SIEMENS

Data sheet 3RT2025-1KB40



power contactor, AC-3e/AC-3, 17 A, 7.5 kW / 400 V, 3-pole, 24 V DC, 0.7-1.25* Us, with plugged-in varistor, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S0, suitable for PLC outputs, not expandable with auxiliary switch

product brand name	SIRIUS
product designation	Coupling contactor
product type designation	3RT2
General technical data	
size of contactor	S0
product extension	
 function module for communication 	No
auxiliary switch	No
power loss [W] for rated value of the current	
 at AC in hot operating state 	1.8 W
 at AC in hot operating state per pole 	0.6 W
 without load current share typical 	4.5 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 rated value 	6 kV
of auxiliary circuit rated value	6 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at DC	10g / 5 ms, 7,5g / 10 ms
shock resistance with sine pulse	
• at DC	15g / 5 ms, 10g / 10 ms
mechanical service life (operating cycles)	
 of contactor typical 	10 000 000
 of the contactor with added electronically optimized auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch block typical 	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
 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 %

Environmental footprint	
Environmental Product Declaration(EPD)	Yes
Global Warming Potential [CO2 eq] total	221 kg
Global Warming Potential [CO2 eq] during manufacturing	2.65 kg
Global Warming Potential [CO2 eq] during operation	219 kg
Global Warming Potential [CO2 eq] after end of life	-0.639 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 at AC-1 	40 A
— up to 690 V at ambient temperature 40 °C rated value	40 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	35 A
• at AC-3	
— at 400 V rated value	17 A
— at 500 V rated value	17 A
— at 690 V rated value	13 A
• at AC-3e	
— at 400 V rated value	17 A
— at 500 V rated value	17 A
— at 690 V rated value	13 A
• at AC-4 at 400 V rated value	15.5 A
at AC-5a up to 690 V rated value	35.2 A
at AC-5b up to 400 V rated valueat AC-6a	14.1 A
— up to 230 V for current peak value n=20 rated value	11.4 A
— up to 400 V for current peak value n=20 rated value	11.4 A
— up to 500 V for current peak value n=20 rated value	11.4 A
— up to 690 V for current peak value n=20 rated value	11.3 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	7.6 A
— up to 400 V for current peak value n=30 rated value	7.6 A
up to 500 V for current peak value n=30 rated value	7.6 A
— up to 690 V for current peak value n=30 rated value	7.6 A
minimum cross-section in main circuit at maximum AC-1 rated value	10 mm²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	7.7 A
at 690 V rated value	7.7 A
operational current	
at 1 current path at DC-1	
— at 24 V rated value	35 A
— at 60 V rated value	20 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 roted value.	25 A
— at 24 V rated value — at 60 V rated value	35 A 35 A
— at 100 V rated value — at 110 V rated value	35 A
— at 220 V rated value	5 A
— at 440 V rated value	1A
— at 600 V rated value	0.8 A
— at 000 v rated value	U.U A

 with 3 current paths in series at DC-1 	
— at 24 V rated value	35 A
— at 60 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	35 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	20 A
— at 60 V rated value	5 A
— at 220 V rated value	1.4
— at 440 V rated value	0.09 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	35 A
— at 60 V rated value	35 A
— at 110 V rated value	15 A
— at 220 V rated value	3 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	35 A
— at 60 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	10 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 A
operating power	
• at AC-3	
— at 230 V rated value	4 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	11 kW
• at AC-3e	
— at 230 V rated value	4 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	11 kW
operating power for approx. 200000 operating cycles at AC-	
at 400 V rated value	3.5 kW
at 690 V rated value	6 kW
operating apparent power at AC-6a	
up to 230 V for current peak value n=20 rated value	4.5 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	7.8 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	9.9 kVA
up to 690 V for current peak value n=20 rated value up to 690 V for current peak value n=20 rated value	13.6 kVA
operating apparent power at AC-6a	
up to 230 V for current peak value n=30 rated value	3 kVA
up to 400 V for current peak value n=30 rated value	5.2 kVA
up to 500 V for current peak value n=30 rated value	6.6 kVA
• up to 690 V for current peak value n=30 rated value	9.1 kVA
short-time withstand current in cold operating state up to	
40 °C	005 A. H. arinimum area at 11 A.
limited to 1 s switching at zero current maximum	225 A; Use minimum cross-section acc. to AC-1 rated value
limited to 5 s switching at zero current maximum	225 A; Use minimum cross-section acc. to AC-1 rated value
limited to 10 s switching at zero current maximum	189 A; Use minimum cross-section acc. to AC-1 rated value
limited to 30 s switching at zero current maximum	140 A; Use minimum cross-section acc. to AC-1 rated value
limited to 60 s switching at zero current maximum	115 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	1 500 1/h
• at DC	1 500 1/h

operating frequency	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	1 000 1/h
• at AC-3 maximum	1 000 1/h
• at AC-3e maximum	1 000 1/h
at AC-4 maximum	300 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	DC
control supply voltage at DC rated value	
•	24 V
operating range factor control supply voltage rated value of magnet coil at DC	
• initial value	0.7
• full-scale value	1.25
design of the surge suppressor	with varistor
closing power of magnet coil at DC	4.5 W
holding power of magnet coil at DC	4.5 W
closing delay	4.5 W
at DC	52 270 ms
opening delay	02 21 U III0
• at DC	19 21 ms
	10 10 ms
arcing time control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	Glandard AT - AL
number of NC contacts for auxiliary contacts instantaneous	1
contact	'
number of NO 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	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	14 A
at 600 V rated value	17 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	1 hp
— at 230 V rated value	3 hp
• for 3-phase AC motor	
 at 200/208 V rated value 	3 hp

at 220/230 V rated value		
contact rating of auxillary contacts according to UL AB00 / PB00 Bord circuit protection of the Issa link for short-circuit protection of the main circuit — with type of coordination 1 required — with type of coordination 1 required — with type of coordination 1 required — with type of assignment 2 required — with type of assignment 2 required — with type of assignment 2 required — which type of assignment 2 required — which passes are assigned assignment 2 required specific protection of the assignment 2 required specific protection of the assignment 2 required specific protection of the assignment 2 required specific protection 2 required specific provided parts — of ownwards — of or line side — of ownwards — ownward	— at 460/480 V rated value	·
Short-circult protection design of the fuse link	— at 575/600 V rated value	15 hp
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 — stream of the auditory of the a		A600 / P600
• for short-circuit protection of the main circuit — with type of assignment 2 required — set in the circuit protection of the auxiliary switch required For short-circuit protection of the auxiliary contacts For auxiliary standed with core and processing For AWG cables for main contacts For auxiliary standed with core and processing For auxiliary standed with core and processing For AWG cables for auxiliary contacts For auxi	Short-circuit protection	
- with type of assignment 2 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 - for short-circuit protection of the auxiliary switch required - fastening method - screw and snape on mounting out-for section for auxiliary contacts - for wards - low made - forwards - low made - upwards - other side - of prounded parts - of the side - downwards - of the parts - forwards - of man current circuit - of man current circuit - of man contacts - solid - solid or stranded - finely stranded with core end processing - for auxiliary contacts - solid or stranded - finely stranded with core end processing - for auxiliary contacts - solid or stranded - finely stranded with core end processing - for AWC cables for main contacts - solid or stranded - finely stranded with core end processing - for AWC cables for main contacts - coll or stranded - finely stranded with core end processing - for AWC cables for main contacts - coll or stranded - finely stranded with core end processing - for AWC cables for main contacts - coll or stranded - finely stranded with core end processing - for AWC cables for auxiliary contacts - coll or stranded - finely stranded with core end processing - for AWC cables for main contacts - coll or stranded - finely stranded with core end processing - for AWC cables for auxiliary contacts - coll or strande	design of the fuse link	
	 for short-circuit protection of the main circuit 	
* or short-circuit protection of the auxillary switch required final-statistic mounting idimensions ***180" rotation possible on vertical mounting surface; can be tilted forward and backward by **2.26" on vertical mounting surface; can be tilted forward and backward by **2.26" on vertical mounting surface; can be tilted forward and backward by **2.26" on vertical mounting surface; can be tilted forward and backward by **2.26" on vertical mounting surface; can be tilted forward and backward by **2.26" on vertical mounting surface; can be tilted forward and backward by **2.26" on vertical mounting surface; can be tilted forward and backward by **2.26" on vertical mounting surface; can be tilted forward and backward by **2.26" on vertical mounting surface; can be tilted forward and backward by **2.26" on vertical mounting surface; can be tilted forward and backward by **2.26" on vertical mounting surface; can be tilted forward and backward by **2.26" on vertical mounting surface; can be tilted forward and backward by **2.26" on vertical mounting surface; can be tilted forward and backward by **2.26" on vertical mounting surface; can be tilted forward and backward by **2.26" on vertical mounting surface; can be tilted forward and backward by **2.26" on vertical mounting surface; can be tilted forward and backward by **2.26" on min - forwards - to man - forwards - to my mark - to my mark - to man - to ma	 — with type of coordination 1 required 	gG: 63A (690V,100kA), aM: 32A (690V,100kA), BS88: 63A (415V,80kA)
mounting position screen and support of the state of the	 — with type of assignment 2 required 	gG: 25A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80kA)
mounting position	for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)
backward by +2-2.5" on vertical mounting surface height	Installation/ mounting/ dimensions	
Assemm Series and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Notight Method Metho	mounting position	
Might Migh	factoning mothod	,
width 45 mm depth 107 mm required spacing 107 mm • with side-by-side mounting 10 mm — forwards 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 — forwards 10 mm — downwards 10 mm — for live parts 2 connectable conductor cross-sections • for auxiliary contact Screw-by		
depth required spacing - with side-by-side mounting - forwards - upwards - downwards - downwards - at the side - forwards - upwards - upwards - upwards - upwards - upwards - downwards - at the side - downwards - in the side - downwards - upwards - in mm - forwards - upwards - in mm - at the side - downwards - in mm - at the side - downwards - in mm - at the side - downwards - in mm - at the side - for main current circuit - for main current circuit - for main current circuit - of a validiary and control circuit - of a validiary and control circuit - sold - sold or standed - finely stranded with core end processing - solid - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - solid		
required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — for grounded parts — forwards — upwards — at the side — downwards — of mm — upwards — at the side — downwards — of mm • for live parts — forwards — forwards — ownwards — the side — downwards — the side — forwards — of mm — forwards — ownwards — the side — forwards — ownwards — ownward		
• with side-by-side mounting - forwards - wywards - downwards - at the side - or grounded parts - forwards - upwards - upwards - at the side - downwards - at the side - downwards - at the side - downwards - of mm - downwards - forwards - wywards - forwards - wywards - forwards - forwards - wywards - forwards - downwards - wywards - formain - wywards - wyward - wywards - wywards - wywards - wywards - wywards - wywards - w	•	107 111111
forwards upwards upwards 10 mm 10		
- upwards	· · · · · · · · · · · · · · · · · · ·	10 mm
- downwards - at the side		
- at the side • for grounded parts - forwards - upwards - at the side - downwards - for live parts - forwards - for live parts - forwards - low mm - downwards - at the side - for min current circuit - for auxiliary and control circuit - for auxiliary and control circuit - solid or stranded - finely stranded with core end processing - for AWG cables for amia contacts - solid - stranded - finely stranded with core end processing - for live parts - for auxiliary contacts - solid - stranded - finely stranded with core end processing - for live parts - for auxiliary contacts - solid - stranded - finely stranded with core end processing - for AWG cables for main contacts - solid - stranded - finely stranded with core end processing - finely stranded with core end processing - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - for AWG cables for auxiliary contacts - solid - stranded - finely stranded with core end processing - for AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing - for AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing - for AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing - for AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing - for AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing - for AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing - for AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing - for AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing - for AWG cables for auxiliary contacts - solid or stranded - finely stranded with core end processing - for AWG cables for auxiliary contacts - solid or stranded	·	
• for grounded parts - (nowards - (nowards - upwards - at the side - downwards • for live parts - forwards - (nowards - (nowards) - (nowards - (nowards) - (nowards - (nowards) - (nowards - (nowards) - (nowar		
- upwards - at the side - downwards • for live parts - forwards - downwards - at the side - downwards - at the side - formal connections/ Terminals **Type of electrical connection • for main current circuit • for auxiliary and control circuit • for auxiliary contacts • of magnet coil **Type of connectable conductor cross-sections • for main contacts - solid - solid or stranded - finely stranded with core end processing • for AWG cables for main contacts • solid • stranded • finely stranded with core end processing • for connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • for AWG cables for auxiliary contacts • solid or stranded • finely stranded with core end processing • for AWG cables for auxiliary contacts • for formal contacts • for		10 mm
- at the side — downwards 10 mm • for live parts — forwards 10 mm — upwards 10 mm — at the side 6 mm Connections/ Terminals type of electrical connection • for main current circuit screw-type terminals • at contactor for auxiliary and control circuit screw-type terminals • at contactor for auxiliary contacts Screw-type terminals • for main contacts — solid stranded 2x (1 2.5 mm²), 2x (2.5 10 mm²) • for AWG cables for main contacts • solid 1 10 mm² • finely stranded with core end processing 1 10 mm² • finely stranded with core end processing 1 10 mm² • finely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² • finely stranded with core end processing 1 10 mm² • finely stranded with core end processing 2x (1 2.5 mm²) • for AWG cables for main contacts • solid 1 10 mm² • finely stranded with core end processing 1 10 mm² • finely stranded with core end processing 2x (1 2.5 mm²) • for auxiliary contacts • solid or stranded 2x (2 5 mm²) • for auxiliary contacts • solid or stranded 2x (0.5 1.5 mm²) • for AWG cables for auxiliary contacts 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) • for AWG cables for auxiliary contacts 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) • for AWG cables for auxiliary contacts 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) • for AWG cables for auxiliary contacts 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
- downwards - for live parts - forwards - upwards - upwards - downwards - downwards - downwards - downwards - at the side Connections Terminals type of electrical connection - for auxiliary and control circuit - for auxiliary and control circuit - for auxiliary contacts - of magnet coil type of connectable conductor cross-sections - for main contacts - solid - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - solid or stranded - sinely stranded with c	·	
- forwards		
- upwards - downwards - at the side 6 mm Connections/ Terminals type of electrical connection • for main current circuit screw-type terminals • at contactor for auxiliary contacts or magnet coil Screw-type terminals • for main contacts • for main contacts • for main contacts • solid - solid or stranded - finely stranded with core end processing stranded with core end processing - solid or stranded with core end processing - solid or stranded with core end processing - finely stranded with core end processing - finely stranded with core end processing - finely stranded with core end processing - solid or stranded - finely stranded with core end processing - 1 10 mm² • finely stranded with core end processing - 1 10 mm² • finely stranded with core end processing - 1 10 mm² • finely stranded with core end processing - 1 10 mm² • finely stranded with core end processing - 2.5 mm² • for auxiliary contacts • solid or stranded - 5.5 mm² • for auxiliary contacts	•	10 mm
- downwards — at the side 6 mm Connections/ Terminals type of electrical connection • for main current circuit screw-type terminals • at contactor for auxiliary and control circuit screw-type terminals • at contactor for auxiliary contacts • of magnet coil Screw-type terminals • for main contacts • solid connectable conductor cross-sections • for main contacts — solid 2x (1 2.5 mm²), 2x (2.5 10 mm²) — finely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² • for AWG cables for main contacts • solid • stranded • finely stranded with core end processing 1 10 mm² • finely stranded with core end processing 2 10 mm² • finely stranded with core end processing 1 10 mm² • finely stranded with core end processing 2 10 mm² • finely stranded with core end processing 3 10 mm² • finely stranded with core end processing 4 10 mm² • finely stranded with core end processing 5 2.5 mm² • for auxiliary contacts • for AWG cables for auxiliary contacts • for auxiliary c		
Connections/ Terminals type of electrical connection • for main current circuit • at contactor for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for AWG cables for auxiliary contacts • solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts • solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts • solid or stranded — finely stranded with core end processing • for auxiliary contacts • solid or stranded — finely stranded with core end processing • for auxiliary contacts • solid or stranded — finely stranded with core end processing • for auxiliary contacts • solid or stranded — finely stranded with core end processing • for auxiliary contacts • solid or stranded — finely stranded with core end processing • for auxiliary contacts • solid or stranded — finely stranded with core end processing • for auxiliary contacts • for auxiliary contacts • solid auxiliary contacts • solid auxiliary conta	•	
type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing • stranded • finely stranded with core end processing • for auxiliary contacts — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts • solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts • for AWG cables for auxiliary contacts • for AWG cables for auxiliary contacts • for auxiliary contacts		
type of electrical connection • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing • for auxiliary contacts — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts • solid or stranded • finely stranded with core end processing • for AWG cables for auxiliary contacts - solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts • for auxiliary contacts - solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts • for main contacts • for auxiliary contact		
• for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing • for onnectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts - solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts • for AWG cables for auxiliary contacts • for AWG cables for auxiliary contacts • for main contacts		
 for auxiliary and control circuit at contactor for auxiliary contacts of magnet coll Screw-type terminals for main contacts solid - solid - solid or stranded - finely stranded with core end processing of solid solid - solid - for AWG cables for main contacts solid solid 1 10 mm² ostranded of inely stranded with core end processing finely stranded with core end processing of finely stranded with core end processing finely stranded with core end processing ostranded offinely stranded with core end processing finely stranded with core end processing ostranded offinely stranded with core end processing of auxiliary contacts of auxiliary contacts of auxiliary contacts for auxiliary contacts for AWG cables for auxiliary contacts of on auxiliary contacts for AWG cables for auxiliary contacts for nain contacts for main contacts for main contacts for main contacts for main contacts 	**	screw-type terminals
 at contactor for auxiliary contacts of magnet coil type of connectable conductor cross-sections for main contacts — solid — solid or stranded — finely stranded with core end processing of for AWG cables for main contacts solid 1 10 mm² othical stranded finely stranded with core end processing of finely stranded with core end processing of stranded of stranded of main contacts solid stranded of inely stranded with core end processing onnectable conductor cross-section for auxiliary contacts solid or stranded of inely stranded with core end processing of auxiliary contacts of or auxiliary contacts for auxiliary contacts for auxiliary contacts for auxiliary contacts for AWG cables for auxiliary contacts for main contacts 16 8 		
• of magnet coil type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing • finely stranded with core end processing • for auxiliary contacts • solid or stranded • finely stranded with core end processing • for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross-section • for main contacts 16 8	•	•
type of connectable conductor cross-sections • for main contacts — solid — solid or stranded — finely stranded with core end processing • for AWG cables for main contacts • solid • stranded • finely stranded with core end processing • for AWG cables for main contacts • solid • stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 4x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 5x (20 16), 2x (18 14)	·	**
 for main contacts — solid — solid or stranded — finely stranded with core end processing for AWG cables for main contacts solid stranded stranded stranded stranded stranded stranded finely stranded with core end processing stranded stranded finely stranded with core end processing solid or stranded finely stranded with core end processing solid or stranded finely stranded with core end processing finely stranded with core end processing solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded solid or stranded for auxiliary contacts solid or stranded for auxiliary contacts for auxiliary contacts for auxiliary contacts a finely stranded with core end processing for AWG cables for auxiliary contacts for AWG number as coded connectable conductor cross section for main contacts for main contacts for main contacts 		
solid 2x (1 2.5 mm²), 2x (2.5 10 mm²) solid 2x (1 2.5 mm²), 2x (2.5 10 mm²) finely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² • for AWG cables for main contacts 2x (16 12), 2x (14 8) connectable conductor cross-section for main contacts • solid 1 10 mm² • stranded 1 10 mm² • finely stranded with core end processing 1 10 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) • for AWG cables for auxiliary contacts 2x (20 16), 2x (18 14) AWG number as coded connectable conductor cross section • for main contacts 16 8		
- solid or stranded - finely stranded with core end processing • for AWG cables for main contacts • solid • stranded • finely stranded with core end processing • finely stranded with core end processing • finely stranded with core end processing • solid or stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing of or auxiliary contacts - solid or stranded - finely stranded with core end processing • for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section • for main contacts 16 8		2x (1 2.5 mm²), 2x (2.5 10 mm²)
- finely stranded with core end processing • for AWG cables for main contacts 2x (16 12), 2x (14 8) connectable conductor cross-section for main contacts • solid • stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing type of connectable conductor cross-sections • for auxiliary contacts - solid or stranded - finely stranded with core end processing 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) • for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section • for main contacts 16 8		
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connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts - solid or stranded - solid or stranded - finely stranded with core end processing 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) 2x (0.75 2.5 mm²) 2x (0.75 2.5 mm²) 2x (0.75 2.5 mm²) 4x (0.75 2.5 mm²) 2x (0.75 2.5 mm²) 5x (20 16), 2x (18 14)	• stranded	1 10 mm²
connectable conductor cross-section for auxiliary contacts • solid or stranded • finely stranded with core end processing • for auxiliary contacts • solid or stranded • for auxiliary contacts - solid or stranded - finely stranded with core end processing • for AWG cables for auxiliary contacts • for main contacts 16 8	 finely stranded with core end processing 	1 10 mm²
 solid or stranded finely stranded with core end processing type of connectable conductor cross-sections for auxiliary contacts solid or stranded finely stranded with core end processing for AWG cables for auxiliary contacts for AWG connectable conductor cross section for main contacts 16 8 	· · · · · · · · · · · · · · · · · · ·	
type of connectable conductor cross-sections • for auxiliary contacts — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section • for main contacts 16 8	solid or stranded	0.5 2.5 mm²
 for auxiliary contacts solid or stranded finely stranded with core end processing for AWG cables for auxiliary contacts AWG number as coded connectable conductor cross section for main contacts 16 8 	• finely stranded with core end processing	0.5 2.5 mm ²
 — solid or stranded — finely stranded with core end processing ● for AWG cables for auxiliary contacts ■ for main contacts 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) AWG number as coded connectable conductor cross section ■ for main contacts 16 8 	type of connectable conductor cross-sections	
— finely stranded with core end processing of or AWG cables for auxiliary contacts 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (20 16), 2x (18 14) AWG number as coded connectable conductor cross section of or main contacts 16 8	• for auxiliary contacts	
for AWG cables for auxiliary contacts 2x (20 16), 2x (18 14) AWG number as coded connectable conductor cross section for main contacts 16 8	— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
AWG number as coded connectable conductor cross section • for main contacts 16 8	— finely stranded with core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
section ● for main contacts 16 8	 for AWG cables for auxiliary contacts 	2x (20 16), 2x (18 14)
• for auxiliary contacts 20 14	for main contacts	16 8
	 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
 suitable for safety function 	Yes
suitability for use safety-related switching OFF	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
T1 value	
 for proof test interval or service life according to IEC 61508 	20 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





Type Examination Certificate

Type Test Certificates/Test Report

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

Miscellaneous

Marine / Shipping











Miscellaneous

other

other Railway Dangerous goods

Environment

Confirmation

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

Transport Information



Environmental Confirmations

Further information

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=3RT2025-1KB40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2025-1KB40

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

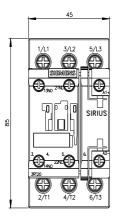
https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-1KB40

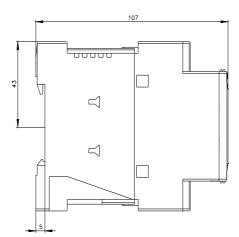
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2025-1KB40&lang=en

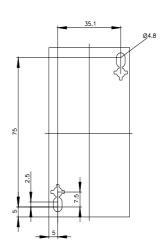
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-1KB40/char

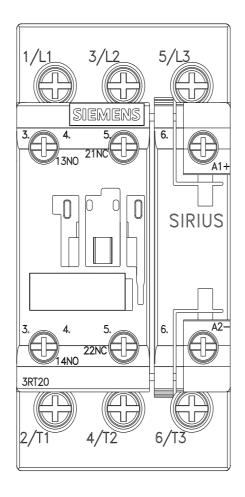
Further characteristics (e.g. electrical endurance, switching frequency)

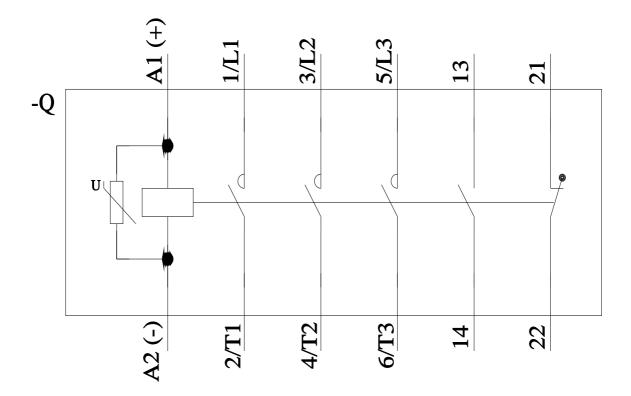
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2025-1KB40&objecttype=14&gridview=view1











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