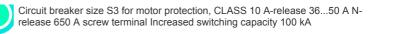
SIEMENS

Data sheet

3RV2042-4HA10





Line and	
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	\$3
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 	27 W
 at AC in hot operating state per pole 	9 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	36 50 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	50 A
operational current	
 at AC-3 at 400 V rated value 	50 A
 at AC-3e at 400 V rated value 	50 A
operating power	
• at AC-3	
— at 230 V rated value	11 kW
— at 400 V rated value	22 kW
— at 500 V rated value	30 kW
— at 690 V rated value	45 kW
• at AC-3e	
— at 230 V rated value	11 kW
— at 400 V rated value	22 kW
— at 500 V rated value	
	30 kW
— at 690 V rated value	45 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 	15 kA
 at AC at 690 V rated value 	10 kA
operating short-circuit current breaking capacity (Ics) at AC	
at 240 V rated value	100 kA
• at 400 V rated value	50 kA
• at 500 V rated value	7.5 kA
at 690 V rated value	5 kA
response value current of instantaneous short-circuit trip unit	650 A
UL/CSA ratings	000 / 1
full-load current (FLA) for 3-phase AC motor	
	50 A
at 480 V rated value	50 A
at 600 V rated value	50 A
yielded mechanical performance [hp]	
for single-phase AC motor	
— at 110/120 V rated value	5 hp
— at 230 V rated value	10 hp
 for 3-phase AC motor 	
— at 200/208 V rated value	15 hp
— at 220/230 V rated value	20 hp
— at 460/480 V rated value	40 hp
— at 575/600 V rated value	50 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
required spacing	
with side-by-side mounting at the side	0 mm
• for grounded parts at 400 V	

— 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 110 mm			
•	10 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 the front according to IEC 60529 touch protection on the front according to IEC 60529			IP20 finger-safe, for vertical contact from the front				
Display		inge					
display version for switching status		Hand	lle				
Approvals Certificates	Ū.						
General Product Approval							
<u>Confirmation</u>		UK CA	CE EG-Konf.	(UL) II	KC		
General Product Approval	For use in hazardou	s locations	Test Certificates		Marine / Shipping		
EHC	IECEX	ATEX ATEX	Type Test Certific- ates/Test Report	<u>Special Test Certific-</u> <u>ate</u>	ABS		
Marine / Shipping					other		
BUREAU VERITAS		Lloyd's Register LRS	PRS	RINA	<u>Miscellaneous</u>		
other		Railway	Environment				
<u>Confirmation</u>		Special Test Certific- ate	EPD	Siemens EcoTech	Environmental Con- firmations		
Further information	kaging						
Information on the packaging 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=3RV2042-4HA10 Com.emiter.com.emiter.com/mall/en/en/Catalog/product?mlfb=3RV2042-4HA10							

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2042-4HA10

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3RV2042-4HA10

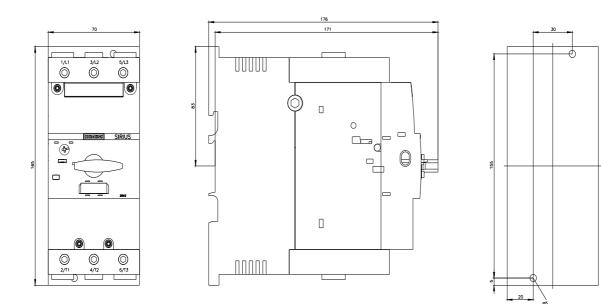
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2042-4HA10&lang=en

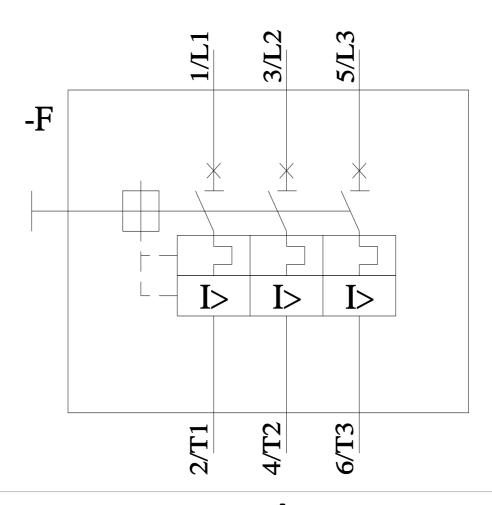
Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RV2042-4HA10/char

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

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4/12/2024 🖸