SIEMENS

Data sheet

3RV2042-4FA10



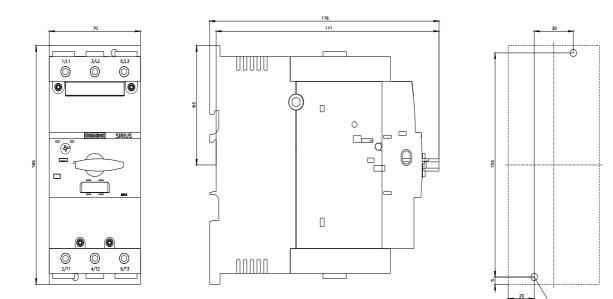
Circuit breaker size S3 for motor protection, CLASS 10 A-release 28...40 A N-release 520 A screw terminal Increased switching capacity 100 kA $\,$

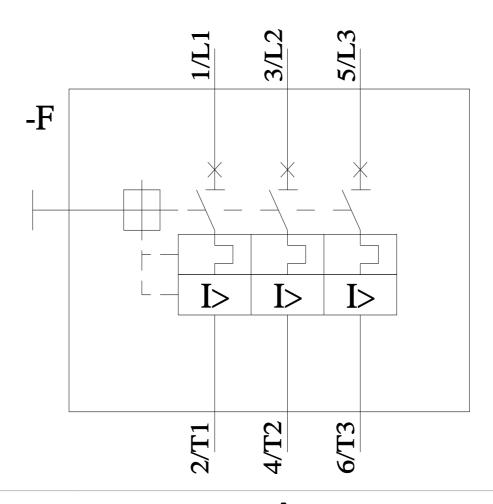
product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV2
General technical data	
size of the circuit-breaker	S3
size of contactor can be combined company-specific	S3
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	23 W
 at AC in hot operating state per pole 	7.7 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
Weight	2.193 kg
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 %
Environmental footprint	
Environmental Product Declaration(EPD)	Yes
global warming potential [CO2 eq] total	283.24 kg
global warming potential [CO2 eq] during manufacturing	18.5 kg
global warming potential [CO2 eq] during sales	1.24 kg
global warming potential [CO2 eq] during operation	265 kg
global warming potential [CO2 eq] after end of life	-1.5 kg
Siemens Eco Profile (SEP)	Siemens EcoTech

Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current- dependent overload release	28 40 A
type of voltage for main current circuit	AC
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	40 A
operational current	
at AC-3 at 400 V rated value	40 A
at AC-3e 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	37 kW
• at AC-3e	
— 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	37 kW
operating frequency	
• at AC-3 maximum	15 1/h
• at AC-3e maximum	15 1/h
Auxiliary circuit	
type of voltage for auxiliary and control circuit	AC/DC
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	
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	18 kA
at AC at 690 V rated value	12 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	9 kA
at 690 V rated value	6 kA
response value current of instantaneous short-circuit trip unit	520 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	40 A
at 600 V rated value	40 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	3 hp
— at 230 V rated value	7.5 hp
for 3-phase AC motor	
- at 200/208 V rated value	15 hp
- at 220/230 V rated value	15 hp

— at 460/480 V rated value	30 hp
— at 575/600 V rated value	40 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
— 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	$2x (2 - 16 mm^2)$
— solid	$2x (2.5 16 \text{ mm}^2)$ $2x (2.5 50 \text{ mm}^2) 1x (10 70 \text{ mm}^2)$
— solid or stranded	$2x (2.5 50 \text{ mm}^2), 1x (10 70 \text{ mm}^2)$
 finely stranded with core end processing finely stranded without core and processing 	2x (2.5 35 mm ²), 1x (2.5 50 mm ²)
- finely stranded without core end processing	2x (10 35 mm²), 1x (10 50 mm²)
tightening torque	4.5 6 Nm
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	
	Vec
product function suitable for safety function	Yes
suitability for use	No
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 dema 						
	and rate according to SN 3192		40 %			
	and rate according to SN 319		50 %			
•	n demand rate according to		5 000			
failure rate [FIT] wit 31920	th low demand rate according	ng to SN	50 FIT			
ISO 13849						
device type accord	ing to ISO 13849-1		3			
overdimensioning according to ISO 13849-2 necessary IEC 61508		Yes				
safety device type according to IEC 61508-2			Туре А			
T1 value						
• for proof test interval or service life according to IEC 61508		ng to IEC	10 a			
Electrical Safety						
protection class IP on the front according to IEC 60529		C 60529	IP20			
touch protection on the front according to IEC 60529		60529	finger-safe, for vertical con	tact from the front		
lisplay			Llandla			
display version for su	•		Handle			
pprovals Certificate						
General Product A	pproval					
	CE EG-Konf.	UK CA	(U)	<u>KC</u>	EHC	
For use in hazardo	us locations	Test Certificat	es	Maritime application		
IECE×	(Ex)	Special Test Ce ate	ertific- <u>Type Test Certific</u> <u>ates/Test Report</u>			
IECEx	ATEX			ABS	BUREAU VERITAS	
IECEx Maritime applicatio	ATEX			ABS	BUREAU VERITAS	
	atex on Lloyds Lloyds Lls	PRS	RINA		Confirmation	
	Lloyd's Register us	PRS	Environment	other	Confirmation	
Maritime applicatio		PRS		other	Confirmation Environmental Con- firmations	
Maritime application	LRS Railway Special Test Certific- ate	Confirmation		other <u>Miscellaneous</u>	Environmental Con-	
Maritime application	Railway Special Test Certific- ate packaging try.siemens.com/cs/ww/en/vic ownloadcenter (Catalogs, B	ew/109813875 rochures,)	n EPD	other <u>Miscellaneous</u>	Environmental Con-	
Maritime application	Railway Special Test Certific- ate packaging try.siemens.com/cs/ww/en/vic ownloadcenter (Catalogs, B .com/ic10 te ordering system) siemens.com/mall/en/en/Catalor ation.siemens.com/WW/CAXc	w/109813875 rochures,) log/product?mlfb prder/default.aspy icteristics, FAQs	n =3RV2042-4FA10 (?lang=en&mifb=3RV2042-4F s,)	other Miscellaneous Siemens EcoTech	Environmental Con-	
Maritime application	Railway Special Test Certific- ate packaging try.siemens.com/cs/ww/en/vic ownloadcenter (Catalogs, B com/ic10 te ordering system) siemens.com/mall/en/en/Catalor ation.siemens.com/www.caxada ation.siemens.com/cs/ww/en/ps roduct images, 2D dimensio on.siemens.com/bilddb/cax_d	w/109813875 rochures,) log/product?mlfb order/default.aspy cteristics, FAQs /3RV2042-4FA10 n drawings, 3D e.aspx?mlfb=3R\	an =3RV2042-4FA10 {?lang=en&mlfb=3RV2042-4F \$,) 2 models, device circuit diagu /2042-4FA10⟨=en	other Miscellaneous Siemens EcoTech	Environmental Con-	
Maritime application	Railway Special Test Certific- ate packaging try.siemens.com/cs/ww/en/vic ownloadcenter (Catalogs, B a.com/ic10 ne ordering system) siemens.com/mall/en/en/Cata or ation.siemens.com/WW/CAXco Manuals, Certificates, Chara try.siemens.com/cs/ww/en/ps roduct images, 2D dimensio	w/109813875 rochures,) log/product?mlfb order/default.aspy icteristics, FAQs /3RV2042-4FA10 n drawings, 3D e.aspx?mlfb=3R\ t-through curren /3RV2042-4FA10	an =3RV2042-4FA10 (?lang=en&mlfb=3RV2042-4F s,) 2 models, device circuit diagu (2042-4FA10⟨=en tt)/char	other Miscellaneous Siemens EcoTech	Environmental Con-	





5/16/2025 🖸