Data sheet 3RT2038-1NB34-3MA0



Power contactor, AC-3 80 A, 37 kW / 400 V 2 NO + 2 NC, 20-33 V AC/DC with varistor 3-pole, size S2 screw terminals Perm. mounted auxiliary switch

product dye designation product type designation General technical data size of contactor product extension • function module for communication • auxillary switch power loss [W] for rated value of the current • at AC in hot operating state per pole • without load current share typical insulation voltage • of main circuit with degree of pollution 3 rated value • of auxillary circuit with degree of pollution 3 rated value • of auxillary circuit with degree of pollution 3 rated value • of auxillary circuit with degree of pollution 3 rated value • of auxillary circuit rated value • of main circuit rated value • of main circuit rated value • of auxillary circuit rated value • of auxillary circuit rated value • of auxillary circuit rated value active of auxillary circuit rated value • at AC • at DC • at DC • at DC • of ontactor typical • of the contactor with added electronically optimized auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical • of the contactor with added auxillary switch block typical •	product brand name	SIRIUS
Second contactor Second cont	product designation	Power contactor
size of contactor product extension • function module for communication • auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state per pole • without load current share typical insulation voltage • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of anxiliary circuit with degree of pollution 3 rated value • of anxiliary circuit value surge voltage resistance • of main circuit value value • of auxiliary circuit rated value • of the contacts according to EN 60947-1 shock resistance at rectangular impulse • at AC • at DC • at AC • at DC shock resistance with sine pulse • at AC • at DC geg / 5 ms, 5.8g / 10 ms 9.6g / 5 ms, 5.8g / 10 ms 9.6g / 5 ms, 5.8g / 10 ms 10 000 000 • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the con	product type designation	3RT2
product extension • function module for communication • auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole • without load current share typical • of main circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit with degree of pollution 3 rated value • of main circuit rated value • of auxiliary switch block typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Substance Prohibitance (Date) installation altitude at height above sea level maximum ambient temperature • during operation volume 17.1 W No 17.1 W 17.1 W 17.1 W 17.1 W 17.1 W 17.1 W 17.1 W 17.1 W 17.1 W 17.1 W 17.1 W 17.1 W 17.1 W	General technical data	
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auxiliary switch power loss [W] for rated value of the current at AC in hot operating state at AC in hot operating state per pole without load current share typical of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value surge voltage resistance of main circuit rated value of auxiliary circuit rated value of auxiliary circuit rated value of main circuit rated value of auxiliary circuit rated value of auxiliary circuit rated value of main circuit rated value of auxiliary circuit rated value of working treat rated value of working treat rated value of auxiliary circuit rated value of auxiliary circuit rated value of avxiliary circuit rated v	product extension	
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at AC in hot operating state per pole without load current share typical insulation voltage of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value surge voltage resistance of main circuit rated value of auxiliary switch sine pulse of at AC of at DC of at AC of at DC of contactor with added electronically optimized auxiliary switch block typical of the contactor with added dectronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Questance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum of utring operation 5.7 W 2 W 2 W 2 W 2 W 680 V 6	power loss [W] for rated value of the current	
insulation voltage of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value of auxiliary circuit rated value of main circuit rated value of auxiliary circuit rated value of a with contacts according to EN 60947-1 shock resistance at rectangular impulse of at AC of at DC of at DC of at DC of contactor with sine pulse of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added	 at AC in hot operating state 	17.1 W
insulation voltage	 at AC in hot operating state per pole 	5.7 W
of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value surge voltage resistance of main circuit rated value of auxiliary circuit rated value maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse of at AC of at AC of at DC shock resistance with sine pulse of at AC of at DC of contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor	 without load current share typical 	2 W
of auxiliary circuit with degree of pollution 3 rated value surge voltage resistance of main circuit rated value of auxiliary contacts according to EN 60947-1 shock resistance at rectangular impulse of at DC of contactor with sine pulse of the contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical	insulation voltage	
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shock resistance at rectangular impulse at AC at DC at AC at DC at AC a	of auxiliary circuit rated value	6 kV
 at AC at DC 5hock resistance with sine pulse at AC at DC at DC at DC at DC 9.6g / 5 ms, 5.8g / 10 ms at DC 9.6g / 5 ms, 5.8g / 10 ms of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/01/2014 Ambient conditions installation altitude at height above sea level maximum auxiliary avitch block conditions installation altitude at height above sea level maximum -25 +60 °C 		400 V
■ at DC shock resistance with sine pulse ● at AC ● at DC ● at DC ● at DC ● of contactor typical ● of the contactor with added electronically optimized auxiliary switch block typical ● of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature ● during operation 6.1g / 5 ms, 5.8g / 10 ms 10 000 000 10 000 000 10 000 000 10 000 00	shock resistance at rectangular impulse	
shock resistance with sine pulse • at AC • at DC 9.6g / 5 ms, 5.8g / 10 ms mechanical service life (switching cycles) • of contactor typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation 9.6g / 5 ms, 5.8g / 10 ms 10 000 000 10 000 000 10 000 000 10 000 00	• at AC	6.1g / 5 ms, 3.7g / 10 ms
at AC at DC 9.6g / 5 ms, 5.8g / 10 ms mechanical service life (switching cycles) of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature of during operation 9.6g / 5 ms, 5.8g / 10 ms 10 000 000 10 000 000 10 000 000 10 000 00	• at DC	6.1g / 5 ms, 3.7g / 10 ms
at DC mechanical service life (switching cycles) of contactor typical of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation 9.6g / 5 ms, 5.8g / 10 ms 10 000 000 5 000 000 10 000 000 10 000 000 10 000 00	shock resistance with sine pulse	
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of the contactor with added electronically optimized auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation 5 000 000 10 000 000 10 000 000 10 000 00	mechanical service life (switching cycles)	
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reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/01/2014 Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature • during operation -25 +60 °C		5 000 000
Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation 10/01/2014 2 000 m -25 +60 °C		10 000 000
Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature • during operation -25 +60 °C	reference code according to IEC 81346-2	Q
installation altitude at height above sea level maximum ambient temperature ● during operation -25 +60 °C	Substance Prohibitance (Date)	10/01/2014
ambient temperature ● during operation -25 +60 °C	Ambient conditions	
• during operation -25 +60 °C	installation altitude at height above sea level maximum	2 000 m
	ambient temperature	
● during storage -55 +80 °C	 during operation 	-25 +60 °C
	during storage	-55 +80 °C

relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
lain circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	
 at AC-3 rated value maximum 	690 V
 at AC-3e rated value maximum 	690 V
operational current	
 at AC-1 at 400 V at ambient temperature 40 °C rated value at AC-1 	90 A
— up to 690 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	90 A
 up to 690 V at ambient temperature 60 °C rated value 	80 A
• at AC-3	
— at 400 V rated value	80 A
— at 500 V rated value	80 A
— at 690 V rated value	58 A
• at AC-3e	
— at 400 V rated value	80 A
— at 500 V rated value	80 A
— at 690 V rated value	58 A
 at AC-4 at 400 V rated value 	55 A
 at AC-5a up to 690 V rated value 	79.2 A
at AC-5b up to 400 V rated value	66.4 A
• at AC-6a	
up to 230 V for current peak value n=20 rated value	70 A
— up to 400 V for current peak value n=20 rated value	70 A
— up to 500 V for current peak value n=20 rated value	70 A
up to 690 V for current peak value n=20 rated value A C C	58 A
• at AC-6a	40.7.4
— up to 230 V for current peak value n=30 rated value	46.7 A
 up to 400 V for current peak value n=30 rated value up to 500 V for current peak value n=30 rated 	46.7 A
value — up to 690 V for current peak value n=30 rated	46.7 A
value minimum cross-section in main circuit at maximum AC-1	35 mm²
operational current for approx. 200000 operating	
cycles at AC-4	20.4
at 400 V rated value	30 A
at 690 V rated value	24 A
operational current	
at 1 current path at DC-1 at 24 V retail value.	55.0
— at 24 V rated value	55 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
 with 2 current paths in series at DC-1 	
— at 24 V rated value	55 A
— at 110 V rated value	45 A
— at 220 V rated value	5 A

— at 440 V rated value	1 A	
— at 600 V rated value	0.8 A	
 with 3 current paths in series at DC-1 		
— at 24 V rated value	55 A	
— at 110 V rated value	55 A	
— at 220 V rated value	45 A	
— at 440 V rated value	2.9 A	
— at 600 V rated value	1.4 A	
at 1 current path at DC-3 at DC-5		
— at 24 V rated value	35 A	
— at 110 V rated value	2.5 A	
— at 220 V rated value	1 A	
— at 440 V rated value	0.1 A	
— at 600 V rated value	0.06 A	
 with 2 current paths in series at DC-3 at DC-5 		
— at 24 V rated value	55 A	
— at 110 V rated value	25 A	
— at 220 V rated value	5 A	
— at 440 V rated value	0.27 A	
— at 600 V rated value	0.16 A	
 with 3 current paths in series at DC-3 at DC-5 		
— at 24 V rated value	55 A	
— at 110 V rated value	55 A	
— at 220 V rated value	25 A	
— at 440 V rated value	0.6 A	
— at 600 V rated value	0.35 A	
operating power		
 at AC-2 at 400 V rated value 	37 kW	
• at AC-3		
— at 230 V rated value	22 kW	
— at 400 V rated value	37 kW	
— at 500 V rated value	37 kW	
— at 690 V rated value	45 kW	
• at AC-3e		
— at 230 V rated value	22 kW	
— at 400 V rated value	37 kW	
— at 500 V rated value	37 kW	
— at 690 V rated value	45 kW	
operating power for approx. 200000 operating cycles at AC-4		
• at 400 V rated value	15.8 kW	
at 400 V rated value at 690 V rated value	21.8 kW	
operating apparent power at AC-6a	21.0 (1.1)	
up to 230 V for current peak value n=20 rated value	27.8 kVA	
 up to 400 V for current peak value n=20 rated value 	48.4 kVA	
up to 500 V for current peak value n=20 rated value	60.6 kVA	
 up to 690 V for current peak value n=20 rated value 	69.3 kVA	
operating apparent power at AC-6a		
up to 230 V for current peak value n=30 rated value	18.6 kVA	
• up to 400 V for current peak value n=30 rated value	32.3 kVA	
• up to 500 V for current peak value n=30 rated value	40.4 kVA	
up to 690 V for current peak value n=30 rated value	55.8 kVA	
short-time withstand current in cold operating state up to 40 °C		
Iimited to 1 s switching at zero current maximum	1 298 A; Use minimum cross-section acc. to AC-1 rated value	
 limited to 5 s switching at zero current maximum 	898 A; Use minimum cross-section acc. to AC-1 rated value	
 limited to 10 s switching at zero current maximum 	640 A; Use minimum cross-section acc. to AC-1 rated value	
 limited to 30 s switching at zero current maximum 	414 A; Use minimum cross-section acc. to AC-1 rated value	
 limited to 60 s switching at zero current maximum 	333 A; Use minimum cross-section acc. to AC-1 rated value	
no-load switching frequency		
• at AC	1 500 1/h	

• at DC	1 500 1/h
operating frequency	1 000 1/11
at AC-1 maximum	700 1/h
at AC-1 maximum at AC-2 maximum	350 1/h
• at AC-3 maximum	500 1/h
• at AC-4 maximum	500 1/h
• at AC-4 maximum	150 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	
at 50 Hz rated value	20 33 V
at 60 Hz rated value	20 33 V
control supply voltage at DC	
• rated value	20 33 V
operating range factor control supply voltage rated value of magnet coil at DC	
● initial value	0.8
full-scale value	1.1
operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 1.1
• at 60 Hz	0.8 1.1
design of the surge suppressor	with varistor
inrush current peak	3 A
duration of inrush current peak	50 μs
locked-rotor current mean value	1 A
locked-rotor current peak	2.6 A
duration of locked-rotor current	230 ms
holding current mean value	40 mA
apparent pick-up power of magnet coil at AC	
• at 50 Hz	40 VA
• at 60 Hz	40 VA
apparent holding power of magnet coil at AC	
• at 50 Hz	2 VA
• at 60 Hz	2 VA
closing power of magnet coil at DC	23 W
holding power of magnet coil at DC	1 W
closing delay	
• at AC	35 110 ms
• at DC	35 110 ms
opening delay	
• at AC	30 55 ms
• at DC	30 55 ms
arcing time	10 20 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts	2
instantaneous contact	
number of NO contacts for auxiliary contacts instantaneous contact	2
operational current at AC-12 maximum	10 A
operational current at AC-15	
 at 230 V rated value 	6 A
 at 400 V rated value 	3 A
 at 500 V rated value 	2 A
• at 690 V rated value	1 A
operational current at DC-12	
at 24 V rated value	10 A
at 48 V rated value	6 A
at 60 V rated value	6 A
• at 110 V rated value	3 A

* at 125 V rated value 2 A 12 A		
■ e1 600 V rated value operational current at DC-13 ■ 12 4 V rated value ■ 14 4 V rated value ■ 14 6 V rated value ■ 16 0 V rated value ■ 11 10 V rated value ■ 11 20 V rated value ■ 12 20 V rated value ■ 13 20 V rated value ■ 16 00 V rated value ■ 17 00 V rated value ■ 18 00 V rated v	 at 125 V rated value 	2 A
operational current at DC-13	 at 220 V rated value 	1 A
e. at 24 V rated value	at 600 V rated value	0.15 A
e at 48 V relact value	operational current at DC-13	
	at 24 V rated value	6 A
e at 110 V rated value	at 48 V rated value	2 A
• at 125 V rated value	 at 60 V rated value 	2 A
e. at 220 V rated value	at 110 V rated value	1 A
e. at 220 V rated value	at 125 V rated value	0.9 A
• at 800 V rated value contact reliability of auxiliary contacts ULICSA ratings full-load current (FLA) for 3-phase AC motor • at 800 V rated value • at 800 V rated value • for 3-phase AC motor — at 1101/120 V rated value • for 3-phase AC motor — at 1101/120 V rated value • for 3-phase AC motor — at 220/230 V rated value • for 3-phase AC motor — at 220/230 V rated value • for 3-phase AC motor — at 220/230 V rated value • for 3-phase AC motor — at 220/230 V rated value • for 3-phase AC motor — at 220/230 V rated value • at 276/860 V rated value — at 276/860 V rated value — at 576/860 V rated value — with type of contacts according to UL Short-circuit protection of the main circuit — with type of contained in 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required mounting dimensions mounting position fastellation/mounting/dimensions mounting position fastellation/mounting/dimensions mounting position fastellation/mounting/dimensions mounting position fastellation/mounting/dimensions mounting position forward and backward by +-22.5° on well-cal mounting surface; can be titled forward and backward by +-22.5° on well-cal mounting surface; can be titled forward and beackward by +-22.5° on well-cal mounting surface; can be titled forward and beackward by +-22.5° on well-cal mounting surface; can be titled forward and beackward well-call forward and beackward well		
Short-circuit protection of the main circuit		
Short-circuit protection of the main circuit with type of assignment 2 required with type of assignment 3 with type of assign		
Tull-load current (FLA) for 3-phase AC motor • at 480 V rated value 65 A • at 600 V rated value 65 A • at 600 V rated value 65 A • at 600 V rated value 65 A • of single-phase AC motor • at 110/120 V rated value 5 hp • for single-phase AC motor • at 220/230 V rated value 25 hp • at 220/230 V rated value 50 hp • at 220/230 V rated value 50 hp • at 260/280 V rated value 50 hp • at 275/600 V rated value 50 hp • at 576/600 V rated value 50 hp • at 576/600 V rated value 60 hp contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit • with type of coordination 1 required (415 V, 80 kA) • for short-circuit protection of the auxiliary switch • for short-circuit protection of the auxiliary switch required (415 V, 80 kA) (416 V, 80 kA) (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 220 A (415 V, 80 kA) (415 V, 80 kA) (690 V, 100 kA), BS88: 125A (415 V, 80 kA) (416 V, 80 kA) (690 V, 100 kA), BS88: 125A (415 V, 80 kA) (415 V, 80 kA) (690 V, 100 kA), BS88: 125A (415 V, 80 kA) (415 V, 80 kA) (690 V, 100 kA), BS88: 125A (415 V, 80 kA) (415 V, 80 kA) (690 V, 100 kA), BS88: 125A (415 V, 80 kA) (415 V, 80 kA) (690 V, 100 kA), BS88: 125A (415 V, 80 kA) (415 V, 80 kA) (690 V, 100 kA), BS88: 125A (415 V, 80 kA) (415 V, 80 kA) (690 V, 100 kA), BS88: 125A (415 V, 80 kA) (415 V, 80 kA) (690 V, 100 kA), BS88: 125A (415 V, 80 kA) (415 V, 80 kA) (690 V, 100 kA), BS88: 125A (415 V, 80 kA) (415 V, 80 kA) (690 V, 100 kA), BS88: 125A (415 V, 80 kA) (415 V, 80 kA) (690 V, 100 kA), BS88: 125A (415 V, 80 kA) (415 V, 80 kA) (690 V, 100 kA), BS88: 125A (415 V, 80 kA) (415 V, 80 kA) (690 V, 100 kA), BS88: 125A (415 V, 80 kA) (415 V, 80 kA) (690 V, 100 kA), BS88: 125A (415 V, 80 kA) (415 V, 80 kA) (690 V, 100 kA), BS88: 125A (415 V, 80 kA		r laulty switching per 100 million (17 V, 1 mA)
• at 480 V rated value • at 600 V rated value 9 (62 A 10		
• at 600 V rated value 62 A		05.4
vielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value 15 hp • for 3-phase AC motor — at 2200/208 V rated value 20 hp — at 2200/208 V rated value 25 hp — at 2400/208 V rated value 25 hp — at 275/600 V rated value 50 hp — at 575/600 V rated value 60 hp — at 200/200 V rated value 60 hp — at 575/600 V rated value 60 hp — at 575/600 V rated value 60 hp — with type of coordination 1 required 95 (800 k) (800 V 100 kA), aM: 160 A (600 V, 100 kA), BS88: 200 A (415 V, 80 kA) GS (160 A (680 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 125A (415 V, 80 kA) GS (160 A (680 V, 100 kA), aM: 80A (690 V, 100 kA), BS88: 125A (415 V, 80 kA) GS (160 A (680 V, 100 kA), aM: 80A (690 V, 100 kA), BS88: 125A (415 V, 80 kA) GS (160 A (680 V, 100 kA), aM: 80A (690 V, 100 kA), BS88: 125A (415 V, 80 kA) GS (160 A (680 V, 100 kA), aM: 80A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) GS (160 A (680 V, 100 kA), aM: 80A (690 V, 100 kA), BS88: 125A (415 V, 80 kA) GS (160 A (680 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) GS (160 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 125A (415 V, 80 kA) GS (160 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A (415 V, 80 kA) GS (160 A (690 V, 100 kA), aM: 160 A (690 V, 100		
• for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for 3-phase AC motor — at 220/230 V rated value — at 55 hp — at 460/480 V rated value — at 57/590 V rated value — at 60 hp contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required (415 V, 80 kA) — with type of assignment 2 required (415 V, 80 kA) — with type of assignment 2 required (415 V, 80 kA) • for short-circuit protection of the auxiliary switch required (Installation/ mounting/ dimensions mounting position **-180" rotation possible on vertical mounting surface; can be tilled forward and backward by +/- 22.5" on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rall according to DIN EN 60715 **- side-by-side mounting • with side-by-side mounting • with side-by-side mounting • with side-by-side mounting • with side-by-side mounting • of for grounded parts — forwards — 10 mm — at the side • for grounded parts — forwards — 10 mm • at the side • for mounting • for ive parts — forwards • for live parts — forwards • for mounting • ownwards • for mounting • forwards • formards • formard		62 A
- at 110/120 V rated value		
■ 1230 V rated value ■ for 3-phase X motor — at 200/208 V rated value — at 220/230 V rated value — at 420/230 V rated value — at 4575/600 V rated value — at 575/600 V rated value — at 680/480 V rated value — 60 hp contact rating of auxillary contacts according to UL Short-circuit protection design of the fuse link ■ for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required — with type of assignment 2 required — for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimonsions mounting position fastening method ■ side-by-side mounting ■ height width ■ 55 mm depth required spacing ■ with side-by-side mounting ■ with side-by-side mounting ■ or invards — upwards — to main — at the side — downwards ■ 10 mm — upwards — at the side — downwards ■ for live parts — forwards — odwnwards ■ for live parts — forwards — upwards — odwnwards — odwards —	5 .	
• for 3-phase AC motor — at 200/209 V rated value — at 220/230 V rated value — at 220/230 V rated value — at 220/230 V rated value — at 480/480 V rated value — at 675/600 V rated value — at 575/600 V rated value — at 675/600 V rated value — at 675/600 V rated value — at 675/600 V rated value contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required mounting position Installation/ mounting/ dimensions mounting position #-/180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes height 114 mm required spacing • with side-by-side mounting — of wards — upwards — of wards — upwards — of ownwards — of ownwards — of ownwards — at the side — of ownwards — at the side — of ownwards — 10 mm — downwards — of mm — downwards — of mm — ownwards — ownwards — of mm — ownwards	 — at 110/120 V rated value 	5 hp
- at 200/208 V rated value	— at 230 V rated value	15 hp
- at 220/230 V rated value - at 460/480 V rated value - at 575/600 V rated value - at 575/600 V rated value - 60 hp -	 for 3-phase AC motor 	
- at 220/230 V rated value - at 460/480 V rated value - at 575/600 V rated value - at 575/600 V rated value - 60 hp -	— at 200/208 V rated value	20 hp
- at 460/480 V rated value	— at 220/230 V rated value	
- at 575/600 V rated value contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required ### with type of assignment 2 required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required ### for short-circuit protection of the auxiliary switch required ### part of protection of the auxiliary switch required ### part of protection of the auxiliary switch required ### part of protection of the auxiliary switch required ### part of protection of the auxiliary switch required ### part of protection of the auxiliary switch required gos to protect the protection of the auxiliary switch required installation/mounting/dimensions ### part of protection of the auxiliary switch required and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 ### part of protection of the main circuit ### part of protection of the auxiliary switch required ### part of protection of the auxiliary switch required ### part of protection of the auxiliary switch required ### part of protection of the auxiliary switch required ### part of protection of the auxiliary switch required ### part of protection of the auxiliary switch required ### part of protection of the auxiliary switch required ### part of protection of the protection of the auxiliary switch required ###	— at 460/480 V rated value	
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position **Fastening method** • side-by-side mounting • with side-by-side mounting • with side-by-side mounting • with side-by-side mounting • with side-by-side mounting • of orgrounded parts — at the side — downwards — at the side — downwards — downwards — downwards — of ownwards — ownwards — of ownwards — own	— at 575/600 V rated value	
Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit with type of coordination 1 required (415 V, 80 kA) (415 V, 8		
design of the fuse link • for short-circuit protection of the main circuit — with type of assignment 2 required — for short-circuit protection of the auxiliary switch required — for short-circuit protection of the auxiliary switch required — for short-circuit protection of the auxiliary switch required — for short-circuit protection of the auxiliary switch required — for short-circuit protection of the auxiliary switch required — for short-circuit protection of the auxiliary switch required — for short-circuit protection of the auxiliary switch gG: 10 A (500 V, 1 kA) — with stallation/ mounting/ dimensions — fastening method — screw and snap-on mounting onto 35 mm standard mounting surface; can be tilted forward and backward by 4½-22.5° on vertical mounting surface; can be tilted forward and backward by 4½-22.5° on vertical mounting surface; can be tilted forward and backward by 55 mm standard mounting rail according to DIN EN 60715 — side-by-side mounting — side-by-side mounting — with side-by-side mounting — with side-by-side mounting — oforwards — upwards — ownwards — omm — of or grounded parts — forwards — ownwards — omm — at the side — downwards — ownwards — of mm — of rilve parts — forwards — ownwards — own		
• for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required • for short-circuit protection of the auxiliary switch required for short-circuit protection of the auxiliary switch required mstallation/ mounting/ dimensions mounting position		
with type of coordination 1 required with type of assignment 2 required for short-circuit protection of the auxiliary switch required for short-circuit protection of the auxiliary switch required	_	
(415 V, 80 KA) - with type of assignment 2 required of 160A (690V,100KA), aM: 80A (690V,100KA), BS88: 125A (415V,80KA) of or short-circuit protection of the auxiliary switch required installation/ mounting/ dimensions mounting position - t/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface fastening method screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 oside-by-side mounting Yes height 114 mm width 55 mm depth required spacing owith side-by-side mounting - forwards - upwards - downwards - at the side of or grounded parts - forgrounded parts - at the side of or mm of or ive parts - forwards 10 mm of or live parts - forwards - upwards - upwards - upwards - upwards - downwards 10 mm of or live parts - forwards - upwards - upwards - upwards - upwards - upwards - downwards 10 mm of or live parts - forwards - upwards - upwards	•	O 050 A (000) (400 A)
• for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface fastening method screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 • side-by-side mounting +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 • side-by-side mounting +/-180° rotation possible on vertical mounting surface; can be tilted forward by +/- 22.5° on vertical mounting surface; can be tilted forwards on vertical mounting surface; can be tilted forward by +/- 22.5° on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; can be tilted forward by +/- 22.5° on		(415 V, 80 kA)
Installation/ mounting/ dimensions mounting position	 — with type of assignment 2 required 	
Installation/ mounting/ dimensions		gG: 10 A (500 V, 1 kA)
mounting position +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 • side-by-side mounting • side-by-side mounting Height 114 mm width 55 mm depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — forwards — upwards — upwards — upwards — at the side — downwards — odwnwards — of mm • for live parts — forwards — at the side — downwards — at the side — downwards — at the side — downwards — to mm • for live parts — forwards — upwards — upwards — odwnwards — upwards — odwnwards — odwnwards — odwnwards — odwnwards — odwnwards — odwnwards — upwards — odwnwards — upwards — odwnwards — odwnwards — upwards — odwnwards — o		
fastening method screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 • side-by-side mounting Yes height 114 mm width 55 mm depth 174 mm required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — forwards — at the side — downwards — at the side — downwards — of mm • for live parts — forwards — upwards • for live parts — forwards — upwards — upwards — downwards • for mm • downwards • for mm • downwards — at the side — downwards — downwards — forwards — forwards — forwards — forwards — downwards • for live parts — forwards — upwards — upwards — upwards — upwards — to mm • for live parts — forwards — upwards — up		
e side-by-side mounting Pes height 114 mm width 55 mm depth 174 mm required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — forwards — upwards — 10 mm • for grounded parts — forwards — 10 mm • for grounded parts — forwards — upwards — 10 mm • for live parts — forwards — upwards — to mm • for live parts — forwards — upwards — upwards — downwards — to mm • for live parts — forwards — upwards — upwards — downwards — upwards — to mm • for live parts — forwards — upwards — upwards — upwards — to mm • for live parts — forwards — upwards — upwards — upwards — upwards — to mm • for live parts — forwards — upwards — up		forward and backward by +/- 22.5° on vertical mounting surface
height 114 mm width 55 mm depth 174 mm required spacing 174 mm • with side-by-side mounting 0 mm — forwards 10 mm — upwards 10 mm — at we side 0 mm • for grounded parts 10 mm — forwards 10 mm — at the side 6 mm • for live parts 10 mm — forwards 10 mm — upwards 10 mm — downwards 10 mm — downwards 10 mm — at the side 6 mm	fastening method	
width 55 mm depth 174 mm required spacing 10 mm • with side-by-side mounting 10 mm — forwards 10 mm — upwards 10 mm — at the side 0 mm • for grounded parts 10 mm — upwards 10 mm — at the side 6 mm — downwards 10 mm • for live parts 10 mm — forwards 10 mm — upwards 10 mm — downwards 10 mm — downwards 10 mm — at the side 6 mm	side-by-side mounting	Yes
depth 174 mm required spacing ● with side-by-side mounting — forwards 10 mm — upwards 10 mm — downwards 10 mm — at the side 0 mm ● for grounded parts 10 mm — upwards 10 mm — at the side 6 mm — downwards 10 mm ● for live parts — forwards 10 mm — upwards 10 mm — downwards 10 mm — downwards 10 mm — at the side 6 mm	height	114 mm
required spacing ● with side-by-side mounting — forwards — upwards — downwards — at the side ● for grounded parts — forwards — upwards — the side — ownwards 10 mm ● for grounded parts — forwards — upwards — at the side — downwards ● for live parts — forwards — upwards — forwards 10 mm ● for live parts — forwards — upwards — downwards 10 mm — downwards — upwards — upwards — forwards — the side 6 mm	width	55 mm
 with side-by-side mounting — forwards — upwards — downwards — at the side o mm o for grounded parts — forwards — upwards — at the side — at the side — at the side — downwards — for live parts — forwards — upwards — to mm — of mm — downwards — upwards — upwards — upwards — upwards — upwards — downwards — downwards — at the side 6 mm 	depth	174 mm
 with side-by-side mounting — forwards — upwards — downwards — at the side o mm o for grounded parts — forwards — upwards — at the side — at the side — at the side — downwards — for live parts — forwards — upwards — to mm — of mm — downwards — upwards — upwards — upwards — upwards — upwards — downwards — downwards — at the side 6 mm 	required spacing	
— upwards 10 mm — downwards 10 mm — at the side 0 mm • for grounded parts 10 mm — forwards 10 mm — at the side 6 mm — downwards 10 mm • for live parts 10 mm — upwards 10 mm — downwards 10 mm — downwards 10 mm — at the side 6 mm	 with side-by-side mounting 	
— upwards 10 mm — downwards 10 mm — at the side 0 mm • for grounded parts 10 mm — forwards 10 mm — at the side 6 mm — downwards 10 mm • for live parts 10 mm — upwards 10 mm — downwards 10 mm — downwards 10 mm — at the side 6 mm	— forwards	10 mm
 — downwards — at the side ● for grounded parts — forwards — upwards — at the side — at the side — downwards ● for live parts — forwards — upwards — to mm — to mm — to mm — downwards — upwards — downwards — at the side 6 mm 		
 — at the side ● for grounded parts — forwards — upwards — at the side — downwards ● for live parts — forwards — upwards — upwards — downwards — downwards — downwards — downwards — at the side 0 mm 10 mm — downwards — at the side 6 mm 	·	
 for grounded parts — forwards — upwards — at the side — downwards — for live parts — forwards — upwards — upwards — downwards — downwards — at the side 6 mm 		
— forwards 10 mm — upwards 10 mm — at the side 6 mm — downwards 10 mm • for live parts 10 mm — upwards 10 mm — downwards 10 mm — at the side 6 mm		
— upwards 10 mm — at the side 6 mm — downwards 10 mm • for live parts 10 mm — upwards 10 mm — downwards 10 mm — at the side 6 mm		10 mm
 — at the side — downwards for live parts — forwards — upwards — downwards — downwards — at the side 6 mm 6 mm 		
 — downwards ● for live parts — forwards — upwards — downwards — at the side 10 mm 10 mm 6 mm 	•	
 for live parts forwards upwards downwards at the side 10 mm 10 mm 6 mm		
 forwards upwards downwards at the side 10 mm 10 mm 6 mm 		10 IIIIII
 upwards downwards at the side 10 mm 6 mm 	•	40
downwardsat the side6 mm		
— at the side 6 mm	•	
Connections/ Terminals		6 mm
	Connections/ Terminals	

type of electrical connection		
for main current circuit	screw-type terminals	
 for auxiliary and control circuit 	screw-type terminals	
 at contactor for auxiliary contacts 	Screw-type terminals	
of magnet coil	Screw-type terminals	
type of connectable conductor cross-sections		
• for main contacts		
— solid or stranded	2x (1 35 mm²), 1x (1 50 mm²)	
 finely stranded with core end processing 	2x (1 25 mm²), 1x (1 35 mm²)	
 at AWG cables for main contacts 	2x (18 2), 1x (18 1)	
connectable conductor cross-section for main contacts		
 finely stranded with core end processing 	1 35 mm²	
connectable conductor cross-section for auxiliary contacts		
 solid or stranded 	0.5 2.5 mm²	
 finely stranded with core end processing 	0.5 2.5 mm²	
type of connectable conductor cross-sections		
 for auxiliary contacts 		
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)	
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)	
 at AWG cables for auxiliary contacts 	2x (20 16), 2x (18 14)	
AWG number as coded connectable conductor cross section		
 for main contacts 	18 1	
 for auxiliary contacts 	20 14	
Safety related data		
product function		
 mirror contact according to IEC 60947-4-1 	Yes	
 positively driven operation according to IEC 60947- 5-1 	No	
B10 value with high demand rate according to SN 31920	1 000 000	
proportion of dangerous failures		
 with low demand rate according to SN 31920 	40 %	
 with high demand rate according to SN 31920 	73 %	
failure rate [FIT] with low demand rate according to SN 31920	100 FIT	
T1 value for proof test interval or service life according to IEC 61508	20 y	
protection class IP on the front according to IEC 60529	IP20	
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front	
suitability for use		
 safety-related switching OFF 	Yes	
Certificates/ approvals		

Certificates/ approvals

General Product Approval





Confirmation



<u>KC</u>



EMC Functio Safety/S Machine	afety of Declaration of Conformity	Test Certificates
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Type Examination Certificate



Special Test Certificate

Type Test Certificates/Test Report

Marine / Shipping













Marine / Shipping other Railway Dangerous Good



<u>Confirmation</u> <u>Vibration and Shock</u> <u>Transport Information</u> <u>tion</u>

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2038-1NB34-3MA0

Cax online generator

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-1NB34-3MA0

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2038-1NB34-3MA0&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-1NB34-3MA0/char

Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2038-1NB34-3MA0&objecttype=14&gridview=view1

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