SIEMENS

Data sheet 3RV2023-4AA10



Circuit breaker size S0 for motor protection, CLASS 10 A-release 11...16 A N-release 208 A screw terminal Switching capacity 30 kA at 600 V according to LII /CSA

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	S0
size of contactor can be combined company-specific	S00, S0
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	9.25 W
at AC in hot operating state per pole	3.1 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
mechanical service life (operating cycles)	
 of the main contacts typical 	100 000
of auxiliary contacts typical	100 000
electrical endurance (operating cycles) typical	100 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
oubstance i formatance (bute)	1010 112000
SVHC substance name	Blei - 7439-92-1
SVHC substance name	
SVHC substance name Ambient conditions	Blei - 7439-92-1
SVHC substance name Ambient conditions installation altitude at height above sea level maximum	Blei - 7439-92-1
SVHC substance name Ambient conditions installation altitude at height above sea level maximum ambient temperature	Blei - 7439-92-1 2 000 m
SVHC substance name Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation	Blei - 7439-92-1 2 000 m -20 +60 °C
SVHC substance name Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage	Blei - 7439-92-1 2 000 m -20 +60 °C -50 +80 °C
SVHC substance name Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport	Blei - 7439-92-1 2 000 m -20 +60 °C -50 +80 °C -50 +80 °C
SVHC substance name Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation	Blei - 7439-92-1 2 000 m -20 +60 °C -50 +80 °C -50 +80 °C
SVHC substance name Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit	Blei - 7439-92-1 2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 %
SVHC substance name Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-	Blei - 7439-92-1 2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 %
SVHC substance name Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release	Blei - 7439-92-1 2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 %
SVHC substance name Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage	Blei - 7439-92-1 2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 %
SVHC substance name Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value	Blei - 7439-92-1 2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 3 10 16 A
SVHC substance name Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3 rated value maximum	Blei - 7439-92-1 2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 3 10 16 A
SVHC substance name Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3 rated value maximum • at AC-3e rated value maximum	Blei - 7439-92-1 2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 3 10 16 A 20 690 V 690 V
SVHC substance name Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3 rated value maximum • at AC-3e rated value maximum operating frequency rated value	Blei - 7439-92-1 2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 3 10 16 A 20 690 V 690 V 690 V 50 60 Hz

at AC-3e at 400 V rated value	16 A
operating power	
• at AC-3	
— at 690 V rated value	11 kW
• at AC-3e	
— at 690 V rated value	11 kW
operating frequency	
• at AC-3 maximum	15 1/h
at AC-3e maximum	15 1/h
Auxiliary circuit	
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 690 V rated value	4 kA
operating short-circuit current breaking capacity (Ics) at AC	
at 690 V rated value	2 kA
response value current of instantaneous short-circuit trip unit	208 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	16 A
at 600 V rated value	16 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	1 hp
— at 230 V rated value	2 hp
• for 3-phase AC motor	- ''F
— at 200/208 V rated value	3 hp
— at 220/230 V rated value	5 hp
— at 460/480 V rated value	10 hp
— at 575/600 V rated value	10 hp
Short-circuit protection	10 110
product function short circuit protection	Yes
design of the short-circuit trip	
design of the snort-circuit trip design of the fuse link for IT network for short-circuit	magnetic
protection of the main circuit	
• at 400 V	gG 63 A
• at 500 V	gG 50 A
• at 690 V	gG 40 A
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	97 mm
width	45 mm
depth	97 mm
required spacing	
with side-by-side mounting at the side	0 mm
• for grounded parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— upwards — at the side	30 mm
at the side for live parts at 690 V	00 11111
downwards	50 mm
— upwards	50 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 circuit	Top and bottom
type of connectable conductor cross-sections	
• for main contacts	
— solid or stranded	2x (1 2.5 mm²), 2x (2.5 10 mm²)
 finely stranded with core end processing 	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
 for AWG cables for main contacts 	2x (16 12), 2x (14 8)
tightening torque	
 for main contacts with screw-type terminals 	2 2.5 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	M4
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 low defination rate according to 314 3 1920	
 with low demand rate according to SN 31920 with high demand rate according to SN 31920 	50 %
<u> </u>	50 %
with high demand rate according to SN 31920	50 % 50 FIT
with high demand rate according to SN 31920 failure rate [FIT]	
with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC	50 FIT
with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 61508	50 FIT 10 a
with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529	50 FIT 10 a IP20

Confirmation

General Product Approval









Declaration of Conformity



Test Certificates

Marine / Shipping

Type Test Certificates/Test Report

Special Test Certificate









Marine / Shipping

other

Railway





Household and similar appliances

Confirmation



Vibration and Shock

Railway Environment

<u>Confirmation</u> <u>Environmental Confirmations</u>

urther information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-busines

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

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2023-4AA10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2023-4AA10

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2023-4AA10

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

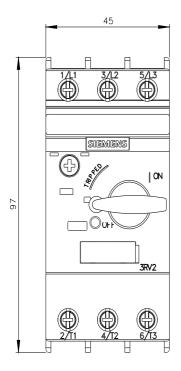
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2023-4AA10&lang=en

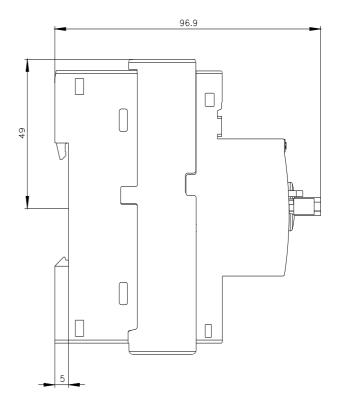
Characteristic: Tripping characteristics, I2t, Let-through current

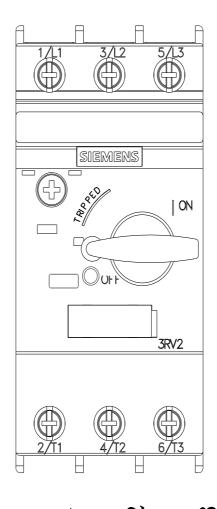
https://support.industry.siemens.com/cs/ww/en/ps/3RV2023-4AA10/char

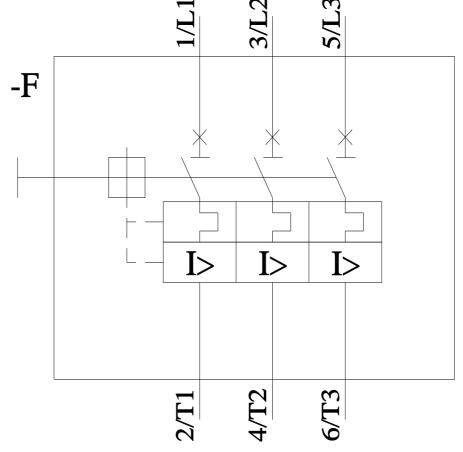
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2023-4AA10&objecttype=14&gridview=view1









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