SIEMENS

Data sheet

3RA2416-8XF31-1AP0

Contactor assembly for star-delta (wye-delta) start AC-3, 7.5 kW/400 V, 230 V AC 50/60 Hz, 3-pole, Size S00 screw terminals electrical and mechanical interlock 3 NO integrated



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	<u>3RT2017-1AP01</u>			
 2 of the supplied contactor 	<u>3RT2017-1AP01</u>			
• 3 of the supplied contactor	<u>3RT2015-1AP01</u>			
 of the supplied RS assembly kit 	<u>3RA2913-2BB1</u>			
 of the supplied function module for wye-delta circuits 	<u>3RA2816-0EW20</u>			
General technical data				
size of contactor	S00			
product extension auxiliary switch	No			
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			
operational current				
• at AC-3				
— at 400 V rated value	16 A			
operating power				
• at AC-3				
— at 400 V rated value	7.5 kW			

— at 500 V rated value	10.3 kW
— at 690 V rated value	9.2 kW
operating frequency	
• at AC-3 maximum	1 000 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	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	76 VA
• at 60 Hz	68 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.8
• at 60 Hz	0.75
apparent holding power of magnet coil at AC	
• at 50 Hz	13.4 VA
• at 60 Hz	10.8 VA
inductive power factor with the holding power of the coil	0.05
• at 50 Hz	0.25
• at 60 Hz	0.25
Auxiliary circuit	
number of NO contacts for auxiliary contacts • instantaneous contact	3
contact reliability of auxiliary contacts	< 1 error per 100 million operating cycles
UL/CSA ratings	< renor per roo minion operating cycles
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: 35 A
— with type of assignment 2 required	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A
 for short-circuit protection of the auxiliary switch required 	fuse gG: 10 A
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
height	68 mm
width	135 mm
depth	145 mm
required spacing	
 with side-by-side mounting 	
— forwards	6 mm
— backwards	0 mm
— upwards	6 mm
— downwards	6 mm
— at the side	
	6 mm
 for grounded parts 	6 mm
 for grounded parts forwards 	6 mm
— forwards — backwards — upwards	6 mm 0 mm 6 mm
— forwards — backwards	6 mm 0 mm
— forwards — backwards — upwards	6 mm 0 mm 6 mm
 forwards backwards upwards at the side 	6 mm 0 mm 6 mm 6 mm
 forwards backwards upwards at the side downwards for live parts forwards 	6 mm 0 mm 6 mm 6 mm 6 mm
 forwards backwards upwards at the side downwards for live parts 	6 mm 0 mm 6 mm 6 mm 6 mm

- downwards	s		6 mm				
— at the side			6 mm				
Connections/ Terminal							
type of electrical con							
 for main current 			screw-type termin	nals			
 for auxiliary and 			screw-type terminals				
at contactor for auxiliary contacts			Screw-type terminals				
 of magnet coil 	-			Screw-type terminals			
	onductor cross-sections fo	r main contacts	Screw-type termi	11015			
solid			2x (0.5 1.5 mm	$(0.75)^{2}$ 2x (0.75)	2.5 mm^2) $2 \text{ v} 4 \text{ mm}^2$		
 solid solid or stranded 	d		2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²), 2x 4 mm ² 2x (0,5 1,5 mm ²), 2x (0,75 2,5 mm ²), 2x (0,5 4 mm ²)				
			2x (0,5 1,5 mm ²), 2x (0,75 2,5 mm ²), 2x (0,5 4 mm ²)				
	with core end processing		2X (0.5 1.5 mm	I ⁻), ZX (0.75	2.5 mm²)		
	conductor cross-sectior	15					
 for auxiliary con 				a) a (a ==			
— solid or str			2x (0.5 1.5 mm				
	nded with core end proces	sing	2x (0.5 1.5 mm	·· · ·	2.5 mm²)		
	for auxiliary contacts		2x (20 16), 2x	(18 14)			
Safety related data			_				
B10 value with high de	emand rate according to S	N 31920	1 000 000				
proportion of danger	ous failures						
 with low demand rate according to SN 31920 			40 %	40 %			
 with high demar 	 with high demand rate according to SN 31920 						
failure rate [FIT] with lo	ow demand rate according	g to SN 31920	100 FIT				
T1 value for proof test interval or service life according to IEC 61508			20 a				
protection class IP or	n the front according to	IEC 60529	IP20	IP20			
touch protection on the front according to IEC 60529			finger-safe, for vertical contact from the front				
Communication/ Proto	col						
product function bus	communication		No				
protocol is supported A	AS-Interface protocol		No				
product function contro	ol circuit interface with IO	link	No				
Certificates/ approvals							
General Product App		Declaration of	Conformity		Test Certificates		
			,				
<u>Confirmation</u>	EHC	UK		E Konf.	Type Test Certific- ates/Test Report	<u>Special Test Certific-</u> ate	
Marine / Shipping							
ABS	B U REAU VERITAS		L k Rej	gister urs	PRS	RINA	
Marine / Shipping	other	Railway					
RMRS R	<u>Confirmation</u>	Vibration and S	<u>Shock</u>				
Further information							
	d to exit the Russian ma						
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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=3RA2416-8XF31-1AP0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2416-8XF31-1AP0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2416-8XF31-1AP0

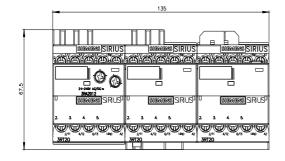
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

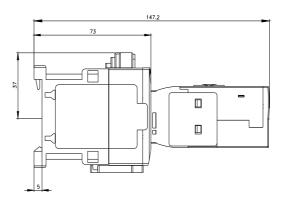
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb =3RA2416-8XF31-1AP0&lang=en

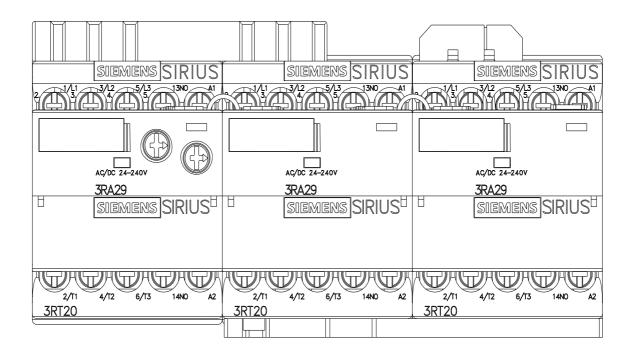
Characteristic: Tripping characteristics, I²t, Let-through current

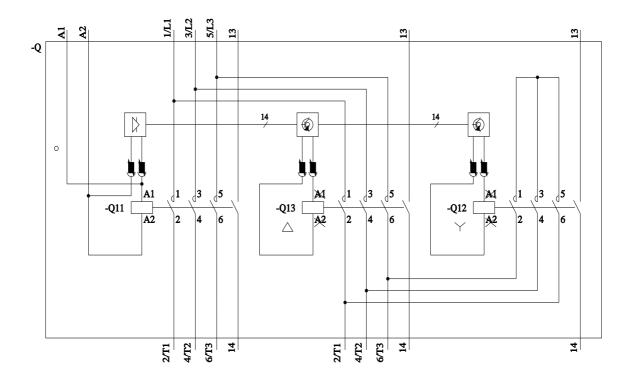
https://support.industry.siemens.com/cs/ww/en/ps/3RA2416-8XF31-1AP0/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2416-8XF31-1AP0&objecttype=14&gridview=view1









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