SIEMENS

Data sheet 3RT2038-3SB30



contactor, AC-3, 80 A/400 V/60 $^{\circ}\text{C}$ S2, 3-pole, 21-33 V AC/DC, F-PLC-IN, with varistor, 1 NC, spring-loaded terminal

product type 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 • 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 surge voltage resistance • of main circuit rated value • of auxillary circuit rated value • of auxillary circuit rated value shock resistance at rectangular impulse • at AC • at DC shock resistance at rectangular impulse • at AC • at DC mechanical service life (switching cycles) • of contactor 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 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
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 auxiliary circuit with degree of pollution 3 rated value • of auxiliary circuit rated value • of auxiliary switch sine pulse • at AC • at DC • or ontactor with added electronically optimized auxiliary switch block 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 sw	product designation	Power contactor
size of contactor product extension • function module for communication • function module for communication • auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state per pole • 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 auxiliary circuit rated value • of auxiliary oblique for safe isolation between coll and main contacts according to EN 60947-1 shock resistance at rectangular impulse • at AC • at DC shock resistance with sine pulse • at AC • at DC shock resistance with sine pulse • at AC • at DC 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 bloc	product type designation	3RT2
product extension • function module for communication • auxillary 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 tated value • of auxiliary circuit rated value • of main circuit rated value • of main circuit rated value • of main circuit rated value • of auxiliary circuit rated value • of x, 7g / 5 ms, 4.5g / 10 ms • at AC • at DC shock resistance at rectangular impulse • at AC • at DC shock resistance with sine pulse • at	General technical data	
• function module for communication • auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state 17.1 W • at AC in hot operating state 2 W • without load current share typical 2 W 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 main circuit rated value 6 kV • of auxiliary circuit rated value 6 kV • of xy 7 y y y y y y y y y y y y y y y y y	size of contactor	S2
auxiliary switch power loss [W] for rated value of the current at AC in hot operating state	product extension	
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 surge voltage resistance of main circuit rated value of auxiliary circuit rated value foliand main contacts according to EN 60947-1 shock resistance at rectangular impulse of at AC of the cristance with sine pulse of at AC of the cristance with sine pulse of at AC of the cristance with sine pulse of at AC of the 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 Qusustance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature of during operation 17.1 W 17.1 W 5.7 W 5.7 W 5.7 W 5.7 W 5.7 W 5.90 V 690 V 68V 400 V 690 V 400 V 400 V 400 V 400 V 500 V 690 V 6	 function module for communication 	No
at AC in hot operating state per pole bit 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 rated value of avxiliary avxiliary insulated avxiliary insulated avxiliary switch sine pulse of at AC of at AC of at AC of contactor typical of othe contactor with added electronically optimized avxiliary switch block typical of the contactor with added electronically optimized avxiliary 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	Yes
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insulation voltage • 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 ### auxiliary permissible voltage for safe isolation between coil and main contacts according to EN 60947-1 ### shock resistance at rectangular impulse • at AC • at DC ### shock resistance with sine pulse • at AC ### shock resistance with sine pulse ### shock resistance with sine pulse ### shock resistance with sine pulse ### shock resistance	 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 active at rectangular impulse of at AC of of contactor with sine pulse of the Contactor with added electronically optimized auxiliary switch block typical of the contactor with added delectronically 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 of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary	 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 circuit rated value of the Contacts according to EN 60947-1 shock resistance at rectangular impulse of at AC of C of C of T,7g / 5 ms, 4.5g / 10 ms of the C of the 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 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) installation altitude at height above sea level maximum ambient temperature oduring operation -25 +60 °C	insulation voltage	
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of main circuit rated value of auxiliary circuit rated value amaximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse o at AC o at DC shock resistance with sine pulse o at AC o at DC shock resistance with sine pulse o at AC o at DC or contactor typical 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 ad		690 V
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 oat AC oat 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 oduring operation od the contactor with added auxiliary	surge voltage resistance	
maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse • at AC • at DC shock resistance with sine pulse • at AC • at DC shock resistance with sine pulse • at AC • at DC at AC • at DC 12g / 5 ms, 4.5g / 10 ms 12g / 5 ms, 7g / 10 ms 12g / 5 ms, 7g / 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 • during operation 400 V 7.7g / 5 ms, 4.5g / 10 ms 7.7g / 5 ms, 4.5g / 10 ms 12g / 5 ms, 7g / 10 ms 5 000 000 5 000 000 5 000 000 5 000 000	 of main circuit rated value 	6 kV
shock resistance at rectangular impulse • at AC • at DC **Nock resistance with sine pulse • at AC • at DC **Nock resistance with sine pulse • at AC • at DC • at DC **Nock resistance with sine pulse • at AC • at DC **Nock resistance with sine pulse • at AC • at DC **Nock resistance with sine pulse • at AC • at DC **Mochanical 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 t	of auxiliary circuit rated value	6 kV
 at AC at DC 7.7g / 5 ms, 4.5g / 10 ms shock resistance with sine pulse at AC at DC 12g / 5 ms, 7g / 10 ms at DC 12g / 5 ms, 7g / 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 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 typical of the contactor with added auxiliary switch block typical of the contactor typical <l< td=""><td></td><td>400 V</td></l<>		400 V
at DC shock resistance with sine pulse at AC at DC at	shock resistance at rectangular impulse	
shock resistance with sine pulse • at AC • 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 reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation 12g / 5 ms, 7g / 10 ms 5 000 000 5 000 000 5 000 000 5 000 000	• at AC	7.7g / 5 ms, 4.5g / 10 ms
 at AC at DC 12g / 5 ms, 7g / 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 oduring operation -25 +60 °C 	• at DC	7.7g / 5 ms, 4.5g / 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 12g / 5 ms, 7g / 10 ms 5 000 000 5 000 000 5 000 000 5 000 000	shock resistance with sine pulse	
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 Q Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature of during operation 5 000 000 5 000 000 5 000 000 5 000 000	• at AC	12g / 5 ms, 7g / 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 reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature during operation 5 000 000 5 000 000 000 01/29/2021 	• at DC	12g / 5 ms, 7g / 10 ms
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 5 000 000 5 000 000 0 000	mechanical service life (switching cycles)	
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 -25 +60 °C	 of contactor typical 	5 000 000
reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 01/29/2021 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 01/29/2021 2 000 m -25 +60 °C		5 000 000
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 2 000 m -25 +60 °C	Substance Prohibitance (Date)	01/29/2021
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 minimum relative humidity at 55 °C according to IEC 60068-2-30	95 %
maximum	00 /0
Main 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 °C rated value — up to 690 V at ambient temperature 60 °C 	90 A 80 A
rated value	
• 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 	58 A
• at AC-6a	
 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	46.7 A
— up to 500 V for current peak value n=30 rated value	46.7 A
up to 690 V for current peak value n=30 rated value	46.7 A
minimum cross-section in main circuit at maximum AC-1 rated value	35 mm²
operational current for approx. 200000 operating cycles at AC-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 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
	0.00 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	45 KVV
at AC-4	
at 400 V rated value	15.8 kW
at 690 V rated value	21.8 kW
operating apparent power at AC-6a	
up to 400 V for current peak value n=20 rated value	48 400 VA
 up to 500 V for current peak value n=20 rated value 	60 600 VA
 up to 690 V for current peak value n=20 rated value 	69 300 VA
	00 000 VA
operating apparent power at AC-6a	19 600 \/A
up to 230 V for current peak value n=30 rated value	18 600 VA
up to 400 V for current peak value n=30 rated value	32 300 VA
up to 500 V for current peak value n=30 rated value	40 400 \ / A
 up to 690 V for current peak value n=30 rated value 	40 400 VA
	40 400 VA 55 800 VA
short-time withstand current in cold operating state up to 40 °C	
short-time withstand current in cold operating state	
short-time withstand current in cold operating state up to 40 °C	55 800 VA
short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum	55 800 VA 1 298 A; Use minimum cross-section acc. to AC-1 rated value
short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum	1 298 A; Use minimum cross-section acc. to AC-1 rated value 898 A; Use minimum cross-section acc. to AC-1 rated value
short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum	1 298 A; Use minimum cross-section acc. to AC-1 rated value 898 A; Use minimum cross-section acc. to AC-1 rated value 640 A; Use minimum cross-section acc. to AC-1 rated value
short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum	1 298 A; Use minimum cross-section acc. to AC-1 rated value 898 A; Use minimum cross-section acc. to AC-1 rated value 640 A; Use minimum cross-section acc. to AC-1 rated value 414 A; Use minimum cross-section acc. to AC-1 rated value
short-time withstand current in cold operating state up to 40 °C • limited to 1 s switching at zero current maximum • limited to 5 s switching at zero current maximum • limited to 10 s switching at zero current maximum • limited to 30 s switching at zero current maximum • limited to 60 s switching at zero current maximum	1 298 A; Use minimum cross-section acc. to AC-1 rated value 898 A; Use minimum cross-section acc. to AC-1 rated value 640 A; Use minimum cross-section acc. to AC-1 rated value 414 A; Use minimum cross-section acc. to AC-1 rated value

operating frequency	
• at AC-1 maximum	700 1/h
 at AC-2 maximum 	350 1/h
 at AC-3 maximum 	500 1/h
 at AC-3e 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	21 33 V
at 60 Hz rated value	21 33 V
control supply voltage at DC	
rated value	21 33 V
type of PLC-control input according to IEC 60947-1	Type 1
consumed current at PLC-control input according to IEC 60947-1 maximum	11 mA
voltage at PLC-control input rated value	24 V
operating range factor of the voltage at PLC-control	0.8 1.1
input	0.0 1.1
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	0.0 4.4
• at 50 Hz	0.8 1.1
• at 60 Hz	0.8 1.1
design of the surge suppressor	with varistor
inrush current peak	2.2 A
duration of inrush current peak	100 μs
locked-rotor current mean value	1.6 A
locked-rotor current peak	2.6 A
duration of locked-rotor current	230 ms
holding current mean value	0.075 A
apparent pick-up power of magnet coil at AC • at 50 Hz	40 VA
● at 50 Hz ● at 60 Hz	40 VA 40 VA
	40 VA
apparent holding power of magnet coil at AC • at 50 Hz	2 \/A
• at 50 Hz	2 VA 2 VA
closing power of magnet coil at DC	40 W
holding power of magnet coil at DC	1.6 W
closing delay	1.0 γγ
• at AC	35 110 ms
• at DC	35 110 ms
opening delay	00 110 1113
• at AC	30 55 ms
• at DC	30 55 ms
recovery time after power failure typical	2.1 s
arcing time	10 20 ms
control version of the switch operating mechanism	Fail-safe PLC input (F-PLC-IN)
Auxiliary circuit	
number of NC contacts for auxiliary contacts	1
instantaneous contact	
number of NO contacts for auxiliary contacts instantaneous contact	0
operational current at AC-12 maximum	10 A
operational current at AC-15	
at 230 V rated value	10 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
 at 220 V rated value 	1 A
at 600 V rated value	0.15 A
operational current at DC-13	
 at 24 V rated value 	10 A
 at 48 V rated value 	2 A
 at 60 V rated value 	2 A
 at 110 V rated value 	1 A
 at 125 V rated value 	0.9 A
 at 220 V rated value 	0.3 A
 at 600 V rated value 	0.1 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	65 A
at 600 V rated value	62 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	5 hp
— at 230 V rated value	15 hp
• for 3-phase AC motor	
— at 200/208 V rated value	20 hp
— at 220/230 V rated value	25 hp
— at 460/480 V rated value	50 hp
— at 575/600 V rated value	60 hp
contact rating of auxiliary contacts according to UL	A600 / P600
Short-circuit protection	7,00071 000
design of the fuse link	
for short-circuit protection of the main circuit	
with type of coordination 1 required	gG: 250 A (690 V, 100 kA), aM: 160 A (690 V, 100 kA), BS88: 200 A
— with type of coordination i required	(415 V, 80 kA)
— with type of assignment 2 required	gG: 160A (690V,100kA), aM: 80A (690V,100kA), BS88: 125A (415V,80kA)
 for short-circuit protection of the auxiliary switch required 	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted
	. 100 Totation possible on vertical mounting surface, can be titled
fastoning method	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	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes
• side-by-side mounting height	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm
side-by-side mounting height width	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm 55 mm
side-by-side mounting height width depth	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm
side-by-side mounting height width depth required spacing	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm 55 mm
side-by-side mounting height width depth required spacing	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm 55 mm 130 mm
side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm 55 mm 130 mm
side-by-side mounting height width depth required spacing	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm 55 mm 130 mm
side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm 55 mm 130 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm 55 mm 130 mm
side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm 55 mm 130 mm 10 mm 10 mm 10 mm 0 mm
side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — forwards	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm 55 mm 130 mm 10 mm 10 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — forwards — upwards	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm 55 mm 130 mm 10 mm 10 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm 55 mm 130 mm 10 mm 10 mm 10 mm 10 mm 6 mm
side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — forwards — upwards	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 Yes 114 mm 55 mm 130 mm 10 mm 10 mm 10 mm 10 mm

• for live parts	
— forwards	10 mm
— upwards	10 mm
— downwards— at the side	10 mm
— at the side Connections/ Terminals	6 mm
type of electrical connection	
for main current circuit	screw-type terminals
for auxiliary and control circuit	spring-loaded terminals
at contactor for auxiliary contacts	Spring-type terminals
of magnet coil	Spring-type terminals
type of connectable conductor cross-sections	-pmg ype termine
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	4 05 2
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 1.5 mm ²
finely stranded without core end processing	0.5 2.5 mm²
type of connectable conductor cross-sections	
for auxiliary contacts	
— solid or stranded	2x (0.5 2.5 mm²)
 finely stranded with core end processing 	2x (0.5 1.5 mm²)
 finely stranded without core end processing 	2x (0.5 2.5 mm²)
at AWG cables for auxiliary contacts	2x (20 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- 	No
5-1	Time D
safety device type according to IEC 61508-2	Type B
B10 value with high demand rate according to SN 31920	1 000 000
Safety Integrity Level (SIL) according to IEC 61508 SIL Claim Limit (subsystem) according to EN 62061	2
performance level (PL) according to EN ISO 13849-1	C
category according to EN ISO 13849-1	2
stop category according to EN 60204-1	0
Safe failure fraction (SFF)	96 %
diagnostics test interval by internal test function maximum	28 800 s
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
PFHD with high demand rate according to EN 62061	0.000000077 1/h
PFDavg with low demand rate according to IEC 61508	0.0067
MTBF	52 y
hardware fault tolerance according to IEC 61508	0
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

suitability for use

• safety-related switching on

• safety-related switching OFF

finger-safe, for vertical contact from the front

No

Yes

Certificates/ approvals

General Product Approval



Confirmation





<u>KC</u>



EMC

Functional Safety/Safety of Machinery

Declaration of Conformity

Test Certificates

Marine / Shipping



Type Examination Certificate



Type Test Certificates/Test Report





Marine / Shipping

· **



Confirmation

other

Vibration and Shock

Railway

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=3RT2038-3SB30

Cax online generator

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-3SB30

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

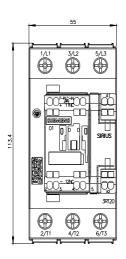
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2038-3SB30&lang=en

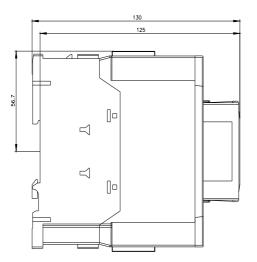
Characteristic: Tripping characteristics, I2t, Let-through current

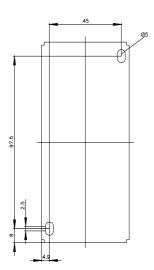
https://support.industry.siemens.com/cs/ww/en/ps/3RT2038-3SB30/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2038-3SB30&objecttype=14&gridview=view1







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