GRUPPEAFBRYDER FOR D0-SIKRING

GRUPPEAFBRYDER > FOR D0-SIKRING

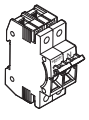
Generelt:

Anvendelse
Gruppeafbryderen leveres med klemmerne åbne - klar til montering.

Konstruktion
Af hensyn til personsikkerheden kan udtrækning af sikringsskuffen kun foretages med udkoblet afbryder. Mekanismen sørger for, at denne funktion altid sker med fuldt kontakttryk. Afbryderhåndtaget hindrer udtagning af skuffen i indkoblet stilling, samtidig hindrer det indkobling, før skuffen er trykket helt på plads. Gruppeafbryderen er plomberbar i indestilling med- og uden sikring isat. Afbryderen har berøringssikre bøsningsklemmer.

Tekniske Data

Mærkedriftsspænding:	250/400 V 50/60Hz.
Kortslutningsholdbarhed:	50 kA.
Omgivelsestemperatur:	- 20 °C til + 55 °C.
Kapslingsklasse:	IP20.
Skruetype:	Kombikrydskærv pozidriv nr. 2.
Montageplan:	På DIN-skinne, vilkårlig plan.
Godkendelse:	DEMKO.



1P+N D01 10A

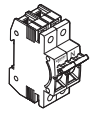
Farve	Varenr. / El-nr.	Varegrp.	Pakning	EAN13
RAL 9003	MGN01610 10 18 021 025	18.50	1 stk.	36 06 480 518 089

Anvendelse
Anvendes sammen med DO1-sikringer til kortslutnings- og overbelastningsbeskyttelse af installationsledninger og elektriske anlæg.

Konstruktion
Afbryderen er opbygget over DO1-sikringssystemet.

Tekniske Data

Mærkestrøm:	10 A.
Driftskategori:	AC 22 A.
Kontakt levetid:	Min. 5.000 elektrisk og min. 10.000 mekaniske stillingsændringer.
Sikringstype:	D01.
Tilslutningsklemmer:	Tilgang: Min. 1,5 mm² til 6 mm² Cu, maks. 2x6 mm² Cu. Afgang: Min. 1,5 mm² til 6 mm². Cu, maks. 2x6 mm². 2 parallele kabler skal have samme tværsnit eks. 2x4 mm².
Tilspændingsmoment:	2 Nm.
Modulbredde:	36 mm.
Egeneffekt:	2,5 W.
Standarder:	IEC/EN 60947-3, IEC 60269-3.



1P+N D01 13A

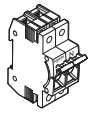
Farve	Varenr. / El-nr.	Varegrp.	Pakning	EAN13
RAL 9003	MGN01613 10 18 021 038	18.50	1 stk.	36 06 480 518 096

Anvendelse
Anvendes sammen med DO1-sikringer til kortslutnings- og overbelastningsbeskyttelse af installationsledninger og elektriske anlæg.

Konstruktion
Afbryderen er opbygget over DO1-sikringssystemet.

Tekniske Data

Mærkestrøm:	13 A.
Driftskategori:	AC 22 A.
Kontakt levetid:	Min. 5.000 elektrisk og min. 10.000 mekaniske stillingsændringer.
Sikringstype:	D01.
Tilslutningsklemmer:	Tilgang: Min. 1,5 mm² til 6 mm² Cu, maks. 2x6 mm² Cu. Afgang: Min. 1,5 mm² til 6 mm². Cu, maks. 2x6 mm². 2 parallele kabler skal have samme tværsnit eks. 2x4 mm².
Tilspændingsmoment:	2 Nm.
Modulbredde:	36 mm.
Egeneffekt:	2,5 W.
Standarder:	IEC/EN 60947-3, IEC 60269-3.



1P+N D01 16A

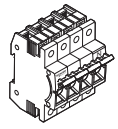
Farve	Varenr. / El-nr.	Varegrp.	Pakning	EAN13
RAL 9003	MGN01616 10 18 021 041	18.50	1 stk.	36 06 480 518 102

Anvendelse
Anvendes sammen med DO1-sikringer til kortslutnings- og overbelastningsbeskyttelse af installationsledninger og elektriske anlæg.

Konstruktion
Afbryderen er opbygget over DO1-sikringssystemet.

Tekniske Data

Mærkestrøm:	16 A.
Driftskategori:	AC 22 A.
Kontakt levetid:	Min. 5.000 elektrisk og min. 10.000 mekaniske stillingsændringer.
Sikringstype:	D01.
Tilslutningsklemmer:	Tilgang: Min. 1,5 mm² til 6 mm² Cu, maks. 2x6 mm² Cu. Afgang: Min. 1,5 mm² til 6 mm². Cu, maks. 2x6 mm². 2 parallele kabler skal have samme tværsnit eks. 2x4 mm².
Tilspændingsmoment:	2 Nm.
Modulbredde:	36 mm.
Egeneffekt:	2,5 W.
Standarder:	IEC/EN 60947-3, IEC 60269-3.



3P+N D01 13A

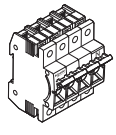
Farve	Varenr. / El-nr.	Varegrp.	Pakning	EAN13
RAL 9003	MGN01713 10 18 021 070	18.50	1 stk.	36 06 480 518 126

Anvendelse
Anvendes sammen med DO1-sikringer til kortslutnings- og overbelastningsbeskyttelse af installationsledninger og elektriske anlæg.

Konstruktion
Afbryderen er opbygget over DO1-sikringssystemet.

Tekniske Data

Mærkestrøm:	13 A.
Driftskategori:	AC 22 A.
Kontakt levetid:	Min. 5.000 elektrisk og min. 10.000 mekaniske stillingsændringer.
Sikringstype:	D01.
Tilslutningsklemmer:	Tilgang: Min. 1,5 mm² til 6 mm² Cu, maks. 2x6 mm² Cu. Afgang: Min. 1,5 mm² til 6 mm². Cu, maks. 2x6 mm². 2 parallele kabler skal have samme tværsnit eks. 2x4 mm².
Tilspændingsmoment:	2 Nm.
Modulbredde:	72 mm.
Egeneffekt:	7,5 W.
Standarder:	IEC/EN 60947-3, IEC 60269-3.



3P+N D01 16A

Farve	Varenr. / El-nr.	Varegrp.	Pakning	EAN13
RAL 9003	MGN01716 10 18 021 083	18.50	1 stk.	36 06 480 518 133

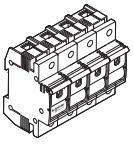
Anvendelse
Anvendes sammen med DO1-sikringer til kortslutnings- og overbelastningsbeskyttelse af installationsledninger og elektriske anlæg.

Konstruktion
Afbryderen er opbygget over DO1-sikringssystemet.

Tekniske Data

Mærkestrøm:	16 A.
Driftskategori:	AC 22 A.
Kontakt levetid:	Min. 5.000 elektrisk og min. 10.000 mekaniske stillingsændringer.
Sikringstype:	D01.
Tilslutningsklemmer:	Tilgang: Min. 1,5 mm² til 6 mm² Cu, maks. 2x6 mm² Cu. Afgang: Min. 1,5 mm² til 6 mm². Cu, maks. 2x6 mm². 2 parallele kabler skal have samme tværsnit eks. 2x4 mm².
Tilspændingsmoment:	2 Nm.
Modulbredde:	72 mm.
Egeneffekt:	7,5 W.
Standarder:	IEC/EN 60947-3, IEC 60269-3.

GRUPPEAFBRYDER FOR DO-SIKRING



3P+N D02 63A

Farve	Varenr. / El-nr.	Varegrp.	Pakning	EAN13
RAL 9003	MGN02763 10 18 021 135	18.50	1 stk.	36 06 480 518 195

Anvendelse
Anvendes sammen med DO2-sikringer til kortslutnings- og overbelastningsbeskyttelse af installationsledninger og elektriske anlæg.

Konstruktion
Afbryderen er opbygget over DO2-sikringssystemet.

Tekniske Data

Mærkestrøm:	63 A.
Driftskategori:	AC 22.
Kontakt levetid:	Min. 8.000 (elektrisk) og min. 1.500 (mekanisk) stillingsændringer.
Sikringstype:	D02.
Tilslutningsklemmer:	1,5 - 35 mm² Cu eller maks. 25 mm² Alu.
Tilspændingsmoment:	2,5 Nm.
Modulbredde:	107 mm.
Egeneffekt:	16,5 W.
Standarder:	VDE 0638. IEC/EN 60 947-3, DIN VDE 0113, DIN VDE 0110.

GRUPPEAFBRYDER > ·TILBEHØR

Generelt:

Anvendelse
Pasringe til gruppeafbrydere 3- og 3P+N polet 63A DO2 skal anvendes, hvis en mindre sikring kræves.

Konstruktion
Pasringen indsættes i den åbne sikringsskuffe, for at begrænse den maks. tilladte sikring.

Pasring for DO2 20 A - blå

Farve	Varenr. / El-nr.	Varegrp.	Pakning	EAN13
Blå	MGN09120 10 18 021 148	18.99	1 stk.	36 06 480 518 249

Pasring for DO2 25 A - gul

Farve	Varenr. / El-nr.	Varegrp.	Pakning	EAN13
Gul	MGN09125 10 18 021 151	18.99	1 stk.	36 06 480 518 256

Pasring for DO2 35 A - sort

Farve	Varenr. / El-nr.	Varegrp.	Pakning	EAN13
Sort	MGN09135 10 18 021 164	18.99	1 stk.	36 06 480 518 263

Pasring for DO2 50 A - hvid

Farve	Varenr. / El-nr.	Varegrp.	Pakning	EAN13
Hvid	MGN09150 10 18 021 177	18.99	1 stk.	36 06 480 518 270

General characteristics: INF
Fupact INF•32 to INF•800

PB107607_43.eps

Emergency-off switch-disconnector fuse.

Emergency-off (safety) switch-disconnector fuses

The Fupact switch-disconnector fuses can be used as emergency-off devices.
For this application, it must be easily visible, accessible and identifiable (see standards and rules concerning the safety of machines: VDE 0660,VDE 0113, CNOMO...).
For easy identification, the emergency-off switch-disconnector fuses use special colours stipulated by the standards and different from those of the standard version:
- ■ yellow for the front face of the device or the control plate
- ■ red for the handle.

The performance characteristics of the Fupact emergency-off switch-disconnector fuse are the same as those of the standard version.
The emergency-off switch-disconnector fuses are available:
- ■ for extended handle versions:
  - □ on the front for the entire range
  - □ at the side for ratings < 200 A
- ■ for direct front control models from INF•200 to INF•800.

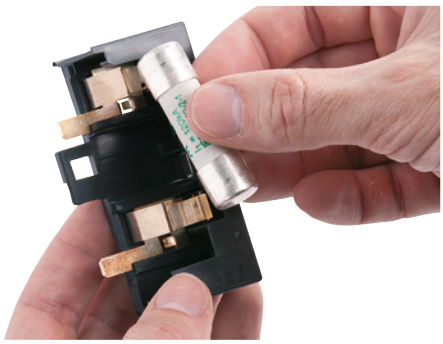
Compatible fuse-links

Fupact switch-disconnector fuses can be used with all fuse-links found on IEC markets (NFC, DIN, BS).

Switch-disconnector fuse	Type of fuse-link		
	NFC	DIN	BS
INF•32	■	-	■
INF•40 to INF•63	■	■	■
INF•100 to 160	■ (1)	■	■
INF•200 to 800	-	■	■

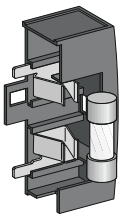
(1) Up to 125 A.

_MG_6514_68.eps



DB120545.eps

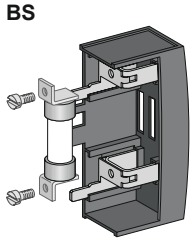
NFC



Fuse-carrier for INFC32.

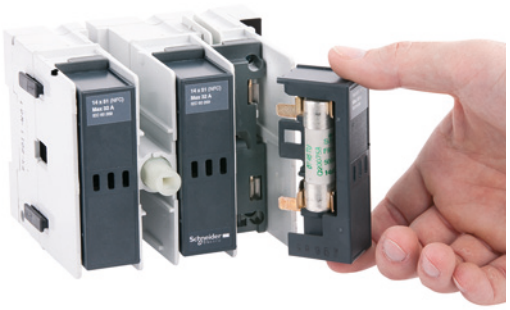
DB120585.eps

BS



Fuse-carrier for INFB32.

_MG_6511_64.eps



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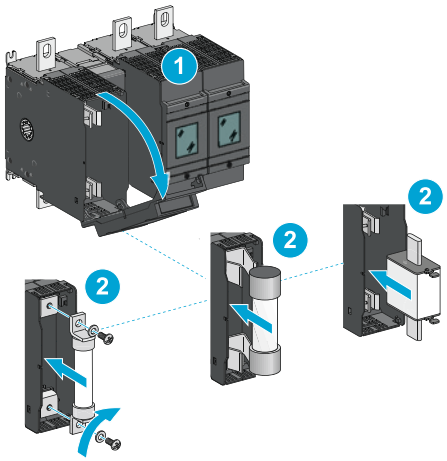


INFD40 to INF•800.

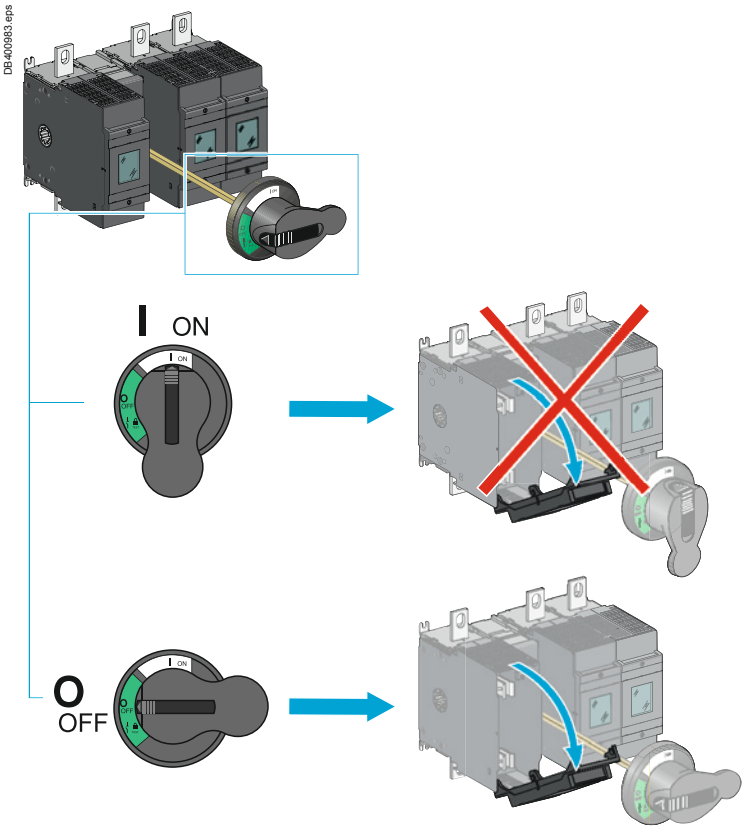
Note: *for ratings ⩽ 63 A, the fuse-carriers are different for each type of fuse-link.*
For ratings ⩾ 100 A, the switch-disconnector fuses are different for each type of fuse-link.

Total user safety

Switch-disconnector fuses equipped with terminal shields offer IP20 protection. They are totally protected against accidental direct contact.
Access to the fuses is:

- blocked when INF•32 to INF•800 switch-disconnector fuses are in the ON position (the fuse-carriers and the fuse-covers INFD40 to INF•800 are maintained)
- only possible when the handle is in the OFF position.
- when product is in the ON position with door closed, nevertheless, it's possible to unlock best with a specific tool (please refer to your support sales).

The double-isolation feature of the switch-disconnector fuse ensures isolation of the fuse-link and, if necessary, its replacement without any risk.
The switch-disconnector fuses have high making and breaking capacities (see page A-6). The operating mechanism (opening and closing) features is independent from a manual operation (speed and force independent of operator action).



Protection against access to live fuses.

Switch-disconnector fuse selection
Fupact INF•32 to INF•160

INFB32.

INFC63.

INFD160.

Switch-disconnector fuses				INF•32		INFD40		INF•63		INFB100		INFC125		INF•160	
Number of poles / type of fuse-link	3 poles / 3 fuse-links			NFC-BS		DIN		NFC-DIN-BS		BS		NFC		DIN-BS	
	4 poles / 3 fuse-links + switched neutral			NFC-BS		DIN		NFC-DIN-BS		BS		NFC		DIN-BS	
	4 poles / 4 fuse-links			NFC		DIN		NFC-DIN		-		NFC		DIN	
Electrical characteristics as defined by IEC 60947-1 / IEC 60947-3 and EN 60947-1 / EN 60947-1															
Conventional thermal current (A)	In free air	**Ith**	at 40 °C	32		40		63		100		125		160	
	Maximum fuse power dissipation (W)			3.5		7.5		7.5		12		12		12	
	In enclosure	**Ithe**	at 40 °C	32		40		63		100		125		160	135
	Maximum fuse power dissipation (W)			3.5		7.5		7.5		12		12		10	12
Rated insulation voltage (V)		**Ui**	AC 50/60 Hz / DC	1000		1000		1000		1000		1000		1000	
Rated impulse withstand voltage (kV)		**Uimp**		12		12		12		12		12		12	
Rated operational voltage (V)		**Ue**	AC 50/60 Hz	690		690		690		690		690		690	
			DC	250		440		440		440		440		440	
Rated operational voltage AC20 and DC20 (V)		**Ue**		690		1000		1000		1000		1000		1000	
Rated operational current (A)		**Ie**	AC 50/60 Hz	**AC22A**	**AC23A**	**AC22A**	**AC23A**	**AC22A**	**AC23A**	**AC22A**	**AC23A**	**AC22A**	**AC23A**	**AC22A**	**AC23A**
			220/240 V	32	32	40	40	63	63	100	100	125	125	160	160
			380/415 V	32	32	40	40	63	63	100	100	125	125	160	160
			440/480 V (1)	32	32	40	40	63	63	100	100	125	125	160	160
			500/525 V	32	32	40	40	63	63	100	100	125	125	160	160
			660/690 V	32	32	40	40	63	63 (2)	100	100 (2)	125	125 (2)	160	160 (2)
			DC/poles in series	**DC22A**	**DC23A**	**DC21B**	**DC23B**	**DC21B**	**DC23B**	**DC21B**	**DC23B**	**DC21B**	**DC23B**	**DC21B**	**DC23B**
			250 V/nbr of poles	32/2	32/2	40/2	40/2	63/2	63/2	100/2	100/2	125/2	125/2	125/2	125/2
			440 V/nbr of poles	32/4	32/4	40/4	-	50/4	-	100/4	-	125/2	-	125/2	-
			750 V/nbr of poles	-	-	-	-	-	-	-	-	-	-	-	-
Rated operational power (kW) (3) (motor power given for direct on-line starting)			AC 220/240 V	8		18.5		18.5		30		37		45	
			380/400 V	14		30		30		55		55		75	
			415 V	15		30		30		55		55		75	
			500/525 V	18		37		37		55		55		90	
			660/690 V	25		55		55		90		90		132	
Rated duties			Uninterrupted duty	■		■		■		■		■		■	
			Intermittent duty	class 120-60 %		class 120-60 %		class 120-60 %		class 120-60 %		class 120-60 %		class 120-60 %	
Rated short-circuit making capacity (kA peak) Switch-disconnector without fuse (refer to single-phase fuse limitation curves)		**Icm**	415 V	9		17		17		23		29		29	
			500 V	7.5		17		17		22		22		22	
			690 V	6		13		13		16		16		16	
Rated short-circuit breaking capacity (kA rms) / Rated short-circuit making capacity (kA peak) (4)		**Icn / Icm**	415 V (BS)	80/176		80/176		80/176		80/176		80/176		80/176	
			500 V (DIN)	100/220		100/220		100/220		100/220		100/220		100/220	
			690 V (DIN)	50/105		50/105		50/105		50/105		50/105		50/105	
Rated short-time withstand current (A rms)		**Icw**	1 s	1000		2500		2500		5000		5000		5000	
			3 s	570		1440		1440		2900		2900		2900	
			20 s	220		560		560		1150		1150		1150	
			30 s	180		460		460		950		950		950	
Endurance (category A) (CO cycles)			Mechanical	10000		10000		10000		10000		10000		10000	
			Electrical AC AC22A 500 V	1500		1500		1500		1500		1500		1500	
			AC22A 690 V	1500		1500		1500		1500		1500		1500	
			AC23A 500 V	1500		1500		1500		1500		1500		1500	
			AC23A 690 V	1500		1500		1500		1500		1500		1500	
Suitability for isolation				■		■		■		■		■		■	
Positive contact indication				■		yes		yes		yes		yes		yes	
Pollution degree				3		3		3		3		3		3	
Control															
Direct front rotary handle				■		■		■		■		■		■	
Extended front rotary handle				■		■		■		■		■		■	
Extended lateral rotary handle				■		■		■		■		■		■	
Locking by padlocks				■		■		■		■		■		■	
Operating torque (typical for 3-pole switch-disconnector fuses) (Nm)				3		5		5		7		7		7	
Indication auxiliaries															
Auxiliary contacts				■		■		■		■		■		■	
Blown-fuse indicator				■		■		■		■		■		■	
Fuse monitor				■		■		■		■		■		■	
Auxiliary contact test position				■		■		■		■		■		■	

(1) Suitable for 480 V NEMA.
(2) AC23B.
(3) Some fuse-links limit these values. Motor starting current must be considered separately.
(4) Switch-disconnector combined with fuses.

Switch-disconnector fuse selection

Fupact INF•32 to INF•160

PB113439.eps

INFB32.

PB107591_60.eps

INFC63.

PB107593_60.eps

INFD160.

Switch-disconnector fuses			INF•32	INFD40	INF•63	INFB100	INFC125	INF•160
Type of fuse-link								
NFC	10 x 38		■	-	-	-	-	-
	14 x 51		■	-	■ (50 A)	-	-	-
	22 x 58		-	-	■	-	■	-
DIN (NH)	NH000		-	■	■	-	-	■
	NH00		-	-	■	-	-	■
BS (fixing centres in mm) [2]	A1 (44.5)		■	-	-	-	-	-
	A2 (73.0)		■	-	■	■	-	■
	A3 (73.0)		-	-	■	■	-	■
	A4 (93.7)		-	-	-	■ [1]	-	■ [1]
Installation and connection								
Fixed front connection			■	■	■	■	■	■
Terminal tightening torque (Nm)			2	4	4	M8 x 25	M8 x 25	M8 x 25
Fuse-link bolt tightening torque (Nm)			2	3.5	3.5	M5: 3.5 M8: 5	M5: 3.5 M8: 5	M5: 3.5 M8: 5
Installation and connection accessories								
Bare cable connectors			■ (standard)	■ (standard)	■ (standard)	■ (optional)	■ (optional)	■ (optional)
Terminals			-	-	-	■	■	■
Neutral link			■	■	■	■	■	■
Terminal shields			-	-	-	■	■	■
Dimensions and weight								
Overall dimensions H x W x D (mm) Front DIN/NFC version		3P	97 x 106 x 105	100 x 114.5 x 120.5	100 x 114.5 x 120.5	140 x 148 x 130	140 x 148 x 130	140 x 148 x 130
		4P	97 x 142 x 105	100 x 138 x 120.5	100 x 138 x 120.5	140 x 183 x 130	140 x 183 x 130	140 x 183 x 130
Overall dimensions H x W x D (mm) Lateral DIN/NFC version		3P	97 x 129 x 105	100 x 146.5 x 132.5	100 x 146.5 x 132.5	140 x 181.5 x 142	140 x 181.5 x 142	140 x 181.5 x 142
		4P	97 x 165 x 105	100 x 170 x 132.5	100 x 170 x 132.5	140 x 216.5 x 142	140 x 216.5 x 142	140 x 216.5 x 142
Overall dimensions H x W x D (mm) Front BS version		3P	97 x 106 x 105	100 x 114.5 x 105.5	100 x 114.5 x 105.5	140 x 148 x 114.5	140 x 148 x 114.5	140 x 148 x 114.5
		4P	97 x 142 x 105	100 x 138 x 105.5	100 x 138 x 105.5	140 x 183 x 114.5	140 x 183 x 114.5	140 x 183 x 114.5
Overall dimensions H x W x D (mm) Lateral BS version		3P	97 x 129 x 105	100 x 146.5 x 120.5	100 x 146.5 x 120.5	140 x 181.5 x 126.5	140 x 181.5 x 126.5	140 x 181.5 x 126.5
		4P	97 x 165 x 105	100 x 170 x 120.5	100 x 170 x 120.5	140 x 216.5 x 126.5	140 x 216.5 x 126.5	140 x 216.5 x 126.5
Approximate weight without fuse and without accessory (kg)		3P	0.7	1.1	1.1	1.4	1.4	1.4
		4P	0.9	1.3	1.3	1.8	1.8	1.8
Enclosure dimensions for Ithe								
		H x W x D (mm)	300 x 350 x 200					
Temperature derating [3] [4]			**NFC-BS**	**DIN**	**NFC-DIN-BS**	**BS**	**NFC**	**DIN-BS**
"Vertical mounting" fuse-links in vertical position	**Ith** (A)	40 °C	32	63	63	100	125	160
		45 °C	30.4	58	58	93	116	148
		50 °C	28.8	56	56	89	111	142
		55 °C	27.2	53	53	85	106	135
		60 °C	25.6	51	51	80	100	128
		65 °C	25	48	48	76	95	121
		70 °C	24.4	45	45	71	88	113
"Horizontal mounting" fuse-links in horizontal position	**Ithe** (A)	35 °C	31	63	63	100	125	160
		40 °C	29.5	61	61	96	120	154
		45 °C	28	58	58	93	116	148
		50 °C	26.5	56	56	89	111	142
		55 °C	25	53	53	85	106	135
		60 °C	23.5	51	51	80	100	128
		65 °C	22	48	48	76	94	121
		70 °C	20.5	45	45	71	88	113

(1) Maximum fuse body diameter: Ø32 mm.
(2) A: fuse-link with centre bolted tags.
(3) Derating data is based on:
- the maximum rating for fuse-links intended for the device
- maximum power dissipation.
(4) For installation on a ceiling, derate an additional 10 %.

Switch-disconnector fuse selection
Fupact INF●200 to INF●800

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INFD200.

PB105016_27_r.eps

INFD400.

PB105017.eps

INFB800.

Switch-disconnector fuses				INF●200	INF●250	INF●400	INF●630	INF●800
Number of poles / type of fuse-link	3 poles / 3 fuse-links			DIN-BS	DIN-BS	DIN-BS	DIN-BS	DIN-BS
	4 poles / 3 fuse-links + switched neutral			DIN-BS	DIN-BS	DIN-BS	DIN-BS	DIN-BS
	4 poles / 4 fuse-links			DIN	DIN	DIN	DIN	DIN
Electrical characteristics as defined by IEC 60947-1 / IEC 60947-3 and EN 60947-1 / EN 60947-1								
Conventional thermal current (A)	In free air	**Ith**	at 40 °C	200	250	400	630	800
	Maximum fuse power dissipation (W)			17	23	45	60	65
	In enclosure	**Ithe**	at 40 °C	200 / 180	250 / 230	400 / 360	570	720
	Maximum fuse power dissipation (W)			15 / 18	20 / 27	30 / 37	50	55
Rated insulation voltage (V)		**Ui**	AC 50/60 Hz / DC	1000	1000	1000	1000	1000
Rated impulse withstand voltage (kV)		**Uimp**		12	12	12	12	12
Rated operational voltage (V)		**Ue**	AC 50/60 Hz	690	690	690	690	690
			DC	750	750	750	750	750
Rated operational voltage AC20 and DC20 (V)		**Ue**		1000	1000	1000	1000	1000
Rated operational current (A)		**Ie**	AC 50/60 Hz	**AC22A** / **AC23A**	**AC22A** / **AC23A**	**AC22A** / **AC23A**	**AC22A** / **AC23A**	**AC22A** / **AC23A**
			220/240 V	200 / 200	250 / 250	400 / 400	630 / 630	800 / 800
			380/415 V	200 / 200	250 / 250	400 / 400	630 / 630	800 / 800
			440/480 V [1]	200 / 200	250 / 250	400 / 400	630 / 630	800 / 800
			500/525 V	200 / 200	250 / 250	400 / 400	630 / 630	800 / 800
			660/690 V	200 / 200	250 / 250	400 / 400	630 / 630	800 / 800
			DC/poles in series	**DC22A** / **DC23A**	**DC22A** / **DC23A**	**DC22A** / **DC23A**	**DC22A** / **DC23A**	**DC22A** / **DC23A**
			125 V/nbr of poles	200/1 / 200/1	250/1 / 250/1	400/2 / 400/2	630/1 / 630/1	800/1 / 800/1
			250 V/nbr of poles	200/2 / 200/2	250/2 / 250/2	400/3 / 400/3	630/2 [4] / 630/2 [4]	800/2 [4] / 800/2 [4]
			500 V/nbr of poles	200/3 / 200/3	250/3 / 250/3	400/4 [4] / 400/4 [4]	630/3 [4] / 630/3 [4]	720/3 [4] / 720/3 [4]
			750 V/nbr of poles	180/4 / 180/4	230/4 / 230/4	400/4 [4] / 400/4 [4]	630/4 [4] / 630/4 [4]	720/4 [4] / 720/4 [4]
Rated operational power (kW) [2] (motor power given for direct on-line starting)			AC 220/240 V	60	75	132	200	250
			380/400 V	110	140	220	355	450
			415 V	110	145	230	355	450
			500/525 V	132	170	280	450	560
			660/690 V	200	250	400	630	710
Rated duties			Uninterrupted duty	■	■	■	■	■
			Intermittent duty	class 120-60 %	class 120-60 %	class 120-60 %	class 120-60 %	class 120-60 %
Rated short-circuit making capacity (kA peak) Switch-disconnector without fuse (refer to single-phase fuse limitation curves)		**Icm**	415 V	35	40.5	59	77	77
			500 V	37.5	37.5	63.5	83	83
			690 V	28	28	48	55	55
Rated short-circuit breaking capacity (kA rms) / Rated short-circuit making capacity (kA peak) [3]		**Icn / Icm**	415 V (BS)	80/176	80/176	80/176	80/176	80/176
			500 V (DIN)	100/220	100/220	100/220	100/220	100/220
			690 V (DIN)	80/176	80/176	80/176	80/176	80/176
Rated short-time withstand current (A rms)		**Icw**	1 s	8000	8000	14000	18000	18000
			3 s	4620	4620	8080	10400	10400
			20 s	1790	1790	3130	4000	4000
			30 s	1460	1460	2550	3300	3300
Endurance (category A) (CO cycles)			Mechanical	10000	10000	8000	5000	5000
			Electrical AC AC22A 500 V	1000	1000	1000	1000	500
			AC22A 690 V	1000	1000	1000	1000	500
			AC23A 500 V	1000	1000	1000	1000	500
			AC23A 690 V	1000	1000	1000	1000	500
Suitability for isolation				■	■	■	■	■
Positive contact indication				■	■	■	■	■
Pollution degree				3	3	3	3	3
Control								
Direct front rotary handle				■	■	■	■	■
Extended front rotary handle				■	■	■	■	■
Extended lateral rotary handle				-	-	-	-	-
Locking by padlocks				■	■	■	■	■
Operating torque (typical for 3-pole switch-disconnector fuses) (Nm)				7	7	19	38	38
Indication auxiliaries								
Auxiliary contacts				■	■	■	■	■
Blown-fuse indicator				■ [5]	■ [5]	■ [5]	■ [5]	■ [5]
Fuse monitor				■	■	■	■	■
Auxiliary contact test position				■	■	■	■	■

(1) Suitable for 480 V NEMA.
(2) Some fuse-links limit these values.
Motor starting current must be considered separately.
(3) Switch-disconnector combined with fuses.
(4) Category B.
(5) Only for DIN fuse-links.

Switch-disconnector fuse selection

Fupact INF•200 to INF•800

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INFD200.

PB105016_27_r.eps

INFD400.

PB105017.eps

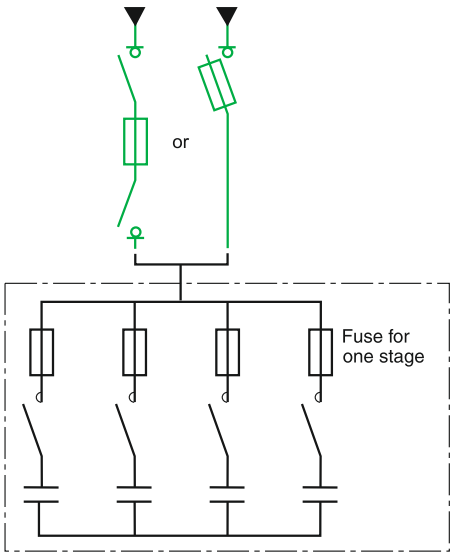
INFB800.

Switch-disconnector fuses			INF•200	INF•250	INF•400	INF•630	INF•800
Type of fuse-link							
DIN (NH)	NH (0)		■	-	-	-	-
	NH (0, 1)		-	■	-	-	-
	NH (0, 1, 2)		-	-	■	-	-
	NH (3)		-	-	-	■	■
BS (fixing centres in mm) (1)	B1 (111)		■	■	■	-	-
	B2 (111)		■	■	■	-	-
	B3 (111)		-	■ (4)	■	-	-
	B4 (111)		-	-	■ (5)	-	-
	C1 (133)		-	-	-	■	■
	C2 (133)		-	-	-	■	■
	C3 (133)		-	-	-	-	■
Installation and connection							
Fixed front connection			■	■	■	■	■
Terminal tightening torque (Nm)			15-22	30-44	30-44	50-75	50-75
Fuse-link bolt tightening torque (Nm)			4	5	20	M10 : 30 M12 : 40	M10 : 30 M12 : 40
Installation and connection accessories							
Bare cable connectors			■ (optional)	■ (optional)	■ (optional)	■ (optional)	■ (optional)
Terminals			■	■	■	■	■
Neutral link			■	■	■	■	■
Terminal shields			■	■	■	■	■
Dimensions and weight							
Overall dimensions H x W x D (mm)	3P (DIN)		199 x 175.5 x 149	193 x 206 x 154	230 x 254 x 193	306 x 341 x 233	306 x 341 x 233
	3P (BS)		199 x 175.5 x 130		230 x 254 x 176		
	4P (DIN)		199 x 219 x 149	193 x 260 x 154	230 x 318 x 193	306 x 429 x 233	306 x 429 x 233
	4P (BS)		199 x 219 x 130		230 x 318 x 176		
Approximate weight without fuses (kg)	3P		2.6	3.1	5.7	11.5	11.5
	4P		3.6	4.1	7.7	14.4	14.4
Enclosure dimensions for Ithe							
	H x W x D (mm)		600 x 350 x 300	800 x 400 x 330	610 x 508 x 254	800 x 1000 x 330	800 x 1000 x 330
Temperature derating (2) (3)			**DIN-BS**	**DIN-BS**	**DIN-BS**	**DIN-BS**	**DIN-BS**
"Vertical mounting" fuse-links in vertical position	**Ith** (A)	40 °C	200	250	400	630	800
		45 °C	185	232	370	583	741
		50 °C	177	222	355	558	709
		55 °C	169	211	338	532	676
		60 °C	160	200	321	505	641
		65 °C	151	189	302	476	605
		70 °C	141	177	283	446	566
"Horizontal mounting" fuse-links in horizontal position	**Ith** (A)	35 °C	200	250	400	570	720
		40 °C	193	241	385	549	694
		45 °C	185	231	370	528	667
		50 °C	177	222	355	505	638
		55 °C	169	211	338	482	609
		60 °C	160	200	321	457	577
		65 °C	151	189	302	431	544
		70 °C	141	177	283	403	509

(1) B: fuse-link with offset bolted tags.
(2) Derating data is based on:
- the maximum rating for fuse-links intended for the device
- maximum power dissipation.
(3) For installation on a ceiling, derate an additional 10 %.
(4) Maximum fuse body diameter: Ø 52 mm.
(5) Maximum fuse body diameter: Ø 62 mm.

Protection of LV/LV transformers and capacitors

DB115216.eps



Capacitor-bank protection.

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Rectimat 2 capacitor bank.

Protection of capacitors

It is necessary to take into account:

■ permissible variations in the fundamental voltage and in harmonic content
The increase in the current rating for the protection device may reach 30 %.

■ variations due to capacitor tolerances.
The increase in the current rating for the protection device may reach 15 % (but only 5 % for Rectiphase capacitors).

Given the above, the generally required correction factor ranges from 1.6 to 2.
For Rectiphase capacitor banks, an optimised factor of only 1.4 may be used for standard banks.

Protection table for fixed or automatic capacitor banks

400/415 V Capacitor (kVAR)	gG fuse-link rating	Fupact
10 kVAR	20 A	INF●32 / INFD40
20 kVAR	40 A	INF●63 / INFD40
30 kVAR	63 A	INF●63
50 kVAR	100 A	INF●125
60 kVAR	125 A	INF●125
80 kVAR	160 A	INF●250
105 kVAR	250 A	INF●250
150 kVAR	315 A	INF●400
210 kVAR	450 A	INF●630
315 kVAR	670 A	INF●800

690 V Capacitor (kVAR)	gG fuse-link rating	Fupact
10 kVAR	16 A	INF●32 / INFD40
20 kVAR	32 A	INF●32 / INFD40
30 kVAR	40 A	INF●63 / INFD40
50 kVAR	63 A	INF●63
60 kVAR	80 A	INF●125
80 kVAR	100 A	INF●125
105 kVAR	125 A	INF●160
150 kVAR	200 A	INF●250
210 kVAR	250 A	INF●400
315 kVAR	400 A	INF●400
405 kVAR	500 A	INF●630
450 kVAR	560 A	INF●630
495 kVAR	630 A	INF●800
540 kVAR	670 A	INF●800