SIEMENS

Data sheet

3RV2041-4RA10



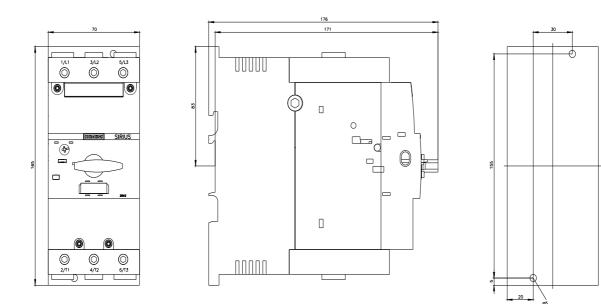
Circuit breaker size S3 for motor protection, CLASS 10 A-release 65...84 A N-release 1170 A screw terminal Standard switching capacity

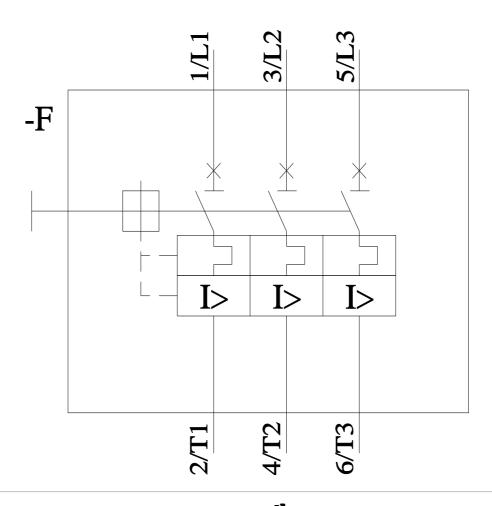
product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV2
General technical data	
size of the circuit-breaker	S3
size of contactor can be combined company-specific	S3
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	34 W
 at AC in hot operating state per pole 	11.3 W
insulation voltage with degree of pollution 3 at AC rated value	1 000 V
surge voltage resistance rated value	8 kV
shock resistance according to IEC 60068-2-27	25g / 11 ms Sinus
mechanical service life (operating cycles)	
 of the main contacts typical 	25 000
 of auxiliary contacts typical 	25 000
electrical endurance (operating cycles) typical	25 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	03/01/2017
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
adjustable current response value current of the current- dependent overload release	65 84 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	84 A
operational current	
 at AC-3 at 400 V rated value 	84 A
 at AC-3e at 400 V rated value 	84 A
operating power	
• at AC-3	
— at 230 V rated value	22 kW
— at 400 V rated value	45 kW
— at 500 V rated value	55 kW
— at 690 V rated value	75 kW
• at AC-3e	
— at 230 V rated value	22 kW
— at 400 V rated value	45 kW
— at 500 V rated value	55 kW
— at 690 V rated value	75 kW
operating frequency	
• at AC-3 maximum	15 1/h
• at AC-3e maximum	15 1/h
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 	5 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	3 kA
response value current of instantaneous short-circuit trip unit	1 170 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	84 A
at 600 V rated value	84 A
yielded mechanical performance [hp]	
for single-phase AC motor	
-	7.5 hn
— at 110/120 V rated value	7.5 hp
- at 230 V rated value	15 hp
for 3-phase AC motor at 200/200 V rated value	05 ha
- at 200/208 V rated value	25 hp
- at 220/230 V rated value	30 hp
— at 460/480 V rated value	60 hp
— at 575/600 V rated value	75 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	165 mm
width	70 mm
depth	176 mm
depth	
•	
• with side-by-side mounting at the side	0 mm

— downwards	70 mm			
— upwards	70 mm			
— at the side	10 mm			
 for live parts at 400 V 				
— downwards	70 mm			
— upwards	70 mm			
— at the side	10 mm			
 for grounded parts at 500 V 				
— downwards	110 mm			
— upwards	110 mm			
— at the side	10 mm			
• for live parts at 500 V				
— downwards	110 mm			
— upwards	110 mm			
— at the side	10 mm			
• for grounded parts at 690 V				
— downwards	150 mm			
— upwards	150 mm			
— at the side	30 mm			
• for live parts at 690 V				
— downwards	150 mm			
— upwards	150 mm			
— at the side	30 mm			
Connections/ Terminals				
type of electrical connection				
for main current circuit	screw-type terminals			
arrangement of electrical connectors for main current	Top and bottom			
circuit				
type of connectable conductor cross-sections				
 for main contacts 				
— solid	2x (2.5 16 mm²)			
— solid or stranded	2x (2,5 50 mm²), 1x (10 70 mm²)			
 finely stranded with core end processing 	2x (2.5 35 mm²), 1x (2.5 50 mm²)			
 finely stranded without core end processing 	2x (10 35 mm²), 1x (10 50 mm²)			
tightening torque				
 for main contacts for ring cable lug 	4.5 6 N·m			
outer diameter of the usable ring cable lug maximum	19 mm			
tightening torque				
 for main contacts with screw-type terminals 	4.5 6 N·m			
Safety related data				
product function suitable for safety function	Yes			
suitability for use				
safety-related switching on	No			
safety-related switching OFF	Yes			
service life maximum	10 a			
test wear-related service life necessary	Yes			
proportion of dangerous failures	100			
	40.9/			
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	5 000			
failure rate [FIT] with low demand rate according to SN 31920	50 FIT			
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 for proof test interval or service life according to IEC 61508 	10 a			
Electrical Safety				

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display version for switching st Approvals Certificates General Product Approval CE EG-Konf.				(H)	KC
Approvals Certificates General Product Approval CEG-Konf. General Product Ap-				(h)	KC
General Product Approval	UK CA	Confirmation		٩	KC
General Product Ap-	UK CA	<u>Confirmation</u>	3		KC
				UL	
prova	ise in hazardous	locations	Test Certificates		Marine / Shipping
EHC	K ATEX	IECEx	<u>Special Test Certific-</u> <u>ate</u>	<u>Type Test Certific-</u> ates/Test Report	ABS
Marine / Shipping					other
BUREAU VERITAS		Lloyd's Register urs	PRS	RINA	<u>Miscellaneous</u>
other		Railway		Environment	
<u>Confirmation</u>		<u>Special Test Certific-</u> <u>ate</u>	<u>Confirmation</u>	EPD	Siemens EcoTech
Environment					
<u>Environmental Con-</u> <u>firmations</u>					
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