

product brand name	SIRIUS
product designation	Auxiliary contactor
product type designation	3RH2
<b>General technical data</b>	
size of contactor	S00
product extension auxiliary switch	Yes
insulation voltage with degree of pollution 3 at AC rated value	690 V
degree of pollution	3
surge voltage resistance rated value	6 kV
shock resistance at rectangular impulse	10g / 5 ms, 5g / 10 ms
• at DC	
shock resistance with sine pulse	15g / 5 ms, 8g / 10 ms
• at DC	
mechanical service life (operating cycles)	
• of contactor typical	30 000 000
• of the contactor with added electronically optimized auxiliary switch block typical	5 000 000
• of the contactor with added auxiliary switch block typical	10 000 000
reference code according to IEC 81346-2	K
Substance Prohibition (Date)	10/01/2009
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-40 ... +70 °C
• during storage	-55 ... +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
<b>Main circuit</b>	
no-load switching frequency	
• at AC	10 000 1/h
• at DC	10 000 1/h
<b>Control circuit/ Control</b>	
type of voltage of the control supply voltage	DC
control supply voltage at DC	
• rated value	220 V
operating range factor control supply voltage rated value of magnet coil at DC	
• initial value	0.7
• full-scale value	1.25
design of the surge suppressor	suppressor diode
closing power of magnet coil at DC	13 W
holding power of magnet coil at DC	4 W
closing delay	
• at DC	25 ... 130 ms
opening delay	
• at DC	7 ... 20 ms
arcing time	10 ... 15 ms
<b>Auxiliary circuit</b>	
number of NC contacts for auxiliary contacts	1

• instantaneous contact	1
<b>number of NO contacts for auxiliary contacts</b>	2
• instantaneous contact	2
<b>identification number and letter for switching elements</b>	22 E
operational current at AC-12 maximum	10 A
<b>operational current at AC-15</b>	
• 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
<b>operational current at 1 current path at DC-12</b>	
• at 24 V rated value	10 A
• at 60 V rated value	3 A
• at 110 V rated value	1 A
• at 220 V rated value	0.3 A
• at 440 V rated value	0.15 A
<b>operational current with 2 current paths in series at DC-12</b>	
• at 24 V rated value	10 A
• at 60 V rated value	10 A
• at 110 V rated value	4 A
• at 220 V rated value	2 A
• at 440 V rated value	1.3 A
• at 600 V rated value	0.65 A
<b>operational current with 3 current paths in series at DC-12</b>	
• at 24 V rated value	10 A
• at 60 V rated value	10 A
• at 110 V rated value	10 A
• at 220 V rated value	3.6 A
• at 440 V rated value	2.5 A
• at 600 V rated value	1.8 A
<b>operating frequency at DC-12 maximum</b>	1 000 1/h
<b>operational current at 1 current path at DC-13</b>	
• at 24 V rated value	10 A
• at 110 V rated value	1 A
• at 220 V rated value	0.3 A
• at 440 V rated value	0.14 A
• at 600 V rated value	0.1 A
<b>operational current with 2 current paths in series at DC-13</b>	
• at 24 V rated value	10 A
• at 60 V rated value	3.5 A
• at 110 V rated value	1.3 A
• at 220 V rated value	0.9 A
• at 440 V rated value	0.2 A
• at 600 V rated value	0.1 A
<b>operational current with 3 current paths in series at DC-13</b>	
• at 24 V rated value	10 A
• at 60 V rated value	4.7 A
• at 110 V rated value	3 A
• at 220 V rated value	1.2 A
• at 440 V rated value	0.5 A
• at 600 V rated value	0.26 A
<b>operating frequency at DC-13 maximum</b>	1 000 1/h
design of the miniature circuit breaker for short-circuit protection of the auxiliary circuit up to 230 V	C characteristic: 6 A; 0.4 kA
<b>contact reliability of auxiliary contacts</b>	1 faulty switching per 100 million (17 V, 1 mA)

#### UL/CSA ratings

**contact rating of auxiliary contacts according to UL**

A600 / Q600

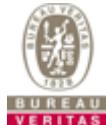
#### Short-circuit protection

design of the fuse link for short-circuit protection of the auxiliary switch required

fuse gL/gG: 10 A

Installation/ mounting/ dimensions					
<b>mounting position</b>	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface				
<b>fastening method</b>	screw and snap-on mounting onto 35 mm DIN rail				
<b>height</b>	57.5 mm				
<b>width</b>	45 mm				
<b>depth</b>	117 mm				
<b>required spacing</b>					
• with side-by-side mounting					
— forwards	10 mm				
— upwards	10 mm				
— downwards	10 mm				
— at the side	0 mm				
• for grounded parts					
— forwards	10 mm				
— upwards	10 mm				
— at the side	6 mm				
— downwards	10 mm				
• for live parts					
— forwards	10 mm				
— upwards	10 mm				
— downwards	10 mm				
— at the side	6 mm				
Connections/ Terminals					
type of electrical connection for auxiliary and control circuit	screw-type terminals				
<b>type of connectable conductor cross-sections</b>					
• for auxiliary contacts					
— solid or stranded	2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup>				
— finely stranded with core end processing	2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )				
• at AWG cables for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14), 2x 12				
Safety related data					
product function positively driven operation according to IEC 60947-5-1	Yes				
B10 value with high demand rate according to SN 31920	1 000 000; With 0.3 x Ie				
<b>proportion of dangerous failures</b>					
• with low demand rate according to SN 31920	40 %				
• with high demand rate according to SN 31920	73 %				
failure rate [FIT] with low demand rate according to SN 31920	100 FIT				
T1 value for proof test interval or service life according to IEC 61508	20 a				
<b>protection class IP on the front according to IEC 60529</b>	IP20				
<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front				
Certificates/ approvals					
General Product Approval					
		<a href="#">Confirmation</a>		<a href="#">KC</a>	
EMC	Functional Safety/Safety of Machinery	Declaration of Conformity	Test Certificates		
	<a href="#">Type Examination Certificate</a>			<a href="#">Type Test Certificates/Test Report</a>	<a href="#">Special Test Certificate</a>

## Marine / Shipping



## Marine / Shipping

## other

## Railway

## Dangerous Good



[Confirmation](#)



[Vibration and Shock](#)

[Special Test Certificate](#)

[Transport Information](#)

## 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)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RH2122-1KM40-0LA4>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2122-1KM40-0LA4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RH2122-1KM40-0LA4>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RH2122-1KM40-0LA4&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2122-1KM40-0LA4&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RH2122-1KM40-0LA4/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2122-1KM40-0LA4&objecttype=14&gridview=view1>

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