3RT2326-1AL20-4AA0

Data sheet



power contactor, AC-3, 32 A, 15 kW / 400 V, 4-pole, 230 V AC, 50/60 Hz, auxiliary contacts: 1 NO + 1 NC, screw terminal, size: S0 $\,$

product brand name	SIRIUS
product designation	Contactor
product type designation	3RT23
General technical data	
size of contactor	S0
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 	10.4 W
at AC in hot operating state per pole	2.6 W
insulation voltage	
 of main circuit with degree of pollution 3 rated value 	690 V
 of the auxiliary and control circuit with degree of pollution 3 rated value 	690 V
surge voltage resistance	
of main circuit rated value	6 kV
of auxiliary circuit rated value	6 kV
shock resistance at rectangular impulse	
• at AC	8,3g / 5 ms, 5,3g / 10 ms
shock resistance with sine pulse	
• at AC	13,5g / 5 ms, 8,3g / 10 ms
mechanical service life (operating cycles)	
of contactor typical	10 000 000
 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
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	4
number of NO contacts for main contacts	4
operational current	40 A
 at AC-1 at 400 V at ambient temperature 40 °C rated value 	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 $^{\circ}\text{C}$ rated value	35 A
• at AC-3	
— at 400 V rated value	32 A
— at 690 V rated value	21 A
 at AC-4 at 400 V rated value 	15.5 A
minimum cross-section in main circuit at maximum AC-1 rated value	10 mm²
operating power	
at AC-3 at 400 V rated value	15 kW
at AC-4 at 400 V rated value	7.5 kW
short-time withstand current in cold operating state up to	7.0 (())
40 °C	
 limited to 1 s switching at zero current maximum 	375 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	299 A; Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	200 A; Use minimum cross-section acc. to AC-1 rated value
limited to 30 s switching at zero current maximum	128 A; Use minimum cross-section acc. to AC-1 rated value
Ilmited to 50 s switching at zero current maximum Imited to 60 s switching at zero current maximum	106 A; Use minimum cross-section acc. to AC-1 rated value
	10074, OSC Hilliminum cross-section acc. to AC-1 rated value
no-load switching frequency	E 000 4/h
• at AC	5 000 1/h
operating frequency at AC-1 maximum	1 000 1/h
Control circuit/ Control	
type of voltage	AC
type of voltage of the control supply voltage	AC
control supply voltage at AC	
at 50 Hz rated value	230 V
• at 60 Hz rated value	230 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	81 VA
● at 60 Hz	79 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.72
• at 60 Hz	0.74
apparent holding power of magnet coil at AC	0.17
	40 E VA
• at 50 Hz	10.5 VA
• at 60 Hz	8.5 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.25
• at 60 Hz	0.28
closing delay	
• at AC	8 40 ms
opening delay	
• at AC	4 16 ms
arcing time	10 10 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts	1
attachable	2
instantaneous contact	1
	1
number of NO contacts for auxiliary contacts	
attachable	2
• instantaneous contact	1
• instantaneous contact	
operational current at AC-12 maximum	10 A

at 400 V rated value	3 A
 at 500 V rated value 	2 A
 at 690 V rated value 	1 A
operational current at DC-12	
at 24 V rated value	10 A
at 48 V rated value	6 A
at 60 V rated value	6 A
at 110 V rated value	3 A
at 125 V rated value	2 A
at 220 V rated value	1A
at 600 V rated value	0.15 A
	0.15 A
operational current at DC-13	40.4
• at 24 V rated value	10 A
• at 48 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
design of the miniature circuit breaker for short-circuit protection of the auxiliary switch required	gG: 10 A (230 V, 400 A)
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
product function short circuit protection	No
design of the fuse link	INO
for short-circuit protection of the main circuit	
·	aC: 90 A (600) / 100 kA)
— with type of coordination 1 required	gG: 80 A (690 V, 100 kA)
— with type of assignment 2 required	gG: 35 A (690 V, 100 kA)
for short-circuit protection of the auxiliary switch required	gG: 10 A (690 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
mounting position	backward by +/- 22.5° on vertical mounting surface
mounting position fastening method	backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
mounting position fastening method • side-by-side mounting	backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes
mounting position fastening method • side-by-side mounting height	backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 85 mm
mounting position fastening method • side-by-side mounting height width	backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 85 mm 45 mm
mounting position fastening method • side-by-side mounting height width depth	backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 85 mm 45 mm
mounting position fastening method • side-by-side mounting height width depth required spacing	backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 85 mm 45 mm
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting	backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 85 mm 45 mm 97 mm
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mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side	backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 85 mm 45 mm 97 mm 10 mm 10 mm
mounting position fastening method • side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side • for grounded parts — forwards	backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 85 mm 45 mm 97 mm 10 mm 10 mm 10 mm 10 mm
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• solid	2x (1 2.5 mm²), 2x (2.5 10 mm²)
 solid or stranded 	2x (1 2.5 mm²), 2x (2.5 10 mm²)
finely stranded with core end processing	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
connectable conductor cross-section for main contacts	
• solid	1 10 mm²
 solid or stranded 	1 10 mm²
• stranded	1 10 mm²
finely stranded with core end processing	1 10 mm²
connectable conductor cross-section for auxiliary contacts	
solid or stranded	0.5 2.5 mm²
finely stranded with core end processing	0.5 2.5 mm²
type of connectable conductor cross-sections	
 for auxiliary contacts 	
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 — solid or stranded 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 finely stranded with core end processing 	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	16 8
 for auxiliary contacts 	20 14
Safety related data	
product function	
 mirror contact according to IEC 60947-4-1 	Yes
proportion of dangerous failures	
 with low demand rate according to SN 31920 	40 %
 with high demand rate according to SN 31920 	73 %
T1 value for proof test interval or service life according to IEC 61508	20 a
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







Confirmation







Functional Safety/Safety of Ma-chinery

Declaration of Conformity

Test Certificates

Marine / Shipping

Type Examination Cer-<u>tificate</u>





Type Test Certificates/Test Report





Marine / Shipping







Confirmation

other



Railway

Environment

Vibration and Shock

Environmental Confirmations

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=3RT2326-1AL20-4AA0

Cax online generator

 $\underline{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RT2326-1AL20-4AA0}$

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2326-1AL20-4AA0

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

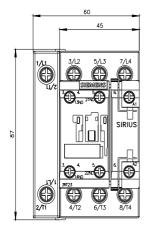
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2326-1AL20-4AA0&lang=en

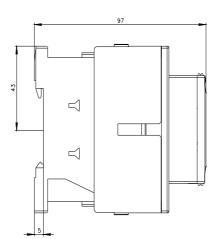
Characteristic: Tripping characteristics, I2t, Let-through current

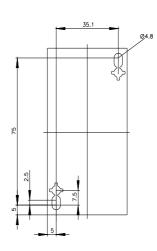
https://support.industry.siemens.com/cs/ww/en/ps/3RT2326-1AL20-4AA0/cha

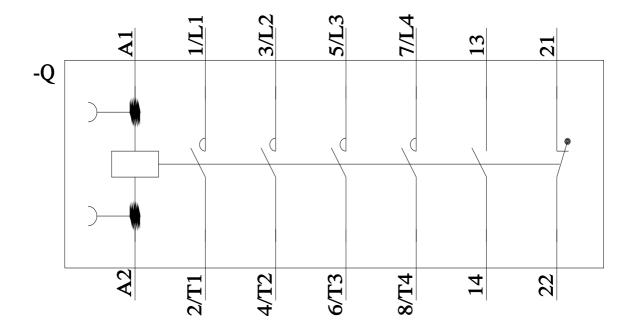
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2326-1AL20-4AA0&objecttype=14&gridview=view1









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