# **SIEMENS**

#### **Data sheet**

## 3RA2416-8XF31-1AP6

Contactor assembly for star-delta (wye-delta) start AC-3, 7.5 kW/400 V, 220 V AC 50 Hz / 240 V, 60Hz, 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			
<ul> <li>1 of the supplied contactor</li> </ul>	3RT2017-1AP61		
<ul> <li>2 of the supplied contactor</li> </ul>	3RT2017-1AP61		
<ul> <li>3 of the supplied contactor</li> </ul>	3RT2015-1AP61		
<ul> <li>of the supplied RS assembly kit</li> </ul>	3RA2913-2BB1		
<ul> <li>of the supplied function module for wye-delta circuits</li> </ul>	3RA2816-0EW20		
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)			
<ul> <li>of contactor typical</li> </ul>	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			
<ul> <li>during operation</li> </ul>	-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		
oporating moduling		
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 220 V		
• at 60 Hz rated value 240 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 74 VA		
• at 60 Hz 88 VA		
inductive power factor with closing power of the coil		
• at 50 Hz 0.81		
• at 60 Hz 0.8		
apparent holding power of magnet coil at AC  • at 50 Hz  11.6 VA		
<ul> <li>at 50 Hz</li> <li>at 60 Hz</li> <li>11.6 VA</li> <li>15 VA</li> </ul>		
inductive power factor with the holding power of the coil		
at 50 Hz      at 50 Hz  0.24		
• 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		
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: 3		
— with type of assignment 2 required gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 2	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 backward by +/- 22.5° on vertical mounting s	surface	
fastening method screw and snap-on mounting onto 35 mm D	IIN rall	
height 68 mm		
width         135 mm           depth         145 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		
— forwards 6 mm		
<ul><li>— forwards</li><li>— backwards</li><li>6 mm</li><li>0 mm</li></ul>	6 mm	
— backwards 0 mm		
— backwards 0 mm		
<ul><li>— backwards</li><li>— upwards</li><li>0 mm</li><li>6 mm</li></ul>		
<ul> <li>backwards</li> <li>upwards</li> <li>at the side</li> <li>0 mm</li> <li>6 mm</li> <li>6 mm</li> </ul>		
<ul> <li>backwards</li> <li>upwards</li> <li>at the side</li> <li>downwards</li> <li>0 mm</li> <li>6 mm</li> <li>6 mm</li> <li>m</li> <li>6 mm</li> </ul>		
<ul> <li>— backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> <li>● for live parts</li> </ul> 0 mm 6 mm 6 mm 6 mm		

— downwards		6 mm		
— at the side		6 mm		
Connections/ Terminals				
type of electrical connection				
<ul> <li>for main current circuit</li> </ul>		screw-type terminals		
<ul> <li>for auxiliary and control circuit</li> </ul>		screw-type terminals		
<ul> <li>at contactor for auxiliary contacts</li> </ul>		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		
<ul> <li>solid or stranded</li> </ul>		2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x (0,5 4 mm²)		
<ul> <li>finely stranded with core end processing</li> </ul>		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
type of connectable conductor cross-sections				
<ul> <li>for auxiliary contacts</li> </ul>				
<ul> <li>solid or stranded</li> </ul>		2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
<ul> <li>finely stranded with core end process</li> </ul>	ing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
<ul> <li>for AWG cables for auxiliary contacts</li> </ul>		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				
<ul> <li>with low demand rate according to SN 3193</li> </ul>	20	40 %		
with high demand rate according to SN 319	920	75 %		
failure rate [FIT] with low demand rate according to SN 31920		100 FIT		
T1 value for proof test interval or service life acco 61508	rding to IEC	D IEC 20 a		
protection class IP on the front according to IEC 60529		IP20		
touch protection on the front according to IEC 60529 file		finger-safe, for vertical contact from the front		
Communication/ Protocol				
product function bus communication		No		
protocol is supported AS-Interface protocol		No		
product function control circuit interface with IO link No		No	No	
Certificates/ approvals				
General Product Approval	Declaration of Conformity		Test Certificates	

Confirmation







Special Test Certificate

Type Test Certificates/Test Report

## Marine / Shipping













Marine / Shipping

other

Railway



Confirmation

Vibration and Shock

#### Further informatior

Siemens has decided to exit the Russian market (see here).

 $\underline{\text{https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business}}$ 

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=3RA2416-8XF31-1AP6

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RA2416-8XF31-1AP6}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2416-8XF31-1AP6

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

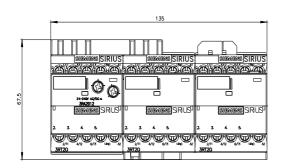
=3RA2416-8XF31-1AP6&lang=en

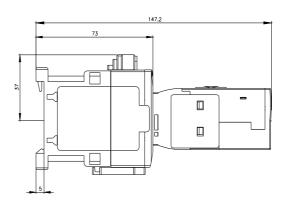
Characteristic: Tripping characteristics,  $I^2t$ , Let-through current

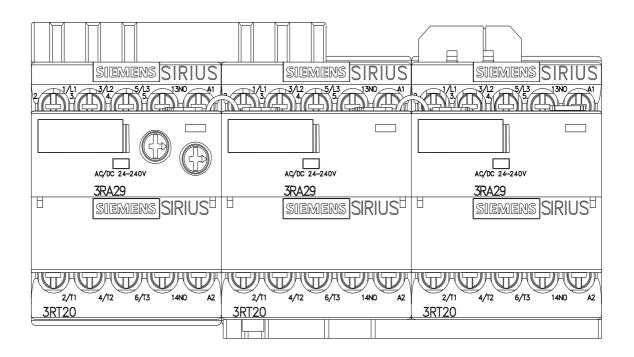
https://support.industry.siemens.com/cs/ww/en/ps/3RA2416-8XF31-1AP6/char

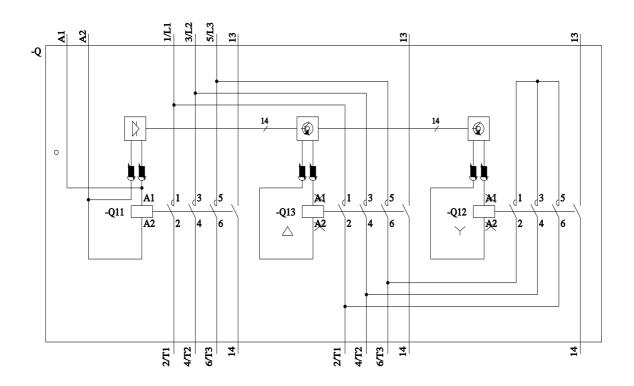
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2416-8XF31-1AP6&objecttype=14&gridview=view1









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