SIEMENS

Data sheet

3RA2425-8XF32-1AL2

Contactor assembly for star-delta (wye-delta) start AC-3, 15/18.5 kW/400 V 230 V AC, 50/60 Hz, 3-pole Size S0, screw terminal electrical and mechanical interlock 3 NO + 3 NC integrated



product designation Contactor assembly for star-delta (wye-delta) start product type designation 3RA24	product brand name	SIRIUS		
manufacturer's article number 1 of the supplied contactor 2 of the supplied contactor 38T2026-1AL20 37T2024-1AL20	product designation	Contactor assembly for star-delta (wye-delta) start		
1 of the supplied contactor 2 of the supplied contactor 3 of the supplied contactor 3 of the supplied contactor of the supplied RS assembly kit of the supplied function module for wye-delta circuits SRA2923-2BB1 of the supplied function module for wye-delta circuits SRA2816-0EW20 Ceneral technical data size of contactor SO product extension auxiliary switch No shock resistance at rectangular impulse of the supplied function module for wye-delta circuits shock resistance at rectangular impulse of the contactor of the contactor impulse of the contactor with sine pulse of contactor with sine pulse of contactor typical of the contactor typical of the contactor typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Weight Ambient conditions installation altitute at height above sea level maximum ambient temperature of during storage of during storage of Contacts for main contacts number of NC contacts for main contacts operating voltage of AC-3 arted value maximum of AC-3	product type designation	3RA24		
2 of the supplied contactor 3 of the supplied contactor 4 of the supplied contactor 5 of the supplied Rassembly kit 5 of the supplied Function module for wye-delta circuits 87A2923-28B1 87A2923-2B1 87A2923-10 87A292-1	manufacturer's article number			
of the supplied contactor of the supplied RS assembly kit of the supplied function module for wye-delta circuits 3RA2923-2RB1 3RA2816-0EW20 General technical data size of contactor S0 product extension auxiliary switch shock resistance at rectangular impulse ot at AC ot DC ot 10g / 5 ms, 4,7g / 10 ms ot DC ot 10g / 5 ms, 7,5g / 10 ms shock resistance with sine pulse ot AC ot DC ot 11,8g / 5 ms, 7,4g / 10 ms ot DC ot 15g / 5 ms, 10g / 10 ms shock resistance with sine pulse ot AC ot DC ot 15g / 5 ms, 10g / 10 ms shock resistance with sine pulse of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Weight Ambient conditions installation allitude at height above sea level maximum ambient temperature of during storage of Sc +60 °C aduring storage of NC contacts for main current circuit number of Poles for main current circuit number of NC contacts for main contacts operating voltage of AC-3 rated value maximum of AC-3	 1 of the supplied contactor 	3RT2026-1AL20		
of the supplied RS assembly kit of the supplied function module for wye-delta circuits Sarage of contactor	 2 of the supplied contactor 	3RT2026-1AL20		
of the supplied function module for wye-delta circuits Sara Street Street Street	 3 of the supplied contactor 	3RT2024-1AL20		
Size of contactor SO	 of the supplied RS assembly kit 	3RA2923-2BB1		
size of contactor product extension auxiliary switch shock resistance at rectangular impulse at AC at DC shock resistance with sine pulse at AC at AC at DC 11,8g / 5 ms, 7,4g / 10 ms shock resistance with sine pulse at AC at DC 15g / 5 ms, 7,4g / 10 ms shock resistance with sine pulse at AC at DC 15g / 5 ms, 10g / 10 ms mechanical service life (operating cycles) of contactor typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/01/2009 SVHC substance name Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Weight 1.88 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature during operation during storage -25 +60 °C -55 +80 °C Main circuit number of NO contacts for main current circuit number of NO contacts for main contacts 0 operating voltage at AC-3 arted value maximum 690 V operational current at AC-3	 of the supplied function module for wye-delta circuits 	3RA2816-0EW20		
product extension auxiliary switch shock resistance at rectangular impulse • at AC • at DC shock resistance with sine pulse • at AC • at DC 10g / 5 ms, 7,5g / 10 ms shock resistance with sine pulse • at AC • at DC 11,8g / 5 ms, 7,4g / 10 ms • at DC • at DC • at DC 15g / 5 ms, 10g / 10 ms mechanical service life (operating cycles) • of contactor typical • of the contactor with added auxiliary switch block typical	General technical data			
shock resistance at rectangular impulse • at AC • at DC 10g / 5 ms, 4,7g / 10 ms shock resistance with sine pulse • at AC 11,8g / 5 ms, 7,5g / 10 ms shock resistance with sine pulse • at AC 11,8g / 5 ms, 7,4g / 10 ms • at DC 15g / 5 ms, 10g / 10 ms mechanical service life (operating cycles) • of contactor typical • of the contactor with added auxiliary switch block typical 10 000 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Weight 1.88 kg Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature • during operation • during storage • 25 +60 °C - 4 during storage - 55 +80 °C Main circuit number of NC contacts for main current circuit 3 number of NC contacts for main contacts 0 operating voltage • at AC-3 rated value maximum 690 V operational current • at AC-3	size of contactor	S0		
■ at AC ■ at DC ■ at AC ■ at DC ■ at AC-3	product extension auxiliary switch	No		
at DC shock resistance with sine pulse at AC at DC to 11,8g / 5 ms, 7,4g / 10 ms to at DC to 15g / 5 ms, 10g / 10 ms mechanical service life (operating cycles) of contactor typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical to 000 000 reference code according to IEC 81346-2 Qu Substance Prohibitance (Date) SVHC substance name Lead -7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Weight 1.88 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature of during operation of during storage -25 +60 °C of during storage -55 +80 °C Main circuit number of NO contacts for main contacts number of NO contacts for main contacts operating voltage at AC-3 rated value maximum of AC-3	shock resistance at rectangular impulse			
shock resistance with sine pulse • at AC • at DC 11,8g / 5 ms, 7,4g / 10 ms 15g / 5 ms, 10g / 10 ms mechanical service life (operating cycles) • of contactor typical • of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Qu Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Weight 1.88 kg Ambient conditions installation altitude at height above sea level maximum • during operation • during operation • during storage Authority to Contacts for main current circuit number of NO contacts for main contacts number of NC contacts for main contacts • at AC-3 at AC-3	• at AC	7,5g / 5 ms, 4,7g / 10 ms		
at AC at DC	• at DC	10g / 5 ms, 7,5g / 10 ms		
at DC mechanical service life (operating cycles) of contactor typical of the contactor with added auxiliary switch block typical 10 000 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) SVHC substance name Lead monoxide (lead oxide) - 1317-36-8 Weight 1.88 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature oldring operation oldring storage -25 +60 °C oldring storage -55 +80 °C Main circuit number of NO contacts for main contacts number of NC contacts for main contacts operating voltage old AC-3 operational current old AC-3	shock resistance with sine pulse			
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of contactor typical of the contactor with added auxiliary switch block typical of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Weight Ambient conditions installation altitude at height above sea level maximum ambient temperature ouring operation during storage 40 current number of poles for main current circuit number of NO contacts for main contacts number of NC contacts for main contacts operating voltage at AC-3 rated value maximum et AC-3	• at DC	15g / 5 ms, 10g / 10 ms		
of the contactor with added auxiliary switch block typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/01/2009 SVHC substance name Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Weight Ambient conditions installation altitude at height above sea level maximum ambient temperature ouring operation during storage during storage anumber of Poles for main current circuit number of NO contacts for main contacts number of NC contacts for main contacts operating voltage at AC-3 rated value maximum eat AC-3 10 000 000 10/01/2009 11/00009 11/0009 11/0009 11/0009 11/0009 11/0009 11/0009 11/0009 11/0009 11/0009 11/0009 11/0009	mechanical service life (operating cycles)			
reference code according to IEC 81346-2 Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Weight 1.88 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage -25 +60 °C 4 during storage -55 +80 °C Main circuit number of poles for main current circuit 1 anumber of NO contacts for main contacts 1 number of NC contacts for main contacts 2 operating voltage • at AC-3 rated value maximum • at AC-3	 of contactor typical 	10 000 000		
Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Weight 1.88 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage 25 +60 °C • during storage 7-25 +80 °C Main circuit number of poles for main current circuit number of NO contacts for main contacts number of NC contacts for main contacts operating voltage • at AC-3 rated value maximum • at AC-3	of the contactor with added auxiliary switch block typical	10 000 000		
SVHC substance name Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 Weight 1.88 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage -25 +60 °C • during storage -55 +80 °C Main circuit number of poles for main current circuit number of NO contacts for main contacts number of NC contacts for main contacts operating voltage • at AC-3 rated value maximum 690 V operational current • at AC-3	reference code according to IEC 81346-2	Q		
Lead monoxide (lead oxide) - 1317-36-8 Weight 1.88 kg Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature • during operation • during storage -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	Substance Prohibitance (Date)	10/01/2009		
Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage -25 +60 °C • during storage Ambient conditions output number of poles for main current circuit number of NO contacts for main contacts number of NC contacts for main contacts operating voltage • at AC-3 rated value maximum 690 V operational current • at AC-3	SVHC substance name			
installation altitude at height above sea level maximum ambient temperature during operation during storage -25 +60 °C during storage -55 +80 °C Main circuit number of poles for main current circuit number of NO contacts for main contacts number of NC contacts for main contacts operating voltage at AC-3 rated value maximum 690 V operational current at AC-3	Weight	1.88 kg		
ambient temperature • during operation • during storage -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	Ambient conditions			
 during operation during storage -25 +80 °C Main circuit number of poles for main current circuit number of NO contacts for main contacts number of NC contacts for main contacts operating voltage at AC-3 rated value maximum operational current at AC-3 	installation altitude at height above sea level maximum	2 000 m		
 during storage -55 +80 °C Main circuit number of poles for main current circuit number of NO contacts for main contacts number of NC contacts for main contacts operating voltage at AC-3 rated value maximum operational current at AC-3 	ambient temperature			
number of poles for main current circuit number of NO contacts for main contacts number of NC contacts for main contacts operating voltage • at AC-3 rated value maximum • at AC-3	 during operation 	-25 +60 °C		
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 • at AC-3	during storage	-55 +80 °C		
number of NO contacts for main contacts number of NC contacts for main contacts operating voltage • at AC-3 rated value maximum operational current • at AC-3	Main circuit			
number of NC contacts for main contacts operating voltage • at AC-3 rated value maximum operational current • at AC-3	number of poles for main current circuit	3		
operating voltage • at AC-3 rated value maximum operational current • at AC-3	number of NO contacts for main contacts	3		
• at AC-3 rated value maximum operational current • at AC-3	number of NC contacts for main contacts	0		
operational current • at AC-3	operating voltage			
• at AC-3	at AC-3 rated value maximum	690 V		
	operational current			
— at 400 V rated value 40 A	• at AC-3			
	— at 400 V rated value	40 A		

operating power			
• at AC-3			
— at 400 V rated value	15 kW		
— at 500 V rated value	19 kW		
— at 690 V rated value	19 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	0.8 1.1		
apparent pick-up power of magnet coil at AC			
• at 50 Hz	164 VA		
• at 60 Hz	160 VA		
inductive power factor with closing power of the coil			
• at 50 Hz	0.72		
• at 60 Hz	0.74		
apparent holding power of magnet coil at AC			
• at 50 Hz	23 VA		
• at 60 Hz	19 VA		
inductive power factor with the holding power of the coil			
• at 50 Hz	0.25		
• at 60 Hz	0.28		
Auxiliary circuit			
number of NC contacts for auxiliary contacts			
• instantaneous contact	3		
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	, one per 100 minor operating cycles		
contact rating of auxiliary contacts according to UL	A600 / Q600		
Short-circuit protection	7,000 / 2,000		
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: 100 A		
with type of assignment 2 required	gG NH 3NA, DIAZED 53B, NEOZED 53E: 100 A		
for short-circuit protection of the auxiliary switch required	fuse gG: 10 A		
Installation/ mounting/ dimensions	400 90. 1071		
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	101 mm		
width	135 mm		
depth	171 mm		
required spacing			
with side-by-side mounting	C		
— forwards	6 mm		
— backwards	0 mm		
— upwards	6 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		

dannenaada	0				
— 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 (1 2.5 mm²), 2x (2.5 10 mm²)				
 solid or stranded 	2x (1 2.5 mm²), 2x (2.5 10 mm²)				
 finely stranded with core end processing 	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 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					
product function suitable for safety function	Yes				
Electrical Safety					
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	No				
protocol is supported AS-Interface protocol	No				
product function control circuit interface with IO link	No				
Approvals Certificates					
General Product Approval		Test Certificates	Marine / Shipping		



Confirmation



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



Marine / Shipping











Confirmation

other

Railway

Environment

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

Environmental Confirmations

Further information

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)

Cax online generator

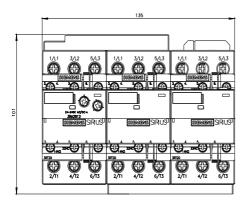
 $\underline{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RA2425-8XF32-1AL2}$

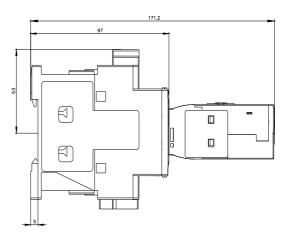
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RA2425-8XF32-1AL2

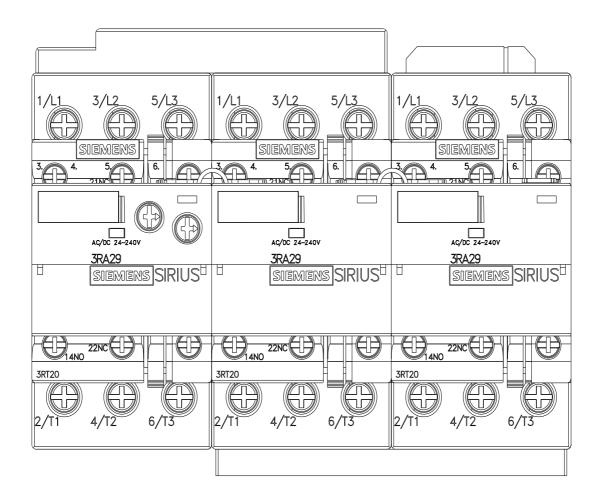
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2425-8XF32-1AL2&lang=en

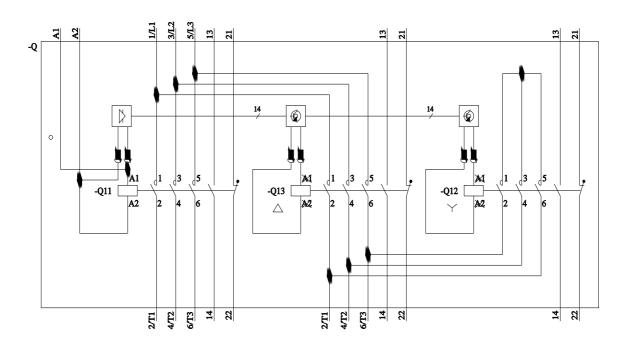
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RA2425-8XF32-1AL2/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2425-8XF32-1AL2&objecttype=14&gridview=view1









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