

Contactor relay, 5 NO + 3 NC, 220 V DC, Size S00, screw terminal, plugged-on varistor

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	No
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	
• 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	10 000 000
reference code according to IEC 81346-2	K
Substance Prohibitance (Date)	07/01/2006
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-25 ... +60 °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	0.8
• full-scale value	1.1
design of the surge suppressor	with varistor
closing power of magnet coil at DC	4 W
holding power of magnet coil at DC	4 W
closing delay	
• at DC	30 ... 100 ms
opening delay	
• at DC	7 ... 13 ms
arcing time	10 ... 15 ms
<b>Auxiliary circuit</b>	
number of NC contacts for auxiliary contacts	3
• instantaneous contact	3
number of NO contacts for auxiliary contacts	5

<ul style="list-style-type: none"> <li>instantaneous contact</li> </ul>	5
<b>identification number and letter for switching elements</b>	53 E
operational current at AC-12 maximum	10 A
<b>operational current at AC-15</b>	
<ul style="list-style-type: none"> <li>at 230 V rated value</li> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> </ul>	6 A 3 A 2 A 1 A
<b>operational current at 1 current path at DC-12</b>	
<ul style="list-style-type: none"> <li>at 24 V rated value</li> <li>at 110 V rated value</li> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> </ul>	10 A 3 A 1 A 0.3 A 0.15 A
<b>operational current with 2 current paths in series at DC-12</b>	
<ul style="list-style-type: none"> <li>at 24 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> </ul>	10 A 10 A 4 A 2 A 1.3 A 0.65 A
<b>operational current with 3 current paths in series at DC-12</b>	
<ul style="list-style-type: none"> <li>at 24 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> </ul>	10 A 10 A 10 A 3.6 A 2.5 A 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>	
<ul style="list-style-type: none"> <li>at 24 V rated value</li> <li>at 110 V rated value</li> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> </ul>	6 A 1 A 0.3 A 0.14 A 0.1 A
<b>operational current with 2 current paths in series at DC-13</b>	
<ul style="list-style-type: none"> <li>at 24 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> </ul>	10 A 3.5 A 1.3 A 0.9 A 0.2 A 0.1 A
<b>operational current with 3 current paths in series at DC-13</b>	
<ul style="list-style-type: none"> <li>at 24 V rated value</li> <li>at 60 V rated value</li> <li>at 110 V rated value</li> <li>at 220 V rated value</li> <li>at 440 V rated value</li> <li>at 600 V rated value</li> </ul>	10 A 4.7 A 3 A 1.2 A 0.5 A 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)
<b>UL/CSA ratings</b>	
<b>contact rating of auxiliary contacts according to UL</b>	A600 / Q600
<b>Short-circuit protection</b>	

design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A	
<b>Installation/ mounting/ dimensions</b>		
<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 standard mounting rail	
<b>height</b>	57.5 mm	
<b>width</b>	45 mm	
<b>depth</b>	121 mm	
<b>required spacing</b>		
<ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards 10 mm</li> <li>— upwards 10 mm</li> <li>— downwards 10 mm</li> <li>— at the side 0 mm</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards 10 mm</li> <li>— upwards 10 mm</li> <li>— at the side 6 mm</li> <li>— downwards 10 mm</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards 10 mm</li> <li>— upwards 10 mm</li> <li>— downwards 10 mm</li> <li>— at the side 6 mm</li> </ul> </li> </ul>		
<b>Connections/ Terminals</b>		
type of electrical connection for auxiliary and control circuit	screw-type terminals	
<b>type of connectable conductor cross-sections</b>		
<ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— 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></li> <li>— finely stranded with core end processing 2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)</li> </ul> </li> <li>• at AWG cables for auxiliary contacts 2x (20 ... 16), 2x (18 ... 14), 2x 12</li> </ul>		
<b>Safety related data</b>		
B10 value with high demand rate according to SN 31920	1 000 000; With 0.3 x Ie	
<b>proportion of dangerous failures</b>		
<ul style="list-style-type: none"> <li>• with low demand rate according to SN 31920 40 %</li> <li>• with high demand rate according to SN 31920 73 %</li> </ul>		
failure rate [FIT] with low demand rate according to SN 31920	100 FIT	
<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	
<b>Certificates/ approvals</b>		
<b>General Product Approval</b>	<b>EMC</b>	
 	<a href="#">Confirmation</a> <a href="#">KC</a>  	
<b>Declaration of Conformity</b>	<b>Test Certificates</b>	<b>Marine / Shipping</b>
<a href="#">UK Declaration of Conformity</a> 	<a href="#">Special Test Certificate</a> <a href="#">Type Test Certificates/Test Report</a>	 
<b>Marine / Shipping</b>	<b>other</b>	



[Confirmation](#)

other

Railway

Dangerous Good



[Vibration and Shock](#)

[Transport Information](#)

#### Further information

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=3RH2353-1DM40-0KA0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH2353-1DM40-0KA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RH2353-1DM40-0KA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RH2353-1DM40-0KA0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH2353-1DM40-0KA0&lang=en)

Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RH2353-1DM40-0KA0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2353-1DM40-0KA0&objecttype=14&gridview=view1>

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