3RA2316-8XB30-1AH0

Data sheet

reversing contactor assembly, AC-3e/AC-3, 9 A, 4 kW / 400 V, 3-pole, 48 V AC, 50/60 Hz, screw terminal, electrical and mechanical interlock



product brand name	SIRIUS		
product designation	Reversing contactor assembly		
product type designation	3RA23		
manufacturer's article number			
1 of the supplied contactor	3RT2016-1AH02		
2 of the supplied contactor	3RT2016-1AH02		
 of the supplied RH assembly kit 	3RA2913-2AA1		
General technical data			
size of contactor	S00		
product extension auxiliary switch	Yes		
shock resistance at rectangular impulse			
• at AC	6,7g / 5 ms, 4,2g / 10 ms		
• at DC	6,7g / 5 ms, 4,2g / 10 ms		
shock resistance with sine pulse			
• at AC	10,5g / 5 ms, 6,6g / 10 ms		
• at DC	10,5g / 5 ms, 6,6g / 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		
Main circuit			
number of poles for main current circuit	3		
number of NO contacts for main contacts	3		
number of NC contacts for main contacts	0		
operating voltage			
 at AC-3 rated value maximum 	690 V		
at AC-3e rated value maximum	690 V		
operational current			
• at AC-3			
— at 400 V rated value	9 A		
— at 500 V rated value	7.7 A		
— at 690 V rated value	6.7 A		
• at AC-3e			
— at 400 V rated value	9 A		

— at 500 V rated value	7.7 A		
— at 690 V rated value	6.7 A		
operating power			
• at AC-3			
— at 400 V rated value	4 kW		
— at 500 V rated value	4 kW		
— at 690 V rated value	5.5 kW		
• at AC-3e			
— at 400 V rated value	4 kW		
— at 690 V rated value	5.5 kW		
at AC-4 at 400 V rated value	4 kW		
operating frequency			
• at AC-3 maximum	750 1/h		
• at AC-3e maximum	750 1/h		
Control circuit/ Control			
type of voltage of the control supply voltage	AC		
control supply voltage 1 at AC			
• at 50 Hz rated value	48 V		
at 60 Hz rated value	48 V		
operating range factor control supply voltage rated value of			
magnet coil at AC • at 50 Hz	0.8 1.1		
	0.85 1.1		
• at 60 Hz	U.OO 1. I		
apparent pick-up power of magnet coil at AC	27 VA		
• at 50 Hz	ZI VA		
inductive power factor with closing power of the coil	0.8		
• at 50 Hz	0.8		
apparent holding power of magnet coil at AC	42.1/4		
• at 50 Hz	4.2 VA		
inductive power factor with the holding power of the coil • at 50 Hz	0.25		
Auxiliary circuit	0.20		
contact reliability of auxiliary contacts	< 1 error per 100 million operating cycles		
UL/CSA ratings	Total par 100 million operating cycles		
full-load current (FLA) for 3-phase AC motor			
at 480 V rated value	7.6 A		
at 600 V rated value	9 A		
yielded mechanical performance [hp] for 3-phase AC motor			
• at 200/208 V rated value	2 hp		
• at 220/230 V rated value	3 hp		
• at 460/480 V rated value			
• at 575/600 V rated value	5 hp		
- at 070000 v rated value	7.5 hp		
	7.5 hp		
contact rating of auxiliary contacts according to UL	7.5 hp A600 / Q600		
contact rating of auxiliary contacts according to UL Short-circuit protection	·		
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link	·		
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit	A600 / Q600		
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required	A600 / Q600 gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A		
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A		
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required	A600 / Q600 gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A		
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A fuse gG: 10 A		
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A		
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A fuse gG: 10 A +/-180° rotation possible on vertical mounting surface; can be tilted forward and		
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A fuse gG: 10 A +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface		
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A fuse gG: 10 A +/-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		
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A fuse gG: 10 A +/-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 68 mm		
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A fuse gG: 10 A +/-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 68 mm 90 mm		
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A fuse gG: 10 A +/-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 68 mm 90 mm		
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A fuse gG: 10 A +/-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 68 mm 90 mm		
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A fuse gG: 10 A +/-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 68 mm 90 mm 73 mm		
contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • with side-by-side mounting — forwards	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A fuse gG: 10 A +/-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 68 mm 90 mm 73 mm		

— downwards	6 mm		
— at the side	6 mm		
for grounded parts			
— forwards	6 mm		
— backwards	0 mm		
— upwards	6 mm		
— at the side	6 mm		
— downwards	6 mm		
 for live parts 			
— forwards	6 mm		
— backwards	0 mm		
— upwards	6 mm		
— downwards	6 mm		
— at the side	6 mm		
Connections/ Terminals			
type of electrical connection			
for main current circuit	screw-type terminals		
 for auxiliary and control circuit 	screw-type terminals		
 at contactor for auxiliary contacts 	Screw-type terminals		
of magnet coil	Screw-type terminals		
type of connectable conductor cross-sections for main contacts			
• 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 (0,5 4 mm²)		
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 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)		
 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)		
Safety related data			
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 	75 %		
failure rate [FIT] with low demand rate according to SN 31920	100 FIT		
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	Yes		
protocol is supported AS-Interface protocol	No		
product function control circuit interface with IO link	No		
Certificates/ approvals			
General Product Approval		Declaration of Conformity	



Confirmation









Test Certificates

Marine / Shipping

Type Test Certificates/Test Report

Special Test Certific-<u>ate</u>









Marine / Shipping other Railway







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=3RA2316-8XB30-1AH0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2316-8XB30-1AH0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2316-8XB30-1AH0

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

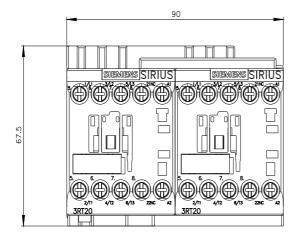
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2316-8XB30-1AH0&lang=en

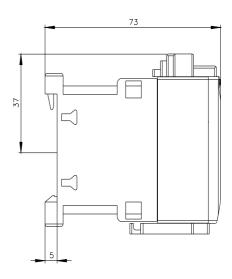
Characteristic: Tripping characteristics, I2t, Let-through current

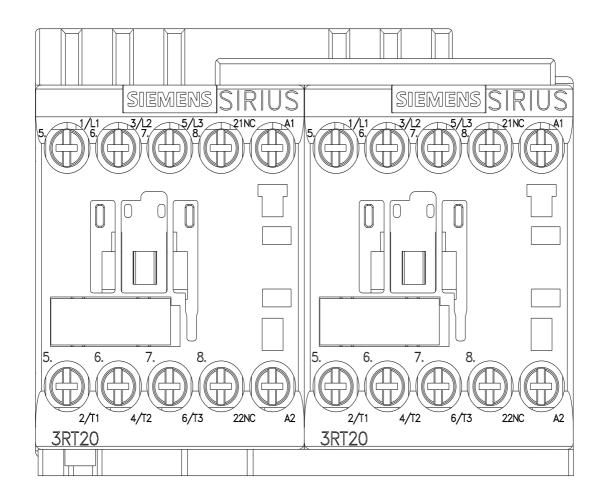
https://support.industry.siemens.com/cs/ww/en/ps/3RA2316-8XB30-1AH0/char

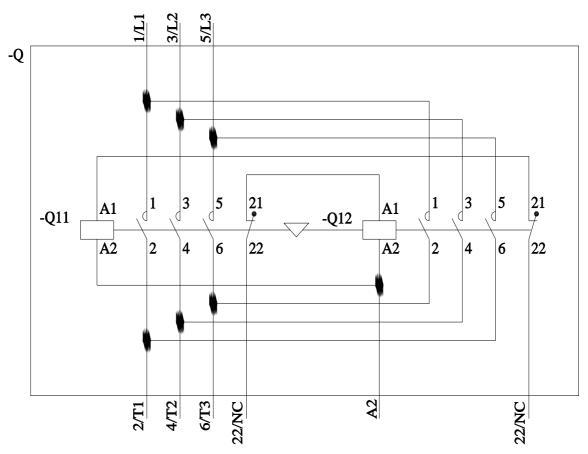
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2316-8XB30-1AH0&objecttype=14&gridview=view1









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