Datenblatt für Artikel: MC480243R-

Moulded Case Circuit Breaker Type VE, 4P, 50kA, 800/500A

Size type 4, Rated current 800A, Poles 4, IP Rating IP20, Short circuit switching capacity 50kA, Tripping Unit VE electronically delayed system, cable, selective and generator protection, reduced neutral conductor

Technische Daten

Net width (mm)	280,00
Net height (mm)	401,00
Net weight (kg)	27,00
EAN	9004840587487
Power loss (W)	71,00
Min. ambient temperature (°C)	-25
Max. ambient temperature (°C)	60
Standard	IEC EN 60947 VDE 0660
Device category	circuit breaker
Rated current (A)	800
Rated voltage	< 690VAC
Short circuit switching capacity (kA)	50
Size type	4

Technische Daten - Fortsetzung

Tripping Unit	VE electronically delayed system, cable, selective and generator protection, reduced neutral conductor
Poles	4
Short circuit current	800A
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	19,2kA

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-sinusidal 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 VE, 4P, 50kA, 800/500A

Mounting position	vertical and 90° in all directions

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

Datei Tabelle: Moulded Case Circuit Breaker Type VE, 4P, 50kA, 800/500A

	Max. rated uninterruped current 1600A	
	MC4 - 50kA	MC4 - 85kA
Rated impulse withstand voltage Uimp		
Main circuits	8000V	8000V
Auxiliary cricuits	6000V	6000V
Rated operational voltage Ue	690V AC	690V AC
Rated operational voltage breaking via 3 conductors	-	-
Surge protection/pollution degree	III/3	III/3
Rated insulation voltage Ui	1000V	1000V
Range of application in IT networks	525V	525V

BREAKING CAPACITY - MC4

			Max. rated uninterrupted current 1600A	
			MC4 - 50kA	MC4 - 85kA
Rated short-circuit breaking capacity values I_{cm}				
240V			105kA	275kA
400/415V			105kA	187kA
440V			74kA	187kA
525V			53kA	143kA
690V			40kA	105kA
Rated short-circuit breaking cpacity value I_{cn}/I_{cs}				
I_{cu} meets IEC/EN 60947		240V 50/60Hz	50kA	125kA
Breaking sequence O-t-CO		400/415V 50/60Hz	50kA	85kA
		440V 50/60Hz	35kA	85kA[1)]
		525V 50/60Hz	25kA	65kA
		690V 50/60Hz	20kA	50kA
		500V DC	-	-
		750V DC	-	-
I_{cs} meets IEC/EN 60947		240V 50/60Hz	37kA	63kA
Breaking sequence O-t-CO-t-CO		400/415V 50/60Hz	37kA	43kA
		440V 50/60Hz	26kA	43kA
		525V 50/60Hz	19kA	49kA
		690V 50/60Hz	15kA	37kA
Maximum HBC fuse ≤1600A			MC4-...630...1250: 2x630A gG/gL MC4-...1600: 2x800A gG/gL MC4-2000A: 2x1000A gG/gL	
Utilization category to IEC/EN 60947-2			B (bei 2000A: A)	B (bei 2000A: A)
Rated short-time withstand current I_{cw}				
t = 0,3s			19,2kA	19,2kA
t = 1s			19,2kA	19,2kA
Rated making and breaking capacity I_e				
Rated opertaing current	AC-1	400/415V 50/60Hz	1600A	1600A
		690V 50/60Hz	1600A	1600A
	AC-3	400/415V 50/60Hz	1600A[2)]	1600A[2)]
		690V 50/60Hz	1600A[2)]	1600A[2)]
	DC-1	500V DC with termal release	-	-
		750V DC with termal release	-	-
	DC-3	500V DC with termal release	-	-
		750V DC with termal release	-	-

[1)] higher switching capacity on request

[2)] The following applies for rated operating current AC-3 with MC4: 400V: max. 650kW; 690V: max. 600kW

LIFETIME - MC4

			Max. rated uninterrupeted current 2000A	
			MC4 - 50kA	**MC4 - 85kA**
Service life, mechanical (operations)			10000	10000
Maximum operating cyycles			60S/h	60S/h
Service life, electrical				
	AC-1	400/415V 50/60Hz	3000	3000
		690V 50/60Hz	2000	2000
	AC-3	400/415V 50/60Hz	2000	2000
		690V 50/60Hz	1000	1000
	DC-1	500V with thermal release	-	-
		750V with thermal release	-	-
	DC-3	500V with thermal release	-	-
		750V with thermal release	-	-
Current heat loss per pole at I_u [1)]			97W (2000A)	97W (2000A)
Total disconnecting time at short-circuit			<25ms ≤415V; <35ms >415V;	<25ms ≤415V; <35ms >415V

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

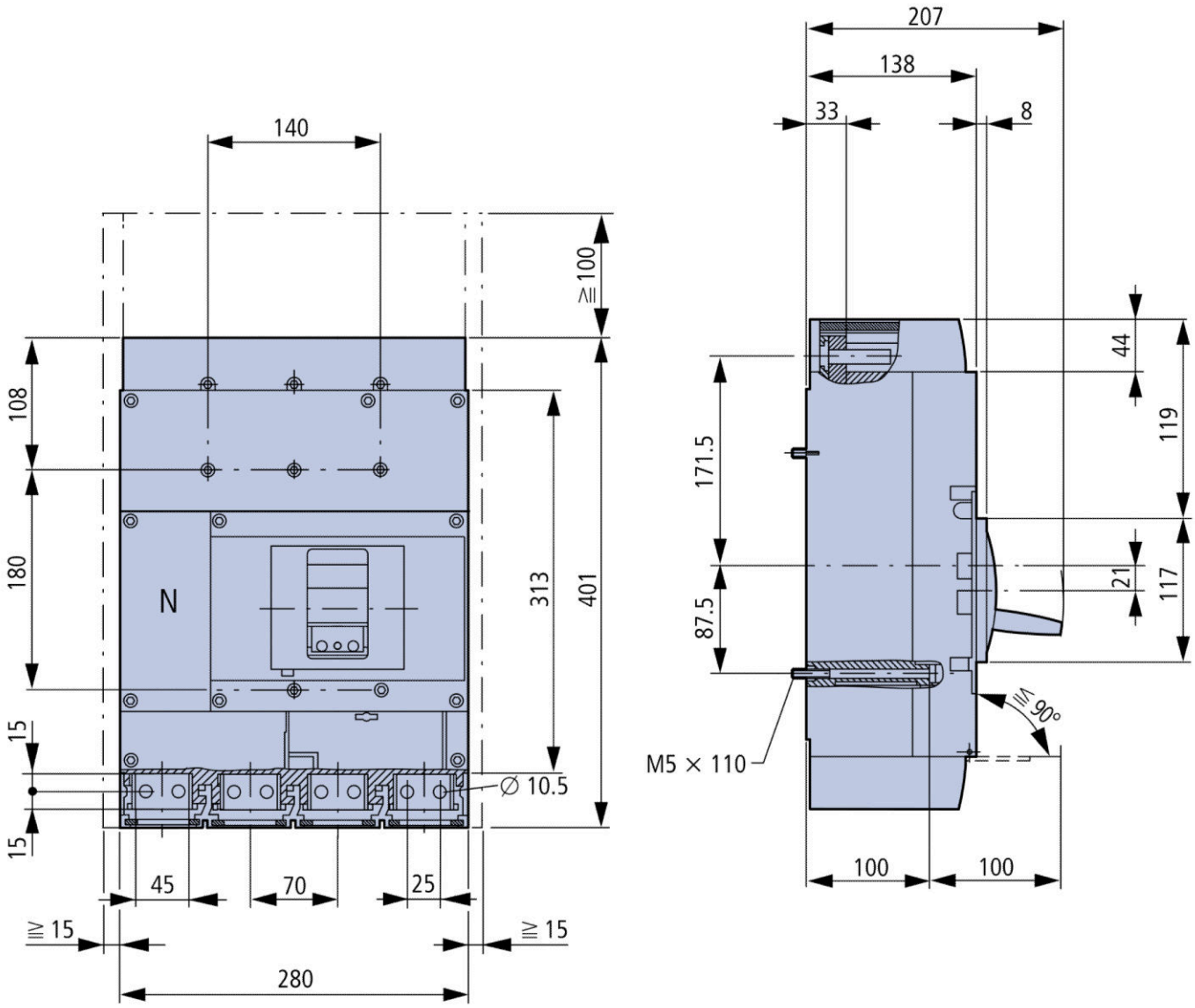
CONNECTION CROSS SECTIONS

			MC4	I_n [1]
Standard equipment			Screw connection	-
Accessories			Tunnel terminals Rear-side connection Strip terminal	
Cu-conductors, Cu-cable				
Box terminal	solid		-	-
	stranded		-	-
Tunnel terminal	solid		-	-
	stranded	1-hole	-	-
		2-hole	-	-
		4-hole	4 x (50 - 240)mm²	1400A
Screw connection and Rear-side connection				
directly on switch	solid		-	-
	stranded		1 x (120 - 185)mm² 4 x (50 - 185)mm²	1250A
Module plate	1-hole	min.	1 x (120 - 300)mm²	1000A
		max.	2 x (95 - 300)mm²	
Module plate	2-hole	min.	2 x (95 - 185)mm²	1400A
		max.	4 x (35 - 185)mm²	-
Connection extension			4 x 300mm²6 x (95 - 240)mm²	1600A4 x 240A
Al-conductors, Al-cable				
Tunnel terminal	solid		-	-
	stranded	1-hole	-	-
-		2-hole	-	-
		4-hole	4 x (50 - 240) mm²	1400A
Screw connection and Rear-side connection				
directly on switch	solid		-	-
	stranded		-	
Module plate	1-hole	min.	1 x (185-240)mm²	upon request
		max.	2 x (70-185)mm²	upon request
Module plate	2-hole		4 x 50mm²	-
Connection exstension			2 x 240mm² 6 x (70 - 240)mm²	upon request
Cu-strip (number of segments x width x segment thickness)				
Box terminal		min.	-	-
		max.	-	-
Flat conductor terminal, basic		min.	6 x 16 x 0,8mm	1100A
		max.	(2x) 10 x 32 x 1,0mm	
Module plate	1-hole		(2x) 10 x 50 x 1,0mm	1250A (2x) 10 x 40 x 1,0
Screw connection and Rear-side connection				
Cu-strip, with holes		min.	(2x) 10 x 50 x 1,0mm	1600A
		max.	(2x) 10 x 50 x 1,0mm	
Connection extension			(2x) 10 x 80 x 1,0mm	1600A

				2 x (10 x 50 x 1,0)
Cu-rail (width x thickness)				
Screw connection and Rear-side connection				
Screw connection			M10	-
directly on switch		min.	25 x 5mm	1600A
		max.	2 x (50 x 10)mm	
			2 x (80 x 10)mm	
Module plate	1-hole	min.	25 x 5mm	1250A
		max.	2 x (50 x 10)mm	2x (40 x 10)
Module plate	2-hole		2 (50 x 10)mm	1600A
Connection extension		min.	60 x 10mm	1600A2 x (50 x 10)
		max.	2 x (80 x 10)mm	

Note: [1)] The rated currents In have been calculated in accordance with IEC/EN 60947 (protection devices standard) and generally relate to the max. specified cross-sections and are used here for the purposes of orientation. The design standards with apply in each case must be observed.

Dimensioned drawing: Moulded Case Circuit Breaker Type VE, 4P, 50kA, 800/500A



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