



Type	3VM10	3VM11	3VM11	3VM11	3VM12
Number of poles	3, 4	1	2	3, 4	3, 4

3VM molded case circuit breakers for line protection, standard applications

Electrical characteristics according to IEC 60947-2

Size		100 A	160 A	160 A	160 A	250 A
Rated operational current I_n at 50 °C ambient temperature	A	16 ... 100	16 ... 160	16 ... 160	16 ... 160	200 ... 250
Rated operational voltage U_e AC 50/60 Hz	V	500	415	415	500	500
Rated operational voltage U_e DC 50/60 Hz	V	500	125	250	500	500
Rated insulation voltage U_i	V	690	500	500	690	690
Rated impulse withstand voltage U_{imp}	kV	8	8	8	8	8
Use in IT networks		✓	✓	✓	✓	✓
Frequency	Hz	0 ... 400	0 ... 400	0 ... 400	0 ... 400	0 ... 400

Breaking capacity

Extremely low breaking capacity B B

Breaking capacity I_{cu} / I_{cs} rms value according to IEC 60947-2					
220 - 240 V AC / 50/60 Hz	kA	25 / 12	--	--	--
380 - 415 V AC / 50/60 Hz	kA	16 / 8	--	--	--
440 V AC / 50/60 Hz	kA	8 / 4	--	--	--
500 V AC / 50/60 Hz	kA	5 / 2.5	--	--	--

Low breaking capacity N N

Breaking capacity I_{cu} / I_{cs} rms value according to IEC 60947-2					
220 - 240 V AC / 50/60 Hz	kA	36 / 18	25 / 18	36 / 27	36 / 27
380 - 415 V AC / 50/60 Hz	kA	25 / 12	5 / 3	25 / 18	25 / 18
440 V AC / 50/60 Hz	kA	16 / 8	--	--	16 / 12
500 V AC / 50/60 Hz	kA	5 / 2.5	--	--	7 / 5

Standard breaking capacity S S

Breaking capacity I_{cu} / I_{cs} rms value according to IEC 60947-2					
220 - 240 V AC / 50/60 Hz	kA	55 / 18	36 / 27	55 / 41	55 / 41
380 - 415 V AC / 50/60 Hz	kA	36 / 12	6 / 4	36 / 27	36 / 27
440 V AC / 50/60 Hz	kA	20 / 8	--	--	25 / 18
500 V AC / 50/60 Hz	kA	7 / 2.5	--	--	10 / 7

Medium breaking capacity M M

Breaking capacity I_{cu} / I_{cs} rms value according to IEC 60947-2					
220 - 240 V AC / 50/60 Hz	kA	--	--	--	85 / 63
380 - 415 V AC / 50/60 Hz	kA	--	--	--	55 / 41
440 V AC / 50/60 Hz	kA	--	--	--	36 / 27
500 V AC / 50/60 Hz	kA	--	--	--	10 / 5

Breaking capacity DC

125 V DC / 50/60 Hz	kA	--	25	--	--
250 V DC / 50/60 Hz	kA	--	--	55	--
500 V DC / 50/60 Hz	kA	55	--	--	85

✓ Available

-- Not available

Introduction

3VM Molded Case Circuit Breakers

General data

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Type	3VM10	3VM11	3VM11	3VM11	3VM12
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3VM molded case circuit breakers for line protection, standard applications

Service life (make-break operations)

Mechanical		10000	12000	12000	12000	12000
Electrical	380 ... 415 V	2000	6000	6000	6000	6000

Trip units	FTFM	TM210	✓	✓	✓	✓
	ATFM	TM220	--	--	✓	✓

3VM molded case circuit breakers for protecting starter combinations (standards and specifications IEC 60947-4)

Rated operational current I_n at 50 °C ambient temperature	A	--	--	--	32 ... 125	160, 200
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Service life (make-break operations)

Mechanical		--	--	--	12000	12000
Electrical	380 ... 415 V	--	--	--	6000	6000

Trip units	AM	TM120M	--	--	✓	✓
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Switch disconnectors

Electrical characteristics according to IEC 60947-3

Number of poles		--	--	--	3, 4	3.4
Rated operational current I_n at 50 °C ambient temperature	A	--	--	--	63, 100, 125, 160	250
Rated operational voltage U_e AC 50/60 Hz	V	--	--	--	500	500
Rated operational voltage U_e DC	V	--	--	--	500	500
Rated short-circuit making capacity I_{cm} with upstream circuit breaker	kA	--	--	--	55 kA at 415 V	On request
Permissible rated short-time current I_{cw}	±1s kA	--	--	--	2	On request

Dimensions

	A	mm	76.2 (3p)/101.6 (4p)	25.4	50.8	76.2 (3p)/101.6 (4p)	105 (3p)/140 (4p)
	B	mm	130	130	130	130	158
	C	mm	70	70	70	70	70
	D	mm	88	88	88	88	88
Weight	1-pole	Lug terminal	kg	--	0.35	--	--
	2-pole	Lug terminal	kg	--	--	0.60	--
	3-pole	Lug terminal	kg	0.90	--	--	1.8
	4-pole	Lug terminal	kg	1.15	--	--	2.3

General information

Standards and specifications	IEC 60947-2	IEC 60947-2	IEC 60947-2	IEC 60947-2	IEC 60947-2
Utilization category according to IEC 60947-2	A	A	A	A	A
Power and infeed direction	Top and bottom	Top and bottom	Top and bottom	Top and bottom	Top and bottom
Standard connection system	Lug terminal	Lug terminal	Lug terminal	Lug terminal	Lug terminal
Isolating features according to IEC 60947	✓	✓	✓	✓	✓

✓ Available

-- Not available