

Moulded Case Circuit Breaker Type M, 3-pole, 25kA, 200A

Size type 2, Rated current 200A, Poles 3, IP Rating IP20, Short circuit switching capacity 25kA, Tripping Unit A thermo-magnetic protection for motor



Technical Data

Net width (mm)	105,00
Net height (mm)	184,00
Net weight (kg)	2,35
EAN	9004840385885
Power loss (W)	30,70
Min. ambient temperature (°C)	-25
Max. ambient temperature (°C)	60
Standard	IEC EN 60947 VDE 0660
Device category	circuit breaker
Rated current (A)	200
Rated voltage	< 690VAC
Short circuit switching capacity (kA)	25
Size type	2
Tripping Unit	A thermo-magnetic protection for motor
Poles	3

Technical Data - continued

Short circuit current	200A
Protection against direct contact	finger-proof and back-of-hand-proof according to VDE 0106 Part 100
Climatic proofing	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Mech. shock resistance Half-sinusoidal shock 10ms	20 (Halbsinusstoß 20 ms)
IP Rating	IP20
Rated insulation voltage [Ui] (V)	1000
Mechanical durability	20000 operation cycles
Electrical endurance (Operation cycle)	10000
Terminal type	Screw terminal
Rated short-time withstand current Icw	1,9kA

GENERAL DATA - MC2, MC3, MC4

Standards and regulations	IEC/EN 60947, VDE 0660
Protection against accidental contact	Finger and back-of-hand proof to VDE 0106 Part 100
Climate resistance	Damp heat, constant to IEC 60068-2-78 Damp heat, ciclical to IEC 60068-2-30
Ambient temperature	
Storage	-25...+70°C
Operation	-25...+70°C
Impact resistance (IEC/EN 60068-2-27)	20 (half-sinusoidal shock 20 ms)
Safe isolation to EN 61140	
between auxiliary contacts and main circuits	500V AC
between auxiliary contacts	300V AC

Datei Tabelle: Moulded Case Circuit Breaker Type M, 3-pole, 25kA, 200A

Mounting position	vertical and 90° in all directions
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Direction of power supply	any
Degree of protection	
Device	in region of component patts: IP20 (basic degree of protection)
Housing	with insulating surround: IP40 with door coupling roatry handle: IP66
Connectors	Tunnel terminal: IP10 Phase isolator and strip terminal: IP00

DIELECTRIC STRENGTH OF MCCB - MC2

	Max. rated uninterrupted current 250A		
	MC2 - 25kA	MC2 - 50kA	MC2 - 100kA
Rated impulse withstand voltage U_{imp}			
Main circuits	8000V	8000V	8000V
Auxiliary circuits	6000V	6000V	6000V
Rated operational voltage U_e	690V AC	690V AC	690V AC
Rated operational voltage breaking via 3 conductors	-	750V DC ¹⁾	750V DC ¹⁾
Surge protection/ pollution degree	III/3	III/3	III/3
Rated insulation voltage U_i	1000V ²⁾	1000V	1000V
Range of application in IT networks	440V	690V	690V

Note:

¹⁾ For rated operational voltage breaking via 3 conductors, the following applies: DC correction factor for Instantaneous release response value:

MC1: 1,25

Setting for I_i at DC = setting I_i AC/correction factor DC

Value applies to 3-pole protection devices with thermomagnetic release MC1



1 * Breaking one pole via two circuits in series

2 * Breaking one pole via three circuits in series

BREAKING CAPACITY - MC2

Max. rated uninterrupted current

MC2 - 25kA MC2 - 50kA MC2 - 150kA

Rated short-circuit breaking capacity values I_{cm}

240V	63kA	187kA	330kA
400/415V	53kA	105kA	330kA
440V	53kA	74kA	286kA
525V	-	53kA	105kA
690V	-	40kA	40kA

Rated short-circuit breaking capacity value I_{cn}/I_{cs}

I_{cu} meets IEC/EN 60947	240V 50/60 Hz	30kA	85kA	150kA
Breaking sequence O-t-CO	400/415V 50/60Hz	25kA	50kA	150kA
	440V 50/60Hz	25kA	35kA	130kA
	525V 50/60Hz	-	25kA	50kA
	690V 50/60Hz	-	20kA	20kA
	500V DC	-	30kA	60kA
	750V DC	-	30kA	60kA
I_{cs} meets IEC/EN 60947	240V 50/60Hz	30kA	85kA	150kA
Breaking sequence O-t-CO-t-CO	400/415V 50/60Hz	25kA	50kA	150kA
	440V 50/60Hz	18,5kA	35kA	130kA
	525V 50/60Hz	-	25kA	37,5kA
	690V 50/60Hz	-	5kA	5kA

Maximum HBC fuse $\leq 1600A$

355A gG/gL

Utilization category to IEC/EN 60947-2

A A A

Rated short-time withstand current I_{cw}

$t = 0,3s$	-	1,9kA	1,9kA
$t = 1s$	-	1,9kA	1,9kA

Rated making and breaking capacity I_e

Rated operating current	AC-1	400/415V 50/60Hz	300A	300A	300A
		690V 50/60Hz	250A	250A	250A
	AC-3	400/415V 50/60Hz	300A	300A	300A
		690V 50/60Hz	250A	250A	250A
	DC-1	500V DC with thermal release	-	250A	250A
		750V DC with thermal release	-	250A	250A
	DC-3	500V DC with thermal release	-	250A	250A
		750V DC with thermal release	-	250A	250A

LIFETIME - MC2

		Max. rated uninterrupted current		
		MC2 - 25kA	MC2 - 50kA	MC2 - 150kA
Service life, mechanical (operations)		20000	20000	20000
Maximum operating cycles		120 S/h	120 S/h	120 S/h
Service life, electrical				
AC-1	400/415V 50/60Hz	10000 ¹⁾	10000	10000
	690V 50/60Hz	-	7500	7500
AC-3	400/415V 50/60Hz	6500 ²⁾	6500	6500
	690V 50/60Hz	-	5000	5000
DC-1	500V with thermal release	-	7500	7500
	750V with thermal release	-	7500	7500
DC-3	500V with thermal release	-	3000	3000
	750V with thermal release	-	3000	3000
Current heat loss per pole at I_u ¹⁾		19kW	19kW	19kW
Total disconnecting time at short-circuit		<10ms	<10ms	<10ms

¹⁾ The current heat loss per pole ratings refer to the maximum current rating for the particular frame size.

CONNECTION CROSS SECTIONS

			MC2	I _n ¹⁾
Standard equipment			Screw connection	-
Accessories			Box terminal	
			Tunnel terminals	
			Rear-side connection	
Cu-conductors, Cu-cable				
Box terminal	solid		1 x (10 - 16)mm ²	300A
			2 x (4 - 16)mm ²	
	stranded		1 x (25 - 185)mm ²	
			2 x (25 - 70)mm ²	
Tunnel terminal	solid		1 x 16mm ²	300A
	stranded	1-hole	1 x (25-185)mm ²	
		2-hole	-	-
		4-hole	-	-
Screw connection and rear-side connection				
directly on switch	solid		1 x (4 - 16)mm ²	300A
			2 x (4 - 16)mm ²	
	stranded		1 x (25 - 185)mm ²	
			2 x (25 - 70)mm ²	
Module plate	1-hole	min.	-	-
		max.	-	-
Moudle plate	2-hole	min.	-	-
		max.	-	-
Connection extension			-	-
Al-conductors, Al-cable				
Tunnel terminal	solid		1 x 16mm ²	250A
	stranded	1-hole	1 x (25 - 185)mm ²	
		2-hole	-	-
			-	-
	4-hole	-	-	
Screw connection and rear-side connection				
directly on switch	solid		1 x (10 - 16)mm ²	250A
			2 x (10 - 16)mm ²	
	stranded		1 x (25 - 50)mm ²	
			2 x (25 - 50)mm ²	
Module plate	1-hole	min.	-	-
		max.	-	-
Module plate			2-hole	-
Connection extension			-	-
Cu-strip (number of segments x width x segment thickness)				
Box terminal		min.	2 x 9 x 0,8mm	300A
		max.	10 x 16 x 0,8(2 x) 8 x 15,5 x 0,8	
Flat conductor terminal, basic		min.	-	-
		max.	-	-
Module plate			1-hole	-

DESCRIPTION	Order No.
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