SIEMENS

Data sheet 3RH1140-1AK20



Contactor relay, 4 NO 120 V AC 50 / 60 Hz Screw terminal size S00 $\rm !!!$ Phased-out product $\rm !!!$ Successor is SIRIUS 3RH2 Preferred successor type is >>3RH2140-1AK20<<

Figure similar

product brand name	SIRIUS
product designation	Auxiliary contactor
General technical data	
size of contactor	S00
product extension auxiliary switch	Yes
insulation voltage with degree of pollution 3 at AC 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 (operating cycles)	
of contactor typical	30 000 000
 of the contactor with added electronically optimized auxiliary switch block typical 	5 000 000
of the contactor with added auxiliary switch block typical	10 000 000
reference code according to IEC 81346-2	K
Substance Prohibitance (Date)	07/01/2006
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	120 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 VA
inductive power factor with closing power of the coil	0.8
apparent holding power of magnet coil at AC	4.6 VA
inductive power factor with the holding power of the coil	0.27
Auxiliary circuit	

with high demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 61508 touch protection against electrical shock Certificates/ approvals	20 a finger-safe	
T1 value for proof test interval or service life according to IEC 61508 touch protection against electrical shock		
T1 value for proof test interval or service life according to IEC	20 a	
with high demand rate according to SN 31920	20.5	
	75 %	
 with low demand rate according to SN 31920 	40 %	
proportion of dangerous failures		
contact reliability	one incorrect switching operation of 100 million switching operations (17 V, 1 mA)	
B10 value with high demand rate according to SN 31920	1 000 000; With 0.3 x le	
Safety related data		
 for AWG cables for auxiliary contacts 	2x (20 16), 2x (18 14), 1x 12	
— finely stranded with core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)	
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²	
for auxiliary contacts		
type of connectable conductor cross-sections	,	
type of electrical connection for auxiliary and control circuit	screw-type terminals	
Connections/ Terminals		
required spacing with side-by-side mounting at the side	0 mm	
depth	72 mm	
width	45 mm	
height	57.5 mm	
fastening method	backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting	
mounting position	+/-180° rotation possible on vertical mounting surface; ca	n be tilted forward and
Installation/ mounting/ dimensions		
design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A	
Short-circuit protection		
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	
operational 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	
operational 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	
at 230 V rated value	6 A	
operational current at AC-15		
operational current at AC-12 maximum	10 A	
identification number and letter for switching elements	40 E	
of auxiliary contacts of auxiliary contacts instantaneous contact	0	
• for auxiliary contacts	0	
number of CO contacts		
make-before-break switching	0	
leading contact	0	
delayed switching	0	
number of NO contacts for auxiliary contacts • instantaneous contact	4	
make-before-break switching number of NO contacts for auxiliary contacts	4	
lagging switching make before break quitching	0	
delayed switching logging switching	0	
• instantaneous contact	0	
- instantanceus contact		
number of NC contacts for auxiliary contacts	0	





Confirmation





Type Examination Cer-

Declaration of Conformity

Test Certificates

Marine / Shipping





Special Test Certific-<u>ate</u>

Type Test Certificates/Test Report





Marine / Shipping

other

Railway





Confirmation

Special Test Certific-<u>ate</u>

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3RH1140-1AK20

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH1140-1AK20

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

https://support.industry.siemens.com/cs/ww/en/ps/3RH1140-1AK20

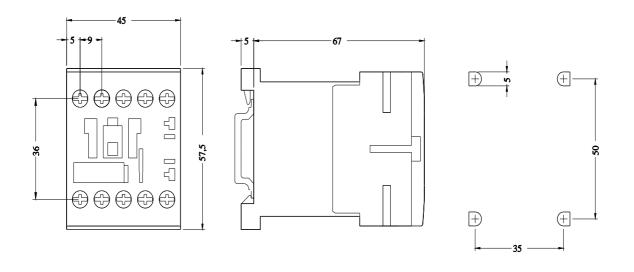
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

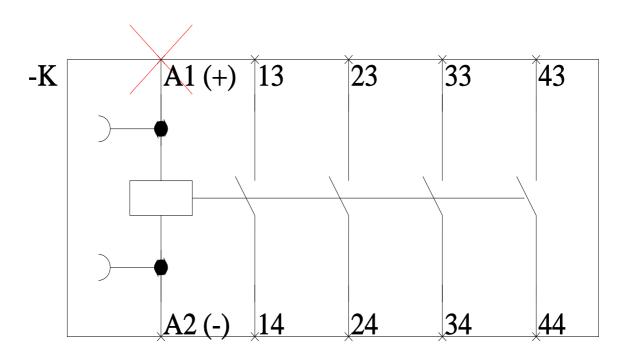
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RH1140-1AK20&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RH1140-1AK20/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH1140-1AK20&objecttype=14&gridview=view1





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