SIEMENS

Data sheet

3RV2321-4NC10



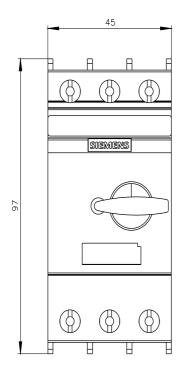
Circuit breaker size S0 for starter combination Rated current 28 A N-release 364 A screw terminal Standard switching capacity

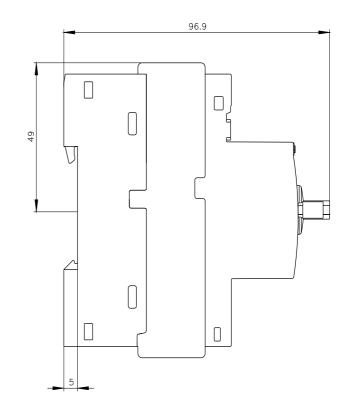
product brand name	SIRIUS			
product designation	Circuit breaker			
design of the product	For starter combinations			
product type designation	3RV2			
General technical data				
size of the circuit-breaker	S0			
size of contactor can be combined company-specific	S00, S0			
product extension auxiliary switch	Yes			
power loss [W] for rated value of the current				
 at AC in hot operating state 	13.25 W			
 at AC in hot operating state per pole 	4.4 W			
insulation voltage with degree of pollution 3 at AC rated value	690 V			
surge voltage resistance rated value	6 kV			
shock resistance according to IEC 60068-2-27	25g / 11 ms			
mechanical service life (operating cycles)				
 of the main contacts typical 	100 000			
 of auxiliary contacts typical 	100 000			
electrical endurance (operating cycles) typical	100 000			
reference code according to IEC 81346-2	Q			
Substance Prohibitance (Date)	10/01/2009			
SVHC substance name	Lead - 7439-92-1			
Ambient conditions				
installation altitude at height above sea level maximum	2 000 m			
ambient temperature				
during operation	-20 +60 °C			
during storage	-50 +80 °C			
during transport	-50 +80 °C			
relative humidity during operation	10 95 %			
Main circuit				
number of poles for main current circuit	3			
operating voltage				
rated value	20 690 V			
 at AC-3 rated value maximum 	690 V			
 at AC-3e rated value maximum 	690 V			
operating frequency rated value	50 60 Hz			
operational current rated value	28 A			
operational current				

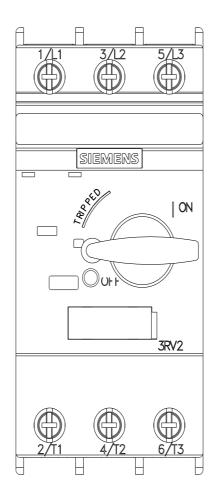
	20 A
at AC-3 at 400 V rated value	28 A
at AC-3e at 400 V rated value	28 A
operating power	
• at AC-3	
— at 230 V rated value	7.5 kW
— at 400 V rated value	15 kW
— at 500 V rated value	18.5 kW
— at 690 V rated value	22 kW
• at AC-3e	
— at 230 V rated value	7.5 kW
— at 400 V rated value	15 kW
— at 500 V rated value	18.5 kW
— at 690 V rated value	22 kW
operating frequency	
• at AC-3 maximum	15 1/h
• at AC-3e maximum	15 1/h
Auxiliary circuit	
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
number of CO contacts for auxiliary contacts	0
Protective and monitoring functions	
product function	
 ground fault detection 	No
phase failure detection	No
maximum short-circuit current breaking capacity (lcu)	
 at AC at 240 V rated value 	100 kA
 at AC at 400 V rated value 	55 kA
 at AC at 500 V rated value 	10 kA
 at AC at 690 V rated value 	4 kA
operating short-circuit current breaking capacity (Ics) at AC	
• at 240 V rated value	100 kA
• at 400 V rated value	25 kA
• at 500 V rated value	5 kA
• at 690 V rated value	2 kA
response value current of instantaneous short-circuit trip unit	400 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	28 A
• at 600 V rated value	28 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	2 hp
— at 230 V rated value	5 hp
• for 3-phase AC motor	
— at 200/208 V rated value	7.5 hp
— at 220/230 V rated value	10 hp
— at 460/480 V rated value	20 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
design of the fuse link for IT network for short-circuit protection of the main circuit	
• at 400 V	gL/gG 63 A
• at 500 V	gL/gG 63 A
• at 690 V	gL/gG 63 A
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	97 mm
width	45 mm
depth	97 mm

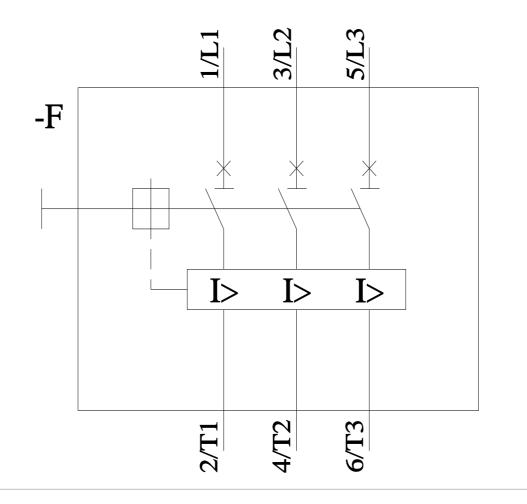
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	 for live parts at 400 V 				
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• safety-related switching OFFYesservice life maximum10 atest wear-related service life necessaryYesproportion of dangerous failures40 %• with low demand rate according to SN 3192040 %• with high demand rate according to SN 3192050 %B10 value with high demand rate according to SN 3192050 00failure rate [FIT] with low demand rate according to SN50 FITISO 13849ISO 13849	type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts - solid or stranded - finely stranded with core end processing • for AWG cables for main contacts tightening torque • for main contacts with screw-type terminals design of screwdriver shaft size of the screwdriver tip design of the thread of the connection screw • for main contacts	Top and bottom 2x (1 2.5 mm ²), 2x (2.5 10 mm ²) 2x (1 2.5 mm ²), 2x (2.5 6 mm ²), 1x 10 mm ² 2x (16 12), 2x (14 8) 2 2.5 N·m Diameter 5 to 6 mm Pozidriv size 2 M4			
service life maximum 10 a test wear-related service life necessary Yes proportion of dangerous failures • • with low demand rate according to SN 31920 40 % • with high demand rate according to SN 31920 50 % B10 value with high demand rate according to SN 31920 50 00 failure rate [FIT] with low demand rate according to SN 31920 50 FIT ISO 13849 ISO 13849	type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts	Top and bottom 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8) 2 2.5 N·m Diameter 5 to 6 mm Pozidriv size 2 M4 Yes			
test wear-related service life necessary Yes proportion of dangerous failures 40 % • with low demand rate according to SN 31920 50 % B10 value with high demand rate according to SN 31920 50 00 failure rate [FIT] with low demand rate according to SN 31920 50 FIT ISO 13849 ISO 13849	type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts	Top and bottom 2x (1 2.5 mm ²), 2x (2.5 10 mm ²) 2x (1 2.5 mm ²), 2x (2.5 6 mm ²), 1x 10 mm ² 2x (16 12), 2x (14 8) 2 2.5 N·m Diameter 5 to 6 mm Pozidriv size 2 M4 Yes No			
proportion of dangerous failures 40 % • with low demand rate according to SN 31920 50 % • with high demand rate according to SN 31920 50 % B10 value with high demand rate according to SN 31920 5 000 failure rate [FIT] with low demand rate according to SN 31920 50 FIT 31920 50 TIT	type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts - solid or stranded - finely stranded with core end processing • for AWG cables for main contacts tightening torque • for main contacts with screw-type terminals design of screwdriver shaft size of the screwdriver tip design of the thread of the connection screw • for main contacts Safety related data product function suitable for safety function suitability for use • safety-related switching on • safety-related switching OFF	Top and bottom 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8) 2 2.5 N·m Diameter 5 to 6 mm Pozidriv size 2 M4 Yes No Yes			
with low demand rate according to SN 31920 with high demand rate according to SN 31920 S0 % B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849	type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts - solid or stranded - finely stranded with core end processing • for AWG cables for main contacts tightening torque • for main contacts with screw-type terminals design of screwdriver shaft size of the screwdriver tip design of the thread of the connection screw • for main contacts Safety related data product function suitable for safety function suitability for use • safety-related switching OFF service life maximum	Top and bottom 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8) 2 2.5 N·m Diameter 5 to 6 mm Pozidriv size 2 M4 Yes No Yes 10 a			
with high demand rate according to SN 31920 50 % B10 value with high demand rate according to SN 31920 5 000 failure rate [FIT] with low demand rate according to SN 31920 50 FIT ISO 13849	type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts - solid or stranded - finely stranded with core end processing • for AWG cables for main contacts tightening torque • for main contacts with screw-type terminals design of screwdriver shaft size of the screwdriver tip design of the thread of the connection screw • for main contacts Safety related data product function suitable for safety function suitability for use • safety-related switching on • safety-related switching OFF service life maximum test wear-related service life necessary	Top and bottom 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8) 2 2.5 N·m Diameter 5 to 6 mm Pozidriv size 2 M4 Yes No Yes 10 a			
B10 value with high demand rate according to SN 31920 5 000 failure rate [FIT] with low demand rate according to SN 31920 50 FIT S1920 S0 13849	type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts	Top and bottom 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8) 2 2.5 N·m Diameter 5 to 6 mm Pozidriv size 2 M4 Yes No Yes 10 a Yes			
failure rate [FIT] with low demand rate according to SN 50 FIT 31920 ISO 13849	type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts	Top and bottom 2x (1 2.5 mm ²), 2x (2.5 10 mm ²) 2x (1 2.5 mm ²), 2x (2.5 6 mm ²), 1x 10 mm ² 2x (16 12), 2x (14 8) 2 2.5 N·m Diameter 5 to 6 mm Pozidriv size 2 M4 Yes No Yes 10 a Yes 10 a Yes			
31920 ISO 13849	type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts	Top and bottom 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8) 2 2.5 N·m Diameter 5 to 6 mm Pozidriv size 2 M4 Yes No Yes 10 a Yes 40 % 50 %			
	type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts - solid or stranded - finely stranded with core end processing • for AWG cables for main contacts tightening torque • for main contacts with screw-type terminals design of screwdriver shaft size of the screwdriver shaft size of the screwdriver tip design of the thread of the connection screw • for main contacts Safety related data product function suitable for safety function suitability for use • safety-related switching OFF service life maximum test wear-related service life necessary proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920	Top and bottom 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8) 2 2.5 N·m Diameter 5 to 6 mm Pozidriv size 2 M4 Yes No Yes 10 a Yes 40 % 50 % 5 000			
device type according to ISO 13849-1 3	type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts	Top and bottom 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8) 2 2.5 N·m Diameter 5 to 6 mm Pozidriv size 2 M4 Yes No Yes 10 a Yes 40 % 50 % 5 000			
	type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts - solid or stranded - finely stranded with core end processing • for AWG cables for main contacts tightening torque • for main contacts with screw-type terminals design of screwdriver shaft size of the screwdriver tip design of the thread of the connection screw • for main contacts Safety related data product function suitable for safety function suitability for use • safety-related switching on • safety-related service life necessary proportion of dangerous failures • with how demand rate according to SN 31920 B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849	Top and bottom 2x (1 2.5 mm²), 2x (2.5 10 mm²) 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² 2x (16 12), 2x (14 8) 2 2.5 N·m Diameter 5 to 6 mm Pozidriv size 2 M4 Yes No Yes 10 a Yes 40 % 50 % 5 000 50 FIT			

overdimensioning accor	ding to ISO 13849-2 r	necessary	Yes						
IEC 61508									
safety device type accor	ding to IEC 61508-2		Туре	A					
	al or service life accord	ing to IEC	10 a						
61508									
Electrical Safety protection class IP on th	o front according to l	EC 60520	IP20						
touch protection on the				r-safe, for vertical contact	from the front				
Display		5 00323	inge	-sale, for ventical contact					
display version for switchin	na status		Hand	le					
Approvals Certificates	ig olaldo		Tiana						
General Product Approv	ral								
CE EG-Konf.	UK CA			<u>Confirmation</u>	(UL) III	KC			
General Product Ap-	Test Certificates			Marine / Shipping					
EHC	<u>Special Test Certific-</u> <u>ate</u>	<u>Type Test Cer</u> ates/Test Rep		ABS	BUREAU VERITAS				
Marine / Shipping				other					
Llovd's Register us	PRS	RINA		<u>Miscellaneous</u>	<u>Confirmation</u>				
Railway		Environment							
<u>Special Test Certific-</u> <u>ate</u>	<u>Confirmation</u>	EPD		Siemens EcoTech	Environmental Con- firmations				
Further information									
Information on the packa									
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=3RV2321-4NC10 Cax online generator									
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2321-4NC10 Service&Support (Manuals, Certificates, Characteristics, FAQs,)									
https://support.industry.sie Image database (product	https://support.industry.siemens.com/cs/ww/en/ps/3RV2321-4NC10 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2321-4NC10⟨=en								
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