



Circuit breaker size S2 for motor protection, CLASS 10 A-release 54...65 A N-release 845 A screw terminal Standard switching capacity with transverse auxiliary switches 1 NO+1 NC

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	S2
size of contactor can be combined company-specific	S2
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
• at AC in hot operating state	26 W
• at AC in hot operating state per pole	8.7 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 Sinus
mechanical service life (operating cycles)	
• of the main contacts typical	20 000
• of auxiliary contacts typical	20 000
electrical endurance (operating cycles) typical	20 000
type of protection according to ATEX directive 2014/34/EU	Ex II (2) GD
certificate of suitability according to ATEX directive 2014/34/EU	DMT 02 ATEX F 001
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	04/10/2015
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
adjustable current response value current of the current-dependent overload release	54 ... 65 A
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	65 A
operational current	

• at AC-3 at 400 V rated value	65 A
• at AC-3e at 400 V rated value	65 A
operating power	
• at AC-3	
— at 230 V rated value	18.5 kW
— at 400 V rated value	30 kW
— at 500 V rated value	45 kW
— at 690 V rated value	55 kW
• at AC-3e	
— at 230 V rated value	18.5 kW
— at 400 V rated value	30 kW
— at 500 V rated value	45 kW
— at 690 V rated value	55 kW
operating frequency	
• at AC-3 maximum	15 1/h
• at AC-3e maximum	15 1/h
Auxiliary circuit	
design of the auxiliary switch	transverse
number of NC contacts for auxiliary contacts	1
number of NO contacts for auxiliary contacts	1
operational current of auxiliary contacts at AC-15	
• at 24 V	2 A
• at 230 V	0.5 A
operational current of auxiliary contacts at DC-13	
• at 24 V	1 A
• at 60 V	0.15 A
• at 110 V	0 A
• at 125 V	0 A
• at 220 V	0 A
Protective and monitoring functions	
product function	
• ground fault detection	No
• phase failure detection	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	65 kA
• at AC at 500 V rated value	8 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	30 kA
• at 500 V rated value	4 kA
• at 690 V rated value	2 kA
response value current of instantaneous short-circuit trip unit	845 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	65 A
• at 600 V rated value	62 A
yielded mechanical performance [hp]	
• for 3-phase AC motor	
— at 200/208 V rated value	20 hp
— at 220/230 V rated value	25 hp
— at 460/480 V rated value	50 hp
— at 575/600 V rated value	60 hp
contact rating of auxiliary contacts according to UL	C300 / R300
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic

design of the fuse link	• for short-circuit protection of the auxiliary switch required	fuse gG: 10 A, miniature circuit breaker C 6 A (short-circuit current $I_k < 400$ A)
design of the fuse link for IT network for short-circuit protection of the main circuit		
• at 240 V	none required	
• at 400 V	160	
• at 500 V	125	
• at 690 V	100	
Installation/ mounting/ dimensions		
mounting position	any	
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715	
height	140 mm	
width	55 mm	
depth	149 mm	
required spacing		
• with side-by-side mounting at the side	0 mm	
• for grounded parts at 400 V		
— downwards	50 mm	
— upwards	50 mm	
— at the side	10 mm	
• for live parts at 400 V		
— downwards	50 mm	
— upwards	50 mm	
— at the side	10 mm	
• for grounded parts at 500 V		
— downwards	50 mm	
— upwards	50 mm	
— at the side	10 mm	
• for live parts at 500 V		
— downwards	50 mm	
— upwards	50 mm	
— at the side	10 mm	
• for grounded parts at 690 V		
— downwards	50 mm	
— upwards	50 mm	
— at the side	10 mm	
• for live parts at 690 V		
— downwards	50 mm	
— upwards	50 mm	
— at the side	10 mm	
Connections/ Terminals		
type of electrical connection		
• for main current circuit	screw-type terminals	
• for auxiliary and control circuit	screw-type terminals	
arrangement of electrical connectors for main current circuit	Top and bottom	
type of connectable conductor cross-sections		
• for main contacts		
— solid or stranded	2x (1 ... 35 mm ²), 1x (1 ... 50 mm ²)	
— finely stranded with core end processing	2x (1 ... 25 mm ²), 1x (1 ... 35 mm ²)	
• for AWG cables for main contacts	2x (18 ... 2), 1x (18 ... 1)	
type of connectable conductor cross-sections		
• for auxiliary contacts		
— solid or stranded	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)	
— finely stranded with core end processing	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)	
• for AWG cables for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14)	
tightening torque		
• for main contacts with screw-type terminals	3 ... 4.5 N·m	
• for auxiliary contacts with screw-type terminals	0.8 ... 1.2 N·m	
design of screwdriver shaft	Diameter 5 to 6 mm	
size of the screwdriver tip	Pozidriv size 2	

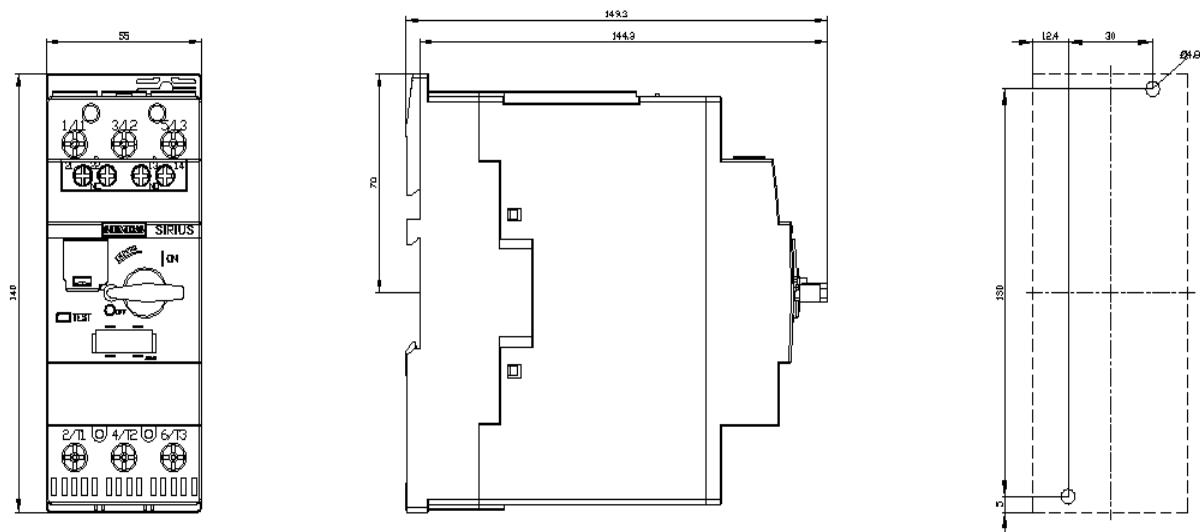
design of the thread of the connection screw					
• for main contacts	M6				
• of the auxiliary and control contacts	M3				
Safety related data					
B10 value					
• with high demand rate according to SN 31920	5 000				
proportion of dangerous failures					
• with low demand rate according to SN 31920	50 %				
• with high demand rate according to SN 31920	50 %				
failure rate [FIT]					
• with low demand rate according to SN 31920	50 FIT				
T1 value for proof test interval or service life according to IEC 61508	10 a				
protection class IP on the front according to IEC 60529	IP20				
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front				
display version for switching status	Handle				
Certificates/ approvals					
General Product Approval	For use in hazardous locations				
Confirmation	    				
For use in hazardous locations	Declaration of Conformity	Test Certificates	Marine / Shipping		
	 EG-Konf.		Type Test Certificates/Test Report Special Test Certificate		
Marine / Shipping				other	
	 DNV	 LRS	 PRIS	 RINA	Confirmation
other	Railway				
	Confirmation	Vibration and Shock			
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					
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Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2031-4JA15					
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4JA15					
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2031-4JA15&lang=en					

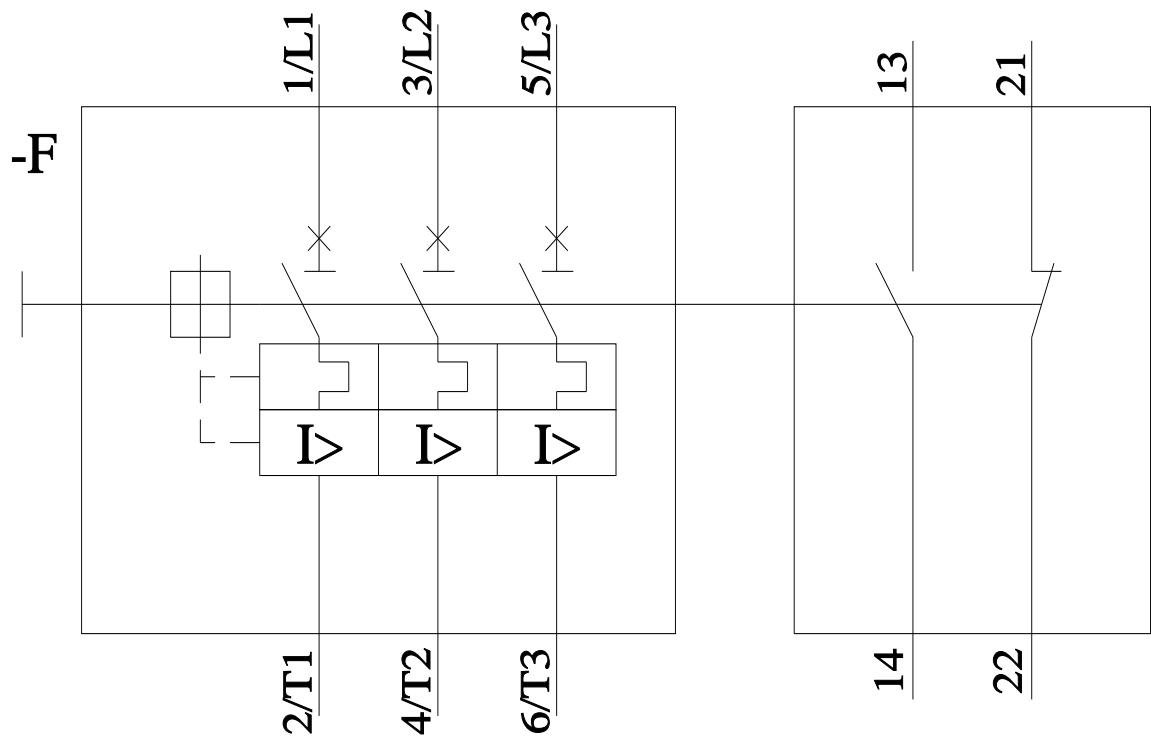
Characteristic: Tripping characteristics, I^t , Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4JA15/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2031-4JA15&objecttype=14&gridview=view1>





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