## SIEMENS

## Data sheet

## 3RT2025-1AB04



power contactor, AC-3 17 A, 7.5 kW / 400 V 2 NO + 2 NC, 24 V AC, 50 Hz, 3-pole, Size S0 screw terminal Removable auxiliary switch

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product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	SO
product extension	
<ul> <li>function module for communication</li> </ul>	No
auxiliary switch	No
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	2.7 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	0.9 W
without load current share typical	7.6 W
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	
<ul> <li>of main circuit rated value</li> </ul>	6 kV
of auxiliary circuit rated value	6 kV
maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at AC	7,5g / 5 ms, 4,7g / 10 ms
shock resistance with sine pulse	
● at AC	11,8g / 5 ms, 7,4g / 10 ms
mechanical service life (switching 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	
during operation	-25 +60 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %

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
<ul> <li>at AC-3e rated value maximum</li> </ul>	690 V
operational current	
<ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated value</li> </ul>	40 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	40 A
— up to 690 V at ambient temperature 60 °C rated value	35 A
• at AC-3	
— at 400 V rated value	17 A
— at 500 V rated value	17 A
— at 690 V rated value	13 A
• at AC-3e	
— at 400 V rated value	17 A
— at 500 V rated value	17 A
— at 690 V rated value	13 A
• at AC-4 at 400 V rated value	15.5 A
<ul> <li>at AC-5a up to 690 V rated value</li> </ul>	35.2 A
<ul> <li>at AC-5b up to 400 V rated value</li> </ul>	14.1 A
• at AC-6a	11.4 A
<ul> <li>— up to 230 V for current peak value n=20 rated value</li> <li>— up to 400 V for current peak value n=20 rated</li> </ul>	11.4 A
- up to 400 V for current peak value n=20 rated - up to 500 V for current peak value n=20 rated	11.4 A
value — up to 690 V for current peak value n=20 rated	11.3 A
value	
<ul> <li>at AC-6a         <ul> <li>up to 230 V for current peak value n=30 rated value</li> </ul> </li> </ul>	7.6 A
— up to 400 V for current peak value n=30 rated value	7.6 A
— up to 500 V for current peak value n=30 rated value	7.6 A
— up to 690 V for current peak value n=30 rated value	7.6 A
minimum cross-section in main circuit at maximum AC-1 rated value	10 mm²
operational current for approx. 200000 operating cycles at AC-4	7.7.4
at 400 V rated value	7.7 A
at 690 V rated value	7.7 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
<ul> <li>with 3 current paths in series at DC-1</li> </ul>	
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— at 24 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	35 A
— at 440 V rated value	2.9 A
— at 600 V rated value	1.4 A
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	20 A
— at 110 V rated value	2.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.09 A
— at 600 V rated value	0.06 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	35 A
— at 110 V rated value	15 A
— at 220 V rated value	3 A
— at 440 V rated value	0.27 A
— at 600 V rated value	0.16 A
• with 3 current paths in series at DC-3 at DC-5	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
— at 220 V rated value	10 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.6 A
operating power	
• at AC-3	
— at 230 V rated value	4 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	11 kW
• at AC-3e	
— at 230 V rated value	4 kW
— at 400 V rated value	4.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	11 kW
operating power for approx. 200000 operating cycles at AC-4	
at 400 V rated value	3.5 kW
at 690 V rated value	6 kW
operating apparent power at AC-6a	
• up to 230 V for current peak value n=20 rated value	4.5 kVA
• up to 400 V for current peak value n=20 rated value	7.8 kVA
• up to 500 V for current peak value n=20 rated value	9.9 kVA
• up to 690 V for current peak value n=20 rated value	13.6 kVA
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	3 kVA
• up to 400 V for current peak value n=30 rated value	5.2 kVA
• up to 500 V for current peak value n=30 rated value	6.6 kVA
• up to 690 V for current peak value n=30 rated value	9.1 kVA
short-time withstand current in cold operating state up to 40 °C	
<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	225 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	225 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	180 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	115 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	96 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	5 000 1/h
operating frequency	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	1 000 1/h
• at AC-3 maximum	1 000 1/h

• at AC-3e maximum     1 000 1/h       • at AC-4 maximum     300 1/h       Control supply voltage of the control supply voltage     AC       • at 50 Hz rated value     24 V       • operating range factor control supply voltage rated value of magnet coll at AC     0.8 1.1       • at 50 Hz     0.8 1.1       apparent pick-up power of magnet coll at AC     65 VA       • at 50 Hz     0.82       apparent pick-up power of magnet coll at AC     0.82       • at 50 Hz     0.82       inductive power factor with closing power of the coll     0.82       apparent holding power of magnet coll at AC     0.82       • at 50 Hz     0.25       closing delay     0.25       • at AC     8 40 ms       opening delay     10 10 ms       • at AC     4 16 ms       arcing time     10 10 ms       control version of the switch operating mechanism     Standard A1 - A2       Auxiliary circuit     2       number of NC contacts for auxiliary contacts     2       instantaneous contact     10 A       operational current at AC-12 maximum     10 A       operational current at AC-15     3 A       • at 400 V rated value     6 A       • at 400 V rated value     6 A       • at 400 V rated value     1 A	<ul> <li>at AC-4 maximum</li> <li>Control circuit/ Control</li> <li>type of voltage of the control supply voltage</li> <li>control supply voltage at AC <ul> <li>at 50 Hz rated value</li> </ul> </li> <li>operating range factor control supply voltage rated value of magnet coil at AC <ul> <li>at 50 Hz</li> </ul> </li> <li>apparent pick-up power of magnet coil at AC <ul> <li>at 50 Hz</li> </ul> </li> <li>inductive power factor with closing power of the coil <ul> <li>at 50 Hz</li> </ul> </li> <li>apparent holding power of magnet coil at AC <ul> <li>at 50 Hz</li> </ul> </li> <li>apparent holding power of magnet coil at AC <ul> <li>at 50 Hz</li> </ul> </li> <li>at 50 Hz</li> <li>coil = at 50 Hz</li> </ul> <li>inductive power factor with the holding power of the coil = at 50 Hz</li> <li>inductive power factor with the holding power of the coil = at 50 Hz</li> <li>at 50 Hz</li> <li>closing delay <ul> <li>at AC</li> <li>opening delay</li> </ul> </li>	300 1/h AC 24 V 0.8 1.1 65 VA 0.82 7.6 VA 0.25
Control circuit/ Control       AC         type of voltage of the control supply voltage       AC         • at 50 Hz rated value       24 V         operating range factor control supply voltage rated       0.8 1.1         apparent pick-up power of magnet coil at AC       65 VA         • at 50 Hz       0.8 1.1         apparent pick-up power factor with closing power of the coil       0.82         apparent holding power of magnet coil at AC       0.82         • at 50 Hz       0.82         inductive power factor with the holding power of the coil       0.82         apparent holding power of magnet coil at AC       0.82         • at 50 Hz       0.82         inductive power factor with the holding power of the coil       0.82         eat 50 Hz       0.25         closing delay       8 40 ms         • at AC       4 16 ms         arcing time       10 10 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       2         number of NC contacts for auxiliary contacts       2         instantaneous contact       2         operational current at AC-15       6         • at 200 V rated value       3 A         • at 400 V rated value	Control circuit/ Control         type of voltage of the control supply voltage         control supply voltage at AC         • at 50 Hz rated value         operating range factor control supply voltage rated         value of magnet coil at AC         • at 50 Hz         apparent pick-up power of magnet coil at AC         • at 50 Hz         inductive power factor with closing power of the coil         • at 50 Hz         apparent holding power of magnet coil at AC         • at 50 Hz         inductive power factor with closing power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at AC         opening delay	AC 24 V 0.8 1.1 65 VA 0.82 7.6 VA 0.25
type of voltage of the control supply voltage         AC           e at 50 Hz rated value         24 V           operating range factor control supply voltage rated value of magnet coil at AC         24 V           e at 50 Hz         0.8 1.1           apparent pick-up power of magnet coil at AC         65 VA           inductive power factor with closing power of the coil         65 VA           inductive power factor with closing power of the coil         0.82           apparent holding power of magnet coil at AC         0.82           e at 50 Hz         0.82           inductive power factor with the holding power of the coil         0.82           e at 50 Hz         0.25           closing delay         e at 60 Hz           e at 50 Hz         0.25           closing delay         e at AC           e at AC         4 16 ms           arcing time         10 10 ms           control version of the switch operating mechanism         Standard A1 - A2           Auxiliary circuit         2           number of NC contacts for auxiliary contacts         2           instantaneous contact         2           operational current at AC-15         6           e at 200 V rated value         3A           e at 300 V rated value <t< td=""><td>type of voltage of the control supply voltage         control supply voltage at AC         • at 50 Hz rated value         operating range factor control supply voltage rated         value of magnet coil at AC         • at 50 Hz         apparent pick-up power of magnet coil at AC         • at 50 Hz         inductive power factor with closing power of the coil         • at 50 Hz         apparent holding power of magnet coil at AC         • at 50 Hz         inductive power factor with closing power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         closing delay         • at AC         opening delay</td><td>24 V 0.8 1.1 65 VA 0.82 7.6 VA 0.25</td></t<>	type of voltage of the control supply voltage         control supply voltage at AC         • at 50 Hz rated value         operating range factor control supply voltage rated         value of magnet coil at AC         • at 50 Hz         apparent pick-up power of magnet coil at AC         • at 50 Hz         inductive power factor with closing power of the coil         • at 50 Hz         apparent holding power of magnet coil at AC         • at 50 Hz         inductive power factor with closing power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         closing delay         • at AC         opening delay	24 V 0.8 1.1 65 VA 0.82 7.6 VA 0.25
String supply voltage at AC       24 V         • at 50 Hz rated value       24 V         operating range factor control supply voltage rated value of magnet coil at AC       0.8 1.1         apparent pick-up power of magnet coil at AC       65 VA         • at 50 Hz       0.8 1.1         apparent pick-up power of magnet coil at AC       65 VA         • at 50 Hz       0.82         apparent holding power of magnet coil at AC       0.82         • at 50 Hz       0.82         apparent holding power of magnet coil at AC       0.82         • at 50 Hz       0.82         apparent holding power of magnet coil at AC       0.82         • at 50 Hz       0.25         closing delay       0.25         • at AC       8 40 ms         opening delay       0.10 ms         • at AC       4 16 ms         arcing time       10 10 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       10 A         operational current at AC-15       2         instantaneous contact       10 A         operational current at AC-15       6 A         • at 200 V rated value       6 A         • at 400 V rated value       3	control supply voltage at AC         • at 50 Hz rated value         operating range factor control supply voltage rated value of magnet coil at AC         • at 50 Hz         apparent pick-up power of magnet coil at AC         • at 50 Hz         inductive power factor with closing power of the coil         • at 50 Hz         apparent holding power of magnet coil at AC         • at 50 Hz         inductive power factor with closing power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         closing delay         • at AC         opening delay	24 V 0.8 1.1 65 VA 0.82 7.6 VA 0.25
• at 50 Hz rated value       24 V         operating range factor control supply voltage rated value of magnet coil at AC       0.8 1.1         • at 50 Hz       0.8 1.1         apparent pick-up power of magnet coil at AC       65 VA         • at 50 Hz       0.8 1.1         apparent pick-up power factor with closing power of the coil       0.8 1.1         • at 50 Hz       0.82         apparent holding power of magnet coil at AC       0.82         • at 50 Hz       0.82         inductive power factor with the holding power of the coil       0.82         • at 50 Hz       0.82         inductive power factor with the holding power of the coil       0.82         • at 50 Hz       0.25         closing delay       0.25         • at AC       8 40 ms         • at AC       4 16 ms         • at AC       4 10 ms         acring time       10 10 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       10 A         operational current at AC-15       2         instantaneous contact       2         operational current at AC-15       6 A         • at 200 V rated value       6 A         • a	<ul> <li>at 50 Hz rated value</li> <li>operating range factor control supply voltage rated value of magnet coil at AC <ul> <li>at 50 Hz</li> </ul> </li> <li>apparent pick-up power of magnet coil at AC <ul> <li>at 50 Hz</li> </ul> </li> <li>inductive power factor with closing power of the coil <ul> <li>at 50 Hz</li> </ul> </li> <li>apparent holding power of magnet coil at AC <ul> <li>at 50 Hz</li> </ul> </li> <li>apparent holding power of magnet coil at AC <ul> <li>at 50 Hz</li> </ul> </li> <li>apparent holding power of magnet coil at AC <ul> <li>at 50 Hz</li> </ul> </li> <li>at 50 Hz</li> <li>coil at 50 Hz</li> </ul> <li>at 50 Hz</li>	0.8 1.1 65 VA 0.82 7.6 VA 0.25
operating range factor control supply voltage rated value of magnet coil at AC       0.8 1.1         apparent pick-up power of magnet coil at AC       0.8 1.1         apparent pick-up power of magnet coil at AC       65 VA         inductive power factor with closing power of the coil       0.82         apparent holding power of magnet coil at AC       0.82         apparent holding power of magnet coil at AC       0.82         apparent holding power of magnet coil at AC       0.82         apparent holding power of the coil       0.82         e at 50 Hz       0.25         closing delay       0.25         e at AC       8 40 ms         opening delay       0.4         e at AC       4 16 ms         arcing time       10 10 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       10 A         operational current at AC-12       2<	operating range factor control supply voltage rated value of magnet coil at AC         • at 50 Hz         apparent pick-up power of magnet coil at AC         • at 50 Hz         inductive power factor with closing power of the coil         • at 50 Hz         apparent holding power of magnet coil at AC         • at 50 Hz         apparent holding power of magnet coil at AC         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         closing delay         • at AC         opening delay	0.8 1.1 65 VA 0.82 7.6 VA 0.25
value of magnet coil at AC       0.8 1.1         apparent pick-up power of magnet coil at AC       65 VA         • at 50 Hz       0.8 1.1         apparent pick-up power factor with closing power of the coil       0.82         apparent holding power of magnet coil at AC       65 VA         • at 50 Hz       0.82         apparent holding power of magnet coil at AC       0.82         • at 50 Hz       0.82         inductive power factor with the holding power of the coil       0.25         closing delay       0.25         closing delay       8 40 ms         • at AC       8 40 ms         opening delay       10 10 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       10 10 ms         number of NC contacts for auxiliary contacts instantaneous contact       2         operational current at AC-12 maximum       10 A         operational current at AC-15       6 A         • at 230 V rated value       6 A         • at 500 V rated value       3 A         • at 500 V rated value       2 A	value of magnet coil at AC • at 50 Hz apparent pick-up power of magnet coil at AC • at 50 Hz inductive power factor with closing power of the coil • at 50 Hz apparent holding power of magnet coil at AC • at 50 Hz inductive power factor with the holding power of the coil • at 50 Hz inductive power factor with the holding power of the coil • at 50 Hz closing delay • at AC opening delay	65 VA 0.82 7.6 VA 0.25
• at 50 Hz       0.8 1.1         apparent pick-up power of magnet coil at AC       65 VA         • at 50 Hz       65 VA         inductive power factor with closing power of the coil       0.82         apparent holding power of magnet coil at AC       0.82         • at 50 Hz       0.82         apparent holding power of magnet coil at AC       7.6 VA         • at 50 Hz       0.25         closing delay       0.25         • at AC       8 40 ms         opening delay       0.4 16 ms         • at AC       4 16 ms         arcing time       10 10 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       10 A         number of NC contacts for auxiliary contacts       2         instantaneous contact       2         operational current at AC-15       2         • at 230 V rated value       6 A         • at 400 V rated value       3 A         • at 500 V rated value       2 A	<ul> <li>at 50 Hz</li> <li>apparent pick-up power of magnet coil at AC <ul> <li>at 50 Hz</li> </ul> </li> <li>inductive power factor with closing power of the coil <ul> <li>at 50 Hz</li> </ul> </li> <li>apparent holding power of magnet coil at AC <ul> <li>at 50 Hz</li> </ul> </li> <li>inductive power factor with the holding power of the coil <ul> <li>at 50 Hz</li> </ul> </li> <li>inductive power factor with the holding power of the coil <ul> <li>at 50 Hz</li> </ul> </li> <li>inductive power factor with the holding power of the coil <ul> <li>at 50 Hz</li> </ul> </li> <li>inductive power factor with the holding power of the coil <ul> <li>at 50 Hz</li> </ul> </li> <li>other coil at AC</li> <li>at AC</li> <li>opening delay</li> </ul>	65 VA 0.82 7.6 VA 0.25
apparent pick-up power of magnet coil at AC       65 VA         inductive power factor with closing power of the coil       0.82         apparent holding power of magnet coil at AC       0.82         apparent holding power of magnet coil at AC       7.6 VA         inductive power factor with the holding power of the coil       0.82         apparent holding power of magnet coil at AC       7.6 VA         inductive power factor with the holding power of the coil       0.25         closing delay       0.25         e at 50 Hz       0.25         closing delay       8 40 ms         opening delay       4 16 ms         arcing time       10 10 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       2         number of NC contacts for auxiliary contacts instantaneous contact       2         number of NO contacts for auxiliary contacts       2         instantaneous contact       10 A         operational current at AC-15       6         e at 230 V rated value       6 A         at 400 V rated value       3 A         e at 500 V rated value       2 A	apparent pick-up power of magnet coil at AC         • at 50 Hz         inductive power factor with closing power of the coil         • at 50 Hz         apparent holding power of magnet coil at AC         • at 50 Hz         inductive power factor with the holding power of the coil at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         inductive power factor with the holding power of the coil         • at 50 Hz         closing delay         • at AC         opening delay	65 VA 0.82 7.6 VA 0.25
• at 50 Hz       65 VA         inductive power factor with closing power of the coil       0.82         apparent holding power of magnet coil at AC       0.82         • at 50 Hz       0.82         inductive power factor with the holding power of the coil       0.82         • at 50 Hz       7.6 VA         inductive power factor with the holding power of the coil       0.25         closing delay       0.25         • at AC       8 40 ms         opening delay       4 16 ms         • at AC       4 10 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       10 10 ms         number of NC contacts for auxiliary contacts       2         instantaneous contact       10 A         operational current at AC-12 maximum       10 A         operational current at AC-15       6 A         • at 200 V rated value       3 A         • at 500 V rated value       2 A	• at 50 Hz      inductive power factor with closing power of the coil         • at 50 Hz      apparent holding power of magnet coil at AC         • at 50 Hz      inductive power factor with the holding power of the coil         • at 50 Hz      closing delay         • at AC         opening delay	0.82 7.6 VA 0.25
inductive power factor with closing power of the coil       0.82         apparent holding power of magnet coil at AC       0.82         • at 50 Hz       7.6 VA         inductive power factor with the holding power of the coil       0.25         closing delay       0.25         closing delay       8 40 ms         • at AC       8 40 ms         opening delay       10 10 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       2         number of NC contacts for auxiliary contacts instantaneous contact       2         number of NC contacts for auxiliary contacts instantaneous contact       10 A         operational current at AC-15       6 A         • at 230 V rated value       6 A         • at 500 V rated value       2 A	inductive power factor with closing power of the coil • at 50 Hz apparent holding power of magnet coil at AC • at 50 Hz inductive power factor with the holding power of the coil • at 50 Hz closing delay • at AC opening delay	0.82 7.6 VA 0.25
• at 50 Hz       0.82         apparent holding power of magnet coil at AC       7.6 VA         • at 50 Hz       7.6 VA         inductive power factor with the holding power of the coil       0.25         closing delay       0.25         • at AC       8 40 ms         opening delay       4 16 ms         • at AC       4 10 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       2         number of NC contacts for auxiliary contacts       2         instantaneous contact       2         operational current at AC-15       6 A         • at 230 V rated value       6 A         • at 400 V rated value       3 A         • at 500 V rated value       2 A	<ul> <li>at 50 Hz</li> <li>apparent holding power of magnet coil at AC</li> <li>at 50 Hz</li> <li>inductive power factor with the holding power of the coil</li> <li>at 50 Hz</li> <li>closing delay</li> <li>at AC</li> <li>opening delay</li> </ul>	7.6 VA 0.25
apparent holding power of magnet coil at AC <ul> <li>at 50 Hz</li> <li>at 60 Hz</li> <li>at 60 Hz</li> <li>at 80 Hz</li> <li>at AC</li> <li>at Component delay</li> <li>at AC</li> <li>at AC</li> <li>at Component at AC-12</li> <li>at Component at AC-12 maximum</li> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>at 400 V rated value</li> <li>at 400 V rated value</li> <li>at 500 V rated value</li> </ul>	apparent holding power of magnet coil at AC • at 50 Hz inductive power factor with the holding power of the coil • at 50 Hz closing delay • at AC opening delay	7.6 VA 0.25
• at 50 Hz       7.6 VA         inductive power factor with the holding power of the coil       0.25         • at 50 Hz       0.25         closing delay       8 40 ms         • at AC       8 40 ms         opening delay       - at AC         • at AC       10 16 ms         arcing time       10 10 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       2         number of NC contacts for auxiliary contacts instantaneous contact       2         number of NC contacts for auxiliary contacts       2         operational current at AC-12 maximum       10 A         operational current at AC-15       6 A         • at 200 V rated value       6 A         • at 400 V rated value       3 A         • at 500 V rated value       2 A	<ul> <li>at 50 Hz</li> <li>inductive power factor with the holding power of the coil</li> <li>at 50 Hz</li> <li>closing delay <ul> <li>at AC</li> </ul> </li> <li>opening delay</li> </ul>	0.25
inductive power factor with the holding power of the coil       0.25         • at 50 Hz       0.25         closing delay       8 40 ms         • at AC       8 40 ms         opening delay       4 16 ms         • at AC       4 10 ms         control version of the switch operating mechanism       Standard A1 - A2         Auxiliary circuit       2         number of NC contacts for auxiliary contacts instantaneous contact       2         number of NO contacts for auxiliary contacts       2         operational current at AC-12 maximum       10 A         operational current at AC-15       6 A         • at 400 V rated value       3 A         • at 500 V rated value       2 A	inductive power factor with the holding power of the coil • at 50 Hz closing delay • at AC opening delay	0.25
coil0.25closing delay8 40 ms• at AC8 40 msopening delay4 16 ms• at AC4 16 msarcing time10 10 mscontrol version of the switch operating mechanismStandard A1 - A2Auxiliary circuit2number of NC contacts for auxiliary contacts instantaneous contact2number of NO contacts for auxiliary contacts instantaneous contact2operational current at AC-12 maximum10 Aoperational current at AC-15 • at 230 V rated value6 A• at 400 V rated value3 A• at 500 V rated value2 A	coil • at 50 Hz closing delay • at AC opening delay	
closing delay8 40 msopening delay4 16 ms• at AC4 16 msarcing time10 10 mscontrol version of the switch operating mechanismStandard A1 - A2Auxiliary circuit10 10 msnumber of NC contacts for auxiliary contacts instantaneous contact2number of NO contacts for auxiliary contacts instantaneous contact2operational current at AC-12 maximum10 Aoperational current at AC-15 • at 230 V rated value6 A• at 400 V rated value3 A• at 500 V rated value2 A	e at AC opening delay	
• at AC8 40 msopening delay • at AC4 16 msarcing time10 10 mscontrol version of the switch operating mechanismStandard A1 - A2Auxiliary circuit2number of NC contacts for auxiliary contacts instantaneous contact2number of NO contacts for auxiliary contacts instantaneous contact2operational current at AC-12 maximum10 Aoperational current at AC-15 • at 230 V rated value6 A• at 500 V rated value3 A• at 500 V rated value2 A	• at AC opening delay	8 40 ms
• at AC8 40 msopening delay4 16 ms• at AC4 10 msarcing time10 10 mscontrol version of the switch operating mechanismStandard A1 - A2Auxiliary circuit2number of NC contacts for auxiliary contacts instantaneous contact2number of NO contacts for auxiliary contacts instantaneous contact2operational current at AC-12 maximum10 Aoperational current at AC-15 • at 230 V rated value6 A• at 400 V rated value3 A• at 500 V rated value2 A	• at AC opening delay	8 40 ms
• at AC4 16 msarcing time10 10 mscontrol version of the switch operating mechanismStandard A1 - A2Auxiliary circuit2number of NC contacts for auxiliary contacts instantaneous contact2number of NO contacts for auxiliary contacts instantaneous contact2operational current at AC-12 maximum10 Aoperational current at AC-15 • at 230 V rated value6 A• at 500 V rated value3 A• at 500 V rated value2 A		
• at AC4 16 msarcing time10 10 mscontrol version of the switch operating mechanismStandard A1 - A2Auxiliary circuit2number of NC contacts for auxiliary contacts instantaneous contact2number of NO contacts for auxiliary contacts instantaneous contact2operational current at AC-12 maximum10 Aoperational current at AC-15 • at 230 V rated value6 A• at 500 V rated value3 A• at 500 V rated value2 A		
control version of the switch operating mechanismStandard A1 - A2Auxiliary circuit2number of NC contacts for auxiliary contacts instantaneous contact2number of NO contacts for auxiliary contacts instantaneous contact2operational current at AC-12 maximum10 Aoperational current at AC-15 • at 230 V rated value6 A• at 400 V rated value3 A• at 500 V rated value2 A		4 16 ms
Auxiliary circuit         number of NC contacts for auxiliary contacts instantaneous contact       2         number of NO contacts for auxiliary contacts instantaneous contact       2         operational current at AC-12 maximum       10 A         operational current at AC-15       6 A         • at 230 V rated value       6 A         • at 400 V rated value       3 A         • at 500 V rated value       2 A	arcing time	10 10 ms
number of NC contacts for auxiliary contacts       2         instantaneous contact       2         number of NO contacts for auxiliary contacts       2         instantaneous contact       2         operational current at AC-12 maximum       10 A         operational current at AC-15       6 A         • at 230 V rated value       6 A         • at 400 V rated value       2 A	control version of the switch operating mechanism	Standard A1 - A2
number of NC contacts for auxiliary contacts       2         instantaneous contact       2         number of NO contacts for auxiliary contacts       2         instantaneous contact       2         operational current at AC-12 maximum       10 A         operational current at AC-15       6 A         • at 230 V rated value       6 A         • at 400 V rated value       2 A	Auxiliary circuit	
number of NO contacts for auxiliary contacts       2         instantaneous contact       10 A         operational current at AC-12 maximum       10 A         operational current at AC-15       6 A         • at 230 V rated value       6 A         • at 400 V rated value       3 A         • at 500 V rated value       2 A	number of NC contacts for auxiliary contacts	2
instantaneous contact       10 A         operational current at AC-12 maximum       10 A         operational current at AC-15       6 A         • at 230 V rated value       6 A         • at 400 V rated value       3 A         • at 500 V rated value       2 A		2
operational current at AC-15• at 230 V rated value6 A• at 400 V rated value3 A• at 500 V rated value2 A		
<ul> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>2 A</li> </ul>	operational current at AC-12 maximum	10 A
<ul> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>2 A</li> </ul>	operational current at AC-15	
• at 500 V rated value 2 A	<ul> <li>at 230 V rated value</li> </ul>	6 A
	<ul> <li>at 400 V rated value</li> </ul>	3 A
at 690 V rated value     1 A	<ul> <li>at 500 V rated value</li> </ul>	2 A
	• at 690 V rated value	1 A
operational current at DC-12	operational current at DC-12	
• at 24 V rated value 10 A	<ul> <li>at 24 V rated value</li> </ul>	10 A
• at 48 V rated value 6 A	<ul> <li>at 48 V rated value</li> </ul>	6 A
• at 60 V rated value 6 A	<ul> <li>at 60 V rated value</li> </ul>	6 A
• at 110 V rated value 3 A	<ul> <li>at 110 V rated value</li> </ul>	3 A
• at 125 V rated value 2 A	<ul> <li>at 125 V rated value</li> </ul>	2 A
• at 220 V rated value 1 A	• at 220 V rated value	1 A
at 600 V rated value     0.15 A	• at 600 V rated value	0.15 A
operational current at DC-13	operational current at DC-13	
• at 24 V rated value 6 A	• at 24 V rated value	
• at 48 V rated value 2 A	• at 48 V rated value	2 A
• at 60 V rated value 2 A	• at 60 V rated value	
at 110 V rated value     1 A	• at 110 V rated value	1 A
• at 125 V rated value 0.9 A		0.9 A
• at 220 V rated value 0.3 A	• at 125 V rated value	
• at 600 V rated value 0.1 A		
contact reliability of auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)	<ul><li>at 220 V rated value</li><li>at 600 V rated value</li></ul>	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	<ul> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> </ul>	
full-load current (FLA) for 3-phase AC motor	at 220 V rated value     at 600 V rated value  contact reliability of auxiliary contacts UL/CSA ratings	
• at 480 V rated value 14 A	at 220 V rated value     at 600 V rated value      contact reliability of auxiliary contacts  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor	
at 600 V rated value     17 A	at 220 V rated value     at 600 V rated value      contact reliability of auxiliary contacts  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor	14 A
yielded mechanical performance [hp]	at 220 V rated value     at 600 V rated value     contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor     at 480 V rated value	
• for single-phase AC motor	at 220 V rated value     at 600 V rated value     contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor     at 480 V rated value     at 600 V rated value	
— at 110/120 V rated value 1 hp	at 220 V rated value     at 600 V rated value Contact reliability of auxiliary contacts UL/CSA ratings full-load current (FLA) for 3-phase AC motor     at 480 V rated value     at 600 V rated value yielded mechanical performance [hp]	
— at 230 V rated value 3 hp	<ul> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> <li>UL/CSA ratings</li> <li>full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> </ul> </li> <li>yielded mechanical performance [hp] <ul> <li>for single-phase AC motor</li> <li>at 110/120 V rated value</li> </ul> </li> </ul>	17 A
for 3-phase AC motor	<ul> <li>at 220 V rated value</li> <li>at 600 V rated value</li> <li>contact reliability of auxiliary contacts</li> <li>UL/CSA ratings</li> <li>full-load current (FLA) for 3-phase AC motor <ul> <li>at 480 V rated value</li> <li>at 600 V rated value</li> </ul> </li> <li>yielded mechanical performance [hp] <ul> <li>for single-phase AC motor</li> <li>at 110/120 V rated value</li> </ul> </li> </ul>	17 A 1 hp

— 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	15 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>	
<ul> <li>— with type of coordination 1 required</li> </ul>	gG: 63A (690V,100kA), aM: 32A (690V,100kA), BS88: 63A (415V,80kA)
<ul> <li>— with type of assignment 2 required</li> </ul>	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	
Installation/ mounting/ dimensions	
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail
<ul> <li>side-by-side mounting</li> </ul>	according to DIN EN 60715 Yes
height	85 mm
width	45 mm
depth	141 mm
required spacing	
with side-by-side mounting	
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
for grounded parts	
— forwards	10 mm
— upwards	10 mm
— at the side	6 mm
— downwards	10 mm
• for live parts	
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	6 mm
Connections/ Terminals	
type of electrical connection	
for main current circuit	scrow type terminals
<ul> <li>for auxiliary and control circuit</li> </ul>	screw-type terminals screw-type terminals
<ul> <li>at contactor for auxiliary contacts</li> </ul>	Screw-type terminals
of magnet coil	Screw-type terminals
type of connectable conductor cross-sections	onow-type terminals
for main contacts	
— solid	2x (1 2.5 mm²), 2x (2.5 10 mm²)
— solid — solid or stranded	2x (1 2.5 mm <sup>2</sup> ), 2x (2.5 10 mm <sup>2</sup> )
<ul> <li>— solid of stranded</li> <li>— finely stranded with core end processing</li> </ul>	2x (1 2.5 mm <sup>2</sup> ), 2x (2.5 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup>
at AWG cables for main contacts	
connectable conductor cross-section for main	2x (16 12), 2x (14 8)
contacts	
• solid	1 10 mm <sup>2</sup>
• stranded	1 10 mm <sup>2</sup>
<ul> <li>finely stranded with core end processing</li> </ul>	1 10 mm <sup>2</sup>
connectable conductor cross-section for auxiliary	
contacts	0.5 0.5 mm²
solid or stranded	0.5 2.5 mm <sup>2</sup>
finely stranded with core end processing	0.5 2.5 mm²
type of connectable conductor cross-sections	
for auxiliary contacts	
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)

-	nded with core end proc for auxiliary contacts	cessing	2x (0.5 1.5 mm <sup>2</sup> ), 2x (0.7 2x (20 16), 2x (18 14)	5 2.5 mm²)	
	led connectable cond	uctor cross			
<ul> <li>for main contact</li> </ul>			16 8		
<ul> <li>for auxiliary cor</li> </ul>	itacts		20 14		
Safety related data			-		
product function					
<ul> <li>mirror contact a</li> </ul>	ccording to IEC 60947-	-4-1	Yes		
<ul> <li>positively driver 5-1</li> </ul>	n operation according to	DIEC 60947-	No		
	emand rate according t	o SN 31920	450 000		
proportion of dange					
<ul> <li>with low deman</li> </ul>	d rate according to SN	31920	40 %		
<ul> <li>with high dema</li> </ul>	nd rate according to SN	I 31920	73 %		
failure rate [FIT] with 31920	ow demand rate accord	ding to SN	100 FIT		
protection class IP c 60529	on the front according	to IEC	IP20		
	the front according to	DIEC 60529	finger-safe, for vertical conta	act from the front	
suitability for use	j.				
<ul> <li>safety-related s</li> </ul>	witching OFF		Yes		
Certificates/ approval	-				
General Product Ap	proval				
	<u>Confirmation</u>		~	KC	
(SR)	<u>commutation</u>	(m)	<i>(</i> U)	<u>ito</u>	COF
		$\underline{\bullet}$			СПС
CSA		ccc	UL		
	Functional				
EMC	Safety/Safety of	Declaration of	of Conformity	Test Certificates	
EMC			of Conformity <u>UK Declaration of</u>	Test Certificates	Special Test Certific-
EMC	Safety/Safety of Machinery	CE			Special Test Certific- ate
EMC RCM	Safety/Safety of Machinery		UK Declaration of	Type Test Certific-	
Ô	Safety/Safety of Machinery	CE	UK Declaration of	Type Test Certific-	
RCM	Safety/Safety of Machinery	CE	UK Declaration of	Type Test Certific-	
Ô	Safety/Safety of Machinery	CE	UK Declaration of	Type Test Certific-	
RCM	Safety/Safety of Machinery	CE	UK Declaration of	Type Test Certific-	
RCM	Safety/Safety of Machinery	CE	UK Declaration of	Type Test Certific-	
Marine / Shipping	Safety/Safety of Machinery	EG-Konf.	UK Declaration of Conformity	Type Test Certific-	
RCM	Safety/Safety of Machinery	EG-Konf.	UK Declaration of Conformity	Type Test Certific-	
Marine / Shipping	Safety/Safety of Machinery	EG-Konf.	UK Declaration of Conformity	Type Test Certific-	
Marine / Shipping	Safety/Safety of Machinery	EG-Konf.	UK Declaration of Conformity	Type Test Certific-	
Marine / Shipping	Safety/Safety of Machinery	EG-Konf.	UK Declaration of Conformity	Type Test Certific-	
Marine / Shipping	Safety/Safety of Machinery	EG-Konf.	UK Declaration of Conformity	Type Test Certific-	
Marine / Shipping	Safety/Safety of Machinery	EG-Konf.	UK Declaration of Conformity	Type Test Certific-	
Marine / Shipping	Safety/Safety of Machinery	EG-Konf.	UK Declaration of Conformity	Type Test Certific-	
Marine / Shipping         Marine / Shipping         Other         Confirmation	Safety/Safety of Machinery	EG-Konf.	UK Declaration of Conformity	Type Test Certific-	
Image: Constraint of the state of the s	Safety/Safety of Machinery Type Examination Certificate	Confirmatic	UK Declaration of Conformity	Type Test Certific-	
Marine / Shipping         Marine / Shipping         Other         Confirmation         Information- and Do https://www.siemens.	Safety/Safety of Machinery Type Examination Certificate	Confirmatic	UK Declaration of Conformity	Type Test Certific-	
Marine / Shipping         Marine / Shipping         Other         Confirmation         Information- and Do https://www.siemensIndustry Mall (Online)	Safety/Safety of Machinery Type Examination Certificate	Confirmatic	UK Declaration of Conformity	Type Test Certific-	
Marine / Shipping         Marine / Shipping         Other         Confirmation         Information- and Do https://www.siemensIndustry Mall (Online)	Safety/Safety of Machinery Type Examination Certificate	Confirmatic	UK Declaration of Conformity	Type Test Certific-	

## http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2025-1AB04

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-1AB04

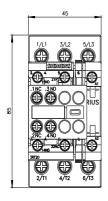
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2025-1AB04&lang=en

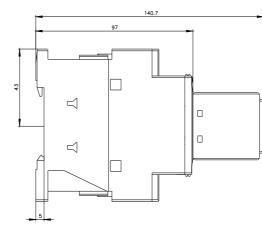
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

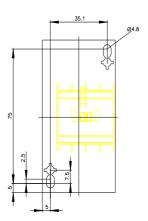
https://support.industry.siemens.com/cs/ww/en/ps/3RT2025-1AB04/char

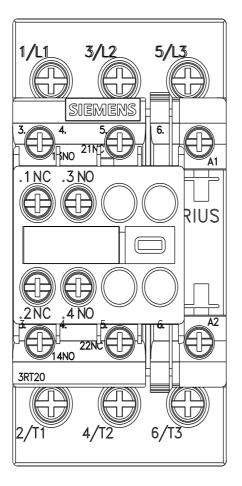
Further characteristics (e.g. electrical endurance, switching frequency)

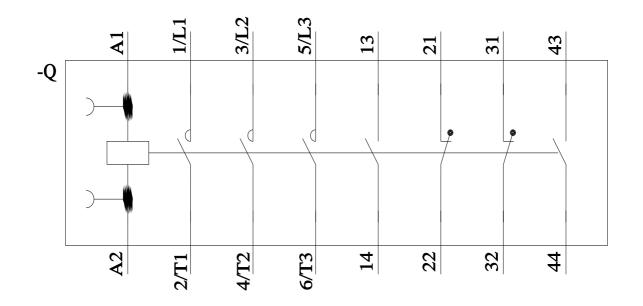
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2025-1AB04&objecttype=14&gridview=view1











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