SIEMENS

Product brand name

Data sheet 3RH1140-1AP00

Contactor relay, 4 NO 230 V AC 50 / 60 Hz Screw terminal size S00 !!! Phased-out product !!! Successor is SIRIUS 3RH2 Preferred successor type is >>3RH2140-1AP00<<



Product designation	Auxiliary contactor
General technical data	
Size of contactor	S00
Product extension	
Auxiliary switch	Yes
Insulation voltage	
 with degree of pollution 3 rated value 	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)	
of contactor typical	30 000 000
 of the contactor with added electronics- compatible auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch 	10 000 000

SIRIUS

block typical

Reference code acc. to DIN EN 81346-2	K
Reference code acc. to DIN EN 61346-2	K
Ambient conditions	
Installation altitude at height above sea level	2 000 m
• maximum	2 000 111
Control circuit/ Control	
Type of voltage of the control supply voltage	AC
Control supply voltage at AC	
● at 50 Hz rated value	230 V
● at 60 Hz rated value	230 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	0
• instantaneous contact	0
delayed switching	0
lagging switching	0
make-before-break switching	
	0
Number of NO contacts for auxiliary contacts	4
Number of NO contacts for auxiliary contacts	4
Number of NO contacts for auxiliary contacts • instantaneous contact	4 4
Number of NO contacts for auxiliary contacts • instantaneous contact • delayed switching	4 4 0
Number of NO contacts for auxiliary contacts • instantaneous contact • delayed switching • leading contact	4 4 0 0
Number of NO contacts for auxiliary contacts • instantaneous contact • delayed switching • leading contact • make-before-break switching Number of CO contacts	4 4 0 0
Number of NO contacts for auxiliary contacts • instantaneous contact • delayed switching • leading contact • make-before-break switching Number of CO contacts • for auxiliary contacts	4 4 0 0 0
Number of NO contacts for auxiliary contacts • instantaneous contact • delayed switching • leading contact • make-before-break switching Number of CO contacts • for auxiliary contacts • of auxiliary contacts instantaneous contact Identification number and letter for switching	4 4 0 0 0
Number of NO contacts for auxiliary contacts • instantaneous contact • delayed switching • leading contact • make-before-break switching Number of CO contacts • for auxiliary contacts • of auxiliary contacts instantaneous contact Identification number and letter for switching elements	4 4 0 0 0 0 0 0 40 E
Number of NO contacts for auxiliary contacts • instantaneous contact • delayed switching • leading contact • make-before-break switching Number of CO contacts • for auxiliary contacts • of auxiliary contacts instantaneous contact Identification number and letter for switching elements Operating current at AC-12 maximum	4 4 0 0 0 0
Number of NO contacts for auxiliary contacts • instantaneous contact • delayed switching • leading contact • make-before-break switching Number of CO contacts • for auxiliary contacts • of auxiliary contacts instantaneous contact Identification number and letter for switching elements	4 4 0 0 0 0 0 0 40 E

Contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
• at 220 V rated value	0.27 A
● at 110 V rated value	1 A
● at 24 V rated value	10 A
Operating current at 1 current path at DC-13	
● at 220 V rated value	1 A
● at 110 V rated value	3 A
at 24 V rated value	10 A
Operating current at 1 current path at DC-12	
● at 690 V rated value	1 A
● at 500 V rated value	2 A
at 400 V rated value	3 A

Design of the fuse link	
• for short-circuit protection of the auxiliary switch	fuse gL/gG: 10 A
required	

Short-circuit protection

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	
with side-by-side mounting	
— at the side	0 mm

Connections/Terminals	
Type of electrical connection	
 for auxiliary and control current circuit 	screw-type terminals
Type of connectable conductor cross-sections	
 for auxiliary contacts 	
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 at AWG conductors for auxiliary contacts 	2x (20 16), 2x (18 14), 1x 12

Safety related data	
B10 value	
 with high demand rate acc. to SN 31920 	1 000 000; With 0.3 x le
Proportion of dangerous failures	
 with low demand rate acc. to SN 31920 	40 %
• with high demand rate acc. to SN 31920	75 %

T1 value for proof test interval or service life acc. to IEC 61508

20 y

General Product Approval

Functional Safety/Safety of Machinery

Declaration of Conformity









Type Examination Certificate



Declaration of	
Conformity	

Test Certificates

Marine / Shipping

Miscellaneous

Type Test Certificates/Test Report

Special Test Certificate







LRS

Marine / Shipping

other

Railway









Confirmation

Special Test Certificate

Further information

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

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

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RH1140-1AP00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH1140-1AP00

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

https://support.industry.siemens.com/cs/ww/en/ps/3RH1140-1AP00

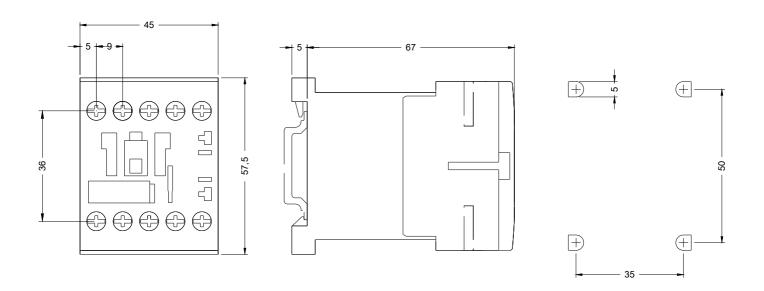
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

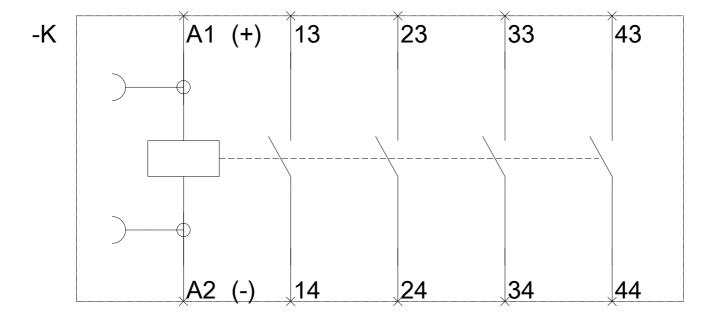
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH1140-1AP00&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RH1140-1AP00/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH1140-1AP00&objecttype=14&gridview=view1





last modified: 05/06/2019