## SIEMENS

## Data sheet

## 3RV2021-4FA10



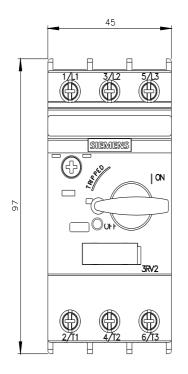
Circuit breaker size S0 for motor protection, CLASS 10 A-release 34...40 A N-release 480 A screw terminal Standard switching capacity

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV2
General technical data	
size of the circuit-breaker	SO
size of contactor can be combined company-specific	S00, S0
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	16.25 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	5.4 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)	
<ul> <li>of the main contacts typical</li> </ul>	100 000
<ul> <li>of auxiliary contacts typical</li> </ul>	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 +40 °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
adjustable current response value current of the current- dependent overload release	34 40 A
operating voltage	
rated value	20 690 V
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V
operating frequency rated value	50 60 Hz
operational current rated value	40 A

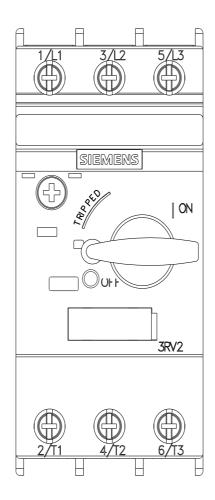
operational current	
• at AC-3 at 400 V rated value	40 A
operating power	
• at AC-3	
— at 230 V rated value	11 kW
— at 400 V rated value	18.5 kW
— at 500 V rated value	22 kW
— at 690 V rated value	39 kW
operating frequency	
• at AC-3 maximum	15 1/h
Auxiliary circuit	15 1/11
	0
number of NC contacts for 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	
<ul> <li>ground fault detection</li> </ul>	No
<ul> <li>phase failure detection</li> </ul>	Yes
trip class	CLASS 10
design of the overload release	thermal
maximum short-circuit current breaking capacity (Icu)	
• at AC at 240 V rated value	100 kA
• at AC at 400 V rated value	20 kA
• at AC at 500 V rated value	6 kA
<ul> <li>at AC at 690 V rated value</li> </ul>	3 kA
operating short-circuit current breaking capacity (Ics) at AC	
at 240 V rated value	100 kA
• at 400 V rated value	10 kA
• at 500 V rated value	3 kA
at 690 V rated value	2 kA
response value current of instantaneous short-circuit trip unit	480 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	40 A
at 400 V rated value     at 600 V rated value	40 A 40 A
	40 A
yielded mechanical performance [hp]	
<ul> <li>for single-phase AC motor</li> </ul>	
— at 110/120 V rated value	3 hp
— at 230 V rated value	3 hp 7.5 hp
<ul><li>— at 230 V rated value</li><li>for 3-phase AC motor</li></ul>	7.5 hp
<ul> <li>— at 230 V rated value</li> <li>for 3-phase AC motor</li> <li>— at 200/208 V rated value</li> </ul>	7.5 hp 10 hp
<ul><li>— at 230 V rated value</li><li>for 3-phase AC motor</li></ul>	7.5 hp
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<ul> <li>at 230 V rated value</li> <li>for 3-phase AC motor</li> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>at 460/480 V rated value</li> <li>Short-circuit protection</li> <li>product function short circuit protection</li> <li>design of the short-circuit trip</li> </ul>	7.5 hp 10 hp 10 hp 30 hp Yes magnetic
<ul> <li>at 230 V rated value</li> <li>for 3-phase AC motor</li> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>at 460/480 V rated value</li> </ul> Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit <ul> <li>at 400 V</li> </ul>	7.5 hp 10 hp 10 hp 30 hp Yes
<ul> <li>at 230 V rated value</li> <li>for 3-phase AC motor</li> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>at 460/480 V rated value</li> </ul> Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit	7.5 hp 10 hp 10 hp 30 hp Yes magnetic
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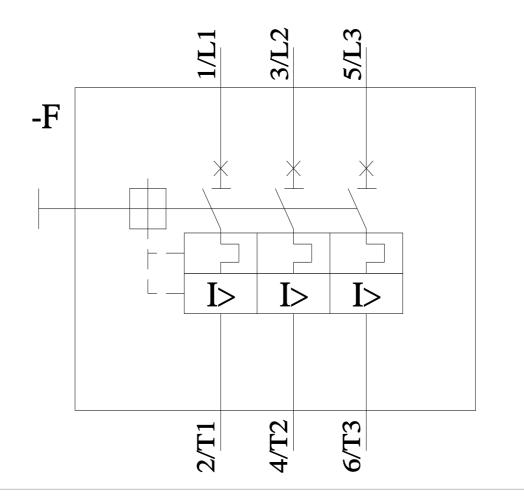
	20		
— upwards	30 mm		
— at the side	9 mm		
• for live parts at 400 V			
— downwards	30 mm		
— upwards	30 mm		
— at the side	9 mm		
<ul> <li>for grounded parts at 500 V</li> </ul>			
— downwards	30 mm		
— upwards	30 mm		
— at the side	9 mm		
<ul> <li>for live parts at 500 V</li> </ul>			
— downwards	30 mm		
— upwards	30 mm		
— at the side	9 mm		
<ul> <li>for grounded parts at 690 V</li> </ul>			
— downwards	70 mm		
— upwards	70 mm		
— backwards	0 mm		
— at the side	30 mm		
— forwards	0 mm		
• for live parts at 690 V			
— downwards	70 mm		
— upwards	70 mm		
— backwards	0 mm		
— at the side	30 mm		
— forwards	0 mm		
Connections/ Terminals			
type of electrical connection			
<ul> <li>for main current circuit</li> </ul>	screw-type terminals		
arrangement of electrical connectors for main current	Top and bottom		
circuit			
type of connectable conductor cross-sections			
<ul> <li>for main contacts</li> </ul>			
— solid or stranded	2x (1 2.5 mm²), 2x (2.5 10 mm²)		
<ul> <li>— finely stranded with core end processing</li> </ul>	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²		
<ul> <li>for AWG cables for main contacts</li> </ul>	2x (16 12), 2x (14 8)		
tightening torque			
<ul> <li>for main contacts with screw-type terminals</li> </ul>	2 2.5 N·m		
design of screwdriver shaft	Diameter 5 to 6 mm		
size of the screwdriver tip	Pozidriv size 2		
design of the thread of the connection screw			
for main contacts	M4		
Safety related data			
product function suitable for safety function	Yes		
suitability for use			
<ul> <li>safety-related switching on</li> </ul>	No		
<ul> <li>safety-related switching OFF</li> </ul>	Yes		
service life maximum	10 a		
test wear-related service life necessary	Yes		
proportion of dangerous failures			
<ul> <li>with low demand rate according to SN 31920</li> </ul>	40 %		
<ul> <li>with high demand rate according to SN 31920</li> </ul>	50 %		
B10 value with high demand rate according to SN 31920	5 000		
failure rate [FIT] with low demand rate according to SN	50 FIT		
31920			
ISO 13849			
device type according to ISO 13849-1	3		
overdimensioning according to ISO 13849-2 necessary	Yes		
IEC 61508			
safety device type according to IEC 61508-2	Туре А		
T1 value			

<ul> <li>for proof test inter 61508</li> </ul>	rval or service life accord	ling to IEC 1	0 a				
Electrical Safety							
protection class IP on the front according to IEC 60529		IEC 60529	P20				
touch protection on the front according to IEC 60529		<b>C 60529</b> fi	nger-safe, for vertical contact	from the front			
Display							
display version for switc	hing status	F	landle				
Approvals Certificates							
General Product Appr	oval						
((	UK	(m)	<u>Confirmation</u>	Ē	<u>KC</u>		
	ĒÔ	<u>u</u>		জ			
EG-Konf.	CH	ccc		UL			
General Product Ap-							
proval	For use in hazardous	slocations	Test Certificates		Marine / Shipping		
гпг	<b>IECEx</b>		<u>Type Test Certific-</u> ates/Test Report	<u>Special Test Certific-</u> <u>ate</u>	- W		
FHI	i coci	\c x/		<u></u>	1		
	IECEx	ATEX			ABS		
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Marine / Shipping					other		
Startes .	2 2		APR .	( Classical States)	Miscellaneous		
	10	Lloyd's Register	(22)	( 🕐 )			
	DNV	UKS	DBS	PINA			
VERITAS	Ditt	2.0	112				
other		Railway		Environment			
<b>Confirmation</b>	$\wedge$	Special Test Certifi	<u>c-</u> <u>Confirmation</u>				
		ate			Siemens		
	VDE			FPD	EcoTech		
	VDC						
Further information							
Information on the pac							
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://mail.industry.siemens.com/mail/en/en/Catalog/product?mlfb=3RV2021-4FA10 Cax online generator							
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-4FA10							
Service&Support (Manuals, Certificates, Characteristics, FAQs,) https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4FA10							
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,)							
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-4FA10⟨=en Characteristic: Tripping characteristics, I <sup>2</sup> t, Let-through current							
https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4FA10/char							
Further characteristics	s (e.g. electrical endura	ince, switching frequ	ency)				
http://www.automation.s	http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2021-4FA10&objecttype=14&gridview=view1						









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