SIEMENS

Data sheet 3RT2016-2SB42



power contactor, AC-3e/AC-3, 9 A, 4 kW / 400 V, 3-pole, 24 V DC, $0.85-1.85^{*}$ Us, with integrated suppressor diode, auxiliary contacts: 1 NC, spring-loaded terminal, size: S00

product designation Coupling contactor SRT2 General technical data size of contactor S00 product extension Function module for communication No	product brand name	SIRIUS
Size of contactor S00 product extension • function module for communication • auxiliary switch No power loss [W] for rated value of the current • at AC in hot operating state 0.9 W • at AC in hot operating state 9.3 W • at AC in hot operating state 9.3 W • at AC in hot operating state 9.3 W • at AC in hot operating state 9.3 W • without load current share typical 1.6 W type of calculation of power loss depending on pole 9.1 G insulation voltage 9.0 F of main circuit with degree of pollution 3 rated value 9.0 V • of auxiliary circuit with degree of pollution 3 rated value 9.0 V surge voltage resistance • of main circuit rated value 9.0 K • of auxiliary circuit rated value 9.0 K waximum permissible voltage for protective separation between 10 and main contacts according to EN 60947-1 1 shock resistance at rectangular impulse 10.5 g / 5 ms, 4.2g / 10 ms shock resistance with sine pulse 10.5 g / 5 ms, 6,6g / 10 ms shock resistance with sine pulse 10.5 g / 5 ms, 6,6g / 10 ms shock resistance over 10.5 g / 5 ms, 6,6g / 10 ms shock resistance trylical 30 000 000 000 000 000 000 000 000 000	product designation	Coupling contactor
size of contactor product extension • function module for communication • auxiliary switch • auxiliary switch • at AC in hot operating state current • at AC in hot operating state per pole • at AC in hot operating state per pole • at AC in hot operating state per pole • at AC in hot operating state per pole • at AC in hot operating state per pole • 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 • at DC • of contactor typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) SWHC substance name Lead - 7439-92-1 Weight • of contactor typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Weight • during operation • during storage relative humidity winimimum Environmental footprint	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 0.9 W • at AC in hot operating state 0.9 W • at AC in hot operating state per pole 0.3 W • without load current share typical 1.6 W type of calculation of power loss depending on pole insulation voltage • of main circuit with degree of pollution 3 rated value • of main circuit with degree of pollution 3 rated value • of main circuit with degree of pollution 3 rated value • of main circuit with degree of pollution 3 rated value • of main circuit with degree of pollution 3 rated value • of main circuit rated value 6 kV • of auxiliary circuit with degree of pollution 3 rated value • of main circuit rated value 6 kV • of auxiliary circuit rated value 7 kV • of	General technical data	
• function module for communication • auxillary switch No auxillary switch At AC in hot operating state • at AC in hot operating state per pole • without load current sharet typical • without load current sharet typical • 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 with degree of pollution 3 rated value • of auxillary circuit with degree of pollution 3 rated value • of main circuit rated value • of auxillary circuit rated value • of auxillary circuit rated value • of auxil	size of contactor	S00
auxillary switch powor loss IW] for rated value of the current at AC in hot operating state 0.9 W without load current share typical 1.6 W type of calculation of power loss depending on pole 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	product extension	
power loss [W] for rated value of the current at AC in hot operating state 0.9 W at AC in hot operating state per pole 0.3 W without load current share typical 1.6 W type of calculation of power loss depending on pole quadratic insulation voltage of main circuit with degree of pollution 3 rated value 690 V of auxiliary circuit with degree of pollution 3 rated value 690 V surge voltage resistance of main circuit value 6 kV maximum permissible voltage for protective separation between coll and main contacts according to EN 60947-1 shock resistance at rectangular impulse at DC shock resistance at rectangular impulse at DC shock resistance with sine pulse at DC mechanical service life (operating cycles) of contactor typical 30 000 000 reference code according to EC 81346-2 Q Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.32 kg Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature during operation - 25 +60 °C relative humidity at 55 °C according to IEC 60068-2-30 maximum Environmental footprint Environmental footprint	 function module for communication 	No
at AC in hot operating state at AC in hot operating state per pole without load current share typical 1.6 W type of calculation of power loss depending on pole 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 with degree of pollution 3 rated value of main circuit rated value of main circuit rated value of main circuit rated value of with with degree of pollution 3 rated value of with with degree of pollution 3 rated value of with with degree of pollution 3 rated value of with with degree of pollution 3 rated value of with with degree of pollution 3 rated value of with with degree of pollution 3 rated value of with with degree of pollution 3 rated value of with with degree of pollution 3 rated value of with with degree of pollution 3 rated value of with with degree of pollution 3 rated value of with with degree of pollution 3 rated value of with with degree of pollution 3 rated value of with with degree of pollution 3 rated value of with with degree of pollution 3 rated value of with with degree of pollution 3 rated value of with with degree of pollution 3 rated value of with with degree of pollution 3 rated value of with with degree of pollution 3 rated value of with with degree of pollution 3 rated value of on with with degree of pollution 3 rated value of on with with degree of pollution 3 rated value of on with with degree of pollution 3 rated value of on with with degree of pollution 3 rated value of on with with degree of pollution 3 rated value of on with with degree of pollution 4 of with with degree of pollution 4 of with degree of with with degree of pollution 4 of with with degree of with with with degree of with with with degree of with with with with with with with with	auxiliary switch	No
at AC in hot operating state per pole without load current share typical type of calculation of power loss depending on pole 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 avxiliary circuit rated value of avxili	power loss [W] for rated value of the current	
without load current share typical type of calculation of power loss depending on pole 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 main circuit rated value of auxiliary circuit rated value of AV maximum permissible voltage for protective separation between coll and main contacts according to EN 60947-1 shock resistance at rectangular impulse ot DC of,7g / 5 ms, 4,2g / 10 ms shock resistance with sine pulse ot DC of,7g / 5 ms, 6,6g / 10 ms mechanical service life (operating cycles) of contactor typical vector of contactor typical of	 at AC in hot operating state 	0.9 W
type of calculation of power loss depending on pole 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 main circuit rated value • of auxiliary circuit rated value • of contact according to EN 60947-1 shock resistance at rectangular impulse • of DC • of contactor with sine pulse • of contactor typical • of contactor typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.32 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • of uring storage -55 +60 °C relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Environmental footprint	 at AC in hot operating state per pole 	0.3 W
insulation voltage of main circuit with degree of pollution 3 rated value of auxiliary circuit with degree of pollution 3 rated value fend of auxiliary circuit with degree of pollution 3 rated value of main circuit rated value of main circuit rated value of auxiliary circuit rated value of kV maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse ot DC of contact rectangular impulse of contactor with sine pulse of contactor typical of contactor typical of contactor typical reference code according to IEC 81346-2 Qu Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.32 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature of during operation of contactor typical of contac	without load current share typical	1.6 W
of main 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 circuit rated value of kV of contacts according to EC 80947-1 shock resistance at rectangular impulse of x1 DC of contactor typical reference code according to IEC 81346-2 of contactor typical reference code according to IEC 81346-2 of contactor typical substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight of contactor typical vertical service life (operating cycles) of contactor typical vertical service life (operating cycles) of contactor typical of contact	type of calculation of power loss depending on pole	quadratic
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 auxiliary circuit rated value of kV maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse ot DC of A,7g / 5 ms, 4,2g / 10 ms shock resistance with sine pulse ot DC of contactor typical SVHC substance name Lead - 7439-92-1 Weight of Abblent conditions installation altitude at height above sea level maximum ambient temperature of during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Environmental footprint	insulation voltage	
surge voltage resistance of main circuit rated value of auxiliary circuit rated value of auxiliary circuit rated value of auxiliary circuit rated value of kV maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse of cortactor with sine pulse of cortactor typical of contactor typical reference code according to IEC 81346-2 Substance Prohibitance (Date) SYHC substance name Lead - 7439-92-1 Weight 0.32 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature of during storage relative humidity an 55 °C according to IEC 60068-2-30 maximum Environmental footprint over 100 V color kV of kV of kV of cortactor typical 10,5g / 5 ms, 4,2g / 10 ms of cortactor typical 10,5g / 5 ms, 6,6g / 10 ms of cortactor typical 2000 000 10,5g / 5 ms, 6,6g / 10 ms of cortactor typical 2000 000 of cortactor typical 2000 000 of cortactor typical 2000 m ambient temperature of during storage of cortactor typical 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Environmental footprint	 of main circuit with degree of pollution 3 rated value 	690 V
of main circuit rated value of auxiliary circuit rated value of auxiliary circuit rated value ad NV maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse ot at DC of at DC of Ag / 5 ms, 4,2g / 10 ms shock resistance with sine pulse ot DC of contactor typical Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight of conditions installation altitude at height above sea level maximum ambient temperature of during storage of control typical of contactor typi	 of auxiliary circuit with degree of pollution 3 rated value 	690 V
of auxiliary circuit rated value maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse oat DC fo,7g / 5 ms, 4,2g / 10 ms shock resistance with sine pulse oat DC 10,5g / 5 ms, 6,6g / 10 ms mechanical service life (operating cycles) of contactor typical of contactor typical of contactor typical substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0,32 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation oduring storage relative humidity minimum relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Environmental footprint	surge voltage resistance	
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse • at DC shock resistance with sine pulse • at DC nechanical service life (operating cycles) • of contactor typical of contactor typical reference code according to IEC 81346-2 Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.32 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Environmental footprint	of main circuit rated value	6 kV
coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse • at DC shock resistance with sine pulse • at DC 10,5g / 5 ms, 4,2g / 10 ms 10,5g / 5 ms, 6,6g / 10 ms mechanical service life (operating cycles) • of contactor typical 30 000 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.32 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Environmental footprint	of auxiliary circuit rated value	6 kV
• at DC shock resistance with sine pulse • at DC 10,5g / 5 ms, 6,6g / 10 ms mechanical service life (operating cycles) • of contactor typical 30 000 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.32 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation -25 +60 °C • during storage 755 +80 °C relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Environmental footprint		400 V
shock resistance with sine pulse • at DC 10,5g / 5 ms, 6,6g / 10 ms mechanical service life (operating cycles) • of contactor typical 30 000 000 reference code according to IEC 81346-2 Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.32 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Environmental footprint	shock resistance at rectangular impulse	
of contactor typical of contactor typical reference code according to IEC 81346-2 Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.32 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation oduring storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Environmental footprint	• at DC	6,7g / 5 ms, 4,2g / 10 ms
mechanical service life (operating cycles) ● of contactor typical reference code according to IEC 81346-2 Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight Ambient conditions installation altitude at height above sea level maximum ambient temperature ● during operation ● during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Environmental footprint	shock resistance with sine pulse	
of contactor typical reference code according to IEC 81346-2 Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.32 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature o during operation o during storage during storage relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Environmental footprint	• at DC	10,5g / 5 ms, 6,6g / 10 ms
reference code according to IEC 81346-2 Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.32 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Environmental footprint	mechanical service life (operating cycles)	
Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.32 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Environmental footprint	of contactor typical	30 000 000
SVHC substance name Lead - 7439-92-1 Weight 0.32 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum 10 % relative humidity at 55 °C according to IEC 60068-2-30 maximum Environmental footprint	reference code according to IEC 81346-2	Q
Weight Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Environmental footprint	Substance Prohibitance (Date)	
Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Environmental footprint	SVHC substance name	Lead - 7439-92-1
installation altitude at height above sea level maximum ambient temperature • during operation • during storage relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Environmental footprint	Weight	0.32 kg
ambient temperature	Ambient conditions	
● during operation ● during storage ● during storage	installation altitude at height above sea level maximum	2 000 m
during storage	ambient temperature	
relative humidity minimum relative humidity at 55 °C according to IEC 60068-2-30 maximum Environmental footprint	 during operation 	-25 +60 °C
relative humidity at 55 °C according to IEC 60068-2-30 95 % maximum Environmental footprint	during storage	-55 +80 °C
Environmental footprint	relative humidity minimum	10 %
		95 %
Environmental Product Declaration(EPD) Yes	Environmental footprint	
	Environmental Product Declaration(EPD)	Yes

Global Warming Potential [CO2 eq] total	153 kg
Global Warming Potential [CO2 eq] during manufacturing	1.42 kg
Global Warming Potential [CO2 eq] during operation	152 kg
Global Warming Potential [CO2 eq] after end of life	-0.305 kg
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 	22 A
• at AC-1	
 up to 690 V at ambient temperature 40 °C rated value 	22 A
— up to 690 V at ambient temperature 60 °C rated value	20 A
• at AC-3	0.4
— at 400 V rated value	9 A
— at 500 V rated value	7.7 A
— at 690 V rated value ● at AC-3e	6.7 A
	9 A
— at 400 V rated value — at 500 V rated value	7.7 A
— at 690 V rated value	6.7 A
at AC-4 at 400 V rated value	8.5 A
• at AC-5a up to 690 V rated value	19.4 A
at AC-5b up to 400 V rated value	7.4 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	5.3 A
— up to 400 V for current peak value n=20 rated value	5.3 A
— up to 500 V for current peak value n=20 rated value	5.3 A
— up to 690 V for current peak value n=20 rated value	5 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	3.5 A
 up to 400 V for current peak value n=30 rated value 	3.5 A
 up to 500 V for current peak value n=30 rated value 	3.6 A
— up to 690 V for current peak value n=30 rated value	3.3 A
minimum cross-section in main circuit at maximum AC-1 rated value	4 mm²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	4.1 A
• at 690 V rated value	3.3 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	2.1 A
— at 220 V rated value	0.8 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 A
 with 2 current paths in series at DC-1 	
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	12 A
— at 220 V rated value	1.6 A
— at 440 V rated value	0.8 A
— at 600 V rated value	0.7 A
with 3 current paths in series at DC-1 at 24 V sets d valve.	20.4
— at 24 V rated value	20 A

— at 60 V rated value	20 A
— at 110 V rated value	20 A
— at 220 V rated value	20 A
— at 440 V rated value	1.3 A
— at 600 V rated value	1 A
 at 1 current path at DC-3 at DC-5 	
— at 24 V rated value	20 A
— at 60 V rated value	0.5 A
— at 110 V rated value	0.15 A
 with 2 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	20 A
— at 60 V rated value	5 A
— at 110 V rated value	0.35 A
 with 3 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	20 A
— at 60 V rated value	20 A
— at 110 V rated value	20 A
— at 220 V rated value	1.5 A
— at 440 V rated value	0.2 A
— at 600 V rated value	0.2 A
operating power	
• at AC-3	
■ at AC-3 — at 230 V rated value	2.2 kW
— at 400 V rated value	2.2 KW 4 kW
	4 kW
— at 500 V rated value	
— at 690 V rated value	5.5 kW
• at AC-3e	0.01444
— at 230 V rated value	2.2 kW
— at 400 V rated value	4 kW
— at 500 V rated value	4 kW
— at 690 V rated value	5.5 kW
operating power for approx. 200000 operating cycles at AC-	
at 400 V rated value	2 kW
at 690 V rated value	2.5 kW
operating apparent power at AC-6a	2.5 RVV
up to 230 V for current peak value n=20 rated value	2 kVA
up to 400 V for current peak value n=20 rated value up to 400 V for current peak value n=20 rated value	3.6 kVA
up to 500 V for current peak value n=20 rated value up to 500 V for current peak value n=20 rated value	4.6 kVA
·	
up to 690 V for current peak value n=20 rated value	5.9 kVA
operating apparent power at AC-6a	1.2 12/4
up to 230 V for current peak value n=30 rated value	1.3 kVA
up to 400 V for current peak value n=30 rated value	2.4 kVA
up to 500 V for current peak value n=30 rated value	3.1 kVA
• up to 690 V for current peak value n=30 rated value	4 kVA
short-time withstand current in cold operating state up to 40 °C	
limited to 1 s switching at zero current maximum	155 A; Use minimum cross-section acc. to AC-1 rated value
limited to 1 s switching at zero current maximum	111 A; Use minimum cross-section acc. to AC-1 rated value
limited to 3 s switching at zero current maximum limited to 10 s switching at zero current maximum	86 A; Use minimum cross-section acc. to AC-1 rated value
limited to 30 s switching at zero current maximum	66 A; Use minimum cross-section acc. to AC-1 rated value
limited to 50's switching at zero current maximum limited to 60's switching at zero current maximum	55 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	oors, ood minimum cross socitori acc. to Ac-1 fateu value
at DC	10 000 1/h
	10 000 1/11
operating frequency	1 000 1/b
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	750 1/h
• at AC-3 maximum	750 1/h
 at AC-3e maximum 	750 1/h
at AC-4 maximum Control circuit/ Control	250 1/h

type of voltage of the control supply voltage	DC
type of voltage of the control supply voltage control supply voltage at DC rated value	24 V
operating range factor control supply voltage rated value of	277
magnet coil at DC	
initial value	0.85
• full-scale value	1.85
design of the surge suppressor	suppressor diode
closing power of magnet coil at DC	1.6 W
holding power of magnet coil at DC	1.6 W
closing delay	
• at DC	25 120 ms
opening delay	
• at DC	5 20 ms
arcing time	10 15 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous contact	1
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 at 48 V rated value	2 A
at 60 V rated value	2 A
	1 A
 at 110 V rated value at 125 V rated value 	0.9 A
at 220 V rated value	0.3 A
at 220 V rated value 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	reality switching per 100 million (17-4, 1 mz)
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	7.6 A
at 600 V rated value	9 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	0.33 hp
— at 230 V rated value	1 hp
• for 3-phase AC motor	
— at 200/208 V rated value	2 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	5 hp
— at 575/600 V rated value	7.5 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link	
for short-circuit protection of the main circuit	
with type of coordination 1 required	gG: 35A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)
with type of assignment 2 required	gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (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 forward and backward by +/- 22.5° on vertical mounting surface
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	70 mm
width	45 mm
depth	73 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	
— forwards	10 mm
— upwards	10 mm
— at the side	6 mm
— downwards	10 mm
for live parts	
— forwards	10 mm
— upwards	10 mm
— upwarus — downwards	10 mm
— at the side	6 mm
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Connections/ Terminals	
type of electrical connection	
for main current circuit	spring-loaded 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	
for main contacts	
— solid	2x (0.5 4 mm²)
— solid or stranded	2x (0,5 4 mm²)
 finely stranded with core end processing 	2x (0.5 2.5 mm²)
 finely stranded without core end processing 	2x (0.5 2.5 mm²)
 for AWG cables for main contacts 	2x (20 12)
connectable conductor cross-section for main contacts	
• solid	0.5 4 mm ²
• stranded	0.5 4 mm²
 finely stranded with core end processing 	0.5 2.5 mm²
 finely stranded without core end processing 	0.5 2.5 mm²
connectable conductor cross-section for auxiliary contacts	
solid or stranded	0.5 4 mm²
 finely stranded with core end processing 	0.5 2.5 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 4 mm²)
finely stranded with core end processing	2x (0.5 2.5 mm²)
finely stranded without core end processing	2x (0.5 2.5 mm²)
for AWG cables for auxiliary contacts	2x (20 12)
AWG number as coded connectable conductor cross	(_v (_)
section	20 42
• for main contacts	20 12
for auxiliary contacts	20 12
Safety related data	
product function	
 mirror contact according to IEC 60947-4-1 	Yes
 positively driven operation according to IEC 60947-5-1 	No
suitable for safety function	Yes

service life maximum	20 a
test wear-related service life necessary	Yes
proportion of dangerous failures	
 with low demand rate according to SN 31920 	40 %
 with high demand rate according to SN 31920 	73 %
B10 value with high demand rate according to SN 31920	1 000 000
failure rate [FIT] with low demand rate according to SN 31920	100 FIT
ISO 13849	
device type according to ISO 13849-1	3
overdimensioning according to ISO 13849-2 necessary	Yes
IEC 61508	
safety device type according to IEC 61508-2	Type A
Electrical Safety	
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
Approvals Certificates	

General Product Approval





Confirmation





<u>KC</u>

General Product Approval

EMV

Functional Saftey

Test Certificates

Marine / Shipping





Type Examination Certificate

Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping











Confirmation

other

other

Railway

Dangerous goods

Environment

Miscellaneous

Special Test Certific-<u>ate</u>

Transport Information



Environmental Confirmations

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3RT2016-2SB42

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RT2016-2SB42}$

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2016-2SB42

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

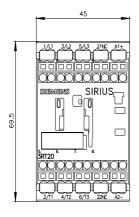
016-2SB42&lang=en

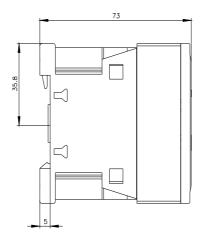
Characteristic: Tripping characteristics, I2t, Let-through current

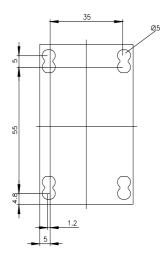
https://support.industry.siemens.com/cs/ww/en/ps/3RT2016-2SB42/char

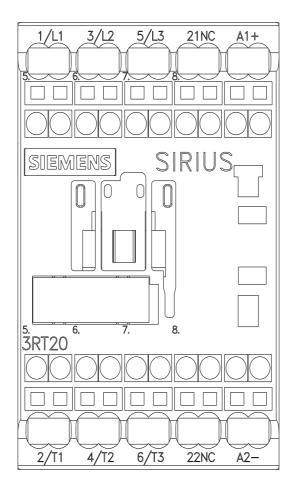
Further characteristics (e.g. electrical endurance, switching frequency)

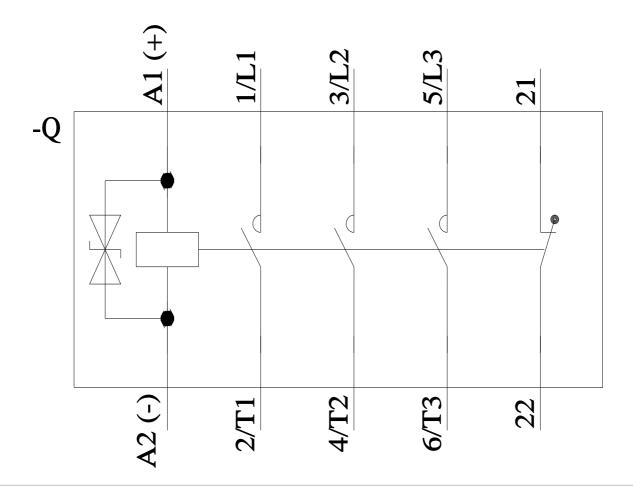
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2016-2SB42&objecttype=14&gridview=view1











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