# **SIEMENS**

Data sheet 3RH2431-1AB00

CONT. RELAY LATCHED, 3NO+1NC, 24V AC, 50/60HZ, SIZE S00, SCREW TERMINAL



product brand name	SIRIUS
Product designation	contactor relay

General technical data:			
Insulation voltage			
<ul> <li>with degree of pollution 3 Rated value</li> </ul>	V	690	
Degree of pollution		3	
Surge voltage resistance Rated value	kV	6	
Mechanical service life (switching cycles)			
<ul> <li>of the contactor typical</li> </ul>		5 000 000	
<ul> <li>of the contactor with added electronics- compatible auxiliary switch block typical</li> </ul>		5 000 000	
<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>		5 000 000	
Protection class IP			
• on the front		IP20	
Equipment marking			
• acc. to DIN EN 61346-2		K	
● acc. to DIN EN 81346-2		К	

Control circuit/ Control:			
Type of voltage of the control supply voltage		AC	
Control supply voltage with AC			
● at 50 Hz Rated value	V	24	
• at 60 Hz Rated value	V	24	
Rated value	Hz	50	
Control supply voltage frequency 2 Rated value	Hz	60	

Operating range factor control supply voltage rated			
value of the magnet coil with AC			
● at 50 Hz		0.8 1.1	
● at 60 Hz		0.85 1.1	
Apparent pick-up power of the magnet coil with AC	V·A	37	
Apparent holding power of the magnet coil with AC	V·A	5.7	
Inductive power factor			
<ul> <li>with closing power of the coil</li> </ul>		0.8	
<ul> <li>with the holding power of the coil</li> </ul>		0.25	
Auxiliary circuit:			
Number of NC contacts			
<ul> <li>for auxiliary contacts</li> </ul>		1	
<ul> <li>instantaneous contact</li> </ul>		1	
Number of NO contacts			
• for auxiliary contacts		3	
— instantaneous contact		3	
Product expansion Auxiliary switch		Yes	
Identification number and letter for switching elements		31 E	
Operating current at AC-15			
• at 230 V Rated value	Α	10	
• at 400 V Rated value	Α	3	
• at 690 V Rated value	Α	1	
Design of the miniature circuit breaker			
<ul> <li>for short-circuit protection of the auxiliary circuit up to 230 V</li> </ul>		C characteristic: 6 A; 0.4 kA	
Contact reliability of the auxiliary contacts	_	1 faulty switching per 100 million (17 V, 1 mA)	
UL/CSA ratings:			
Contact rating of the auxiliary contacts acc. to UL		A600 / Q600	
Short-circuit:			
Design of the fuse link			
• for short-circuit protection of the auxiliary switch		fuse gL/gG: 10 A	
required			
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 type		mounting rail	
Height	mm	57.5	
Width	mm	90	
Depth	mm	73	
p			

Required spacing		
<ul><li>with side-by-side mounting</li></ul>		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	0
— downwards	mm	0
— at the side	mm	0
• for grounded parts		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	0
— at the side	mm	6
— downwards	mm	0
• for live parts		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	0
— downwards	mm	0
— at the side	mm	6

Connections/ Terminals:	
Type of electrical connection	
<ul> <li>for auxiliary and control current circuit</li> </ul>	screw-type terminals
Type of connectable conductor cross-section	
<ul> <li>for auxiliary contacts</li> </ul>	
<ul><li>— single or multi-stranded</li></ul>	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
• for AWG conductors for auxiliary contacts	2x (20 16), 2x (18 14), 2x 12

Safety related data:		
B10 value with high demand rate acc. to SN 31920		1 000 000
• Note		With 0.3 x le
Proportion of dangerous failures		
<ul> <li>with low demand rate acc. to SN 31920</li> </ul>	%	40
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	%	73
Failure rate [FIT] with low demand rate acc. to SN 31920	FIT	100
T1 value for proof test interval or service life acc. to IEC 61508	У	20
Protection against electrical shock		finger-safe

Mechanical data:	
Size of contactor	S00

Ambient conditions:		
Installation altitude at height above sea level	m	2 000
maximum		
Ambient temperature		
<ul><li>during operation</li></ul>	°C	-25 +60
during storage	°C	-55 <b>+</b> 80

## Certificates/ approvals:

General Product Approval	Functional	Declaration of
	Safety/Safety	Conformity
	of Machinery	









Type Examination



#### **Test Certificates**

Type Test Certificates/Test Report

**Special Test** Certificate







other



GL

## **Shipping Approval**











Environmental Confirmations



## Further information

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

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

Industry Mall (Online ordering system)

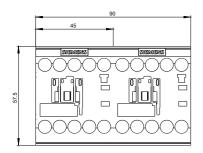
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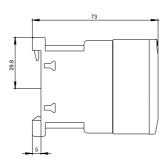
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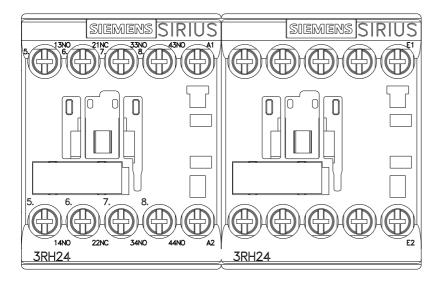
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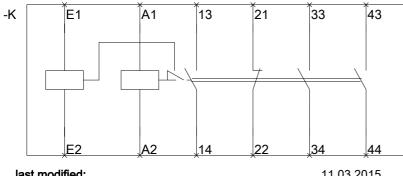
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RH24311AB00/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RH24311AB00&lang=en









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