SIEMENS

Product data sheet

3RH2131-1BE40



CONTACTOR RELAY, 3NO+1NC, DC 60V, SIZE S00, SCREW TERMINAL

Con	tool	nicol	data:

General technical data:		
Product brand name		SIRIUS
Size of the contactor		S00
Identification number and letter for switching elements		31 E
Product extension / auxiliary switch		Yes
Protection class IP / on the front		IP20
Protection against electrical shock		finger-safe
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 storage	°C	-55 80
Ambient temperature / during operating	°C	-25 60
Shock resistance		
• at rectangular impulse		
• at DC		10g / 5 ms, 5g / 10 ms
• at sine pulse		
• at DC		15g / 5 ms, 8g / 10 ms
Impulse voltage resistance / rated value	kV	6
Mechanical operating cycles as operating time		
• of the contactor / typical		30,000,000

• of the contractor with addee defectionics-compatible suulilary witch block / typical Interactor Control circul: DC Control circul: V 60 Control strate value V 60 Operating range factor control supply voltage rated value / of the solenoid / for DC V 60 Operating range factor control supply voltage rated value / of the solenoid / for DC W 4 Pull-In power / of the solenoid / for DC W 4 Christing delay 0 00 00 • at DC ms 20 100 00 Opening delay 0 0 00 00 • at DC ms 25 90 00 00 Arcing time s 10 15 00	 of the contactor with added auxiliary switch block / typical 		10,000,000
switch block / typicalImage: switch block / typicalControl circuit:DCControl supply voltage / 1DC• for DC / rated valueV• for DCW• for DCWPull-in power / of the solenoid / for DCW• al DCms• al DCms <td></td> <td></td> <td></td>			
Type of voltage / of the controlled supply voltageDCControl supply voltage / 1V60Operating range factor control supply voltage rated value / of the solenoid / for DC0.8 1.1Holding power / of the solenoid / for DCW4Pull-in power / of the solenoid / for DCW4Pull-in power / of the solenoid / for DCW30 100Operating delay at DCrms30 100Arcing times10 15Arcing times10 15Auxiliary circuit:11 Sulfa sulf			
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the solenoidImage: solenoid / for DCImage: solenoid / for DC	• for DC / rated value	V	60
Holding power / of the solenoid / for DCW4Pull-in power / of the solenoid / for DCW4Pull-in power / of the solenoid / for DCW4Closing delayms30 100• at DCms30 100Opening delayr25 90Arcing times10 15Auxiliary circuit:1 faulty switching per 100 million (17 V, 1 mA)Number of NC contacts / for auxiliary contacts / instantaneous switching1Operating current / of the auxiliary contacts / instantaneous switching3Operating current / of the auxiliary contacts / at AC-12 / maximumA0 contacts / for auxiliary contacts / at AC-12 / maximumA0 contacts / of the auxiliary contacts / at AC-12 / maximumA0 contacts / of the auxiliary contacts / at AC-12 / maximumA0 contacts / of the auxiliary contacts / at AC-12 / maximumA0 contacts / of the auxiliary contacts / at AC-12 / maximumA0 contacts / of the auxiliary contacts / at AC-12 / maximumA0 contacts / with 1 current path / at DC-12A• at 500 VA1• at 200 VA6• at 210 VA6• at 220 VA1• at 220 VA10• at 24 V / rated valueA10• at 60 V / rated valueA10• at 60 V / rated valueA10• at 60 V / rated valueA10		_	
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Closing delay • at DCms30 100Opening delay • at DCms25 90Arcing timems25 90Arcing times10 15Auxiliary circuit:1 faulty switching per 100 million (17 V, 1 mA)Number of NC contacts / for auxiliary contacts / instantaneous switching1Operating current / of the auxiliary contacts / at AC-12 / maximumACOperating current / of the auxiliary contacts / at AC-12 / maximumA06• at 230 VA• at 600 VA• at 600 VA• at 100 VA• at 110 VA• at 220 VA• at 110 VA• at 220 VA• at 24 VA• at 24 VA• at 220 VA• at 220 VA• at 24 VA• at 220 VA• at 24 V / rated valueA• at 60 V / rated valueA <t< td=""><td>Holding power / of the solenoid / for DC</td><td>W</td><td>4</td></t<>	Holding power / of the solenoid / for DC	W	4
• at DCms30100Opening delay • at DCms2590Arcing times1015Axillary circuit:1 fauly switching per 100 million (17 V, 1 mA)Number of NC contacts / for auxiliary contacts / instantaneous switching1Number of NC contacts / for auxiliary contacts / instantaneous switching1Operating current / of the auxiliary contacts / instantaneous switching3Operating current / of the auxiliary contacts / at AC-12 / maximumA06• at 230 VA• at 230 VA• at 230 VA• at 400 VA• at 600 VA• at 24VA• at 24VA• at 24VA• at 24VA• at 24VA• at 220 VA• at 24V / rated valueA• at 60 V / rated valueA• at 60 V / rated valueA• at 110 V / rated valueA• at 100 V / rated valueA• at 60 V / rated valueA• at 100 V / rated valueA <tr <td="">• at 100 V / rated value<</tr>	Pull-in power / of the solenoid / for DC	W	4
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Arcing times10 15Auxiliary circuit:Contact reliability / of the auxiliary contacts1 faulty switching per 100 million (17 V, 1 mA)Number of NC contacts / for auxiliary contacts / instantaneous switching1Number of NO contacts / for auxiliary contacts / instantaneous switching1Operating current / of the auxiliary contacts / at AC-12 / maximumA10Operating current / of the auxiliary contacts / at AC-15I• at 230 VAA6• at 400 VA3• at 690 VA1Operating currentA1• of the auxiliary contacts / with 1 current path / at DC-12A6• at 24 VA6• at 110 VA3• at 220 VA1• at 24 V/ rated valueA1• at 24 V/ rated valueA10• at 10 V/ rated valueA10	Opening delay		
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Contact reliability / of the auxiliary contactsI faulty switching per 100 million (17 V, 1 mA)Number of NC contacts / for auxiliary contacts / instantaneous switching1Number of NO contacts / for auxiliary contacts / instantaneous switching3Operating current / of the auxiliary contacts / at AC-12 / maximumA10Operating current / of the auxiliary contacts / at AC-15• at 230 VAA6-• at 20 VAA3-• at 690 VAA1-Operating current• of the auxiliary contacts / with 1 current path / at DC-12A6• at 220 VAA6-• at 220 VAA6-• at 220 VAA6-• of the auxiliary contacts / with 1 current path / at DC-12• at 220 VAA6-• at 220 VAA6-• at 220 VAA1-• at 220 VAA6-• at 220 VAA6-• at 220 VAA1-• with 2 current paths in series / at DC-12• with 2 current paths in series / at DC-12• at 60 V / rated valueAA10• at 60 V / rated valueAA10• at 100 V / rated valueAA10 <td>Arcing time</td> <td>S</td> <td>10 15</td>	Arcing time	S	10 15
Contact reliability / of the auxiliary contactsI faulty switching per 100 million (17 V, 1 mA)Number of NC contacts / for auxiliary contacts / instantaneous switching1Number of NO contacts / for auxiliary contacts / instantaneous switching3Operating current / of the auxiliary contacts / at AC-12 / maximumA10Operating current / of the auxiliary contacts / at AC-15• at 230 VAA6-• at 20 VAA3-• at 690 VAA1-Operating current• of the auxiliary contacts / with 1 current path / at DC-12A6• at 220 VAA6-• at 220 VAA6-• at 220 VAA6-• of the auxiliary contacts / with 1 current path / at DC-12• at 220 VAA6-• at 220 VAA6-• at 220 VAA1-• at 220 VAA6-• at 220 VAA6-• at 220 VAA1-• with 2 current paths in series / at DC-12• with 2 current paths in series / at DC-12• at 60 V / rated valueAA10• at 60 V / rated valueAA10• at 100 V / rated valueAA10 <td>Auxiliary circuit:</td> <td></td> <td></td>	Auxiliary circuit:		
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maximumImage: constant of the auxiliary contacts / at AC-15Image: constant of the auxiliary contacts / at AC-15• at 230 VA6• at 230 VA3• at 400 VA3• at 400 VA2• at 500 VA1• at 690 VA1• of the auxiliary contacts / with 1 current path / at DC-12··• of the auxiliary contacts / with 1 current path / at DC-12A6• at 220 VA6.• with 2 current paths in series / at DC-12··• with 2 current paths in series / at DC-12A10• at 60 V / rated valueA10• at 60 V / rated valueA10• at 110 V / rated valueA4		_	3
• at 230 VA6• at 400 VAA3• at 500 VAA2• at 690 VAA1Operating current		А	10
• at 400 VA3• at 500 VA2• at 690 VA1Operating current• of the auxiliary contacts / with 1 current path / at DC-12A6• at 24 VAA6• at 110 VAA3• at 220 VAA1• with 2 current paths in series / at DC-12A1• at 24 V / rated valueAA10• at 110 V / rated valueAA4	Operating current / of the auxiliary contacts / at AC-15	_	
• at 500 VA2• at 690 VA1Operating current• of the auxiliary contacts / with 1 current path / at DC-12A6• at 24 VAA6• at 110 VAA3• at 220 VAA1• with 2 current paths in series / at DC-12A1• at 24 V / rated valueAA10• at 60 V / rated valueAA10• at 110 V / rated valueAA4	• at 230 V	А	6
• at 690 VA1 Operating current • of the auxiliary contacts / with 1 current path / at DC-12• at 24 VAA6• at 10 VAA3• at 220 VAA1• with 2 current paths in series / at DC-12• at 24 V / rated valueAA10• at 60 V / rated valueAA10• at 10 V / rated valueAA4	• at 400 V	А	3
Operating currentHere• of the auxiliary contacts / with 1 current path / at DC-12A• at 24 VA• at 24 VA• at 110 VA• at 220 VA• at 24 V / rated valueA• at 24 V / rated valueA• at 60 V / rated valueA• at 110 V / rated valueA	• at 500 V	А	2
• of the auxiliary contacts / with 1 current path / at DC-12Image: Contact A Cont	• at 690 V	А	1
• at 24 V A 6 • at 110 V A 3 • at 220 V A 1 • with 2 current paths in series / at DC-12 - - • at 24 V / rated value A 10 • at 60 V / rated value A 10 • at 110 V / rated value A 4	Operating current	_	
• at 110 V A 3 • at 220 V A 1 • with 2 current paths in series / at DC-12 - - • at 24 V / rated value A 10 • at 60 V / rated value A 10 • at 110 V / rated value A 4	• of the auxiliary contacts / with 1 current path / at DC-12		
• at 220 VA1• with 2 current paths in series / at DC-12A10• at 24 V / rated valueA10• at 60 V / rated valueA10• at 110 V / rated valueA4	• at 24 V	А	6
• with 2 current paths in series / at DC-12A10• at 24 V / rated valueA10• at 60 V / rated valueA10• at 110 V / rated valueA4	• at 110 V	А	3
• at 24 V / rated valueA10• at 60 V / rated valueA10• at 110 V / rated valueA4	• at 220 V	А	1
• at 60 V / rated valueA10• at 110 V / rated valueA4	• with 2 current paths in series / at DC-12		
• at 110 V / rated value A 4	• at 24 V / rated value	А	10
	at 60 V / rated value		40
• at 220 V / rated value A 2		A	10
	• at 110 V / rated value		

A	1.3
А	0.65
А	10
А	10
А	10
А	3.6
А	2.5
А	1.8
-	
А	6
А	1
А	0.3
А	10
А	3.5
А	1.3
А	0.9
А	0.2
А	0.1
А	10
А	4.7
А	3
А	1.2
А	0.5
А	0.26
-	
1/h	10,000
1/h	10,000
1/h	1,000
	A A A A A A A A A A A A A A A A A A A

Design of the fuse link / for short-circuit protection of the auxiliary switch

required

Fuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current Ik < 400 A)

Installation/mounting/dimensions:			
Built in orientation		vertical	
Type of mounting		screw and snap-on mounting onto 35 mm standard mounting rail	
Width	mm	45	
Height	mm	57.5	
Depth	mm	73	
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	5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²		
finely stranded				
with conductor end processing	2x (0.5	5 1.5 mm²), 2x (0.75 2.5 mm²)		
 for AWG conductors / for auxiliary contacts 	2x (20	16), 2x (18 14), 2x 12		

Certificates/approvals:

General Product App	proval			Test Certificates	
coc	CSA	ROSTEST		Manufacturer	
Shipping Approval					
ABS	ĴÅ DNV DNV	GL	Lloyd's Register Lrs	PRS	RINA
Shipping Approval	other				
RMRS					
UL/CSA ratings:					
Contact rating designation / for auxiliary contacts / according to			A600 / Q600		

Safety:related Parameter:

UL

B10 value / with high demand rate		
according to SN 31920		1,000,000
T1 value / for proof test interval or service life		
according to IEC 61508	а	10
Proportion of dangerous failures		
with low demand rate / according to SN 31920	%	40
with high demand rate / according to SN 31920	%	73
Failure rate (FIT value) / with low demand rate		
according to SN 31920	FIT	100
Product function / positively driven operation to IEC 60947-5-1		Yes

Further information:

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

Industry Mall (Online ordering system)

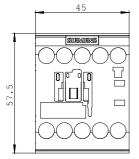
http://www.siemens.com/industrial-controls/mall

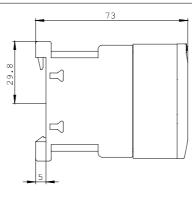
Cax online generator:

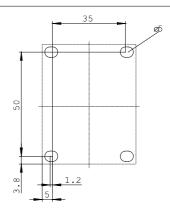
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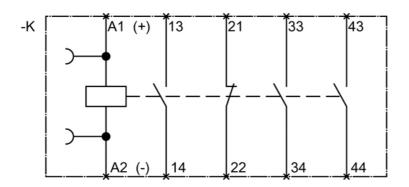
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RH2131-1BE40/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RH2131-1BE40









last change:

Oct 24, 2011