselingen

Mechanisch

Kapinbouwmaat	45 mm
Maat apparaatsokkel	80 mm
Inbouwbreedte	35 mm (2Mod.)
Montage	3-standen DIN-railclip maakt demontage uit een bestaand kamrailverband mogelijk
Klemmen boven en onder	Raam/liftklemmen
Beschermingsgraad klemmen	IP20 bedraad
Aansluitbereik	1 - 25 mm ² stijf
Materiaaldikte rail	0.8 - 2 mm
Toegel. omgevingstemperatuur	-25°C à +40°C
Klimaatbestendigheid	volgens IEC/EN 61009

A 1



Description

- Combined RCD/MCB Devices
- Line voltage-independent tripping
- Compatible with standard busbar
- Twin-purpose terminal (lift/open-mouthed) above and below
- Busbar positioning optionally above or below
- Free terminal space despite installed busbar
- Guide for secure terminal connection
- Type -A: Protects against special forms of residual pulsating DC which have not been smoothed
- 3-position DIN rail clip, permits removal from existing busbar system
- Tripping characteristic C
- Rated breaking capacity 10 kA
- Switching toggle (MCB component) in colour designating the rated current
- Contact position indicator red - green
- Fault current tripping indicator white - blue
- The test key "T" must be pressed every 6 month. The system operator must be informed of this obligation and his responsibility in a way that can be proven (self-adhesive RCD-label enclosed). The test interval of 6 month is valid for residential and similar applications. Under all other conditions (e.g. damply or dusty environments), it's recommended to test in shorter intervals (e.g. monthly).
- Pressing the test key "T" serves the only purpose of function testing the residual current device (RCD). This test does not make earthing resistance measurement (R_e), or proper checking of the earth conductor condition redundant, which must be performed separately.

$I_n/I_{\Delta n}$ (A)	Code	Article	Units per package
6/0.03	195606	FL962C003A	1/60
6/0.3	195611	FL962C03A	1/60
10/0.03	195607	FL9102C003A	1/60
10/0.1	195608	FL9102C01A	1/60
10/0.3	195612	FL9102C03A	1/60
16/0.03	193755	FL9162C003A	1/60
16/0.1	195609	FL9162C01A	1/60
16/0.3	195613	FL9162C03A	1/60
20/0.03	193756	FL9202C003A	1/60
20/0.1	195610	FL9202C01A	1/60
20/0.3	195614	FL9202C03A	1/60

Accessories:

Tripping signal switch for subsequent installation	ZP9IHK
Shunt trip release 230V	ZP9ASA230

Combined RCD/MCB Devices FL9, 2-pole

Technical data

Electrical

Design according to current test marks as printed onto the device	IEC/EN 61009
Line voltage-independent tripping	instantaneous 250 A (8/20 μs), surge current proof
Rated voltage	U_e 230 V AC; 50 Hz
Operational voltage range	196-253 V
Rated tripping current	$I_{\Delta n}$ 30 - 100 - 300mA
Rated non-tripping current	$I_{\Delta no}$ 0.5 $I_{\Delta n}$
Sensitivity	AC and pulsating DC
Selectivity class	3
Rated breaking capacity	I_{cn} 10 kA
Rated current	6 - 10 - 16 - 20 A
Rated impulse withstand voltage	U_{imp} 4 kV (1.2/50 μs)
Characteristic	C
Maximum back-up fuse (short circuit)	100 A gL (>10 kA)
Endurance	
electrical components	> 4,000 switching operations
mechanical components	> 20,000 switching operations

Mechanical

Frame size	45 mm
Device height	80 mm
Device width	35 mm (2MU)
Mounting	3-position DIN rail clip, permits removal from existing busbar system
Degree of protection, switch	IP20
Degree of protection, built-in	IP40
Upper and lower terminals	open mouthed/lift terminals
Terminal protection	finger and hand touch safe, DGVV VS3, EN 50274
Terminal capacity	1 - 25 mm ²
Terminal torque	2 - 2.4 Nm
Busbar thickness	0.8 - 2 mm
Tripping temperature	-25°C to +40°C
Storage- and transport temperature	-35°C to +60°C
Resistance to climatic conditions	according to IEC/EN 61009

Influence of ambient temperature on load carrying capacity

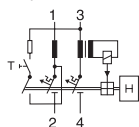
- Values = max. allowed current in Ampere at the specific temperature
- Temperature factor (%/K) = 0.5

Ambient temperature / °C

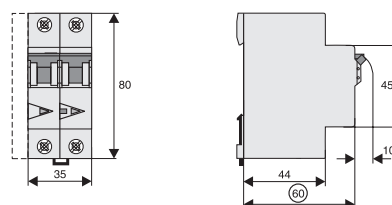
I_n [A]	-40	-30	-25	-20	-10	0	10	20	30	40
6	8.1	7.8	7.7	7.5	7.2	6.9	6.6	6.3	6.0	5.7
10	13.5	13.0	12.8	12.5	12.0	11.5	11.0	10.5	10.0	9.5
16	21.6	20.8	20.4	20.0	19.2	18.4	17.6	16.8	16.0	15.2
20	27.0	26.0	25.5	25.0	24.0	23.0	22.0	21.0	20.0	19.0

Connection diagram

2-pole



Dimensions (mm)



Combined RCD/MCB Devices FL9, 2-pole

Short Circuit Selectivity FL9 towards Neozed¹⁾ / Diazed²⁾ / NH00³⁾

Short circuit currents in kA, rated currents of fuses in A

Short circuit selectivity FL9 towards Neozed¹⁾

FL9	Neozed ¹⁾									
I_n [A]	16	20	25	32	35	40	50	63	80	100
C10	<0.5	0.5	0.8	1.7	1.9	3	6.1	10	10	10
C16		<0.5	0.7	1.3	1.5	2.2	4	6.2	10	10
C20			0.6	1.3	1.4	2.1	3.7	5.6	8.5	10

Short circuit selectivity FL9 towards Diazed²⁾

FL9	Diazed ²⁾									
I_n [A]	16	20	25	32	35	50	63	80	100	
C10	<0.5	0.5	0.8	1.5	2.4	4.4	10	10	10	
C16		<0.5	0.7	1.2	1.9	3.2	7.6	10	10	
C20			0.7	1.2	1.8	2.9	6.5	9.7	10	

Short circuit selectivity FL9 towards NH00³⁾

FL9	NH00 ³⁾											
I_n [A]	16	20	25	32	35	40	50	63	80	100	125	160
C10	<0.5	<0.5	0.7	1.3	1.9	2.7	4.5	6.9	10	10	10	10
C16		<0.5	0.6	1	1.5	2	3.1	4.4	7.5	10	10	10
C20			0.6	0.9	1.4	1.9	2.9	4.1	6.5	10	10	10

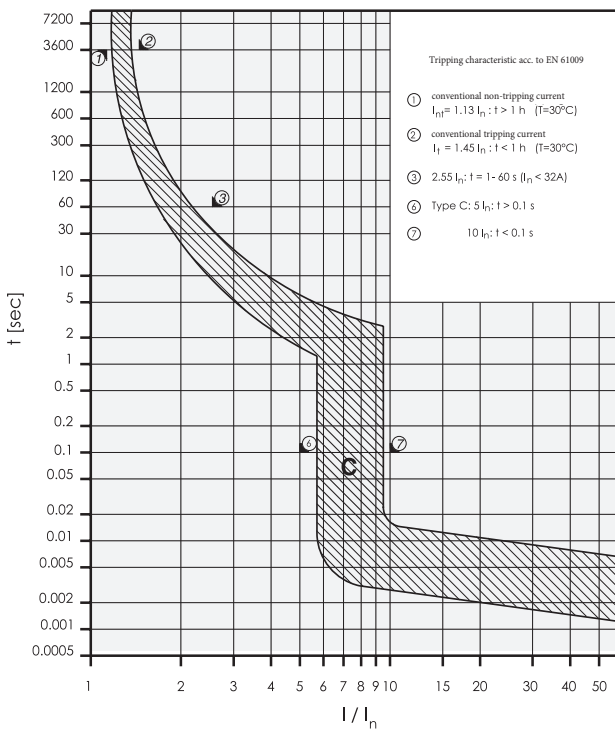
Darker areas: no selectivity

¹⁾ SIEMENS Type 5SE2; Size: D01, D02, D03; Operating class gG; Rated voltage: AC 400 V/DC 250 V

²⁾ SIEMENS Type 5SB2, 5SB4, 5SC2; Size: DII, DIII, DIV; Operating class gG; Rated voltage: AC 500 V/DC 500 V

³⁾ SIEMENS Type 3NA3 8, 3NA6 8, 3NA7 8; Size: 000, 00; Operating class gG; Rated voltage: AC 500 V/DC 250 V

Tripping Characteristic FL9, Characteristic C



Let-through Energy FL9, Characteristic C, 2-pole

