SIEMENS

Data sheet 3RA2446-8XF32-1AL2

Contactor assembly for star-delta (wye-delta) start AC-3, 90 kW/400 V 230 V AC, 50/60 Hz Size S3, screw terminal electrical and mechanical interlock 3 NO+3 NC



product brand name	SIRIUS			
product designation	Contactor assembly for star-delta (wye-delta) start			
product type designation	3RA24			
manufacturer's article number				
 1 of the supplied contactor 	3RT2046-1AL20			
 2 of the supplied contactor 	3RT2046-1AL20			
 3 of the supplied contactor 	3RT2037-1AL20			
 of the supplied RS assembly kit 	3RA2943-2C			
 of the supplied function module for wye-delta circuits 	3RA2816-0EW20			
General technical data				
size of contactor	S3			
product extension auxiliary switch	No			
shock resistance at rectangular impulse				
• at AC	6.7 g / 5 ms, 4.0 g / 10 ms			
shock resistance with sine pulse				
• at AC	10.6 g / 5 ms, 6.3 g / 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 acc. to IEC 81346-2	Q			
Substance Prohibitance (Date)	01.03.2017			
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	160 A			
operating power				
• at AC-3				
— at 400 V rated value	90 kW			
— at 690 V rated value	132 kW			
operating frequency at AC-3 maximum	850 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	230 V		
at 60 Hz rated value at 60 Hz rated value	230 V		
	23U 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	0.00 1.1		
• at 50 Hz	698 V·A		
• at 60 Hz	594 V·A		
inductive power factor with closing power of the coil	30 4 V A		
• at 50 Hz	0.62		
• at 60 Hz	0.62		
3.000.1.2	0.55		
apparent holding power of magnet coil at AC	F0.\/ A		
• at 50 Hz	52 V·A		
• at 60 Hz	38 V·A		
inductive power factor with the holding power of the coil			
• at 50 Hz	0.35		
• at 60 Hz	0.35		
	0.71		
Auxiliary circuit			
number of NC contacts for auxiliary contacts			
instantaneous contact	3		
number of NO contacts for auxiliary contacts			
instantaneous contact	3		
UL/CSA ratings			
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: 250 A		
 — with type of assignment 2 required 	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A		
 for short-circuit protection of the auxiliary switch 	fuse gG: 10 A		
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		
height	180 mm		
width			
	220 mm		
depth	220 mm 244 mm		
depth required spacing			
•			
required spacing			
required spacing • with side-by-side mounting	244 mm		
required spacing • with side-by-side mounting — forwards	244 mm 10 mm		
required spacing • with side-by-side mounting — forwards — backwards	244 mm 10 mm 0 mm		
required spacing • with side-by-side mounting — forwards — backwards — upwards	244 mm 10 mm 0 mm 10 mm		
required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards	244 mm 10 mm 0 mm 10 mm 10 mm		
required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side	244 mm 10 mm 0 mm 10 mm 10 mm		
required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts	244 mm 10 mm 0 mm 10 mm 10 mm 10 mm		
required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards	10 mm 0 mm 10 mm 10 mm 10 mm 10 mm		
required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards	10 mm 0 mm 10 mm 10 mm 10 mm 10 mm 0 mm		
required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards — upwards — upwards	10 mm 0 mm 10 mm 10 mm 10 mm 10 mm 10 mm		
required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards — backwards — upwards — at the side — downwards	10 mm 0 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm		
required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards — backwards — upwards — at the side — downwards — at the side — for live parts	10 mm 0 mm 10 mm		
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 — forwards — backwards — upwards — at the side — downwards • for live parts — forwards	10 mm 0 mm 10 mm		
required spacing • with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards — backwards — upwards — at the side — downwards — at the side — for live parts	10 mm 0 mm 10 mm		

— downward		10 m			
— at the side		10 mm			
Connections/ Termina		10 mm			
type of electrical col					
for main current		screw-type terminals			
• for auxiliary and		screw-type terminals			
	auxiliary contacts	Screw-type terminals			
of magnet coil		Screw-type terminals			
	conductor cross-sections				
 for main contact 					
— solid or str	anded	2x (2.5 16 mm²), 2x (10 50 mm²), 1x (10 70 mm²)			
•	nded with core end processing	2x (2.5 35 mm²), 1x (2.5 50 mm²)			
— finely strar	nded without core end processing	2x (10 35 mm²), 1x (10 50 mm²)			
at AWG cables	for main contacts	2x (10 1/0), 1x (10 2/0)			
type of connectable	conductor cross-sections				
 for auxiliary cor 	ntacts				
— solid or str	anded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)			
— finely strar	nded 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 acc. to SN 31920		1 000 000			
proportion of dangerous failures					
with low deman	nd rate acc. to SN 31920	40 %			
with high demails	 with high demand rate acc. to SN 31920 		73 %		
failure rate [FIT] with low demand rate acc. to SN 31920		100 FIT			
T1 value for proof test interval or service life acc. to IEC 61508		20 y			
protection class IP on the front acc. to IEC 60529 IP20					
touch protection on the front acc. to IEC 60529		finger-safe, for vertical contact from the front			
Communication/ Prote	ocol				
product function bu	s communication	No			
protocol is supported AS-Interface protocol		No			
product function control circuit interface with IO link		No	No		
Certificates/ approvals					
General Product Approval	Declaration of Conformity		other	Dangerous Good	
	LIK Declaration of		Confirmation	Transport Informa-	



UK Declaration of Conformity



Confirmation

Transport Information

Further information

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=3RA2446-8XF32-1AL2

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2446-8XF32-1AL2

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2446-8XF32-1AL2

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

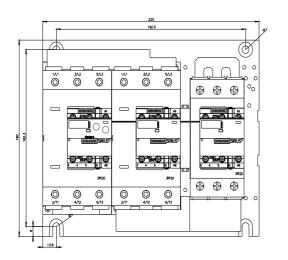
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2446-8XF32-1AL2&lang=en

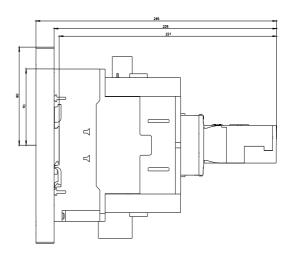
Characteristic: Tripping characteristics, I2t, Let-through current

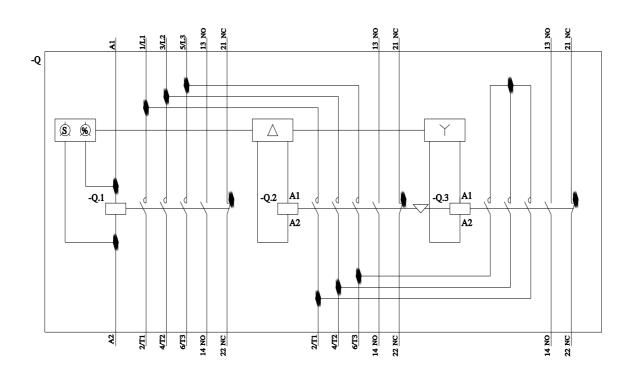
https://support.industry.siemens.com/cs/ww/en/ps/3RA2446-8XF32-1AL2/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2446-8XF32-1AL2&objecttype=14&gridview=view1







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