SIEMENS

Data sheet

3RH2440-1AP00

CONTACTOR RELAY LATCHED, 4NO, AC 230V, 50/60HZ, SIZE S00, SCREW TERMINAL



product brand name	SIRIUS
Product designation	contactor relay
General technical data:	
Size of contactor	S00
Product expansion	
Auxiliary switch	Yes
Insulation voltage	
 with degree of pollution 3 Rated value 	690 V
Surge voltage resistance Rated value	6 kV
Protection class IP	
• on the front	IP20
Degree of pollution	3
Shock resistance	
 at rectangular impulse 	
— at AC	7,3g / 5 ms, 4,7g / 10 ms
• with sine pulse	
— at AC	11,4g / 5 ms, 7,3g / 10 ms
Mechanical service life (switching cycles)	
 of the contactor typical 	5 000 000

 of the contactor with added electronics- compatible auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch 	5 000 000
block typical	
Equipment marking	
• acc. to DIN EN 61346-2	К
• acc. to DIN EN 81346-2	К
Ambient conditions:	
Installation altitude at height above sea level	2 000 m
maximum	
Ambient temperature	
 during operation 	-25 +60 °C
• during storage	-55 +80 °C
Main circuit:	
No-load switching frequency	
• at AC	10 000 1/h
• at DC	10 000 1/h
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
Rated value	50 Hz
Control supply voltage frequency 2 Rated value	60 Hz
Operating range factor control supply voltage rated value of the magnet coil at AC	
• at 50 Hz	0.8 1.1
• at 60 Hz	0.85 1.1
Apparent pick-up power of the magnet coil at AC	37 V·A
Inductive power factor with closing power of the coil	0.8
Apparent holding power of the magnet coil at AC	5.7 V·A
Inductive power factor with the holding power of the coil	0.25
Closing delay	
• at AC	8 33 ms
Opening delay	
• at AC	4 15 ms
Arcing time	10 15 s
Auxiliary circuit:	
Number of NO contacts	
for auxiliary contacts	4

— instantaneous contact	4
Identification number and letter for switching	40 E
elements	
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
• at 230 V Rated value	10 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
• at 440 V Rated value	0.3 A
• at 600 V Rated value	0.15 A
Operating current with 2 current paths in series at DC-12	
• at 24 V Rated value	10 A
• at 60 V Rated value	10 A
• at 110 V Rated value	4 A
• at 220 V Rated value	2 A
• at 440 V Rated value	1.3 A
• at 600 V Rated value	0.65 A
Operating current with 3 current paths in series at DC-12	
• at 24 V Rated value	10 A
• at 60 V Rated value	10 A
• at 110 V Rated value	10 A
• at 220 V Rated value	3.6 A
• at 440 V Rated value	2.5 A
• at 600 V Rated value	1.8 A
Operating frequency at DC-12 maximum	1 000 1/h
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	0.3 A
• at 440 V Rated value	0.14 A
• at 600 V Rated value	0.1 A
Operating current with 2 current paths in series at DC-13	
• at 24 V Rated value	10 A
• at 60 V Rated value	3.5 A

• at 110 V Rated value	1.3 A		
• at 220 V Rated value	0.9 A		
• at 440 V Rated value	0.2 A		
• at 600 V Rated value	0.1 A		
Operating current with 3 current paths in series at			
DC-13			
• at 24 V Rated value	10 A		
• at 60 V Rated value	4.7 A		
• at 110 V Rated value	3 A		
• at 220 V Rated value	1.2 A		
• at 440 V Rated value	0.5 A		
• at 600 V Rated value	0.26 A		
Operating frequency at DC-13 maximum	1 000 1/h		
Design of the miniature circuit breaker			
 for short-circuit protection of the auxiliary circuit 	C characteristic: 6 A; 0.4 kA		
up to 230 V			
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		
Chart size it protection			
Short-circuit protection 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 $\pm/-22.5^\circ$ on vertical mounting		
	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface		
Mounting type	tilted forward and backward by +/- 22.5° on vertical mounting		
	tilted forward and backward by +/- 22.5° on vertical mounting surface		
Mounting type	tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail		
Mounting type Height	tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 57.5 mm		
Mounting type Height Width	tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 57.5 mm 90 mm		
Mounting type Height Width Depth	tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 57.5 mm 90 mm		
Mounting type Height Width Depth Required spacing	tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 57.5 mm 90 mm		
Mounting type Height Width Depth Required spacing • for grounded parts	tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 57.5 mm 90 mm 73 mm		
Mounting type Height Width Depth Required spacing • for grounded parts — at the side	tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 57.5 mm 90 mm 73 mm		
Mounting type Height Width Depth Required spacing • for grounded parts — at the side • for live parts — at the side	tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 57.5 mm 90 mm 73 mm		
Mounting type Height Width Depth Required spacing • for grounded parts — at the side • for live parts — at the side Connections/ Terminals:	tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 57.5 mm 90 mm 73 mm		
Mounting type Height Width Depth Required spacing • for grounded parts — at the side • for live parts — at the side • for live parts — at the side Sconnections/ Terminals: Type of electrical connection	tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 57.5 mm 90 mm 73 mm 6 mm 6 mm		
Mounting type Height Width Depth Required spacing • for grounded parts — at the side • for live parts — at the side • for live parts — at the side Connections/ Terminals: Type of electrical connection • for auxiliary and control current circuit	tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 57.5 mm 90 mm 73 mm		
Mounting type Height Width Depth Required spacing • for grounded parts — at the side • for live parts — at the side • for live parts — at the side Sconnections/ Terminals: Type of electrical connection	tilted forward and backward by +/- 22.5° on vertical mounting surface screw and snap-on mounting onto 35 mm standard mounting rail 57.5 mm 90 mm 73 mm 6 mm 6 mm		

Safety related data:	
 for AWG conductors for auxiliary contacts 	2x (20 16), 2x (18 14), 2x 12
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
— single or multi-stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²

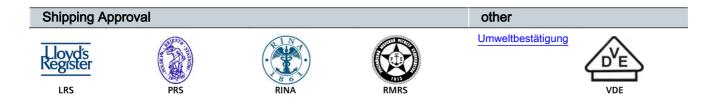
B10 value with high demand rate acc. to SN 31920	1 000 000; With 0.3 x le
Proportion of dangerous failures	
 with low demand rate acc. to SN 31920 	40 %
• with high demand rate acc. to SN 31920	73 %
Product function	
 positively driven operation acc. to IEC 60947-5- 1 	Yes
T1 value for proof test interval or service life acc. to IEC 61508	20 у

 Certificates/ approvals:

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

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Further information

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

Industry Mall (Online ordering system) http://www.siemens.com/industrymall

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RH24401AP00

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