## SIEMENS

## Data sheet

## 3RT2018-1AN22



power contactor, AC-3e/AC-3, 16 A, 7.5 kW / 400 V, 1 NC, 220 V AC, 50/60 Hz 3-pole, frame size S00 screw terminal

product designation         Power contactor           product type designation         3RT2           eneral technical data         size of contactor           product extension         S00           - function module for communication         No           - auxiliary switch         Yes           power loss [W] for rated value of the current         3           - at AC in hot operating state per pole         1           - of nain circuit with degree of pollution 3 rated value         690 V           - of main circuit rated value         690 V           - of auxiliary circuit rated value         6 KV           - of main contart ated value         6 kV           - of main contart saccording to EN 60947-1         5000 V           shock resistance at rectangular impulse         400 V           - at AC         7.3g / 5 ms, 4.7g / 10 ms           shock resistance at the contactor with added electronically optimized         5000 000           - of the contactor with added electronically optimized         5000 000           - of the contactor with added electronically optimized         5000 000           - of the contac		
product type designation         3RT2           interval technical data         S00           size of contactor         S00           order technical data         S00           • function module for communication         No           • auxiliary switch         Yes           power loss [W] for rated value of the current         3 W           • at AC in hot operating state per pole         1 W           • without load current share typical         5.7 W           insulation voltage         690 V           • of main circuit with degree of pollution 3 rated value         690 V           • of auxiliary circuit rated value         6 kV           • of main circuit ated value         6 kV           • of main circuit ated value         6 kV           • of auxiliary circuit rated value         6 kV           • of main circuit mated value         6 kV           • of auxiliary circuit rated value         6 kV           • of auxiliary circuit rated value         1 (0 V           • of auxiliary circuit rated value         1 (0 V           • of the contactor with added electronically optimize	product brand name	SIRIUS
Ameral technical data       size of contactor     S00       product extension     No       • function module for communication     No       • auxiliary switch     Yes       power loss [W] for rated value of the current     3 W       • at AC in hot operating state per pole     1 W       • without load current share typical     5.7 W       insulation voltage     690 V       • of main circuit with degree of pollution 3 rated value     690 V       • of main circuit with degree of pollution 3 rated value     690 V       • of main circuit rated value     64 KV       • of main circuit rated value     6 kV       • of main circuit rated value     6 kV       • of main circuit rated value     6 kV       • of maxiliary circuit rated value     6 kV       • of maxinum permissible voltage for safe isolation between     400 V       • oth constance at rectangular impulse     400 V       • at AC     7.3g / 5 ms, 4.7g / 10 ms       shock resistance at rectangular impulse     5000 000       • at AC     11.4g / 5 ms, 7.3g / 10 ms       • of the contactor with added electronically optimized     30 000 000       • of the contactor with added auxiliary switch block typical     10 000 000       • of the contactor with added auxiliary switch block typical     10 000 000       • of the contacor with	product designation	Power contactor
size of contactor S00 product extension S00 • function module for communication No • auxiliary switch Yes power loss [W] for rated value of the current • at AC in hot operating state S00 • at AC in hot operating state S00 • of main circuit with degree of pollution 3 rated value • of main circuit with degree of pollution 3 rated value • of main circuit with degree of pollution 3 rated value • of main circuit with degree of pollution 3 rated value • of main circuit rated value • of main circuit rated value • of auxiliary circuit rated value • at AC shock resistance at rectangular impulse • at AC • of contactor with added electronically optimized auxiliary switch block typical • of the contactor with added electronically optimized • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block •	product type designation	3RT2
product extension         No           • function module for communication         No           • auxiliary switch         Yes           power loss [W] for rated value of the current         -           • at AC in hot operating state per pole         1 W           • at AC in hot operating state per pole         1 W           • without load current share typical         5.7 W           insulation voltage         690 V           • of main circuit with degree of pollution 3 rated value         690 V           • of auxiliary circuit with degree of pollution 3 rated value         690 V           • of main circuit rated value         6 kV           • of main circuit rated value         100 V           • of main circuit rated value         6 kV           • of auxiliary sinch lose seconding to EN 60947.1         30 000 V           • of the contactor with added electronically optimized         30 000 000           • of the contactor with added auxili	General technical data	
<ul> <li>function module for communication</li> <li>auxiliary switch</li> <li>yes</li> <li>power loss [W] for rated value of the current</li> <li>at AC in hot operating state</li> <li>at AC in hot operating state per pole</li> <li>tw</li> <li>without load current share typical</li> <li>of main circuit with degree of pollution 3 rated value</li> <li>of auxiliary circuit with degree of pollution 3 rated value</li> <li>of auxiliary circuit with degree of pollution 3 rated value</li> <li>of auxiliary circuit rated value</li> <li>at AC</li> <li>type value</li> <li>at AC</li> <li>type value</li> <li>at AC</li> <li>type value</li> <li>type value</li></ul>	size of contactor	S00
• auxiliary switchYespower loss [W] for rated value of the current3• at AC in hot operating state3• at AC in hot operating state per pole1• at AC in hot operating state per pole1• without load current share typical5.7insulation voltage690 V• of main circuit with degree of pollution 3 rated value690 V• of auxiliary circuit with degree of pollution 3 rated value690 V• of main circuit rated value6 kV• of main circuit rated value6 kV• of main contacts according to EN 60947-1shock resistance at rectangular impulse• at AC7,3g / 5 ms, 4,7g / 10 msshock resistance with sine pulse• at AC11,4g / 5 ms, 7,3g / 10 msmechanical service life (switching cycles)• of the contactor with added electronically optimized• of the contactor with added auxiliary switch block typical• or the contactor with added auxiliary switch block typical• installation altitude at height above sea level maximum ambient temperature2 000 m	product extension	
power loss [W] for rated value of the current     at AC in hot operating state     3 W       • at AC in hot operating state per pole     1 W       • without load current share typical     5.7 W       insulation voltage     690 V       • of main circuit with degree of pollution 3 rated value     690 V       • of auxiliary circuit with degree of pollution 3 rated value     690 V       • of main circuit rated value     690 V       • of main circuit rated value     64 KV       • of main circuit rated value     6 kV       • of auxiliary circuit rated value     6 kV       • at AC     7,3g / 5 ms, 4,7g / 10 ms       shock resistance with sine pulse     30 000 000       • at AC     11,4g / 5 ms, 7,3g / 10 ms       mechanical service life (switching cycles)     5 000 000       • of the contactor with added electronically optimized auxiliary switch block typical     10 000 000       • of the contactor with added auxiliary switch block typical     10 000 000 <t< td=""><td><ul> <li>function module for communication</li> </ul></td><td>No</td></t<>	<ul> <li>function module for communication</li> </ul>	No
• at AC in hot operating state3 W• at AC in hot operating state per pole1 W• without load current share typical5.7 Winsulation voltage690 V• of main circuit with degree of pollution 3 rated value690 V• of auxiliary circuit with degree of pollution 3 rated value690 V• of main circuit with degree of pollution 3 rated value690 V• of main circuit rated value690 V• of main circuit rated value6 KV• of main circuit rated value6 kV• of auxiliary circuit rated value7.3g / 5 ms, 4.7g / 10 ms• at AC7.3g / 5 ms, 7.3g / 10 ms• at AC11.4g / 5 ms, 7.3g / 10 ms• of contactor typical30 000 000• of the contactor with added electronically optimizedauxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical0 00 000• of the contactor with added auxiliary switch block typical0 00 000• of the contactor with added auxiliary switch block typical0	<ul> <li>auxiliary switch</li> </ul>	Yes
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<ul> <li>without load current share typical</li> <li>without load current share typical</li> <li>of main circuit with degree of pollution 3 rated value</li> <li>of auxiliary circuit with degree of pollution 3 rated value</li> <li>of auxiliary circuit with degree of pollution 3 rated value</li> <li>of auxiliary circuit with degree of pollution 3 rated</li> <li>of main circuit rated value</li> <li>of main circuit rated value</li> <li>of auxiliary circuit rated value</li> <li>of contactor typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary sw</li></ul>	<ul> <li>at AC in hot operating state</li> </ul>	3 W
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<ul> <li>of auxiliary circuit with degree of pollution 3 rated value</li> <li>surge voltage resistance         <ul> <li>of main circuit rated value</li> <li>of main circuit rated value</li> <li>of auxiliary circuit rated value</li> <li>at AC</li> <li>at AC</li> <li>at AC</li> <li>at AC</li> <li>of contactor typical</li> <li>of contactor typical</li> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the cont</li></ul></li></ul>	insulation voltage	
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<ul> <li>of main circuit rated value</li> <li>of auxiliary circuit rated value</li> <li>of contactor typical</li> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor block typical</li> <li>of the contactor typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block</li> <li>typical</li> <li>of the contactor with added auxiliary switch block</li> <li>typical</li> <li>of the contactor with added auxiliary switch block</li> <li>typical</li> <li>of the contactor with added auxiliary switch block</li> <li>typical</li> <li>of the contactor with added auxiliary switch block</li> <li>typical</li> <li>of the contactor with added auxiliary switch block</li> <li>typical</li> <li>typical</li> <li>typical</li> <li>typical</li> <li>typical</li> <li>typical</li> <li>typical</li></ul>	, , ,	690 V
<ul> <li>of auxillary circuit rated value</li> <li>of auxillary circuit rated value</li> <li>6 kV</li> <li>maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1</li> <li>shock resistance at rectangular impulse         <ul> <li>at AC</li> <li>7,3g / 5 ms, 4,7g / 10 ms</li> </ul> </li> <li>shock resistance with sine pulse         <ul> <li>at AC</li> <li>11,4g / 5 ms, 7,3g / 10 ms</li> </ul> </li> <li>mechanical service life (switching cycles)         <ul> <li>of contactor typical</li> <li>30 000 000</li> <li>5 000 000</li> <li>5 000 000</li> <li>contactor with added electronically optimized auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block</li> <li>to 000 000</li> </ul> </li> <li>reference code according to IEC 81346-2</li> <li>Q</li> <li>Substance Prohibitance (Date)</li> <li>mbient conditions</li> <li>auxiliation altitude at height above sea level maximum ambient temperature</li> </ul>	surge voltage resistance	
maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1 shock resistance at rectangular impulse • at AC • at AC • at AC • at AC • at AC • of contactor life (switching cycles) • of contactor typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the	<ul> <li>of main circuit rated value</li> </ul>	6 kV
coil and main contacts according to EN 60947-1shock resistance at rectangular impulse• at AC7,3g / 5 ms, 4,7g / 10 msshock resistance with sine pulse• at AC11,4g / 5 ms, 7,3g / 10 msmechanical service life (switching cycles)• of contactor typical30 000 000• of the contactor with added electronically optimized auxiliary switch block typical5 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical2 000 mmelent conditions2 000 m	<ul> <li>of auxiliary circuit rated value</li> </ul>	6 kV
• at AC7,3g / 5 ms, 4,7g / 10 msshock resistance with sine pulse • at AC11,4g / 5 ms, 7,3g / 10 msmechanical service life (switching cycles) • of contactor typical30 000 000• of the contactor with added electronically optimized auxiliary switch block typical30 000 000• of the contactor with added auxiliary switch block typical10 000 000reference code according to IEC 81346-2 Substance Prohibitance (Date)Qmbient conditions2 000 m	maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1	400 V
shock resistance with sine pulse       11,4g / 5 ms, 7,3g / 10 ms         e at AC       11,4g / 5 ms, 7,3g / 10 ms         mechanical service life (switching cycles)       30 000 000         e of contactor typical       30 000 000         e of the contactor with added electronically optimized auxiliary switch block typical       5 000 000         e 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         mbient conditions       2 000 m	shock resistance at rectangular impulse	
• at AC11,4g / 5 ms, 7,3g / 10 msmechanical service life (switching cycles)30 000 000• of contactor typical30 000 000• of the contactor with added electronically optimized auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000reference code according to IEC 81346-2 Substance Prohibitance (Date)Qsubstance Prohibitance (Date)10/01/2009mbient conditions2 000 m	• at AC	7,3g / 5 ms, 4,7g / 10 ms
mechanical service life (switching cycles)       30 000 000         • of contactor typical       30 000 000         • 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         mbient conditions       2 000 m	shock resistance with sine pulse	
<ul> <li>of contactor typical</li> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>reference code according to IEC 81346-2</li> <li>Substance Prohibitance (Date)</li> <li>In/01/2009</li> </ul>	• at AC	11,4g / 5 ms, 7,3g / 10 ms
<ul> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> <li>of the contactor with added auxiliary switch block typical</li> <li>reference code according to IEC 81346-2</li> <li>Q</li> <li>Substance Prohibitance (Date)</li> <li>In/01/2009</li> <li>mbient conditions</li> <li>2 000 m</li> </ul>	mechanical service life (switching cycles)	
auxiliary switch block typical10 000 000• of the contactor with added auxiliary switch block typical10 000 000reference code according to IEC 81346-2QSubstance Prohibitance (Date)10/01/2009mbient conditions2 000 mambient temperature2 000 m	<ul> <li>of contactor typical</li> </ul>	30 000 000
typical       reference code according to IEC 81346-2     Q       Substance Prohibitance (Date)     10/01/2009       mbient conditions     2 000 m       ambient temperature     2 000 m		5 000 000
Substance Prohibitance (Date)       10/01/2009         Inbient conditions       2 000 m         installation altitude at height above sea level maximum       2 000 m		10 000 000
Installation altitude at height above sea level maximum     2 000 m       ambient temperature     2 000 m	reference code according to IEC 81346-2	Q
installation altitude at height above sea level maximum 2 000 m ambient temperature	Substance Prohibitance (Date)	10/01/2009
ambient temperature	Ambient conditions	
	installation altitude at height above sea level maximum	2 000 m
• during operation -25 +60 °C	ambient temperature	
	<ul> <li>during operation</li> </ul>	
• during storage -55 +80 °C	<ul> <li>during storage</li> </ul>	
relative humidity minimum 10 %	relative humidity minimum	10 %
	relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
lain circuit	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	00.4
<ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated value</li> </ul>	22 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C	22 A
rated value	
— up to 690 V at ambient temperature 60 °C	20 A
rated value	
• 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	16 A
— at 400 V rated value — at 500 V rated value	10 A 12.4 A
— at 500 V rated value	12.4 A 8.9 A
<ul> <li>at AC-4 at 400 V rated value</li> </ul>	0.9 A 11.5 A
<ul> <li>at AC-5a up to 690 V rated value</li> </ul>	19.4 A
<ul> <li>at AC-5b up to 400 V rated value</li> </ul>	13.2 A
• at AC-6a	10.27
— up to 230 V for current peak value n=20 rated	9.6 A
value	01071
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	9.6 A
— up to 500 V for current peak value n=20 rated	9.6 A
value	0.07.
<ul> <li>— up to 690 V for current peak value n=20 rated value</li> </ul>	8.9 A
• at AC-6a	
— up to 230 V for current peak value n=30 rated	6.6 A
value	01071
— up to 400 V for current peak value n=30 rated	6.4 A
value — up to 500 V for current peak value n=30 rated	6.4 A
value	
— 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
<ul> <li>at 690 V rated value</li> </ul>	4.4 A
operational current	
<ul> <li>at 1 current path at DC-1</li> </ul>	
— 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
with 2 current paths in series at DC-1	20.4
— at 24 V rated value — at 110 V rated value	20 A 12 A
— at 220 V rated value	12 A 1.6 A
— at 440 V rated value	0.8 A
— at 600 V rated value	0.8 A 0.7 A
• with 3 current paths in series at DC-1	0.17
— 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 A
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	20 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 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 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	7.0 KYY
— 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-4	
	0.51111
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	
<ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul>	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	
<ul> <li>at 50 Hz rated value</li> </ul>	220 V
• at 60 Hz rated value	220 V
operating range factor control supply voltage rated	
value of magnet coil at AC	
• at 50 Hz	0.8 1.1
• at 60 Hz	0.85 1.1
apparent pick-up power of magnet coil at AC	
· · · · · ·	

• at 50 Hz	37 VA
• at 60 Hz	33 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.8
• at 60 Hz	0.75
apparent holding power of magnet coil at AC	
• at 50 Hz	5.7 VA
• at 60 Hz	4.4 VA
inductive power factor with the holding power of the	
coil	
• at 50 Hz	0.25
• at 60 Hz	0.25
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	
	1
number of NC contacts for auxiliary contacts instantaneous contact	
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	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
	3 A
at 110 V rated value	2 A
at 125 V rated value	
at 220 V rated value	1A
• at 600 V rated value	0.15 A
operational current at DC-13	10.4
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	11 A
yielded mechanical performance [hp]	
<ul> <li>for single-phase AC motor</li> </ul>	
— at 110/120 V rated value	1 hp
— at 230 V rated value	2 hp
<ul> <li>for 3-phase AC motor</li> </ul>	
— 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
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link	
<ul> <li>for short-circuit protection of the main circuit</li> </ul>	
- with type of coordination 1 required	gG: 50A (690V,100kA), aM: 25A (690V,100kA), BS88: 50A (415V,80kA)
— with type of assignment 2 required	gG: 25A (690V,100kA), aM: 20A (690V,100kA), BS88: 25A (415V,80kA)
<ul> <li>for short-circuit protection of the auxiliary switch</li> </ul>	gG: 10 A (500 V, 1 kA)

required	
required	
Installation/ mounting/ dimensions	
mounting position fastening method	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
<ul> <li>side-by-side mounting</li> </ul>	Yes
height	58 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	U min
— forwards	10 mm
— upwards	10 mm
— at the side	6 mm
— downwards	10 mm
	10 1111
for live parts	10
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	6 mm
Connections/ Terminals	
type of electrical connection	
<ul> <li>for main current circuit</li> </ul>	screw-type terminals
<ul> <li>for auxiliary and control circuit</li> </ul>	screw-type terminals
<ul> <li>at contactor for auxiliary contacts</li> </ul>	Screw-type terminals
<ul> <li>of magnet coil</li> </ul>	Screw-type terminals
type of connectable conductor cross-sections	
<ul> <li>for main contacts</li> </ul>	
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
— solid or stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>at AWG cables for main contacts</li> </ul>	2x (20 16), 2x (18 14), 2x 12
connectable conductor cross-section for main	
contacts • solid	$0 E 4 mm^2$
	0.5 4 mm <sup>2</sup>
• stranded	0.5 4 mm <sup>2</sup>
<ul> <li>finely stranded with core end processing</li> <li>connectable conductor cross-section for auxiliary</li> <li>contacts</li> </ul>	0.5 2.5 mm²
<ul> <li>solid or stranded</li> </ul>	0.5 4 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm <sup>2</sup>
type of connectable conductor cross-sections	
<ul> <li>for auxiliary contacts</li> </ul>	
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm <sup>2</sup> ), 2x (0.75 2.5 mm <sup>2</sup> )
at AWG cables for auxiliary contacts	2x (20 16), 2x (18 14), 2x 12
AWG number as coded connectable conductor cross section	ZX (20 10), ZX (10 14), ZX 12
<ul> <li>for main contacts</li> </ul>	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
B10 value with high demand rate according to SN 31920	1 000 000
proportion of dangerous failures	
• with low domand rate according to SN 21020	40.0/

• with low demand rate according to SN 31920

• with high demand rate according to SN 31920

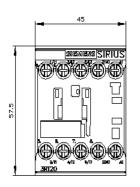
failure rate [FIT] with low demand rate according to SN

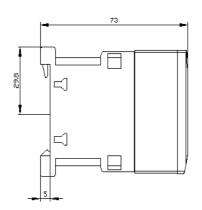
40 %

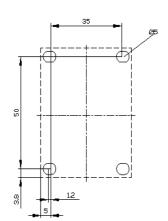
73 %

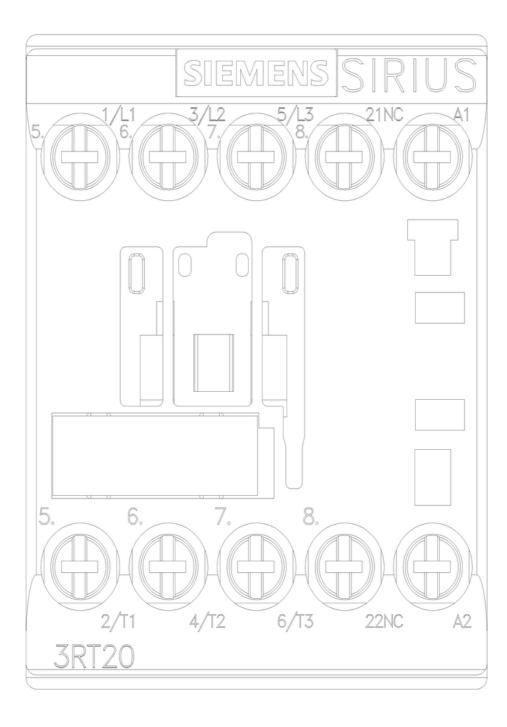
100 FIT

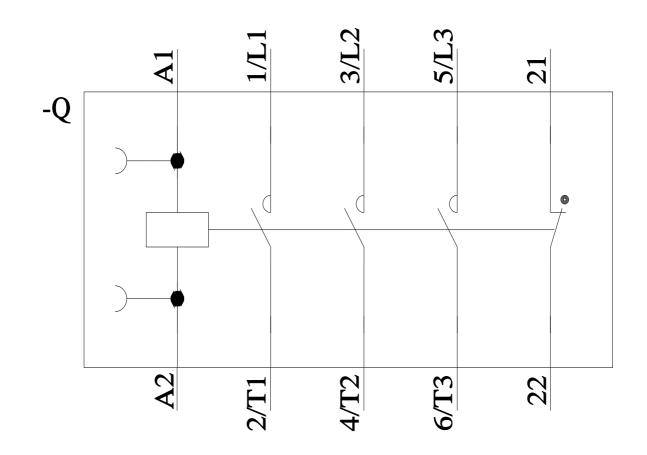
31920					
	t interval or service life	according to	20 y		
protection class IP on the front according to IEC 60529		IP20			
	the front according to	DIEC 60529	finger-safe, for vertical con	tact from the front	
safety-related s	witching OFF		Yes		
Certificates/ approval	s				
General Product Ap	proval				
	<u>Confirmation</u>	CCC CCC		<u>KC</u>	EHC
EMC	Functional Safety/Safety of Machinery	Declaration o	f Conformity	Test Certificates	
RCM	<u>Type Examination</u> <u>Certificate</u>	UK CA	CE EG-Konf.	<u>Special Test Certific-</u> <u>ate</u>	<u>Type Test Certific-</u> ates/Test Report
Marine / Shipping					
ABS	B U REAU VERITAS		Llovd's Register us	PRS	RINA
Marine / Shipping	other			Railway	
RMRS	<u>Confirmation</u>		<u>Confirmation</u>	Vibration and Shock	
Further information Information- and Downloadcenter (Catalogs, Brochures,)					
https://www.siemens.com/ic10 Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2018-1AN22 Cax online generator					
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2018-1AN22 Service&Support (Manuals, Certificates, Characteristics, FAQs,)					
Service&Support (Manuals, Certificates, Characteristics, FAQs,) <a href="https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-1AN22">https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-1AN22</a> Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,) <a href="http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2018-1AN22&amp;lang=en">http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2018-1AN22⟨=en</a> Characteristic: Tripping characteristics, I <sup>2</sup> t, Let-through current					
https://support.industry.siemens.com/cs/ww/en/ps/3RT2018-1AN22/char Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2018-1AN22&objecttype=14&gridview=view1					











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