# **SIEMENS**

## **Data sheet**

## 3RT2018-2XF41-0LA2



traction contactor, AC-3e/AC-3, 16 A, 7.5 kW / 400 V, 3-pole, 72-125 V DC, 0.7-1.25\* Us, electronic drive, with integrated varistor, auxiliary contacts: 1 NO, spring-loaded terminal, size: S00

product brand name	SIRIUS
product designation	Power contactor
· · · · · · · · · · · · · · · · · · ·	
design of the product product type designation	With extended operating range 3RT2
General technical data	31(12
size of contactor	\$00
product extension	300
function module for communication	No
	No Yes
auxiliary switch	res
power loss [W] for rated value of the current	0.0 W
at AC in hot operating state	6.6 W
at AC in hot operating state per pole	2.2 W
without load current share typical	0.75 W
type of calculation of power loss depending on pole	quadratic
insulation voltage	
<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	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	6,7g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
• at DC	10,5g / 5 ms, 6,6g / 10 ms
mechanical service life (operating cycles)	
<ul> <li>of contactor typical</li> </ul>	30 000 000
<ul> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> </ul>	5 000 000
<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
during operation	-40 +70 °C
during storage	-55 +80 °C

relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30	95 %
maximum	
Main circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
number of NC contacts for main contacts	0
operating voltage	
<ul> <li>at AC-3 rated value maximum</li> </ul>	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 $^{\circ}\text{C}$ rated value	22 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	20 A
<ul> <li>at AC-2 at 400 V rated value</li> </ul>	16 A
• at AC-3	
— at 400 V rated value	16 A
— at 500 V rated value	12.4 A
— at 690 V rated value	8.9 A
• at AC-3e	
— at 400 V rated value	16 A
— at 500 V rated value	12.4 A
— at 690 V rated value	8.9 A
• at AC-4 at 400 V rated value	11.5 A
minimum cross-section in main circuit	
<ul> <li>at maximum AC-1 rated value</li> </ul>	4 mm²
at maximum Ith rated value	4 mm²
operational current for approx. 200000 operating cycles at	
AC-4	
at 400 V rated value	5.5 A
at 690 V rated value	4.4 A
operational current	
at 1 current path at DC-1	
— at 24 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
<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 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
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— at 24 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	1.3 A
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	20 A
— at 110 V rated value	0.1 A
	V.1 A
with 2 current paths in series at DC-3 at DC-5     at 24 V rated value.	20 A
— at 24 V rated value	20 A
— at 110 V rated value	0.35 A
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> <li>— at 24 V rated value</li> </ul>	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	
<ul> <li>at AC-2 at 400 V rated value</li> </ul>	7.5 kW
• 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	7.5 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	7.5 kW
operating power for approx. 200000 operating cycles at AC-	7.5 KW
4	
• at 400 V rated value	2.5 kW
• at 690 V rated value	3.5 kW
short-time withstand current in cold operating state up to 40 °C	
<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	300 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	169 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	128 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	92 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	74 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at DC	1 500 1/h
operating frequency	
at AC-2 at AC-3e maximum	750 1/h
• at AC-4 maximum	250 1/h
Ratings for railway applications	
thermal current (Ith) up to 690 V	
• up to 40 °C according to IEC 60077 rated value	22 A
• up to 70 °C according to IEC 60077 rated value	18 A
Control circuit/ Control	
type of voltage	DC
type of voltage type of voltage of the control supply voltage	DC
control supply voltage at DC rated value	ВС
	72 125 V
	72 125 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
inrush current peak	1.1 A
duration of inrush current peak	50 μs
locked-rotor current mean value	0.04 A
locked-rotor current mean value	0.04 A
duration of locked-rotor current	250 ms
	7 mA
holding current mean value  closing power of magnet coil at DC	4.5 W
holding power of magnet coil at DC	0.75 W
closing delay	20 70 mg
• at DC	30 70 ms
opening delay	05 45
• at DC	25 45 ms
• at DC arcing time	10 15 ms
• at DC	

### Contracts for auxiliary contacts   1		
Special orange and AC 12 maximum   10 A	number of NO contacts for auxiliary contacts	
operational current at AC-15     • at 230 V rated value   10 A     • at 350 V rated value   2 A     • at 350 V rated value   1 A     operational current at DC-12     • at 24 V rated value   10 A     • at 250 V rated value   10 A     • at 160 V rated value   10 A     • at 250 V rated value   2 A     • at 150 V rated value   2 A     • at 250 V rated value   3 A     • at 250 V rated value   3 A     • at 250 V rated value   4 A     • at 250 V rated value   5 A     • at 250 V rated value   5 A     • at 350 V rated value   1 A     • at 350 V rated value   1 A     • b or single-base AC motor     • at 350 V rated value   5 A     • at 250 V rated value   5 A     • b or single-base AC motor     • at 350 V rated value   5 A     • b or single-base AC motor     • at 250 V rated value   5 A     • b or single-base AC motor     • at 250 V rated value   5 A     • b or single-base AC motor     • at 250 V rated value   5 A     • b or single-base AC motor     • at 250 V rated value   5 A     • b or single-base AC motor     • at 250 V rated value   5 A     • b or single-base AC motor     • at 250 V rated value   5 A     • b or single-base AC motor     • b o		
• at 200 V rated value	•	10 A
# 44 00 V reted value		
en 800 V reted value		
### 1690 V rated value		
Separational current at DC-12		
• at 24 V rated value		1 A
• at 48 V rated value	·	
• of 60 V rated value • at 110 V rated value • at 122 V rated value • at 220 V rated value • at 220 V rated value • at 220 V rated value • at 24 V rated value • at 60 V rated value • at 61 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value • bro 3-qhase AC motor  — at 120 V rated value • bro 3-qhase AC motor  — at 120 V rated value • bro 3-qhase AC motor  — at 200208 V rated value • bro 3-qhase AC motor  — at 200208 V rated value • bro 3-qhase AC motor  — at 200208 V rated value • bro 3-qhase AC motor  — at 200208 V rated value • bro 3-qhase AC motor  — at 200208 V rated value • bro 3-qhase AC motor  — at 200208 V rated value • bro 3-qhase AC motor  — at 200208 V rated value • bro 3-qhase AC motor  — at 675600 V rated value  • bro 3-qhase AC motor  — at 675600 V rated value  • bro 3-qhase AC motor  — at 675600 V rated value  • bro 3-qhase AC motor  — at 675600 V rated value  • bro 4-qhase AC motor  — at 675600 V rated value  • bro 4-qhase AC motor  — at 675600 V rated value  • bro 4-qhase AC motor  — at 675600 V rated value  • bro 5-qhase AC motor  — at 675600 V rated value  • bro 5-qhase AC motor  • bro 5-qhase AC motor  — at 675600 V rated value  • bro 5-qhase AC motor  • bro 5-qhase AC motor  — at 675600 V rated value  • bro 7-qhase AC motor  • bro 5-qhase AC motor  • bro 6-qhase		
• at 110 V rated value • at 126 V rated value • at 200 V rated value • at 200 V rated value • at 600 V rated value • at 48 V rated value • at 10 V rated value • at 110 V rated value • at 110 V rated value • at 1220 V rated value • at 220 V rated value • at 220 V rated value • at 200 V rated value • at 800 V rated value • at 750 V rated value • at 800 V rated value • a		
• at 125 V rated value • at 220 V rated value • at 48 V rated value • at 110 V rated value • at 110 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 320 V rated value • at 480 V rated value • at 480 V rated value • at 320 V rated value • at 220 V rated value • at 220 V rated value • at 530 V rated value • at 220 V rated value • at 57 v rated value • at 220 V rated value • at 480 V rated value • at 57 v rated value • at 250 V rated value • at 57 v rated value • at 250 V rated value • at 480 V rated value • at 57 v rated value • at 57 v rated value • at 480 V rated value • at 57 v rated value • at 680 V rated		
1 A   31 500 V rated value		
• at 800 V rated value  • at 8V rated value  • at 8V rated value  • at 8V rated value  • at 80 V rated value  • at 125 V rated value  • at 120 V rated value  • at 120 V rated value  • at 120 V rated value  • at 220 V rated value  • at 3 hp  • at 460 V rated value  • at 75 hp  • at 460 V rated value  • at 75 hp  • at 460 V rated value  • at 75 hp  • at 460 V rated value  • at 75 hp  • at 460 V rated value  • at 75 hp  • at 460 V rated value  • at 75 hp  • at 460 V rated value  • at 75 hp  • at 460 V rated value  • at 75 hp  • at 460 V rated value  • at 75 hp  • at 460 V rated value  • at 75 hp  • at 460 V rated value  • at 75 hp  • at 460 V rated value  • at 75 hp  • at 460 V rated value  • at 75 hp  • at		
operational current at DC-13  • at 24 V rated value • at 40 V rated value • at 60 V rated value • at 60 V rated value • at 125 V rated value • at 220 V rated value • at 220 V rated value • at 220 V rated value • at 320 V rated value • at 400 V rated value • at 500 V rated value • for single-phase AC motor • at 110 V rated value • at 220 V rated value • for 3-phase AC motor • at 100 V rated value • for 3-phase AC motor • at 20020 W rated value • for 3-phase AC motor • at 20020 W rated value • for 3-phase AC motor • at 20020 W rated value • for 3-phase AC motor • at 40040 W rated value • for 3-phase AC motor • at 40040 W rated value • for 3-phase AC motor • at 40040 W rated value • for 3-phase AC motor • at 5000 V rated value • for 3-phase AC motor • at 40040 W rated value • for 3-phase AC motor • at 40040 W rated value • for 3-phase AC motor • at 40040 W rated value • for 3-phase AC motor • at 40040 W rated value • for 3-phase AC motor • at 40040 W rated value • for 3-phase AC motor • at 40040 W rated value • for 3-phase AC motor • at 40040 W rated value • for 3-phase AC motor • at 40040 W rated value • for 3-phase AC motor • at 40040 W rated value • for 3-phase AC motor • at 40040 W rated value • for 3-phase AC motor • at 40040 W rated value • for 9-phase AC motor • for 3-phase AC motor • for 4-phase AC motor •		
e at 24 V rated value		0.15 A
at 48 V rated value	·	
at 160 V rated value		
at 125 V rated value at 220 V rated value 0.0.9 A at 220 V rated value 0.1 A  ULICSA ratings  full-load current (FLA) for 3-phase AC motor at 480 V rated value 11 A  yielded mechanical performance [hp] for single-phase AC motor at 110/120 V rated value 11 hp at 230 V rated value 2 hp for 3-phase AC motor at 200/208 V rated value 5 hp at 200/208 V rated value 10 hp book of the fuse link for short-circuit protection  product function short circuit protection  design of the fuse link for short-circuit protection of the main circuit with type of assignment 2 required with type of assignment 2 required for short-circuit protection of the auxiliary switch required for short-circ		
at 220 V rated value bucSA ratings  full-load current (FLA) for 3-phase AC motor at 480 V rated value 11 A  yielded mechanical performance [hp] for single-phase AC motor — at 101/120 V rated value — at 230 V rated value — at 220/230 V rated value — at 220/230 V rated value — at 220/230 V rated value — at 575/500 V rated value — at 670/600 V rated value  — on the fuse link  • for short-circuit protection  product function short circuit protection  design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of sasignment 2 required g G NH 3NA, DIAZED SSB, NEOZED SSE: 35 A g GNH 3NA, DIAZED SSB, NEOZED SSE: 20 A g GNH 3NA, DIAZED SSB,		
### at 600 V rated value ### at 600 V rated va		
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value  • at 600 V rated value  • at 600 V rated value  • at 700 V rated value  • at 130 V rated value  • for 3-phase AC motor  — at 1101/20 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 55/600 V rated value  — at 57/600 V rated value  — at 57/600 V rated value  — on the forest of the fuse link  • for short-circuit protection  product function short circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  — with type of coordination 1 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 snap-on mounting surface, can be titled forward and backward by ++-2.2.5° on vertical mounting surface, can be titled forward and backward by ++-2.2.5° on vertical mounting surface, standing, on horizontal mounting surface, standing, on horizontal mounting surface, and snap-on mounting surface, standing, on horizontal mounting surface		
full-load current (FLA) for 3-phase AC motor  at 480 V rated value  at 600 V rated value  yielded mechanical performance [hp]  for single-phase AC motor		0.1 A
at 480 V rated value at 600 V rated value  yielded mechanical performance [hp]  for single-phase AC motor		
violated mechanical performance [hp]     violated mechanical performance [hp]     violated mechanical performance [hp]     violated value		
yielded mechanical performance [hp]  • for single-phase AC motor  — at 1101/120 V rated value		
• for single-phase AC motor  — at 110/120 V rated value — at 220 V rated value 9 (or 3-phase AC motor — at 220/230 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value — with uncertained of auxiliary contacts according to UL  Short-circuit protection  product function short circuit protection  design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required 9 (G NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A 9 (G NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A 9 (G 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, standing, on horizontal mounting surface  fastening method according to DIN EN 50022  height 70 mm width 45 mm  required spacing  • with side-by-side mounting — forwards — upwards — upwards — upwards — at the side • for grounded parts		11 A
- at 110/120 V rated value		
- at 230 V rated value 2 hp  • for 3-phase AC motor  - at 200/208 V rated value 5 hp  - at 220/230 V rated value 10 hp  - at 460/480 V rated value 10 hp  - at 575/600 V rated value 10 hp  - at 575/600 V rated value 800 / Q600  Short-circuit protection No  design of the fuse link  • for short-circuit protection of the main circuit - with type of assignment 2 required gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A gG: 10 A (500 V, 1 kA)  Installation/ mounting/ dimensions  mounting position 4/-180* rotation possible on vertical mounting surface, can be tilted forward and backward by +/- 22.5* on vertical mounting surface, standing, on horizontal mounting surface  fastening method 5 crew and snap-on mounting onto 35 mm DIN rail according to DIN EN 50022  height 70 mm  width 45 mm  depth 73 mm  required spacing  • with side-by-side mounting  - forwards 10 mm  - otwards 10 mm  - otwards 10 mm  - otwards 10 mm  - at the side 0 mm		
• for 3-phase AC motor  — at 200/208 V rated value		
- at 200/208 V rated value 5 hp - at 220/208 V rated value 5 hp - at 460/480 V rated value 10 hp - at 4575/600 V rated value 10 hp - at 575/600 V rated value 10 hp - at 1875/600 V rated value 10 hp - at 1875/600 V rated value 10 hp - at 1860 V Rate V rated value 10 hp - at 1860 V rated v		2 hp
- at 220/230 V rated value 5 hp   - at 460/480 V rated value 10 hp   - at 4575/600 V rated value 10 hp   contact rating of auxiliary contacts according to UL A600 / Q600   Short-circuit protection	·	
- at 460/480 V rated value 10 hp - at 575/600 V rated value 10 hp  contact rating of auxiliary contacts according to UL A600 / Q600  Short-circuit protection  product function short circuit protection No  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A  — with type of assignment 2 required gG: 10 A (500 V, 1 kA)  Installation/ mounting/ dimensions  mounting position		
- at 575/600 V rated value 10 hp  contact rating of auxiliary contacts according to UL A600 / Q600  Short-circuit protection  product function short circuit protection No  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A  • with type of assignment 2 required gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A  • for short-circuit protection of the auxiliary switch required gG: 10 A (500 V, 1 kA)  Installation/ mounting/ dimensions  mounting position		
contact rating of auxiliary contacts according to UL  Short-circuit protection  product function short circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  **H-180° rotation possible on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, standing, on horizontal mounting surface  fastening method  screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 50022  height  70 mm  width  depth  73 mm  required spacing  • with side-by-side mounting  — forwards  — upwards  — upwards  — downwards  — downwards  — at the side  • for grounded parts		
Short-circuit protection   Product function short circuit protection   No		
product function short circuit protection  design of the fuse link  • for short-circuit protection of the main circuit  — with type of coordination 1 required		A600 / Q600
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 gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A — with type of assignment 2 required gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A • 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, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, can be tilted for	·	N-
• for short-circuit protection of the main circuit     — with type of coordination 1 required     — with type of assignment 2 required     • for short-circuit protection of the auxiliary switch required     • for short-circuit protection of the auxiliary switch required     • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  ##-180° rotation possible on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, standing, on horizontal mounting surface  fastening method  fastening method  screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 50022  height  ##-180° rotation possible on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, standing, on horizontal mounting surface, standing, on horizo	<u> </u>	NO
- with type of coordination 1 required	_	
— with type of assignment 2 required	•	ag NH 3NA DIAZED 5SB NEOZED 5SE: 35 A
• for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  +/-180° rotation possible on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, standing, on horizontal mounting surface  fastening method  fastening method  screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 50022  height  70 mm  width  45 mm  depth  required spacing  • with side-by-side mounting  — forwards — upwards — downwards — downwards — at the side  • for grounded parts	**	
Installation/ mounting/ dimensions  #/-180° rotation possible on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, standing, on horizontal mounting surface  fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 50022  height 70 mm  width 45 mm  depth 73 mm  required spacing  with side-by-side mounting  - forwards 10 mm  - downwards 10 mm  - at the side 0 mm  for grounded parts		
#-/180° rotation possible on vertical mounting surface, can be tilted forward and backward by +/- 22.5° on vertical mounting surface, standing, on horizontal mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 50022    height		90. 10 A (300 V, 1 kA)
backward by +/- 22.5° on vertical mounting surface, standing, on horizontal mounting surface  fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 50022  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		+/-180° rotation possible on vertical mounting surface, can be tilted forward and
height 70 mm   width 45 mm   depth 73 mm   required spacing	mounting position	backward by +/- 22.5° on vertical mounting surface, standing, on horizontal
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	fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 50022
depth 73 mm   required spacing	height	70 mm
required spacing  • with side-by-side mounting  — forwards — upwards — downwards — at the side  • for grounded parts  • with side-by-side mounting  10 mm  10 mm  0 mm	width	45 mm
<ul> <li>with side-by-side mounting</li> <li>forwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> <li>for grounded parts</li> </ul>	depth	73 mm
<ul> <li>— forwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> <li>• for grounded parts</li> </ul>	required spacing	
<ul> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> <li>• for grounded parts</li> </ul>	<ul><li>with side-by-side mounting</li></ul>	
<ul> <li>downwards</li> <li>at the side</li> <li>for grounded parts</li> </ul> 10 mm  0 mm	— forwards	10 mm
<ul><li>— at the side</li><li>• for grounded parts</li></ul>	— upwards	10 mm
• for grounded parts	— downwards	10 mm
	— at the side	0 mm
— forwards 10 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
— downwards	10 mm
— at the side	6 mm
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 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
solid or stranded	2x (0,5 4 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 2.5 mm²)
<ul> <li>finely stranded without core end processing</li> </ul>	2x (0.5 2.5 mm²)
type of connectable conductor cross-sections	
for auxiliary contacts	
— solid or stranded	2x (0,5 4 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	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 section	
• for main contacts	20 12
<ul> <li>for auxiliary contacts</li> </ul>	20 12
Safety related data	
product function	
<ul> <li>mirror contact according to IEC 60947-4-1</li> </ul>	Yes
<ul> <li>positively driven operation according to IEC 60947-5-1</li> </ul>	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	
<ul> <li>with low demand rate according to SN 31920</li> </ul>	40 %
<ul> <li>with high demand rate according to SN 31920</li> </ul>	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
	100 FIT
31920	100 FIT 3
<b>31920</b> ISO 13849	
31920 ISO 13849 device type according to ISO 13849-1	3
31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary	3
31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508	3 Yes
31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2	3 Yes
31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Electrical Safety	3 Yes Type A
31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Electrical Safety protection class IP on the front according to IEC 60529	3 Yes Type A
31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529	3 Yes Type A
31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 Communication/ Protocol	3 Yes Type A  IP20 finger-safe, for vertical contact from the front
31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 Communication/ Protocol product function bus communication	3 Yes Type A  IP20 finger-safe, for vertical contact from the front









Confirmation



<u>KC</u>





Type Examination Certificate Type Test Certificates/Test Report

Special Test Certificate

#### Marine / Shipping













Marine / Shipping

other

Railway

Dangerous Good



**Miscellaneous** 

Confirmation

Type Test Certificates/Test Report

Special Test Certific-

**Transport Information** 

### **Environment**

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=3RT2018-2XF41-0LA2

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2018-2XF41-0LA2

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-2XF41-0LA2

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

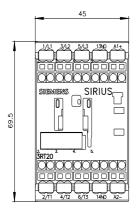
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2018-2XF41-0LA2&lang=en

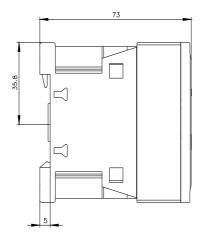
Characteristic: Tripping characteristics, I2t, Let-through current

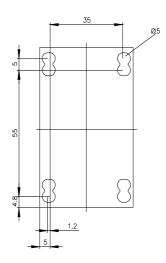
https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-2XF41-0LA2/char

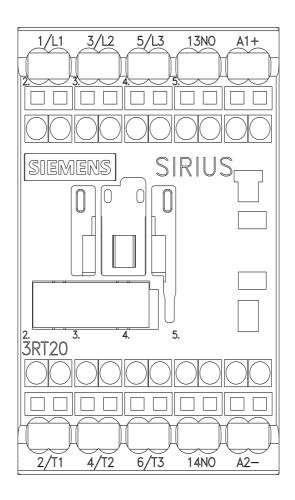
Further characteristics (e.g. electrical endurance, switching frequency)

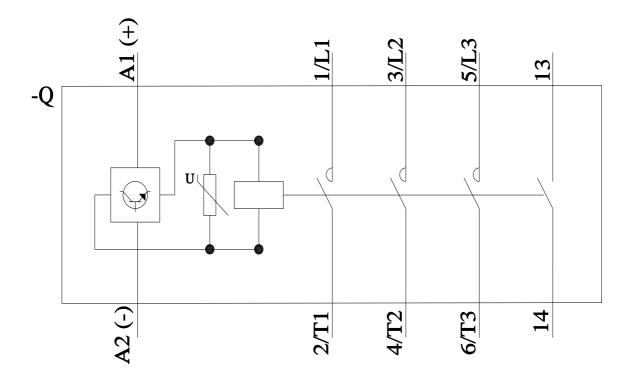
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2018-2XF41-0LA2&objecttype=14&gridview=view1











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