# **SIEMENS**

3RH1131-1AK60 Data sheet

> Contactor relay, 3 NO + 1 NC 110 V AC 50 Hz / 120 V 60 Hz Screw terminal size S00 !!! Phased-out product !!! Successor is SIRIUS 3RH2 Preferred successor type is >>3RH2131-1AK60<<



Figure similar

Product brand name	SIRIUS
Product designation	Auxiliary contactor
General technical data	
Size of contactor	S00
Product extension	
Auxiliary switch	Yes
Insulation voltage	
<ul> <li>with degree of pollution 3 at AC rated value</li> </ul>	690 V
Degree of pollution	3
Surge voltage resistance rated value	6 kV
Protection class IP	
• on the front	IP20
Shock resistance	10g / 5 ms and 5g / 10 ms
Mechanical service life (switching cycles)	
<ul> <li>of contactor typical</li> </ul>	30 000 000
<ul> <li>of the contactor with added electronics- compatible auxiliary switch block typical</li> </ul>	5 000 000

	40,000,000
<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	10 000 000
Reference code acc. to DIN EN 81346-2	К
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Ambient conditions	
Installation altitude at height above sea level	
• maximum	2 000 m
Ambient temperature	
during operation	-25 +60 °C
during storage	-55 +80 °C
during transport	-55 +80 °C
Control circuit/ Control	
Type of voltage of the control supply voltage	AC
Control supply voltage at AC	
● at 50 Hz rated value	110 V
● at 60 Hz rated value	120 V
Control supply voltage frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
Operating range factor control supply voltage rated value of magnet coil at AC	
● at 50 Hz	0.8 1.1
● at 60 Hz	0.85 1.1
Apparent pick-up power of magnet coil at AC	27 V·A
Inductive power factor with closing power of the coil	0.8
Apparent holding power of magnet coil at AC	4.6 V·A
Inductive power factor with the holding power of the	0.27
coil	
Auxiliary circuit	
Number of NC contacts for auxiliary contacts	1
• instantaneous contact	1
<ul> <li>delayed switching</li> </ul>	0
lagging switching	0
make-before-break switching	0
Number of NO contacts for auxiliary contacts	3
• instantaneous contact	3
delayed switching	0
leading contact	0
make-before-break switching	0
Number of CO contacts	
for auxiliary contacts	0
of auxiliary contacts instantaneous contact	0

Identification number and letter for switching elements	31 E
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
• at 230 V rated value	6 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	
• at 24 V rated value	10 A
• at 110 V rated value	3 A
• at 220 V rated value	1 A
Operating current at 1 current path at DC-13	
• at 24 V rated value	10 A
• at 110 V rated value	1 A
• at 220 V rated value	0.27 A
Contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)

# Short-circuit protection

Design	of th	ne fuse	ink i

• 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	
Height	57.5 mm	
Width	45 mm	
Depth	72 mm	
Required spacing		
<ul><li>with side-by-side mounting</li></ul>		
— at the side	0 mm	

Connections/ Terminals	
Type of electrical connection	
<ul> <li>for auxiliary and control current circuit</li> </ul>	screw-type terminals
Type of connectable conductor cross-sections	
<ul> <li>for auxiliary contacts</li> </ul>	
— solid	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)
<ul> <li>at AWG conductors for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14), 1x 12

## Safety related data

B10 value	
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	1 000 000; 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>	75 %
T1 value for proof test interval or service life acc. to IEC 61508	20 y

### Certificates/ approvals

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









Type Examination Certificate



Declaration of	Test Certificates	Marine / Shipping
Conformity		

Miscellaneous

Special Test Certificate

Type Test Certificates/Test Report







Marine / Shipping other Railway









Confirmation

Special Test Certificate

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=3RH1131-1AK60

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH1131-1AK60

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

https://support.industry.siemens.com/cs/ww/en/ps/3RH1131-1AK60

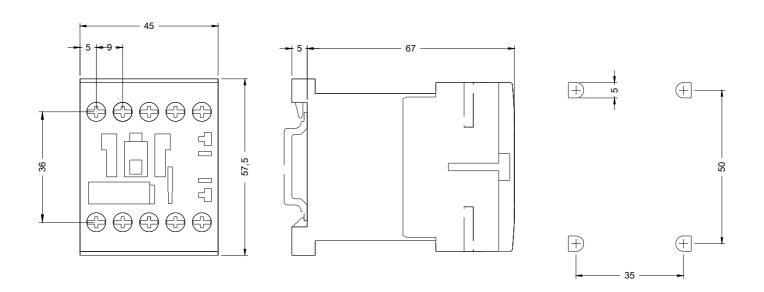
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RH1131-1AK60&lang=en

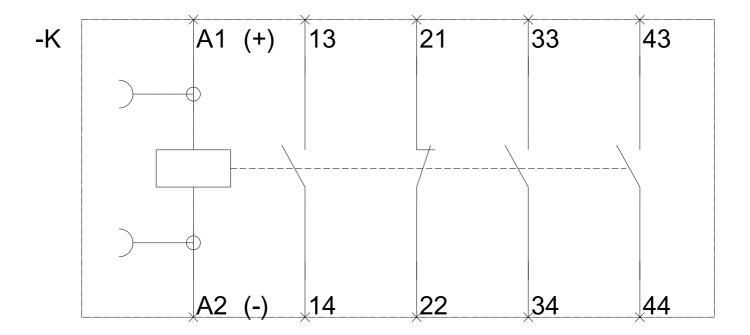
Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RH1131-1AK60/char

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

 $\underline{\text{http://www.automation.siemens.com/bilddb/index.aspx?view=Search\&mlfb=3RH1131-1AK60\&objecttype=14\&gridview=view1}\\$ 





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