

COUPLING CONTACTOR RELAY RAIL, 2NO+2NC, DC 110V, 0.7..1.25*US, VARISTOR INTEGRATED, SZ S00, SPRING-LOADED TERMINAL



product brandname	SIRIUS
Product designation	Coupling relay for switching auxiliary circuits
Product type designation	3RH2

General technical data	
Size of contactor	S00
Product extension	
• Auxiliary switch	No
Insulation voltage	
• with degree of pollution 3 rated value	690 V
Degree of pollution	3
Surge voltage resistance rated value	6 kV
Protection class IP	
• on the front	IP20
Shock resistance at rectangular impulse	
• at DC	10g / 5 ms, 5g / 10 ms
Shock resistance with sine pulse	
• at DC	15g / 5 ms, 8g / 10 ms
Mechanical service life (switching cycles)	
• of contactor typical	30 000 000

Equipment marking	
• acc. to DIN EN 61346-2	K
• acc. to DIN EN 81346-2	K
Ambient conditions	
Ambient temperature	
• during operation	-40 ... +70 °C
• during operation	Railway application: -40 ... 70 °C with 10 mm clearance. See catalog for other rated conditions
• during storage	-55 ... +80 °C
Main circuit	
No-load switching frequency	
• at AC	10 000 1/h
• at DC	10 000 1/h
Control circuit/ Control	
Type of voltage of the control supply voltage	DC
Control supply voltage at DC	
• rated value	110 V
Design of the surge suppressor	with varistor
Closing power of magnet coil at DC	2.8 W
Holding power of magnet coil at DC	2.8 W
Closing delay	
• at DC	30 ... 100 ms
Opening delay	
• at DC	7 ... 13 ms
Arcing time	10 ... 15 ms
Auxiliary circuit	
Number of NC contacts	
• for auxiliary contacts	2
— instantaneous contact	2
Number of NO contacts	
• for auxiliary contacts	2
— instantaneous contact	2
Identification number and letter for switching elements	22 E
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
• at 230 V rated value	10 A
• at 400 V rated value	3 A
• at 500 V rated value	2 A
• at 690 V rated value	1 A
Operating current at 1 current path at DC-12	

<ul style="list-style-type: none"> • at 24 V rated value • at 110 V rated value • at 220 V rated value • at 440 V rated value • at 600 V rated value 	10 A 3 A 1 A 0.3 A 0.15 A
Operating current with 2 current paths in series at DC-12 <ul style="list-style-type: none"> • at 24 V rated value • at 60 V rated value • at 110 V rated value • at 220 V rated value • at 440 V rated value • at 600 V rated value 	10 A 10 A 4 A 2 A 1.3 A 0.65 A
Operating current with 3 current paths in series at DC-12 <ul style="list-style-type: none"> • at 24 V rated value • at 60 V rated value • at 110 V rated value • at 220 V rated value • at 440 V rated value • at 600 V rated value 	10 A 10 A 10 A 3.6 A 2.5 A 1.8 A
Operating frequency at DC-12 maximum	1 000 1/h
Operating current at 1 current path at DC-13 <ul style="list-style-type: none"> • at 24 V rated value • at 110 V rated value • at 220 V rated value • at 440 V rated value • at 600 V rated value 	10 A 1 A 0.3 A 0.14 A 0.1 A
Operating current with 2 current paths in series at DC-13 <ul style="list-style-type: none"> • at 24 V rated value • at 60 V rated value • at 110 V rated value • at 220 V rated value • at 440 V rated value • at 600 V rated value 	10 A 3.5 A 1.3 A 0.9 A 0.2 A 0.1 A
Operating current with 3 current paths in series at DC-13 <ul style="list-style-type: none"> • at 24 V rated value • at 60 V rated value • at 110 V rated value • at 220 V rated value 	10 A 4.7 A 3 A 1.2 A

<ul style="list-style-type: none"> • at 440 V rated value • at 600 V rated value 	0.5 A 0.26 A
Operating frequency at DC-13 maximum	1 000 1/h
Design of the miniature circuit breaker <ul style="list-style-type: none"> • for short-circuit protection of the auxiliary circuit up to 230 V 	C characteristic: 6 A; 0.4 kA
Contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)

UL/CSA ratings

Contact rating of auxiliary contacts according to UL	A600 / Q600
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Short-circuit protection

Design of the fuse link <ul style="list-style-type: none"> • for short-circuit protection of the auxiliary switch required 	fuse gL/gG: 10 A
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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 type	screw and snap-on mounting onto 35 mm standard mounting rail
Height	70 mm
Width	45 mm
Depth	73 mm
Required spacing <ul style="list-style-type: none"> • for grounded parts <ul style="list-style-type: none"> — at the side • for live parts <ul style="list-style-type: none"> — at the side 	6 mm 6 mm

Connections/Terminals

Type of electrical connection <ul style="list-style-type: none"> • for auxiliary and control current circuit 	spring-loaded terminals
Type of connectable conductor cross-sections <ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing — finely stranded without core end processing • at AWG conductors for auxiliary contacts 	2x (0,5 ... 4 mm ²) 2x (0.5 ... 2.5 mm ²) 2x (0.5 ... 2.5 mm ²) 2x (20 ... 12)

Safety related data

B10 value <ul style="list-style-type: none"> • with high demand rate acc. to SN 31920 	1 000 000; With 0.3 x I _e
Proportion of dangerous failures <ul style="list-style-type: none"> • with low demand rate acc. to SN 31920 	40 %

• with high demand rate acc. to SN 31920	73 %
Failure rate [FIT]	
• with low demand rate acc. to SN 31920	100 FIT
Product function	
• positively driven operation acc. to IEC 60947-5-1	Yes
T1 value for proof test interval or service life acc. to IEC 61508	20 y

Certificates/approvals

General Product Approval	Functional Safety/Safety of Machinery	Declaration of Conformity
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[Baumusterbescheinigung](#)



Test Certificates	Shipping Approval
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[spezielle Prüfbescheinigung](#)
[n](#)



Shipping Approval	other
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[Umweltbestätigung](#)

[Bestätigungen](#)



Further information

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

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RH2122-2LF40>

Cax online generator

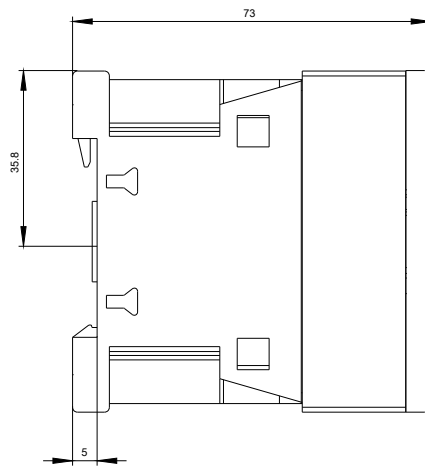
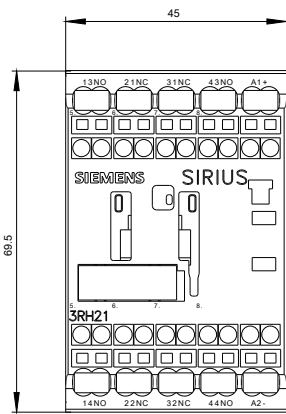
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2122-2LF40>

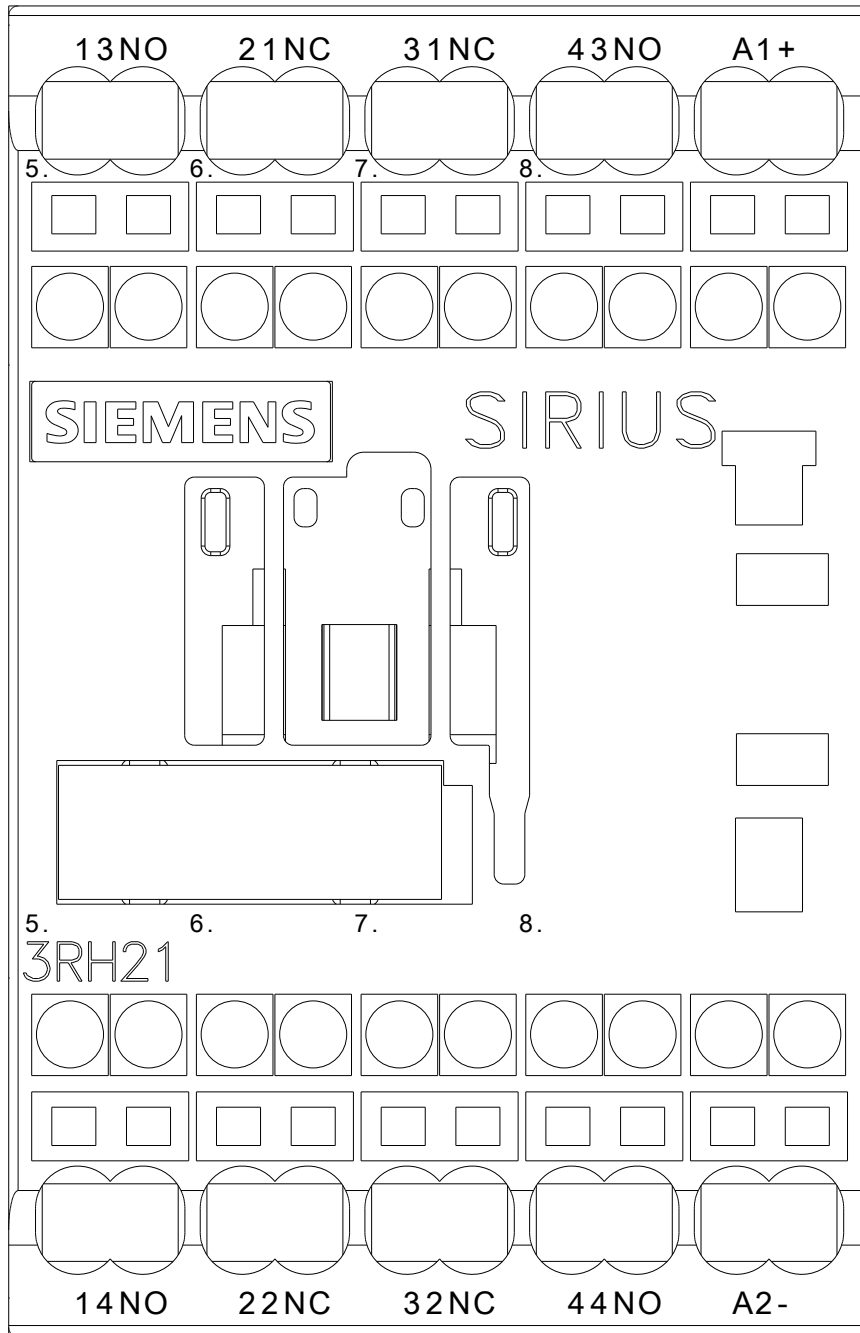
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

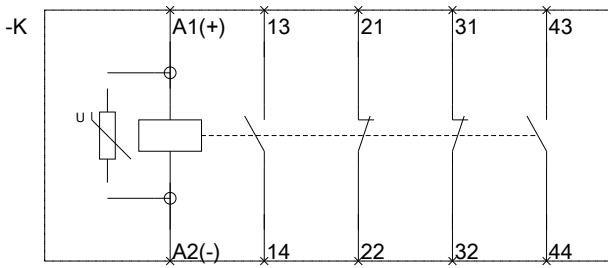
<https://support.industry.siemens.com/cs/ww/en/ps/3RH2122-2LF40>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2122-2LF40&lang=en







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05/01/2017