

3VF2 Circuit-Breakers

3- and 4-pole, up to 100 A, I_{cu} up to 18 kA

For other circuit-breakers
(complete program)
see Catalog NS PS

Selection and ordering data

Fixed-mounted circuit-breakers

Related ultimate short-circuit breaking capacity I_{cu}	up to 240 V	kA	65
	up to 415 V	kA	18
Related service short-circuit breaking capacity I_{cs}	up to 240 V	kA	33
	up to 415 V	kA	9
Rated short-circuit making capacity I_{cm}	up to 240 V	kA	143
	up to 415 V	kA	38



Rated current I_n	Setting current of the inverse time delayed, overcurrent release "a" I_r	Operating current of the instantaneous short-circuit release "n" I_f	3VF2 circuit-breaker 3-pole	Price	3VF2 circuit-breaker 4-pole	Price
A	A	A	Order No.		Order No.	

Circuit-breakers for line protection

With fixed-setting thermal overcurrent releases

With fixed-setting thermal overcurrent releases, with overload and short-circuit releases in the 4th pole (N = 100%)



16	16	350	3VF22 13-0FC41-0AA0		3VF22 14-0JC41-0AA0
20	20	450	3VF22 13-0FD41-0AA0		3VF22 14-0JD41-0AA0
25	25	500	3VF22 13-0FE41-0AA0		3VF22 14-0JE41-0AA0
32	32	600	3VF22 13-0FG41-0AA0		3VF22 14-0JG41-0AA0
40	40	750	3VF22 13-0FJ41-0AA0		3VF22 14-0JJ41-0AA0
45	45	750	3VF22 13-0FK41-0AA0		3VF22 14-0JK41-0AA0
50	50	800	3VF22 13-0FL41-0AA0		3VF22 14-0JL41-0AA0
63	63	800	3VF22 13-0FN41-0AA0		3VF22 14-0JN41-0AA0
70	70	900	3VF22 13-0FP41-0AA0		3VF22 14-0JP41-0AA0
80	80	900	3VF22 13-0FQ41-0AA0		3VF22 14-0JQ41-0AA0
90	90	1000	3VF22 13-0FR41-0AA0		3VF22 14-0JR41-0AA0
100	100	1000	3VF22 13-0FS41-0AA0		3VF22 14-0JS41-0AA0

Auxiliary releases and auxiliary/alarm switches, see accessories below

Accessories

Operating mechanisms	Order No.	Price	Pack.
Front rotary drive for attaching to the circuit-breaker degree of protection IP 30, black knob, lockable with max. 3 padlocks	3VF9 223-1AA00		1 unit
EMERGENCY STOP version red knob, yellow indicator plate	3VF9 223-1BA00		1 unit
Version with shaft stub, without knob (see below for necessary 8UC61 drive)	3VF9 223-1JA00		1 unit
Door-coupling rotary drive Standard version, black EMERGENCY STOP version, red/yellow Required additionally: front rotary drive with shaft stub	8UC61 12-1BD22 8UC61 22-3BD22		1 unit
	3VF9 223-1JA00		1 unit
Terminals, covers			
Rear terminals for 45 to 100 A for 3-pole circuit-breaker (see below for covers) 1 set = 6 items	3VF9 224-1LD10		1 set
for 45 to 100 A for 4-pole circuit-breaker (see below for covers) 1 set = 8 items	3VF9 224-1LD20		1 set
Terminal covers, for 3-pole circuit-breakers for main connection, cable connection 1 set = 2 items	3VF9 224-1NB10		1 set
Terminal covers, for 4-pole circuit-breakers for main connection, cable connection 1 set = 2 items	3VF9 224-1NB20		1 set
Cover with 45 mm cap for distribution boards, for 3-pole circuit-breaker 1 set = 1 item	3VF9 220-1CA10		1 set
Cover with 45 mm cap for distribution boards, for 4-pole circuit-breaker 1 set = 1 item	3VF9 220-1CA20		1 set
Cover frame for door cutout for circuit-breaker 1 set = 1 item	3VF9 220-1AA00		1 set

Shunt releases ¹⁾	Order No.	Price	Pack.
Shunt release AC 50/60 Hz DC			
– 12 V	3VF9 221-1JC10		1 unit
– 24 V	3VF9 221-1JD10		
– 48 V	3VF9 221-1JH10		
– 110–125 V	3VF9 221-1JL10		
110–127 V	3VF9 221-1JP10		
220–240 V	3VF9 221-1JM10		
380–415 V	3VF9 221-1JV10		
Shunt release with auxiliary switch 1 C/O NEW AC 50/60 Hz DC			
– 12 V	3VF9 221-1KC10		1 unit
– 24 V	3VF9 221-1KD10		
– 48 V	3VF9 221-1KH10		
– 110–125 V	3VF9 221-1KL10		
110–127 V	3VF9 221-1KP10		
220–240 V	3VF9 221-1KM10		
380–415 V	3VF9 221-1KV10		

Auxiliary switches and alarm switches ¹⁾	Order No.	Price	Pack.
Tripped-signalling/alarm switch 1 C/O	3VF9 222-1AC10		1 unit
Alarm switch (AS) and auxiliary switch (HS) NEW 1 C/O (AS) + 1 C/O (HS)	3VF9 222-1DC10		1 unit
Auxiliary switch 1 C/O 2 C/O	3VF9 222-1BC10 3VF9 222-1CC10		1 unit

1) Only one switch can be fitted per 3VF2 circuit-breaker; fitted on the left.

3VF3 Circuit-Breakers

3- and 4-pole, up to 160 A, I_{cu} up to 25 kA

For other circuit-breakers
(complete program)
see Catalog NS PS

Selection and ordering data

Fixed-mounted circuit-breakers						
Rated ultimate short-circuit breaking capacity I_{cu}	up to 240 V	kA	40			
	up to 415 V	kA	25			
Rated service short-circuit breaking capacity I_{cs}	up to 240 V	kA	40			
	up to 415 V	kA	25			
Rated short-circuit making capacity I_{cm}	up to 240 V	kA	84			
	up to 415 V	kA	52			
Rated current I_n	Setting current of the inverse time delayed overcurrent release "a" I_r	Operating current of the instantaneous short-circuit release "n" I_t	3VF3 3-pole circuit-breakers		3VF3 4-pole circuit-breakers	
A	A	A	Order No.	Price	Order No.	Price
			Order No. supplements See pages 11/14 and 11/15.		Order No. supplements See pages 11/14 and 11/15.	

Circuit-breakers for line protection

With fixed-setting thermal overcurrent releases

With fixed-setting thermal overcurrent releases, with overload and short-circuit releases in the 4th pole



NS15015a

16	16	400	3VF31 13-0FC41-0AA0	1)	3VF31 14-0JC41-0AA0
20	20	400	3VF31 13-0FD41-0AA0	1)	3VF31 14-0JD41-0AA0
25	25	400	3VF31 13-0FE41-0AA0	1)	3VF31 14-0JE41-0AA0
32	32	400	3VF31 13-0FG41-0AA0	1)	3VF31 14-0JG41-0AA0
40	40	400	3VF31 13-0FJ41-0AA0	1)	3VF31 14-0JJ41-0AA0
50	50	400	3VF31 11-0FL41-0AA0	1)	3VF31 12-0JL41-0AA0
63	63	500	3VF31 11-0FN41-0AA0	1)	3VF31 12-0JN41-0AA0
80	80	630	3VF31 11-0FQ41-0AA0	1)	3VF31 12-0JQ41-0AA0
100	100	800	3VF31 11-0FS41-0AA0	1)	3VF31 12-0JS41-0AA0
125	125	1000	3VF32 11-0FU41-0AA0	2)	3VF32 12-0JU41-0AA0
160	160	1280	3VF32 11-0FW41-0AA0	2)	3VF32 12-0JW41-0AA0

3VF2 Circuit-breakers
(Selection and ordering data
See page 11/10)



3VF3 Circuit-breakers



For accessories, see page 11/16 onwards.

Auxiliary switches and auxiliary/alarm switches can be retrofitted by the user.

- 1) N = 100%.
- 2) N = 60%.

3VF3 to 3VF8 Circuit-Breakers

3-pole, up to 2500 A

For other circuit-breakers
(complete program)
see Catalog NS PS

Selection and ordering data

		Type	3VF3	3VF4	3VF5	3VF6	3VF7	3VF8
Standard breaking capacity I_{cu}	up to 415 V kA		40	40	45	45	50	–
	up to 690 V kA		12	14	20	20	20	–
High breaking capacity I_{cu}	up to 415 V kA		70	70	70	70	70	70
	up to 690 V kA		14	18	25	25	25	25
Very high breaking capacity I_{cu}	up to 415 V kA		100	100	100	100	100	100
	up to 690 V kA		18	22	35	35	35	35

Fixed-mounted circuit-breakers

Rated current I_n	Setting current of the inverse-time delayed overload release "a" I_r	Operating current of the instantaneous short-circuit release "n" I_i	Standard breaking capacity		High breaking capacity		Very high breaking capacity	
			3VF3 to 3VF8 circuit-breakers		3VF3 to 3VF8 circuit-breakers		3VF3 to 3VF8 circuit-breakers	
A	A	A	Order No.	Basic price	Order No.	Basic price	Order No.	Basic price
			Order No. modifications See pages 11/14 and 11/15.		Order No. modifications See pages 11/14 and 11/15.		Order No. modifications See pages 11/14 and 11/15.	

Circuit-breakers for motor protection¹⁾

- with adjustable trip delay, (up to 160 A: 5/10/15/20 s; 205 A: 10 s), with phase-failure sensitivity



80	40–80	15 × I_r
100	80–100	15 × I_r
160	100–160	15 × I_r
205	160–205	13 × I_r
315	160–315	15 × I_r
500	250–500	15 × I_r

3VF31 11-5EN71-....
3VF31 11-5EQ71-....
3VF32 11-5ES71-....
3VF33 11-5FU71-....
3VF51 11-5DL71-....
3VF61 11-5DL74-....

3VF31 11-6EN71-....
3VF31 11-6EQ71-....
3VF32 11-6ES71-....
3VF33 11-6FU71-....
3VF51 11-6DL71-....
3VF61 11-6DL74-....

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Circuit-breakers for line protection

- with fixed-setting thermal overload releases



50	50	400
63	63	500
80	80	630
100	100	800
125	125	1000
160	160	1280
200	200	2400

3VF31 11-1FL41-....
3VF31 11-1FN41-....
3VF31 11-1FQ41-....
3VF31 11-1FS41-....
3VF32 11-1FU41-....
3VF32 11-1FW41-....
3VF33 11-1FX41-....

3VF31 11-2FL41-....
3VF31 11-2FN41-....
3VF31 11-2FQ41-....
3VF31 11-2FS41-....
3VF32 11-2FU41-....
3VF32 11-2FW41-....
3VF33 11-2FX41-....

3VF31 11-3FL41-....
3VF31 11-3FN41-....
3VF31 11-3FQ41-....
3VF31 11-3FS41-....
3VF32 11-3FU41-....
3VF32 11-3FW41-....
3VF33 11-3FX41-....



200	200	1000–2000
250	250	1250–2500
315	315	1575–3150
400	400	2000–4000
500	500	2500–5000
630	630	3150–6300
800	800	3200–6400

3VF42 11-1DK41-....
3VF42 11-1DM41-....
3VF52 11-1DK41-....
3VF52 11-1DM41-....
3VF62 11-1DK44-....
3VF62 11-1DM44-....
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3VF42 11-2DK41-....
3VF42 11-2DM41-....
3VF52 11-2DK41-....
3VF52 11-2DM41-....
3VF62 11-2DK44-....
3VF62 11-2DM44-....
3VF63 11-2DQ44-....

3VF42 11-3DK41-....
3VF42 11-3DM41-....
3VF52 11-3DK41-....
3VF52 11-3DM41-....
3VF62 11-3DK44-....
3VF62 11-3DM44-....
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- with adjustable thermal overload releases



50	40–50	300–500
63	50–63	315–630
80	63–80	400–800
100	80–100	500–1000
125	100–125	625–1250
160	125–160	800–1600
200	160–200	1000–2000

3VF31 11-1BL41-....
3VF31 11-1BN41-....
3VF31 11-1BQ41-....
3VF31 11-1BS41-....
3VF32 11-1BU41-....
3VF32 11-1BW41-....
3VF33 11-1BX41-....

3VF31 11-2BL41-....
3VF31 11-2BN41-....
3VF31 11-2BQ41-....
3VF31 11-2BS41-....
3VF32 11-2BU41-....
3VF32 11-2BW41-....
3VF33 11-2BX41-....

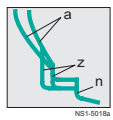
3VF31 11-3BL41-....
3VF31 11-3BN41-....
3VF31 11-3BQ41-....
3VF31 11-3BS41-....
3VF32 11-3BU41-....
3VF32 11-3BW41-....
3VF33 11-3BX41-....

200	160–200	1000–2000
250	200–250	1250–2500
315	250–315	1575–3150
400	315–400	2000–4000
500	400–500	2500–5000
630	500–630	3150–6300

3VF42 11-1BK41-....
3VF42 11-1BM41-....
3VF52 11-1BK41-....
3VF52 11-1BM41-....
3VF62 11-1BK44-....
3VF62 11-1BM44-....

3VF42 11-2BK41-....
3VF42 11-2BM41-....
3VF52 11-2BK41-....
3VF52 11-2BM41-....
3VF62 11-2BK44-....
3VF62 11-2BM44-....

3VF42 11-3BK41-....
3VF42 11-3BM41-....
3VF52 11-3BK41-....
3VF52 11-3BM41-....
3VF62 11-3BK44-....
3VF62 11-3BM44-....



800	400, 500, 630, 800	15000
1250	630, 800	15000
1600	1000, 1250, 800, 1000, 1250, 1600	20000
2000	1000, 1250, 1600, 2000	20000
With time selectivity	1600, 1800, 2000, 2500	20000

4) 3VF71 11-1BK60-....
4) 3VF72 11-1BM60-....

4) 3VF71 11-2BK60-....
4) 3VF72 11-2BM60-....

4) 3VF71 11-3BK60-....
4) 3VF72 11-3BM60-....

4) 3VF82 11-2BM60-....

4) 3VF82 11-3BM60-....

4) 3VF83 11-2BM60-....

4) 3VF83 11-3BM60-....

4) 3VF84 11-2BM64-....

2) 3VF84 11-3BM64-....

Non-automatic circuit-breakers



to 250	–	3000
to 400		4800
to 630		7500
to 800		15000
to 1250		15000
to 1600		20000
to 2000		20000

4) 3VF42 11-5BM31-....
4) 3VF52 11-5BM31-....
4) 3VF62 11-5BM34-....
4) 3VF71 11-1BK30-....
4) 3VF72 11-1BM30-....
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5) 3VF42 11-6BM31-....
5) 3VF52 11-6BM31-....
5) 3VF61 11-6BK34-....
4) 3VF71 11-2BK30-....
4) 3VF72 11-2BM30-....
4) 3VF82 11-2BM30-....
4) 3VF83 11-2BM30-....

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Plug-in circuit breakers, see page 11/14.

Terminal covers for degree of protection IP 30, see page 11/22.

- Circuit-breakers for line protection should be used to protect frequency converters or smooth starters.
- Busbar connection pieces are included in the scope of supply (3VF6: accessible from the front; 3VF84: at the rear). The use of terminal covers is recommended for 3VF6.
- 50 kA at AC 380/415 V.
- Busbar connection pieces are to be ordered separately (see accessories).
- Rated current I_n = 500 A.

3VF3 to 3VF8 Circuit-Breakers

4-pole, up to 2500 A

For other circuit-breakers
(complete program)
see Catalog NS PS


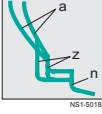
Selection and ordering data

Fixed-mounted circuit-breakers


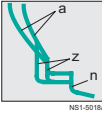
Rated current I_n	Setting current of the inverse-time delayed overload release "a" I_r	Operating current of the instantaneous short-circuit release "n" I_i	Standard breaking capacity		High breaking capacity		Very high breaking capacity	
			Order No.	Basic price	Order No.	Basic price	Order No.	Basic price
A	A	A	3VF3 to 3VF8 circuit-breakers		3VF3 to 3VF8 circuit-breakers		3VF3 to 3VF8 circuit-breakers	
			Order No. modifications See pages 11/14 and 11/15.		Order No. modifications See pages 11/14 and 11/15.		Order No. modifications See pages 11/14 and 11/15.	

Circuit-breakers for line protection


• without overload and short-circuit releases in the 4th pole (N)

	50 63 80 100 125 160 200	40-50 50-63 63-80 80-100 100-125 125-160 160-200	300-500 315-630 400-800 500-1000 620-1250 800-1600 1000-2000	3VF31 12-1ML41-.... 3VF31 12-1MN41-.... 3VF31 12-1MQ41-.... 3VF31 12-1MS41-.... 3VF32 12-1MU41-.... 3VF32 12-1MW41-.... 3VF33 12-1MX41-....	3VF31 12-2ML41-.... 3VF31 12-2MN41-.... 3VF31 12-2MQ41-.... 3VF31 12-2MS41-.... 3VF32 12-2MU41-.... 3VF32 12-2MW41-.... 3VF33 12-2MX41-....	3VF31 12-3ML41-.... 3VF31 12-3MN41-.... 3VF31 12-3MQ41-.... 3VF31 12-3MS41-.... 3VF32 12-3MU41-.... 3VF32 12-3MW41-.... 3VF33 12-3MX41-....
	200 250 315 400 500 630 800	160-200 200-250 250-315 315-400 400-500 500-630 800	1000-2000 1250-2500 1575-3150 2000-4000 2500-5000 3150-6300 3200-6400	3VF42 12-1MK41-.... 3VF42 12-1MM41-.... 3VF52 12-1MK41-.... 3VF52 12-1MM41-.... 3VF62 12-1MK44-.... 3VF62 12-1MM44-.... -	3VF42 12-2MK41-.... 3VF42 12-2MM41-.... 3VF52 12-2MK41-.... 3VF52 12-2MM41-.... 3VF62 12-2MK44-.... 3VF62 12-2MM44-.... 3VF63 12-2TQ44-....	3VF42 12-3MK41-.... 3VF42 12-3MM41-.... 3VF52 12-3MK41-.... 3VF52 12-3MM41-.... 3VF62 12-3MK44-.... 3VF62 12-3MM44-.... -
	800 1250 1600 2000 2500	400, 500, 630, 800 630, 800, 1000, 1250 800, 1000, 1250, 1600 1000, 1250, 1600, 2000 1600, 2000, 2500	15000 15000 20000 20000 2000, 2500	3VF71 12-1KK60-.... 3VF72 12-1KM60-.... - - -	3VF71 12-2KK60-.... 3VF72 12-2KM60-.... 3VF82 12-2KM60-.... 3VF83 12-2KM60-.... 3VF84 12-2KM64-....	3VF71 12-3KK60-.... 3VF72 12-3KM60-.... 3VF82 12-3KM60-.... 3VF83 12-3KM60-.... 3VF84 12-3KM64-....

• with overload and short-circuit releases in the 4th pole (N)

	50 63 80 100 125 160 200	40-50 50-63 63-80 80-100 100-125 125-160 160-200	300-500 ³⁾ 315-630 ³⁾ 400-800 ³⁾ 500-1000 ³⁾ 630-1250 ⁴⁾ 800-1600 ⁴⁾ 1000-2000 ⁴⁾	3VF31 12-1HL41-.... 3VF31 12-1HN41-.... 3VF31 12-1HQ41-.... 3VF31 12-1HS41-.... 3VF32 12-1HU41-.... 3VF32 12-1HW41-.... 3VF33 12-1HX41-....	3VF31 12-2HL41-.... 3VF31 12-2HN41-.... 3VF31 12-2HQ41-.... 3VF31 12-2HS41-.... 3VF32 12-2HU41-.... 3VF32 12-2HW41-.... 3VF33 12-2HX41-....	3VF31 12-3HL41-.... 3VF31 12-3HN41-.... 3VF31 12-3HQ41-.... 3VF31 12-3HS41-.... 3VF32 12-3HU41-.... 3VF32 12-3HW41-.... 3VF33 12-3HX41-....
	315 400 500 630 800	250-315 315-400 400-500 500-630 800	1575-3150 ⁴⁾ 2000-4000 ⁴⁾ 2500-5000 ⁴⁾ 3150-6300 ⁴⁾ 3200-6400 ⁴⁾	3VF52 12-1HK41-.... 3VF52 12-1HM41-.... 3VF62 12-1HK44-.... 3VF62 12-1HM44-.... -	3VF52 12-2HK41-.... 3VF52 12-2HM41-.... 3VF62 12-2HK44-.... 3VF62 12-2HM44-.... 3VF63 12-2LQ44-....	3VF52 12-3HK41-.... 3VF52 12-3HM41-.... 3VF62 12-3HK44-.... 3VF62 12-3HM44-.... -
	800 1250 1600 2000 2500	400, 500, 630, 800 630, 800, 1000, 1250 800, 1000, 1250, 1600 1000, 1250, 1600, 2000 1600, 2000, 2500	15000 ⁴⁾ 20000 ⁴⁾ 20000 ⁴⁾ 20000 ⁴⁾ 2000, 2500	3VF71 12-1FK60-.... 3VF72 12-1FM60-.... - - -	3VF71 12-2FK60-.... 3VF72 12-2FM60-.... 3VF82 12-2FM60-.... 3VF83 12-2FM60-.... 3VF84 12-2FM64-....	3VF71 12-3FK60-.... 3VF72 12-3FM60-.... 3VF82 12-3FM60-.... 3VF83 12-3FM60-.... 3VF84 12-3FM64-....

Non-automatic circuit-breakers

	to 250 to 400 to 630	-	3000 4800 7500	3VF42 12-5DM31-.... 3VF52 12-5DM31-.... 3VF62 12-5DM34-....	3VF42 12-6DM31-.... 3VF52 12-6DM31-.... 3VF61 12-6DK34-....	
	to 800 to 1250 to 1600 to 2000	-	15000 15000 20000 20000	3VF71 12-1DK30-.... 3VF72 12-1DM30-.... - -	3VF71 12-2DK30-.... 3VF72 12-2DM30-.... 3VF82 12-2DM30-.... 3VF83 12-2DM30-....	

Plug-in circuit-breakers, see page 11/14.

Terminal covers for degree of protection IP 30, see page 11/22.

- 1) Busbar connection pieces are included in the scope of supply (3VF6: accessible from the front; 3VF84: at the rear). Terminal covers are recommended in addition for 3VF6.
- 2) Busbar connection pieces are to be ordered separately (see accessories).
- 3) N = 100%.
- 4) N = 60%.
- 5) Rated current $I_n = 500$ A.
- 6) 50 kA at 380/415 V.