

COUPL. CONT. REL., 2NO+2NC, 110 V DC, 0.7...1.25*US, W.
INTEGRATED SUPPRESSOR DIODE, SIZE S00, SPRING-TYPE
TERMINALS SUITABLE FOR PLC OUTPUTS



product brandname	SIRIUS
Product designation	Coupling relay for switching auxiliary circuits
Product type designation	3RH2
General technical data	
Size of contactor	S00
Product extension	No
<ul style="list-style-type: none"> Auxiliary switch 	No
Insulation voltage	690 V
<ul style="list-style-type: none"> with degree of pollution 3 rated value 	690 V
Degree of pollution	3
Surge voltage resistance rated value	6 kV
Protection class IP	IP20
<ul style="list-style-type: none"> on the front 	IP20
Shock resistance at rectangular impulse	10g / 5 ms, 5g / 10 ms
<ul style="list-style-type: none"> at DC 	10g / 5 ms, 5g / 10 ms
Shock resistance with sine pulse	15g / 5 ms, 8g / 10 ms
<ul style="list-style-type: none"> at DC 	15g / 5 ms, 8g / 10 ms
Mechanical service life (switching cycles)	30 000 000
<ul style="list-style-type: none"> 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	-25 ... +60 °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 suppressor diode
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
-------------------------------------------------------------	-------------

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
--------------------------------------------------------------------------------------------------------------------------------------------------	------------------

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
---------------------------------	----------------------------------------------	----------------------------------



[Baumusterbescheinigung](#)



Test Certificates	Shipping Approval
--------------------------	--------------------------

[spezielle Prüfbescheinigung](#)

[Typprüfbescheinigung/Werkszeugnis](#)



Shipping Approval	other
--------------------------	--------------



[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=3RH2122-2KF40>

Cax online generator

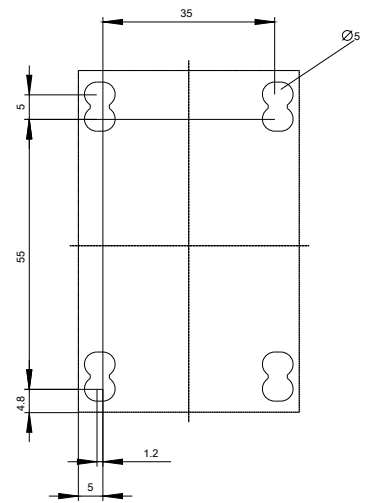
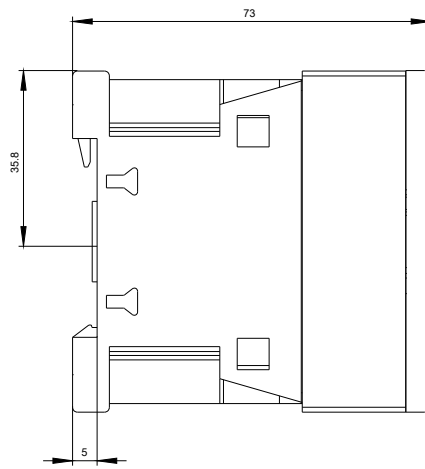
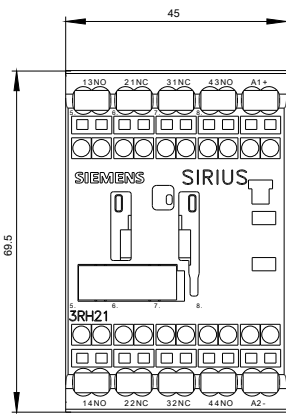
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2122-2KF40>

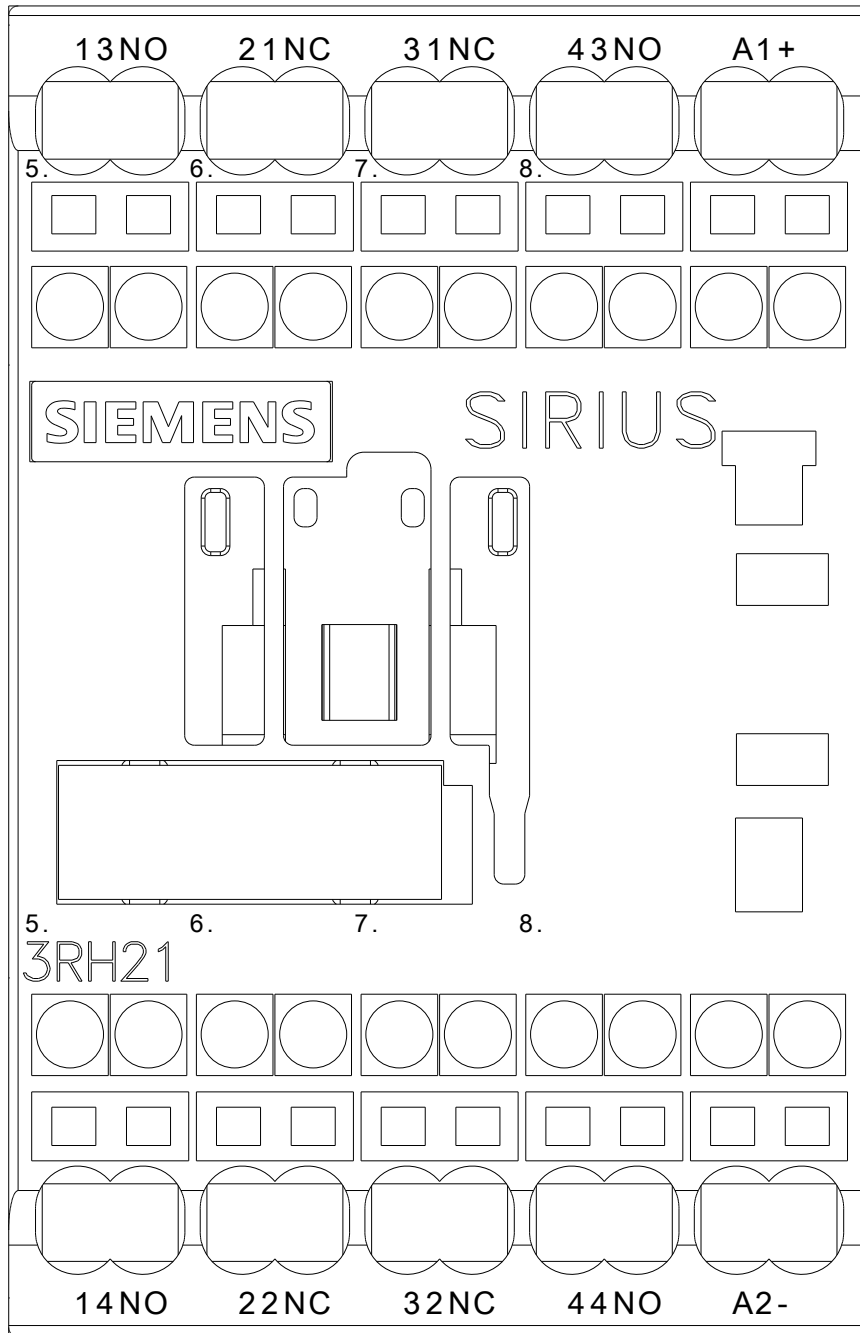
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

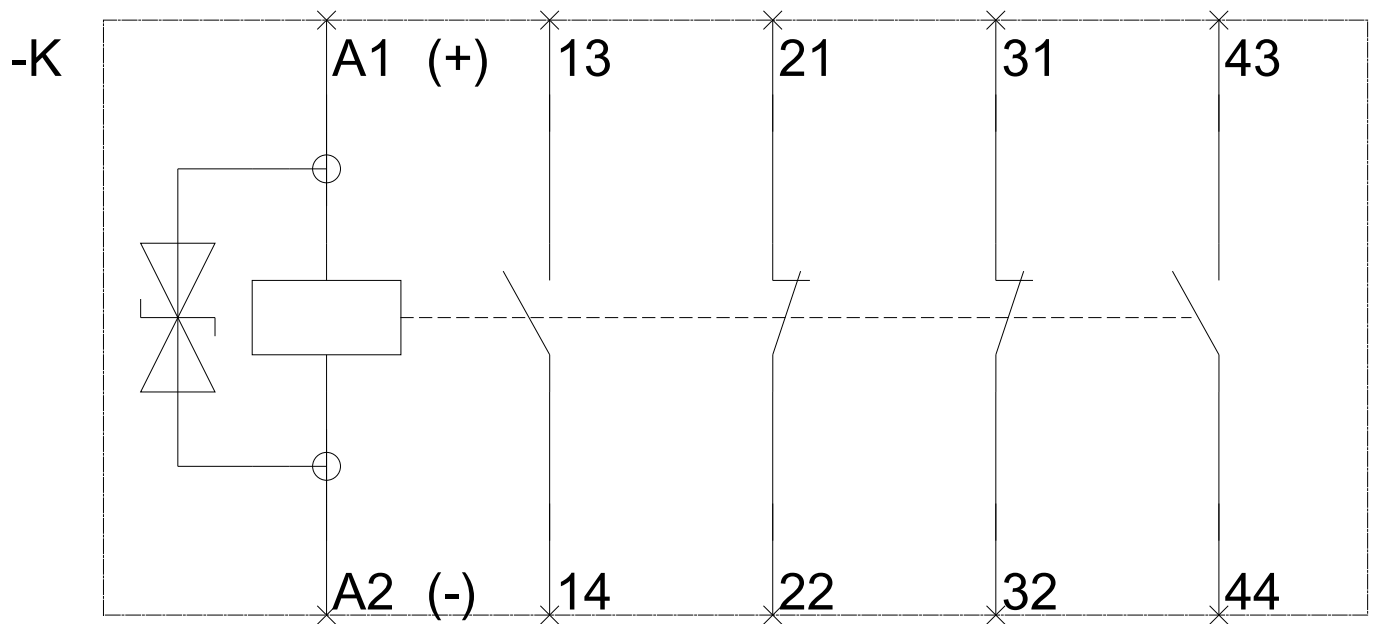
<https://support.industry.siemens.com/cs/ww/en/ps/3RH2122-2KF40>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2122-2KF40&lang=en







last modified:

05/01/2017