## SIEMENS

## Data sheet

## 3RT2035-1XB40-0LA2



traction contactor, AC-3e/AC-3, 41 A, 18.5 kW / 400 V, 3-pole, 24 V DC, 0.7-1.25\* Us, electronic drive, with integrated varistor, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S2

product brand name	SIRIUS
product designation	Power contactor
design of the product	With extended operating range
product type designation	3RT2
General technical data	51(12
	C2
size of contactor	S2
product extension	
function module for communication	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
at AC in hot operating state	6.6 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	2.2 W
without load current share typical	1 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 DC	7.7g / 5 ms, 4.5g / 10 ms
shock resistance with sine pulse	
• at DC	12g / 5 ms, 7g / 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)	10/01/2014
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
during operation	-40 +70 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 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	
• at AC-1 at 400 V at ambient temperature 40 °C rated	60 A
value	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated	60 A
value	
— up to 690 V at ambient temperature 60 °C rated value	55 A
at AC-2 at 400 V rated value	40 A
• at AC-3	
— at 400 V rated value	41 A
— at 500 V rated value	41 A
— at 690 V rated value	24 A
• at AC-3e	
— at 400 V rated value	41 A
— at 500 V rated value	41 A
— at 690 V rated value	24 A
• at AC-4 at 400 V rated value	35 A
minimum cross-section in main circuit	
at maximum AC-1 rated value	16 mm²
at maximum Ith rated value	16 mm <sup>2</sup>
operational current for approx. 200000 operating cycles at	
AC-4	
• at 400 V rated value	22 A
at 690 V rated value	18.5 A
operational current	
• at 1 current path at DC-1	55 A
— at 24 V rated value	55 A
— at 110 V rated value	4.5 A
- at 220 V rated value	1A
- at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
with 2 current paths in series at DC-1	55 A
- at 24 V rated value	55 A
- at 110 V rated value	45 A
- at 220 V rated value	5 A 1 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
with 3 current paths in series at DC-1     at 24 V reted value	55 A
— at 24 V rated value — at 110 V rated value	55 A 55 A
- at 220 V rated value	
	45 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 reted value	25.4
— at 24 V rated value — at 110 V rated value	35 A 2.5 A
— at 110 V rated value — at 220 V rated value	2.5 A 1 A
— at 440 V rated value	1A 0.1 A
— at 600 V rated value	0.1 A 0.06 A
with 2 current paths in series at DC-3 at DC-5	V.VV A
with 2 current paths in series at DC-3 at DC-5     — at 24 V rated value	55 A
— at 24 V rated value — at 110 V rated value	55 A 25 A
- at 220 V rated value	5 A 0.27 A
- at 440 V rated value	0.27 A
— at 600 V rated value	0.16 A
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	

55 A				
55 A				
25 A				
0.6 A				
0.35 A				
18.5 kW				
11 kW				
18.5 kW				
22 kW				
22 kW				
11 kW				
18.5 kW				
22 kW				
22 kW				
11.6 kW				
16.8 kW				
843 A; Use minimum cross-section acc. to AC-1 rated value				
596 A; Use minimum cross-section acc. to AC-1 rated value				
400 A; Use minimum cross-section acc. to AC-1 rated value				
241 A; Use minimum cross-section acc. to AC-1 rated value				
196 A; Use minimum cross-section acc. to AC-1 rated value				
1 500 1/h				
750 1/h				
300 1/h				
60 A				
50.4				
50 A				
50 A				
DC				
DC DC				
DC				
DC DC 24 V				
DC DC 24 V 0.7				
DC DC 24 V 0.7 1.25				
DC DC 24 V 0.7 1.25 with varistor				
DC DC 24 V 0.7 1.25 with varistor 3 A				
DC DC 24 V 0.7 1.25 with varistor 3 A 50 μs				
DC DC 24 V 0.7 1.25 with varistor 3 A 50 μs 1 A				
DC DC 24 V 0.7 1.25 with varistor 3 A 50 μs 1 A 2.6 A				
DC DC 24 V 0.7 1.25 with varistor 3 A 50 μs 1 A 2.6 A 230 ms				
DC DC 24 V 0.7 1.25 with varistor 3 A 50 μs 1 A 2.6 A 230 ms 40 mA				
DC DC 24 V 0.7 1.25 with varistor 3 A 50 μs 1 A 2.6 A 230 ms 40 mA 23 W				
DC DC 24 V 0.7 1.25 with varistor 3 A 50 μs 1 A 2.6 A 230 ms 40 mA				
DC DC 24 V 0.7 1.25 with varistor 3 A 50 μs 1 A 2.6 A 230 ms 40 mA 23 W 1 W				
DC DC 24 V 0.7 1.25 with varistor 3 A 50 μs 1 A 2.6 A 230 ms 40 mA 23 W				
DC DC 24 V 0.7 1.25 with varistor 3 A 50 μs 1 A 2.6 A 230 ms 40 mA 23 W 1 W				
DC DC 24 V 0.7 1.25 with varistor 3 A 50 μs 1 A 2.6 A 230 ms 40 mA 23 W 1 W				

Auxiliary circuit	
number of NC contacts for auxiliary contacts	1
instantaneous contact	1
number of NO contacts for auxiliary contacts	1
instantaneous contact	1
operational current at AC-12 maximum	10 A
operational current at AC-12 maximum	10 A
at 230 V rated value	10 A
at 250 V rated value     at 400 V rated value	3 A
	2 A
at 500 V rated value	1A
at 690 V rated value	
operational current at DC-12	10.4
<ul> <li>at 24 V rated value</li> <li>at 48 V rated value</li> </ul>	10 A 6 A
• at 60 V rated value	6 A 3 A
at 110 V rated value	
at 125 V rated value	2 A 1 A
at 220 V rated value     at 600 V rated value	1 A 0.15 A
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 2 A
• at 60 V rated value	2 A
• at 110 V rated value	1A
• at 125 V rated value	0.9 A
• at 220 V rated value	0.3 A
• at 600 V rated value	0.1 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	40 A
• at 600 V rated value	41 A
yielded mechanical performance [hp]	
for single-phase AC motor	
— at 110/120 V rated value	3 hp
— at 230 V rated value	7.5 hp
• for 3-phase AC motor	
— at 200/208 V rated value	10 hp
— at 220/230 V rated value	15 hp
— at 460/480 V rated value	30 hp
— at 575/600 V rated value	40 hp
contact rating of auxiliary contacts according to UL	A600 / P600
Short-circuit protection	
product function short circuit protection	No
design of the fuse link	
for short-circuit protection of the main circuit	
<ul> <li>— with type of coordination 1 required</li> </ul>	gG: 160 A (690 V, 100 kA), aM: 80 A (690 V, 100 kA), BS88: 125 A (415 V, 80 kA)
<ul> <li>— with type of assignment 2 required</li> </ul>	gG: 80A (690V,100kA), aM: 50A (690V,100kA), BS88: 63A (415V,80kA)
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	gG: 10 A (500 V, 1 kA)
Installation/ mounting/ dimensions	
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
side-by-side mounting	Yes
height	114 mm
width	55 mm
depth	130 mm
required spacing	
<ul> <li>with side-by-side mounting</li> </ul>	
— forwards	10 mm
— upwards	10 mm

dourourondo	10 mm			
— downwards	10 mm			
— at the side	0 mm			
for grounded parts     forwards	10			
— 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				
<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 for main contacts				
solid or stranded	2x (1 35 mm²), 1x (1 50 mm²)			
<ul> <li>finely stranded with core end processing</li> </ul>	2x (1 25 mm²), 1x (1 35 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)			
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)			
for AWG cables for auxiliary contacts	2x (20 16), 2x (18 14)			
AWG number as coded connectable conductor cross section				
• for main contacts	18 1			
<ul> <li>for auxiliary contacts</li> </ul>	20 14			
Safety related data				
product function				
<ul> <li>mirror contact according to IEC 60947-4-1</li> </ul>	Yes			
<ul> <li>positively driven operation according to IEC 60947-5-1</li> </ul>	No			
B10 value with high demand rate according to SN 31920	1 000 000			
proportion of dangerous failures				
with low demand rate according to SN 31920	40 %			
with high demand rate according to SN 31920	73 %			
failure rate [FIT] with low demand rate according to SN 31920	73 % 100 FIT			
T1 value for proof test interval or service life according to EC	20 a			
61508	200			
protection class IP on the front according to IEC 60529	IP20			
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front			
Communication/ Protocol	· · · · · · · · · · · · · · · · · · ·			
product function bus communication	No			
Certificates/ approvals				
General Product Approval				
EMC Functional Safety/Safety of Ma-Declaration of chinery	Conformity Test Certificates			
RCM Type Examination Cer- tificate UK	EG-Konf. <u>Special Test Certific-</u> <u>ate</u> <u>Type Test Certific-</u> <u>ates/Test Report</u>			

Marine / Shipping					
ABS	B U REAU VERITAS	Lloyd's Register urs	PRS	RINA	RMRS R
other	Railway			Environment	
<u>Confirmation</u>	<u>Type Test Certific-</u> ates/Test Report	Special Test Certific- ate	Vibration and Shock	Environmental Con- firmations	

## Further information

Siemens has decided to exit the Russian market (see here). https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RT2035-1XB40-0LA2

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2035-1XB40-0LA2

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2035-1XB40-0LA2

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

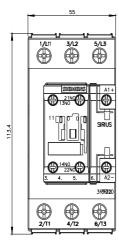
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT2035-1XB40-0LA2&lang=en

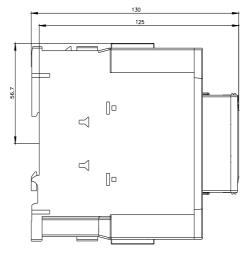
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

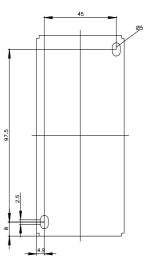
https://support.industry.siemens.com/cs/ww/en/ps/3RT2035-1XB40-0LA2/char

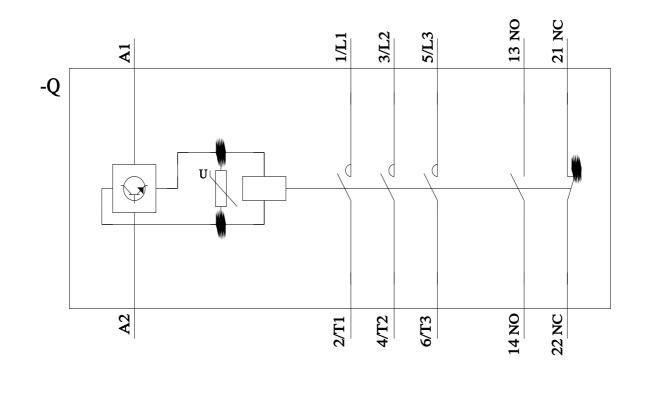
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2035-1XB40-0LA2&objecttype=14&gridview=view1









last modified:

11/21/2022 🖸