## SIEMENS

## Data sheet

## 3RT2018-2AK64-3MA0



power contactor, AC-3e/AC-3, 16 A, 7.5 kW / 400 V, 3-pole, 110 V AC, 50 Hz / 120 V, 60 Hz, auxiliary contacts: 2 NO + 2 NC, spring-loaded terminal, size: S00, captive auxiliary switch

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S00
product extension	
<ul> <li>function module for communication</li> </ul>	No
<ul> <li>auxiliary switch</li> </ul>	No
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	3 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	1 W
<ul> <li>without load current share typical</li> </ul>	5.9 W
insulation voltage	
<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	690 V
<ul> <li>of auxiliary circuit with degree of pollution 3 rated value</li> </ul>	690 V
surge voltage resistance	
<ul> <li>of main circuit rated value</li> </ul>	6 kV
<ul> <li>of auxiliary circuit rated value</li> </ul>	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 AC	7,3g / 5 ms, 4,7g / 10 ms
shock resistance with sine pulse	
• at AC	11,4g / 5 ms, 7,3g / 10 ms
mechanical service life (operating cycles)	
<ul> <li>of contactor typical</li> </ul>	10 000 000
<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
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul> <li>during operation</li> </ul>	-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 %
Main circuit	
number of poles for main current circuit	3

number of NO contacts for main contacts	3
<ul> <li>operating voltage</li> <li>at AC-3 rated value maximum</li> </ul>	690 V
at AC-3 rated value maximum     at AC-3e rated value maximum	690 V
operational current	090 V
at AC-1 at 400 V at ambient temperature 40 °C rated	22 A
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	
- 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	0.9 A
	16 A
— 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
• at AC-5a up to 690 V rated value	19.4 A
at AC-5b up to 400 V rated value	13.2 A
• at AC-6a	0.04
— up to 230 V for current peak value n=20 rated value	9.6 A
— up to 400 V for current peak value n=20 rated value	9.6 A
— up to 500 V for current peak value n=20 rated value	9.6 A
— up to 690 V for current peak value n=20 rated value	8.9 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	6.6 A
— up to 400 V for current peak value n=30 rated value	6.4 A
— up to 500 V for current peak value n=30 rated value	6.4 A
— up to 690 V for current peak value n=30 rated value	6.4 A
minimum cross-section in main circuit at maximum AC-1 rated value	4 mm <sup>2</sup>
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	
<ul> <li>at 1 current path at DC-1</li> </ul>	
— 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
<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— 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
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
— 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
<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	
-	

— at 24 V rated value	20 A		
— at 60 V rated value	0.5 A		
— at 110 V rated value	0.15 A		
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>			
— at 24 V rated value	20 A		
— at 60 V rated value	5 A		
— at 110 V rated value	0.35 A		
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>			
— 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-2 at 400 V rated value	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 Ac-se     — 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		
operating apparent power at AC-6a			
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	3.8 kVA		
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	6.6 kVA		
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	8.3 kVA		
<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	10.6 kVA		
operating apparent power at AC-6a			
• up to 230 V for current peak value n=30 rated value	2.5 kVA		
<ul> <li>up to 400 V for current peak value n=30 rated value</li> </ul>	4.4 kVA		
<ul> <li>up to 500 V for current peak value n=30 rated value</li> </ul>	5.5 kVA		
• up to 690 V for current peak value n=30 rated value	7.6 kVA		
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 AC	10 000 1/h		
operating frequency			
• 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	250 1/h		
Control circuit/ Control			
type of voltage of the control supply voltage	AC		
control supply voltage at AC			
• at 50 Hz rated value	110 V		
at 50 Hz rated value     at 60 Hz rated value			
	120 V		
operating range factor control supply voltage rated value of	120 V		

-+ 50.11-	
• at 50 Hz	0.8 1.1
• at 60 Hz	0.8 1.1
apparent pick-up power of magnet coil at AC	20 \/A
• at 50 Hz	36 VA
at 60 Hz  inductive power factor with closing power of the coil	36 VA
inductive power factor with closing power of the coil • at 50 Hz	0.8
• at 50 Hz • at 60 Hz	0.8
apparent holding power of magnet coil at AC	0.0
apparent holding power of magnet con at AC     • at 50 Hz	5.9 VA
• at 60 Hz	5.9 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.24
• at 60 Hz	0.24
closing delay	
• at AC	9 35 ms
opening delay	
• at AC	4 15 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	2
contact number of NO contacts for auxiliary contacts instantaneous	2
contact	10.4
operational current at AC-12 maximum	10 A
operational current at AC-15 • at 230 V rated value	6 A
at 230 V rated value     at 400 V rated value	3 A
at 500 V rated value	2 A
at 690 V rated value	1A
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	6 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	11 A
yielded mechanical performance [hp]	
for single-phase AC motor	
— at 110/120 V rated value	1 hp
— at 230 V rated value	2 hp
for 3-phase AC motor	
- at 200/208 V rated value	3 hp
— at 220/230 V rated value	5 hp
- at 460/480 V rated value	10 hp
— at 575/600 V rated value	10 hp

Start chart protection of the main cloud         gc. 900                - with type of constances 1 required - with type of	contact rating of auxiliary contacts according to UL	A600 / Q600
design of the fuse link              • for solid calculation of the main circuit             - with type of assignment 2 required             -		
- with yee of conduction in required 90: 53A (650V, 100A), abit 25A	-	
with spe of assignment 2 required         9G: 25A (480V, 100KA), 3M: 20A (80V, 100KA), B3BE 25A (415V, 80KA)           Installation required protects of the auxiliary withor required         9G: 10 A (500 V, 1 KA)           Installation required protects of the auxiliary withor required protects of the auxiliary auxiliary can be tilted ferward and be available availabl		nG: 504 (690\/ 100k4) aM: 254 (690\/ 100k4) RS88: 504 (415\/ 80k4)
• or short-circle protection of the auxiliary work in required         96: 10.4 (500 V. 1 Ma)           Installation inscripting clinearstore         • 100 <sup>+</sup> rodative models work retrict in muning surface: can be filted forward and backboard models with 25.5 for soften mounting onto 35 mm DIN rail according to DIN EN 607.15           • olde by-aide mounting         Yes           • olde by-aide mounting         10 mm           • olde by-aide mounting         • Ves           • olde by-aide mounting         10 mm           • olde by-aide mounting         0 mm           • olde onwards         10 mm           • olde onwards         10 mm           • olde onwards         10 mm           • olde words         10 mm           • olde orestande         9 moles		
Installation mounting/dimensions		
mounting position         +1.90° (ration possition on vertical mounting surface can be likel forward and device)           fasting method         screw and snap-on mounting onto 35 mm DIN rail according to DN EN 60715           height         70 mm           width         45 mm           depth         121 mm           required spacing         10 mm           - upwards         10 mm           - downwards         10 mm           - upwards         10 mm           - downwards         10 mm           - upwards         10 mm           - downwards         10 mm <td></td> <td>90. 10 A (000 V, 1 A)</td>		90. 10 A (000 V, 1 A)
backward by -4:22 f5 on vertical mounting surface           statening method         scale-by-side mounting           visit         Yes           height         Yo           with         45 mm           deeph         12 mm           required spacing         12 mm           equired spacing         10 mm           - (wards)         10 mm           - (or main current circuit         spring-loaded terminals           Spring-loaded terminals         spring-loaded terminals           - (or main current circuit         spring-loaded te		1/ 100° relation neartible on vertical manufing surfaces can be tilted forward and
• side-by-side mounting         Yes           beight         20 mm           deph         21 mm           deph         121 mm           required spacing         -           - forwards         10 mm           - upwards         10 mm           - downwards         10 mm     <	mounting position	
heigh         70 mm           width         46 mm           dopth         121 mm           required spacing         10 mm           - forwards         10 mm           - downwards         10 mm <td>fastening method</td> <td>screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715</td>	fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
with         45 mm           depth         121 mm           required spacing         121 mm           • with side-by-side mounting         10 mm           - upwards         10 mm           - upwards         10 mm           - downwards         10 mm           - upwards         10 mm           - downwards         5	<ul> <li>side-by-side mounting</li> </ul>	Yes
depth       121 mm         required spacing       10 mm         - (ovards       10 mm         - (ovards       10 mm         - (ovards       10 mm         - downwards	height	70 mm
required spacing     • with side spy-side moutling       - lowards     10 mm       - upwards     10 mm       - upwards     10 mm       - downwards     10 mm       - at the side     0 mm       • for grounded parts     0 mm       - upwards     10 mm       - downwards     10 mm       - of maling van control circuit     spring-loaded terminals       Vps of connectable con	width	45 mm
• with side by-side mountingImage: state by side mounting- forwards10 mm- downwards10 mm- downwards0 mm- for grounded parts0 mm- forwards10 mm- forwards10 mm- upwards10 mm- downwards0 mm- downwards10 mm- downwards10 mm- downwards0 mm- downwards10 mm- downwards20 mm- for a usiliary contactSpring-lype terminals- for a usiliary contacts	depth	121 mm
	required spacing	
	<ul> <li>with side-by-side mounting</li> </ul>	
- downwards     10 mm       - a the side     0 mm       - for grounded parts     10 mm       - forwards     10 mm       - upwards     10 mm       - upwards     10 mm       - downwards     10 mm       - upwards     10 mm       - downwards     5 mm       Connections// terminals     5 ming-loaded terminals       - of rauxillary and control circuit     spring-loaded terminals       - of rauxillary contacts     Spring-lype terminals       + of rauxillary contacts     Spring-lype terminals       • of magnet coil     Spring-lype terminals       + soild     2x (05 4 mm <sup>2</sup> )       • soild o stranded     0.5 4 mm <sup>2</sup> • finely stranded without core end processing     0.5 4 mm <sup>2</sup> • finely stranded without core end processing     0.5 2.5 mm <sup>2</sup> • finely stranded without core end processing <td>— forwards</td> <td>10 mm</td>	— forwards	10 mm
at the side     0 mm       for grounded parts     00 mm       upwards     10 mm       upwards     0 mm       at the side     6 mm       downwards     10 mm       for live parts        for wards     10 mm       upwards     10 mm       upwards     10 mm       upwards     10 mm       upwards     10 mm       downwards     10 mm       at the side     6 mm       at the side     6 mm       downwards     5 pring-loaded terminals       - of magnet coll     2 pring-loaded terminals       - sol	— upwards	10 mm
• for grounded parts     10 mm       - forwards     10 mm       - at the side     6 mm       - at the side     6 mm       - downwards     10 mm       - for low parts     10 mm       - upwards     10 mm       - upwards     10 mm       - upwards     10 mm       - upwards     10 mm       - downwards     10 mm       - downwards     10 mm       - downwards     6 mm       Connections / Terminals     5 mm       Ypp of electrical connection     5 mm       • for auxiliary and control circuit     spring-loaded terminals       • for auxiliary contacts     Spring-lype terminals       • of magnet coil     Spring-lype terminals       ype of electrical connection     Spring-lype terminals       • solid     2x (0.5 4 mm <sup>2</sup> )       • solid or stranded     2x (0.5 4 mm <sup>2</sup> )       • solid or stranded     0.5 4 mm <sup>2</sup> • finely stranded with core end processing     0.5 2.5 mm <sup>2</sup> )       • finely stranded with core end processing     0.5 2.5 mm <sup>2</sup> • finely stranded with core end processing     0.5 2.5 mm <sup>2</sup> • finely stranded with core end processing     0.5 2.5 mm <sup>2</sup> • finely stranded with core end processing     0.5 2.5 mm <sup>2</sup> • finely st	— downwards	10 mm
- forwards     10 mm	— at the side	0 mm
	<ul> <li>for grounded parts</li> </ul>	
at the side     6 mm       downwards     10 mm       • for live parts     10 mm       forwards     10 mm       upwards     10 mm       upwards     10 mm       downwards     5 mm       downwards     5 ming-loaded terminals       for and nourcet circuit     spring-loaded terminals       of main contacts     2 x (0.5 4 mm <sup>2</sup> )       solid or stranded     2 x (0.5 4 mm <sup>2</sup> )       finely stranded with core end processing     0 5 4 mm <sup>2</sup> <	— forwards	10 mm
downwards10 mm• for live parts forwards10 mm upwards10 mm downwards10 mm downwards10 mm downwards10 mm downwards10 mm at the side6 mmConnections/Terminalstype of electrical connection• for main current circuitspring-loaded terminals• of rauxiliary and control circuitspring-loaded terminals• of rauxiliary and control circuitspring-loaded terminals• of adapted to for auxiliary contactsSpring-type terminals• of magnet coil2x (0.5 4 mm²)• solid2x (0.5 4 mm²)• solid or stranded2x (0.5 25 mm²)• of inely stranded with core end processing2x (0.5 25 mm²)• onectable conductor cross-section for main contacts0.5 4 mm²• olid or stranded0.5 4 mm²• olid or stranded0.5 25 mm²• olid or stranded0.5 4 mm²• olid or stranded0.5 4 mm²• olid or stranded0.5 25 mm²• olid or stranded0.5 25 mm²• olid or stranded0.5 25 mm²• olid or stranded0.5 4 mm²• finely stranded with core end processing0.5 25 mm²• olid or stranded0.5 4 mm²• finely stranded with core end processing0.5 25 mm²• for auxiliary contacts 25 mm²• for auxiliary contacts 25 mm²• for auxiliary contacts	— upwards	10 mm
• for live parts         10 mm           - forwards         10 mm           - upwards         10 mm           - downwards         10 mm           - at the side         6 mm           Connections/ forminals         6 mm           Vpp of electrical connection         6 mm           • for main current circuit         spring-loaded terminals           • for auxiliary and control circuit         spring-loaded terminals           • at contactor for auxiliary contacts         Spring-lype terminals           • of magnet coil         Spring-lype terminals           // solid or stranded         2x (0.5 4 mm²)           • finely stranded with core end processing         2x (0.5 2.5 mm²)           • finely stranded with core end processing         0.5 2.5 mm²           • solid         0.5 4 mm²           • solid or stranded         0.5 2.5 mm²           • solid or stranded         0.5 2.5 mm²           • solid         0.5 2.5 mm²           • solid         0.5 2.5 mm²           • solid or stranded         0.5 2.5 mm²           • finely stranded with core end processing         0.5 2.5 mm²           • finely stranded with core end processing         0.5 2.5 mm²           • finely stranded with core end pr	— at the side	6 mm
forwards     10 mm      upwards     10 mm      downwards     6 mm       Connections/ Terminals     5 mm       connections/ Terminals     5 mm       connections/ Terminals     5 pring-loaded terminals       i for axuilary and control circuit     spring-loaded terminals       i of magnet coll     5 pring-type terminals       i of magnet coll     5 pring-type terminals       i of randed     2x (0.5 4 mm²)       i olid or stranded     2x (0.5 4 mm²)       i finely stranded with core end processing     2x (0.5 4 mm²)       connectable conductor cross-section for main contacts     5 4 mm²       i finely stranded with core end processing     0.5 4 mm²       i finely stranded with core end processing     0.5 4 mm²       i finely stranded with core end processing     0.5 4 mm²       i finely stranded with core end processing     0.5 4 mm²       i finely stranded with core end processing     0.5 4 mm²       i finely stranded with core end processing     0.5 25 mm²       i olid or stranded     0.5 4 mm²       i finely stranded with core end processing     0.5 25 mm²       i olid o	— downwards	10 mm
- upwards     10 mm       - downwards     10 mm       - at the side     6 mm       Connection/ Servical connection       • for main current circuit     spring-loaded terminals       • for auxiliary and control circuit     spring-loaded terminals       • of or auxiliary contacts     Spring-type terminals       • of connectable conductor cross-sections for main contacts     Spring-type terminals       • of connectable conductor cross-sections for main contacts     Spring-type terminals       • solid     2x (0.5 4 mm²)       • solid or stranded     2x (0.5 2 5 mm²)       • finely stranded with core end processing     2x (0.5 2 5 mm²)       • solid     0.5 4 mm²       • solid     0.5 4 mm²)       • finely stranded without core end processing     2x (0.5 2 5 mm²)       • finely stranded without core end processing     0.5 2 5 mm²       • solid or stranded     0.5 4 mm²       • solid or stranded     0.5 4 mm²       • solid or stranded     0.5 2 5 mm²       • finely stranded with core end processing     0.5 2 5 mm²       • finely stranded with core end processing     0.5 2 5 mm²       • solid or stranded     0.5 4 mm²       • finely stranded with core end processing     0.5 2.5 mm²       • for auxiliary contacts     2 5 mm²	• for live parts	
- downwards     10 mm       - a the side     6 mm       Connections/ Torminals     5 mm       type of electrical connection     spring-loaded terminals       • for auxiliary and control circuit     spring-loaded terminals       • of maginet coll     Spring-type terminals       type of electrical connectable conductor cross-sections for main contacts     Spring-type terminals       • solid     2x (0.5 4 mm²)       • solid or stranded     2x (0.5 4 mm²)       • finely stranded with core end processing     2x (0.5 4 mm²)       • solid     0.5 4 mm²       • solid     0.5 4 mm²       • solid     0.5 4 mm²       • finely stranded with core end processing     2x (0.5 2.5 mm²)       connectable conductor cross-section for main contacts     0.5 4 mm²       • solid     0.5 4 mm²       • finely stranded with core end processing     0.5 4 mm²       • finely stranded with core end processing     0.5 4 mm²       • finely stranded with core end processing     0.5 4 mm²       • solid or stranded     0.5 4 mm²       • finely stranded with core end processing     0.5 4 mm²       • finely stranded with core end processing     0.5 4 mm²       • finely stranded with core end processing     0.5 4 mm²       • finely stranded with core end processing	— forwards	10 mm
at the side     6 mm       Connections/Terminals     spring-loaded terminals       type of electrical connection     spring-loaded terminals       • for auxiliary and control circuit     spring-loaded terminals       • at contactor for auxiliary contacts     Spring-type terminals       • of magnet coll     Spring-type terminals       • of connectable conductor cross-sections for main contacts     2x (0.5 4 mm²)       • solid     2x (0.5 4 mm²)       • solid or stranded     2x (0.5 4 mm²)       • finely stranded with core end processing     2x (0.5 4 mm²)       • finely stranded without core end processing     0.5 4 mm²       • solid     0.5 4 mm²       • solid     0.5 4 mm²       • solid without core end processing     0.5 2.5 mm²       • connectable conductor cross-section for main contacts     0.5 4 mm²       • solid without core end processing     0.5 2.5 mm²       • connectable conductor cross-section for auxiliary contacts     0.5 2.5 mm²       • solid or stranded     0.5 4 mm²       • finely stranded without core end processing     0.5 2.5 mm²       • finely stranded without core end processing     0.5 2.5 mm²       • finely stranded without core end processing     0.5 2.5 mm²       • finely stranded without core end processing     0.5 2.5 mm²       • fo	— upwards	10 mm
Connections/Terminals         type of electrical connection         • for main current circuit       spring-loaded terminals         • of rauxiliary and control circuit       spring-loaded terminals         • at contactor for auxiliary contacts       Spring-type terminals         • of magnet coil       Spring-type terminals         • of magnet coil       Spring-type terminals         • solid       2x (0.5 4 mm²)         • solid or stranded       2x (0.5 4 mm²)         • finely stranded with core end processing       2x (0.5 4 mm²)         • finely stranded with core end processing       2x (0.5 4 mm²)         • solid       0.5 4 mm²         • stranded       0.5 4 mm²         • stranded       0.5 4 mm²         • finely stranded with core end processing       0.5 2.5 mm²         • finely stranded with core end processing       0.5 2.5 mm²         • solid or stranded       0.5 4 mm²         • finely stranded with core end processing       0.5 2.5 mm²         • solid or stranded       0.5 2.5 mm²         • finely stranded with core end processing       0.5 2.5 mm²         • finely stranded with core end processing       0.5 2.5 mm²         • finely stranded with core end processing       0.5 2.5 mm²	— downwards	10 mm
type of electrical connection       spring-loaded terminals         • for main current 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         • solid       2x (0.54 mm²)         • solid or stranded       2x (0.54 mm²)         • finely stranded with core end processing       2x (0.54 mm²)         • finely stranded with core end processing       2x (0.54 mm²)         • solid       0.54 mm²)         • solid       0.54 mm²)         • finely stranded with core end processing       0.54 mm²         • solid       0.54 mm²         • solid       0.54 mm²         • solid       0.54 mm²         • solid or stranded       0.54 mm²         • finely stranded with core end processing       0.5	— at the side	6 mm
• 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         • solid or stranded       2x (0.5 4 mm²)         • solid or stranded with core end processing       2x (0.5 4 mm²)         • finely stranded with core end processing       2x (0.5 4 mm²)         • solid       0.5 4 mm²)         • solid       0.5 4 mm²)         • finely stranded with core end processing       2.5 mm²         • solid       0.5 4 mm²         • finely stranded with core end processing       0.5 2.5 mm²         • finely stranded with core end processing       0.5 2.5 mm²         • finely stranded with core end processing       0.5 2.5 mm²         • finely stranded with core end processing       0.5 2.5 mm²         • for auxiliary contacts       2x (0.5 2.5 mm²)	Connections/ 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         • solid       2x (0.5 4 mm²)         • solid or stranded       2x (0.5 4 mm²)         • finely stranded with core end processing       2x (0.5 4 mm²)         • finely stranded without core end processing       0.5 4 mm²         • solid       0.5 4 mm²         • solid       0.5 4 mm²         • solid       0.5 4 mm²         • stranded       0.5 4 mm²         • finely stranded with core end processing       0.5 4 mm²         • finely stranded with core end processing       0.5 4 mm²         • finely stranded with core end processing       0.5 4 mm²         • finely stranded with core end processing       0.5 4 mm²         • finely stranded with core end processing       0.5 4 mm²         • finely stranded with core end processing       0.5 2.5 mm²         • finely stranded with core end processing       0.5 2.5 mm²         • finely stranded with core end processing       0.5 2.5 mm²         • finely stranded with core end processing       2x (0.5	type of electrical connection	
• 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 4 mm²         • solid       0.5 4 mm²         • solid       0.5 4 mm²         • solid       0.5 4 mm²         • solid or stranded       0.5 2.5 mm²         • solid or stranded with core end processing       0.5 2.5 mm²         • finely stranded with core end processing       0.5 2.5 mm²         • finely stranded with core end processing       0.5 2.5 mm²         • solid or stranded       0.5 2.5 mm²         • solid or stranded       0.5 2.5 mm²         • finely stranded with core end processing       0.5 2.5 mm²         • finely stranded with core end processing       0.5 2.5 mm²         • finely stranded with core end processing       0.5 2.5 mm²         • finely stranded with core end processing       2.x (0.5 4 mm²)         • finely stranded with core end processing       2.x (0.5 4 mm²)	<ul> <li>for main current circuit</li> </ul>	spring-loaded terminals
• of magnet coll     Spring-type terminals       type of connectable conductor cross-sections for main contacts     2x (0.5 4 mm²)       • solid or stranded     2x (0.5 4 mm²)       • finely stranded with core end processing     2x (0.5 4 mm²)       • finely stranded without core end processing     2x (0.5 4 mm²)       • connectable conductor cross-section for main contacts     5       • solid     0.5 4 mm²       • stranded     0.5 4 mm²       • stranded with core end processing     0.5 25 mm²       • finely stranded with core end processing     0.5 25 mm²       • finely stranded with core end processing     0.5 25 mm²       • finely stranded with core end processing     0.5 25 mm²       • finely stranded with core end processing     0.5 25 mm²       • solid or stranded     0.5 4 mm²       • solid or stranded     0.5 4 mm²       • finely stranded with core end processing     0.5 2.5 mm²       • finely stranded with core end processing     0.5 2.5 mm²       • finely stranded with core end processing     0.5 2.5 mm²       • 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 with core end processing     2x (0.5 2.5 mm²)       • finely stra	<ul> <li>for auxiliary and control circuit</li> </ul>	spring-loaded terminals
type of connectable conductor cross-sections for main contacts• solid2x (0.5 4 mm²)• solid or stranded2x (0.5 4 mm²)• finely stranded with core end processing2x (0.5 2.5 mm²)• finely stranded without core end processing2x (0.5 2.5 mm²)connectable conductor cross-section for main contacts0.5 4 mm²• solid0.5 4 mm²• solid0.5 4 mm²• solid0.5 4 mm²• solid0.5 4 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded with core end processing0.5 2.5 mm²• solid or stranded0.5 4 mm²• solid or stranded0.5 2.5 mm²• finely stranded with core end processing0.5 2.5 mm²• solid or stranded0.5 2.5 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded with core end processing0.5 2.5 mm²• for auxiliary contacts2x (0.5 4 mm²)- finely stranded with core end processing2x (0.5 2.5 mm²)• for auxiliary contacts2x (0.5 2.5 mm²)• for AWG cables for auxiliary contacts2x (0.5 2.5 mm²)• fo	<ul> <li>at contactor for auxiliary contacts</li> </ul>	Spring-type terminals
solid2x (0.5 4 mm²)• solid or stranded2x (0,5 4 mm²)• finely stranded with core end processing2x (0.5 2.5 mm²)• finely stranded without core end processing2x (0.5 2.5 mm²)connectable conductor cross-section for main contacts7• solid0.5 4 mm²• solid0.5 4 mm²• finely stranded with core end processing0.5 4 mm²• finely stranded with core end processing0.5 2.5 mm²• solid or stranded0.5 4 mm²• solid or stranded0.5 2.5 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded with core end processing0.5 2.5 mm²• for auxiliary contacts2x (0.5 4 mm²)- solid or stranded2x (0.5 4 mm²)- finely stranded with core end processing2x (0.5 4 mm²)- finely stranded with core end processing2x (0.5 2.5 mm²)- finely stranded without core end processing2x (0.5 2.5 mm²)- finely stranded without core end processing2x (0.5 2.5 mm²)- finely stranded without core end processing2x (0.5 2.5 mm²)- finely stranded without core end processing2x (0.5 2.5 mm²)- finely	<ul> <li>of magnet coil</li> </ul>	Spring-type terminals
solid or stranded2x (0.5 4 mm²)• finely stranded with core end processing2x (0.5 2.5 mm²)• finely stranded without core end processing2x (0.5 2.5 mm²)connectable conductor cross-section for main contacts	type of connectable conductor cross-sections for main contacts	
• finely stranded with core end processing2x (0.5 2.5 mm²)• finely stranded without core end processing2x (0.5 2.5 mm²)connectable conductor cross-section for main contacts	• solid	2x (0.5 4 mm²)
• finely stranded with core end processing2x (0.5 2.5 mm²)• finely stranded without core end processing2x (0.5 2.5 mm²)connectable conductor cross-section for main contacts	<ul> <li>solid or stranded</li> </ul>	2x (0,5 4 mm <sup>2</sup> )
• finely stranded without core end processing2x (0.5 2.5 mm²)connectable conductor cross-section for main contacts0.5 4 mm²• solid0.5 4 mm²• stranded0.5 4 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded without core end processing0.5 2.5 mm²• solid or stranded0.5 4 mm²• solid or stranded0.5 4 mm²• solid or stranded0.5 4 mm²• finely stranded with core end processing0.5 2.5 mm²• solid or stranded0.5 4 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded without core end processing0.5 2.5 mm²• finely stranded without core end processing0.5 2.5 mm²• for auxiliary contacts2x (0,5 4 mm²)- finely stranded with core end processing2x (0,5 4 mm²)• finely stranded with core end processing2x (0,5 4 mm²)• finely stranded with core end processing2x (0,5 2.5 mm²)• finely stranded with core end processing2x (0,5 2.5 mm²)• finely stranded without core end processing2x (20 12)AWG cables for auxiliary contacts2x (20 12)• for main contacts20 12	<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 2.5 mm²)
connectable conductor cross-section for main contacts• solid0.5 4 mm²• stranded0.5 4 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded without core end processing0.5 2.5 mm²• finely stranded without core end processing0.5 2.5 mm²• connectable conductor cross-section for auxiliary contacts• solid or stranded0.5 4 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded without core end processing0.5 2.5 mm²• for auxiliary contacts- solid or stranded- solid or stranded2x (0.5 4 mm²)- finely stranded with core end processing2x (0.5 4 mm²)- finely stranded with core end processing2x (0.5 2.5 mm²)- finely stranded with core end processing2x (0.5 2.5 mm²)- finely stranded with core end processing2x (0.5 2.5 mm²)- finely stranded without core end processing2x (0.5 2.5 mm²)- finely stranded without core end processing2x (0.5 2.5 mm²)- finely stranded without core end processing2x (0.5 2.5 mm²)- finely stranded without core end processing2x (0.5 2.5 mm²)- finely stranded without core end processing2x (0.5 2.5 mm²)- finely stranded without core end processing2x (0.5 2.5 mm²)- finely stranded without core end processing2x (0.5 2.5 mm²)		
• stranded0.5 4 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded without core end processing0.5 2.5 mm²• connectable conductor cross-section for auxiliary contacts0.5 4 mm²• solid or stranded0.5 4 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded without core end processing0.5 2.5 mm²• for auxiliary contacts2x (0,5 4 mm²)- solid or stranded2x (0,5 4 mm²)- finely stranded with core end processing2x (0,5 2.5 mm²)- finely stranded with core end processing2x (0,5 2.5 mm²)- finely stranded with core end processing2x (0,5 2.5 mm²)- finely stranded with core end processing2x (0,5 2.5 mm²)- finely stranded with core end processing2x (0,5 2.5 mm²)- finely stranded with core end processing2x (0,5 2.5 mm²)- finely stranded with core end processing2x (0,5 2.5 mm²)- finely stranded with core end processing2x (0,5 2.5 mm²)- finely stranded with core end processing2x (0,5 2.5 mm²)- finely stranded connectable conductor cross section20 12		
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• finely stranded with core end processing0.5 2.5 mm²• finely stranded without core end processing0.5 2.5 mm²connectable conductor cross-section for auxiliary contacts0.5 4 mm²• solid or stranded0.5 4 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded without core end processing0.5 2.5 mm²• for auxiliary contacts2.5 mm²- solid or stranded2x (0,5 4 mm²)- finely stranded with core end processing2x (0,5 4 mm²)- finely stranded with core end processing2x (0,5 2.5 mm²)- finely stranded with core end processing2x (0,5 2.5 mm²)- finely stranded with core end processing2x (0,5 2.5 mm²)- finely stranded with core end processing2x (0,5 2.5 mm²)- finely stranded without core end processing2x (0,5 2.5 mm²)- finely stranded without core end processing2x (0,5 2.5 mm²)- finely stranded without core end processing2x (0,5 2.5 mm²)- for AWG cables for auxiliary contacts2x (20 12)AWG number as coded connectable conductor cross section20 12	stranded	
• finely stranded without core end processing0.5 2.5 mm²connectable conductor cross-section for auxiliary contacts0.5 4 mm²• solid or stranded0.5 4 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded without core end processing0.5 2.5 mm²• for auxiliary contacts2x (0,5 4 mm²)• solid or stranded2x (0,5 4 mm²)• for auxiliary contacts2x (0,5 4 mm²)• finely stranded with core end processing2x (0,5 4 mm²)• finely stranded with core end processing2x (0,5 2.5 mm²)• finely stranded with core end processing2x (0,5 2.5 mm²)• finely stranded with core end processing2x (0,5 2.5 mm²)• for AWG cables for auxiliary contacts2x (20 12)AWG number as coded connectable conductor cross section20 12		
connectable conductor cross-section for auxiliary contacts• solid or stranded0.5 4 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded without core end processing0.5 2.5 mm²• for auxiliary contacts0.5 2.5 mm²• for auxiliary contacts2x (0,5 4 mm²)- solid or stranded2x (0,5 4 mm²)- finely stranded with core end processing2x (0,5 4 mm²)- finely stranded with core end processing2x (0,5 2.5 mm²)- finely stranded with core end processing2x (0,5 2.5 mm²)- finely stranded without core end processing2x (0.5 2.5 mm²)- for AWG cables for auxiliary contacts2x (20 12)AWG number as coded connectable conductor cross section20 12		
• solid or stranded0.5 4 mm²• finely stranded with core end processing0.5 2.5 mm²• finely stranded without core end processing0.5 2.5 mm²• for auxiliary contacts-• for auxiliary contacts solid or stranded2x (0,5 4 mm²)- finely stranded with core end processing2x (0.5 2.5 mm²)- finely stranded with core end processing2x (0.5 2.5 mm²)- finely stranded with core end processing2x (0.5 2.5 mm²)- finely stranded without core end processing2x (0.5 2.5 mm²)• for AWG cables for auxiliary contacts2x (20 12)AWG number as coded connectable conductor cross section20 12		
• finely stranded with core end processing0.5 2.5 mm²• finely stranded without core end processing0.5 2.5 mm²type of connectable conductor cross-sections2.5 mm²• for auxiliary contacts2x (0,5 4 mm²)- solid or stranded2x (0,5 4 mm²)- finely stranded with core end processing2x (0,5 2.5 mm²)- finely stranded without core end processing2x (0,5 2.5 mm²)• for AWG cables for auxiliary contacts2x (20 12)AWG number as coded connectable conductor cross section20 12		0.5 4 mm²
• finely stranded without core end processing       0.5 2.5 mm²         type of connectable conductor cross-sections       • for auxiliary contacts         • for auxiliary contacts       2x (0,5 4 mm²)         - finely stranded with core end processing       2x (0.5 2.5 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 section       20 12	<ul> <li>finely stranded with core end processing</li> </ul>	
type of connectable conductor cross-sections         • for auxiliary contacts         - solid or stranded         - finely stranded with core end processing         - finely stranded without core end processing         - 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		0.5 2.5 mm <sup>2</sup>
• for auxiliary contacts       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 auxiliary contacts       2x (20 12)         AWG number as coded connectable conductor cross section       20 12		
- solid or stranded2x (0,5 4 mm²)- finely stranded with core end processing2x (0,5 2,5 mm²)- finely stranded without core end processing2x (0,5 2,5 mm²)• for AWG cables for auxiliary contacts2x (20 12)AWG number as coded connectable conductor cross section20 12		
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 section       • for main contacts         • for main contacts       20 12	-	2x (0,5 4 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       20 12		
• for AWG cables for auxiliary contacts       2x (20 12)         AWG number as coded connectable conductor cross section       20 12         • for main contacts       20 12		
AWG number as coded connectable conductor cross section       20 12		
	·	
• for auxiliary contacts 20 12		
	section	20 12

according to IEC 60947-4-1		Yes		
n operation according to IEC	C 60947-5-1	No		
lemand rate according to SN	N 31920	1 000 000		
rous failures				
nd rate according to SN 319	20	40 %		
and rate according to SN 319	920	73 %		
low demand rate according	to SN 31920	100 FIT		
t interval or service life acco	ording to IEC	20 a		
on the front according to I	EC 60529	IP20		
the front according to IEC	60529	finger-safe, for vertical con	ntact from the front	
switching OFF		Yes		
s				
proval				
<u>Confirmation</u>			KC	EHC
Functional Safety/Safety of Ma- chinery	Declaration of C	onformity	Test Certificates	
<u>Type Examination Cer-</u> tificate	UK CA	CE EG-Konf.	<u>Special Test Certific-</u> <u>ate</u>	<u>Type Test Certific</u> ates/Test Report
BUREAU VERITAS		Lloyd's Register urs	PRS	RINA
other			Railway	Environment
<u>Confirmation</u>		<u>Confirmation</u>	Vibration and Shock	Environmental Cor firmations
ed to exit the Russian marl				
	lemand rate according to SN prous failures and rate according to SN 319 and rate according to SN 319 low demand rate according t interval or service life according t interval or service life according to II the front according to II the front according to II the front according to IEC switching OFF s poproval Confirmation Functional Safety/Safety of Ma- chinery Type Examination Cer- tificate Other	en operation according to IEC 60947-5-1 temand rate according to SN 31920 prous failures nd rate according to SN 31920 low demand rate according to SN 31920 low demand rate according to SN 31920 tt interval or service life according to IEC 60529 the front according to IEC 60529 switching OFF s pproval Confirmation Confirmation Confirmation Cer- tificate Curcional Safety/Safety of Ma- chinery Type Examination Cer- tificate Curcional Curci	n operation according to IEC 60947-5-1 No lemand rate according to SN 31920 10000 rous failures nd rate according to SN 31920 40 % and rate according to SN 31920 73 % low demand rate according to SN 31920 100 FIT t interval or service life according to IEC 20 a on the front according to IEC 60529 IP20 the front according to IEC 60529 Finger-safe, for vertical co switching OFF Yes proval Confirmation Confirmation Confirmation Confirmation Cer- tificate Confirmation Cer- tificate Cere	n operation according to IEC 60947-5-1 No termand rate according to SN 31920 100000 rrous failures nd rate according to SN 31920 73 % low demand rate according to SN 31920 100 FIT tinterval or service life according to IEC 60529 finger-safe, for vertical contact from the front switching OFF Yes switching OFF Yes systemation Confirmation Conformity Test Certificates Functional Safety/Safety of Ma- Crimery Declaration of Conformity Ec 60529 IF CONFIRMENT Type Examination Cer- tificate Confirmation Cer- tificate Confirmation Cer- tificate Confirmation Cere- tificate Confirmation Cere- tificate Certificates Ce

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=3RT2018-2AK64-3MA0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2018-2AK64-3MA0

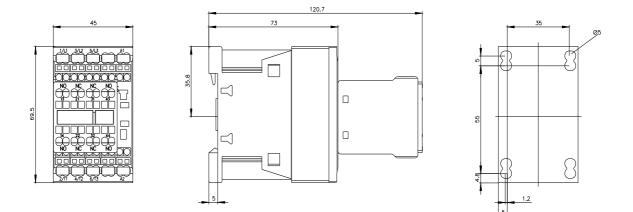
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-2AK64-3MA0

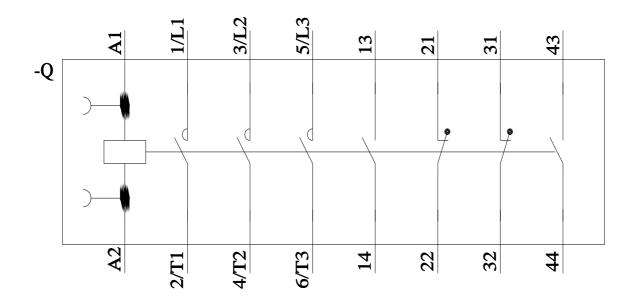
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2018-2AK64-3MA0&lang=en

Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-2AK64-3MA0/char Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2018-2AK64-3MA0&objecttype=14&gridview=view1





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