SIEMENS

Product data sheet 3RH1131-1AB00

CONTACTOR RELAY, 3NO+1NC, AC 24 V,
50 HZ, SCREW CONNECTION, SIZE S00

General details:		
product brand name		SIRIUS
product designation		contactor relay
Size of the contactor		S00
Protection class IP / on the front		IP20
Degree of pollution		3
Insulation voltage / with degree of pollution 3 / rated value	V	690
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature		
• during transport	°C	-55 … +80
• during storage	°C	-55 … +80
• during operating	°C	-25 … +60
Contact reliability		one incorrect switching operation of 100 million switching operations (17 V, 1 mA)
Resistance against shock		10g / 5 ms and 5g / 10 ms
Impulse voltage resistance / rated value	kV	6
Item designation		
• according to DIN EN 61346-2		K
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		K
Mechanical operating cycles as operating time		

subject to modifications
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• of the contactor / typical		30,000,000
• of the contactor with added auxiliary switch block / typical		10,000,000
• of the contactor with added electronics-compatible auxiliary switch block / typical		5,000,000

Control circuit:

Type of voltage / of the controlled supply voltage		AC
Control supply voltage frequency		
• 1 / rated value	Hz	50
• 2 / rated value	Hz	60
Control supply voltage / 1		
• at 50 Hz		
• for AC / rated value	V	24
• at 60 Hz		
• for AC / rated value	V	24
operating range factor control supply voltage rated value / of the magnet coil		
• at 50 Hz		
• for AC		0.8 … 1.1
• at 60 Hz		
• for AC		0.85 … 1.1
Apparent pull-in power / of the solenoid / for AC	V·A	27
Apparent holding power / of the solenoid / for AC	V·A	4.6
Inductive power factor		
• with the pull-in power of the coil		0.8
• with the pull-in power of the coil		0.27

Auxiliary circuit:

Product extension / auxiliary switch		Yes
Identification number and letter for switching elements		31 E
Contact reliability / of the auxiliary contacts		1 faulty switching per 100 million (17 V, 1 mA)
Number of NC contacts / for auxiliary contacts		1
• delayed switching		0
• instantaneous switching		1
• asynchronous switching		0
• lagging switching		0
Number of NO contacts / for auxiliary contacts		3
• instantaneous switching		3
• delayed switching		0
• asynchronous switching		0
• leading switching		0

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Number of changeover contacts		
• for auxiliary contacts		0
• of the auxiliary contacts / instantaneous switching		0
Operating current / of the auxiliary contacts		
• at AC-12 / maximum	A	10
• at AC-15		
• at 230 V	A	6
• at 400 V	A	3
• at 500 V	A	2
• at 690 V	A	1
• with 1 current path		
• at DC-12		
• at 24 V	A	10
• at 110 V	A	3
• at 220 V	A	1
• at DC-13		
• at 24 V	A	10
• at 110 V	A	1
• at 220 V	A	0.27

Short-circuit:

Design of the fuse link / 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
Type of mounting		screw and snap-on mounting
Width	mm	45
Height	mm	57.5
Depth	mm	72
Distance, to be maintained, to the ranks assembly / sidewards	mm	0

Connections:

Design of the electrical connection / for auxiliary and control current circuit		screw-type terminals
Type of the connectable conductor cross-section		
• for auxiliary contacts		
• solid		2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x 4 mm²
• finely stranded		
• with conductor end processing		2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)

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• for AWG conductors / for auxiliary contacts		2x (20 ... 16), 2x (18 ... 14), 1x 12

Certificates/approvals:

Verification of suitability		CSA / UL / CCC / GL / LRS / BV / DNV / RMRS / RINA

General Product Approval				**Functional Safety / Safety of Machinery**	**Declaration of Conformity**
CCC	CSA	GOST	UL	Type Examination	EG-Konf.

Test Certificates

Special Test Certificate

Shipping Approval					
ABS	BUREAU VERITAS	DNV	GL	LRS	PRS

Shipping Approval	**other**	
RINA	RMRS	Confirmation	other

Safety:

Proportion of dangerous failures		
• with high demand rate / according to SN 31920	%	75
• with low demand rate / according to SN 31920	%	40
T1 value / for proof test interval or service life / according to IEC 61508	a	20
Protection against electrical shock		finger-safe
B10 value / with high demand rate / according to SN 31920		1,000,000

Further information:

Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)
http://www.siemens.com/industrial-controls/mall

CAx-Online-Generator
http://www.siemens.com/cax

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/3RH1131-1AB00/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RH1131-1AB00

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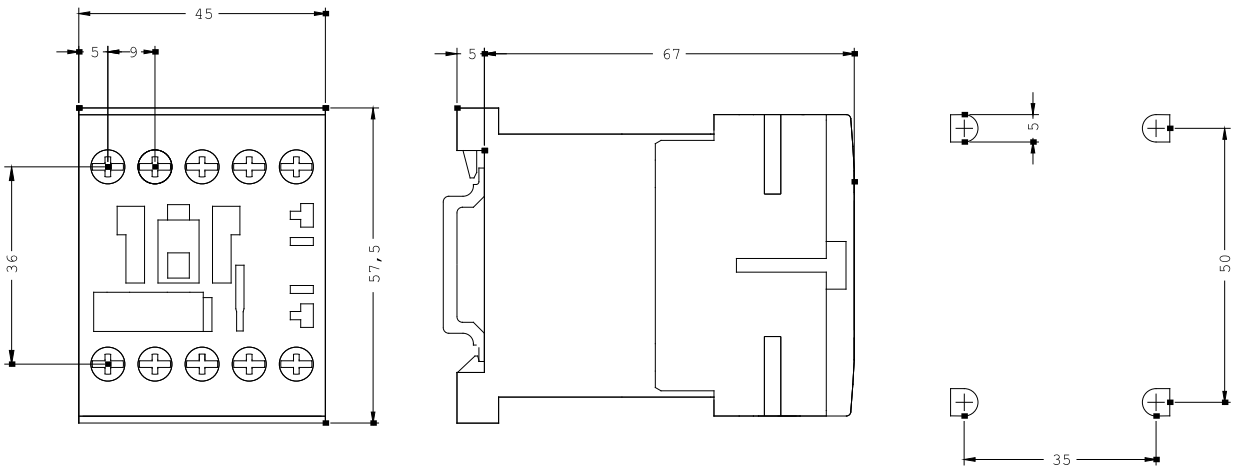

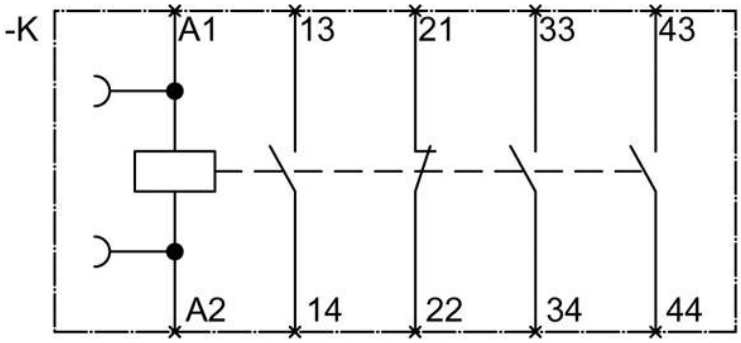

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