SIEMENS

Data sheet

3RV2042-4RA10



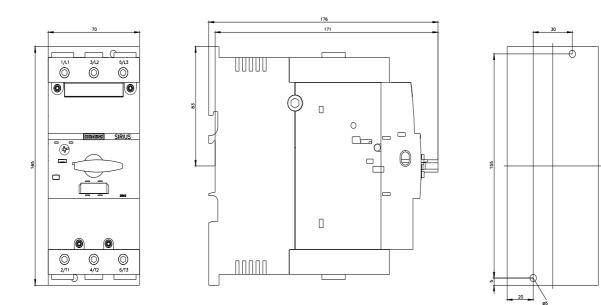
Circuit breaker size S3 for motor protection, CLASS 10 A-release 65...84 A N-release 1170 A screw terminal Increased switching capacity 100 kA $\,$

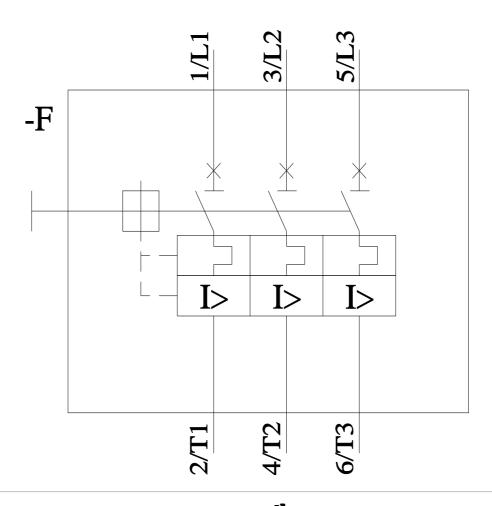
6/3				
product brand name	SIRIUS			
product designation	Circuit breaker			
design of the product	For motor protection			
product type designation	3RV2			
Seneral technical data				
size of the circuit-breaker	S3			
size of contactor can be combined company-specific	S3			
product extension auxiliary 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 %			
lain 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			

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	100 KA
at AC at 500 V rated value	10 kA
• at AC at 690 V rated value	6 kA
operating short-circuit current breaking capacity (Ics) at AC	100 μ
at 240 V rated value	100 kA
• at 400 V rated value	50 kA
at 500 V rated value	5 kA
at 690 V rated value	3 kA
response value current of instantaneous short-circuit trip unit	1 170 A
JL/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	
— at 110/120 V rated value	7.5 hp
— at 230 V rated value	15 hp
 for 3-phase AC motor 	
— 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
nstallation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
	165 mm
height	165 mm 70 mm
height width	70 mm
height width depth	
height width	70 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				
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 51320	500 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				
 for proof test interval or service life according to IEC 61508 	10 a			
Electrical Safety				

protection class IP on touch protection on th			r-safe, for vertical contact	from the front		
Display						
display version for switc Approvals Certificates	hing status	Hand	dle	_	_	
General Product Appr	oval					
CE EG-Konf.	UK CA	<u>Confirmation</u>			KC	
General Product Approval	For use in hazardous	locations	Test Certificates		Marine / Shipping	
EHC	KEX ATEX	IECE×	<u>Type Test Certific-</u> ates/Test Report	<u>Special Test Certific-</u> <u>ate</u>	ABS	
Marine / Shipping					other	
BUREAU VERITAS		Llovd's Kegister uks	PRS	RINA	<u>Miscellaneous</u>	
other		Railway		Environment		
<u>Confirmation</u>	DE	<u>Special Test Certific-</u> <u>ate</u>	<u>Confirmation</u>	EPD	Siemens EcoTech	
Environment						
Environmental Con- firmations						
Further information						
Information on the packaging <u>https://support.industry.siemens.com/cs/ww/en/view/109813875</u> 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=3RV2042-4RA10						
Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2042-4RA10						
Service&Support (Manuals, Certificates, Characteristics, FAQs,) https://support.industry.siemens.com/cs/ww/en/ps/3RV2042-4RA10 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2042-4RA10⟨=en Characteristic: Tripping characteristics, I ² t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RV2042-4RA10/char Further characteristics (e.g. electrical endurance, switching frequency)						
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2042-4RA10&objecttype=14&gridview=view1						





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