3RA2318-8XE30-1BB4

Data sheet

Reversing contactor assembly for 3RA27 AC-3, 7.5 kW/400 V, 24 V DC 3-pole, Size S00 screw terminal electrical and mechanical interlock with voltage tap



product designation	
product designation	Reversing contactor assembly
product type designation	3RA23
manufacturer's article number	
1 of the supplied contactor	3RT2018-1BB42-0CC0
2 of the supplied contactor	3RT2018-1BB42
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	7,3g / 5 ms, 4,7g / 10 ms
• at DC	7.3g / 5 ms, 4.7g / 10 ms
shock resistance with sine pulse	
• at AC	11,4g / 5 ms, 7,3g / 10 ms
• at DC	11,4g / 5 ms, 7,3g / 10 ms
mechanical service life (switching 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
operational current 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
operating power	
• at AC-3	

— at 500 V rated value	7.5 kW
— at 500 V rated value — at 690 V rated value	7.5 kW
at AC-4 at 400 V rated value	7.5 kW
operating frequency at AC-3 maximum	750 1/h
Control circuit/ Control	730 1/11
	DC.
type of voltage of the control supply voltage	DC
control supply voltage 1 • at DC rated value	24 V
closing power of magnet coil at DC	4 W
holding power of magnet coil at DC	4 W
Auxiliary circuit	711
contact reliability of auxiliary contacts	< 1 error per 100 million operating cycles
UL/CSA ratings	The following of the firm of t
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] for 3-phase AC motor	
• 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	
 for short-circuit protection of the main circuit 	
 — with type of coordination 1 required 	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 50 A
 — with type of assignment 2 required 	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 25 A
 for short-circuit protection of the auxiliary switch required 	fuse gG: 10 A
Installation/ mounting/ dimensions	
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 fastening method height	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm
mounting position fastening method height width	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm
mounting position fastening method height width depth	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm
mounting position fastening method height width depth required spacing	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm
mounting position fastening method height width depth required spacing • with side-by-side mounting	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm
mounting position fastening method height width depth required spacing • with side-by-side mounting — forwards	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm
mounting position fastening method height width depth required spacing • with side-by-side mounting — forwards — backwards	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm 6 mm 0 mm
mounting position fastening method height width depth required spacing • with side-by-side mounting — forwards — backwards — upwards	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm 6 mm 0 mm 6 mm
mounting position fastening method height width depth required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm 6 mm 6 mm 6 mm
mounting position fastening method height width depth required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm
mounting position fastening method height width depth required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm 6 mm 6 mm 6 mm 6 mm
mounting position fastening method height width depth required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm 6 mm 6 mm 6 mm 6 mm 6 mm
mounting position fastening method height width depth required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards — abckwards	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm 6 mm 0 mm 6 mm 6 mm 6 mm 6 mm 6 mm
mounting position fastening method height width depth required spacing	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm 6 mm
mounting position fastening method height width depth required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards — abckwards	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm 6 mm 0 mm 6 mm 6 mm 6 mm 6 mm 6 mm
mounting position fastening method height width depth required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards — at the side • for grounded parts — forwards — backwards — upwards — at the side — downwards	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm 6 mm 6 mm 6 mm 6 mm 0 mm 6 mm 6 mm
mounting position fastening method height width depth required spacing	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm 6 mm 6 mm 6 mm 6 mm 0 mm 6 mm 6 mm
mounting position fastening method height width depth required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards — at the side • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm 6 mm 6 mm 6 mm 6 mm 6 mm 6 mm 6 mm
mounting position fastening method height width depth required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards — upwards — at the side • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm 6 mm
mounting position fastening method height width depth required spacing	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm 6 mm 6 mm 6 mm 6 mm 6 mm 6 mm 6 mm
mounting position fastening method height width depth required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards — upwards — backwards — the side — downwards — at the side — downwards — at the side — downwards • for live parts — forwards — backwards — upwards — backwards — upwards — backwards — upwards	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm 6 mm
mounting position fastening method height width depth required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards — upwards — at the side — downwards — at the side — for grounded parts — in the side — downwards — at the side — downwards • for live parts — forwards — backwards — upwards — backwards — upwards — downwards — downwards — at the side	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm 6 mm 6 mm 6 mm 6 mm 6 mm 6 mm 6 mm
mounting position fastening method height width depth required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards — upwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — at the side — downwards — backwards — upwards — backwards — upwards — backwards — upwards — at the side Connections/ Terminals	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm 6 mm 6 mm 6 mm 6 mm 6 mm 6 mm 6 mm
mounting position fastening method height width depth required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards — upwards — at the side — downwards — at the side — downwards • for live parts — forwards — backwards — upwards — at the side — downwards — to rupwards — backwards — upwards — backwards — upwards — at the side Connections/ Terminals type of electrical connection	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm 6 mm 6 mm 6 mm 6 mm 6 mm 6 mm 6 mm
mounting position fastening method height width depth required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards — upwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — at the side — downwards — backwards — upwards — backwards — upwards — backwards — upwards — at the side Connections/ Terminals	forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 68 mm 90 mm 73 mm 6 mm 6 mm 6 mm 6 mm 6 mm 6 mm 6 mm

 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)
at AWG cables for main contacts	2x (20 16), 2x (18 14)
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)
 at 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 y
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

Confirmation







Declaration of Conformity



Test Certificates

Marine / Shipping

Special Test Certificate

Type Test Certificates/Test Report









Marine / Shipping

other Railway Dangerous Good







Confirmation

Vibration and Shock

<u>Transport Information</u>

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

 $\underline{https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2318-8XE30-1BB4}$

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2318-8XE30-1BB4

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2318-8XE30-1BB4

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2318-8XE30-1BB4&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RA2318-8XE30-1BB4/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2318-8XE30-1BB4&objecttype=14&gridview=view1

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