# **SIEMENS**

Data sheet 3RV1011-0EA10



Circuit breaker size S00 for motor protection, CLASS 10 A-release 0.28...0.4 A N-release 5.2 A Screw terminal Standard switching capacity

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV1
General technical data	O.C.
size of the circuit-breaker	\$00
size of contactor can be combined company-specific	S00
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	165
at AC in hot operating state	5.5 W
	1.8 W
at AC in hot operating state per pole  including voltage with degree of pollution 3 at AC rated value.	690 V
insulation voltage with degree of pollution 3 at AC rated value	6 kV
surge voltage resistance rated value	O KV
mechanical service life (operating cycles)	400.000
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)	01/01/2013
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	0.28 0.4 A
operating voltage	
rated value	20 690 V
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V
<ul> <li>at AC-3e rated value maximum</li> </ul>	690 V
operating frequency rated value	50 60 Hz
	0.4.4
operational current rated value	0.4 A
operational current rated value operational current	0.4 A
•	0.4 A

operating power	
• at AC-3	
— at 230 V rated value	0.1 kW
— at 400 V rated value	0.09 kW
— at 500 V rated value	0.2 kW
— at 690 V rated value	0.2 kW
• at AC-3e	
— at 230 V rated value	0.1 kW
— at 400 V rated value	0.09 kW
— at 500 V rated value	0.2 kW
— at 690 V rated value	0.2 kW
operating frequency	
• at AC-3 maximum	15 1/h
• at AC-3e maximum	15 1/h
Auxiliary circuit	
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	100 kA
at AC at 690 V rated value	100 kA
operating short-circuit current breaking capacity (Ics) at AC	
• at 240 V rated value	100 kA
at 400 V rated value	100 kA
• at 500 V rated value	100 kA
• at 690 V rated value	100 kA
response value current of instantaneous short-circuit trip unit	5.2 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	0.4 A
• at 600 V rated value	0.4 A
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
design of the fuse link for IT network for short-circuit protection of the main circuit	
• at 240 V	none required
• at 400 V	None required
• at 500 V	None required
• at 690 V	None required
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	90 mm
width	45 mm
depth	75 mm
required spacing	
<ul> <li>for grounded parts at 400 V</li> </ul>	
— downwards	20 mm
— upwards	20 mm
— at the side	9 mm
• for live parts at 400 V	
— downwards	20 mm
— upwards	20 mm
— at the side	9 mm

a for grounded parts at EOO V	
<ul> <li>for grounded parts at 500 V</li> <li>— downwards</li> </ul>	20 mm
— upwards	20 mm
— at the side	9 mm
<ul> <li>for live parts at 500 V</li> </ul>	
— downwards	20 mm
— upwards	20 mm
— at the side	9 mm
<ul> <li>for grounded parts at 690 V</li> </ul>	
— downwards	20 mm
— upwards	20 mm
— backwards	0 mm
— at the side	9 mm
— forwards	0 mm
<ul> <li>for live parts at 690 V</li> </ul>	
— downwards	20 mm
— upwards	20 mm
— backwards	0 mm
— at the side	9 mm
— forwards	0 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 or stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x (1 4 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
type of connectable conductor cross-sections	
for auxiliary contacts	
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
tightening torque	
for main contacts with screw-type terminals	0.8 1.2 N·m
for auxiliary contacts with screw-type terminals	0.8 1.2 N·m
size of the screwdriver tip	Pozidriv size 2
design of the thread of the connection screw	
• for main contacts	M3
Safety related data	
product function suitable for safety function	Yes
<u> </u>	165
suitability for use	No
<ul> <li>safety-related switching on</li> </ul>	No
a safety related switching OFF	Voc
safety-related switching OFF	Yes 10 c
service life maximum	10 a
service life maximum test wear-related service life necessary	
service life maximum test wear-related service life necessary proportion of dangerous failures	10 a Yes
service life maximum test wear-related service life necessary proportion of dangerous failures  • with low demand rate according to SN 31920	10 a Yes 40 %
service life maximum  test wear-related service life necessary  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920	10 a Yes 40 % 50 %
service life maximum  test wear-related service life necessary  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920	10 a Yes 40 % 50 % 5 000
service life maximum  test wear-related service life necessary  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN	10 a Yes 40 % 50 %
service life maximum  test wear-related service life necessary  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920	10 a Yes 40 % 50 % 5 000
service life maximum  test wear-related service life necessary  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  ISO 13849	10 a Yes  40 % 50 % 5 000 50 FIT
service life maximum  test wear-related service life necessary proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  ISO 13849  device type according to ISO 13849-1	10 a Yes  40 % 50 % 5 000 50 FIT
service life maximum  test wear-related service life necessary  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  ISO 13849  device type according to ISO 13849-1  overdimensioning according to ISO 13849-2 necessary	10 a Yes  40 % 50 % 5 000 50 FIT
service life maximum  test wear-related service life necessary  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  ISO 13849  device type according to ISO 13849-1  overdimensioning according to ISO 13849-2 necessary  IEC 61508	10 a Yes  40 % 50 % 5 000 50 FIT  3 Yes
service life maximum  test wear-related service life necessary  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  ISO 13849  device type according to ISO 13849-1  overdimensioning according to ISO 13849-2 necessary  IEC 61508  safety device type according to IEC 61508-2	10 a Yes  40 % 50 % 5 000 50 FIT
service life maximum  test wear-related service life necessary  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  ISO 13849  device type according to ISO 13849-1  overdimensioning according to ISO 13849-2 necessary  IEC 61508  safety device type according to IEC 61508-2  Electrical Safety	10 a Yes  40 % 50 % 5 000 50 FIT  3 Yes
service life maximum  test wear-related service life necessary proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  ISO 13849  device type according to ISO 13849-1  overdimensioning according to ISO 13849-2 necessary IEC 61508  safety device type according to IEC 61508-2  Electrical Safety protection class IP on the front according to IEC 60529	10 a Yes  40 % 50 % 5 000 50 FIT  3 Yes  Type A
service life maximum  test wear-related service life necessary proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  ISO 13849  device type according to ISO 13849-1  overdimensioning according to ISO 13849-2 necessary IEC 61508  safety device type according to IEC 61508-2  Electrical Safety protection class IP on the front according to IEC 60529  touch protection on the front according to IEC 60529	10 a Yes  40 % 50 % 5 000 50 FIT  3 Yes
service life maximum  test wear-related service life necessary  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  ISO 13849  device type according to ISO 13849-1  overdimensioning according to ISO 13849-2 necessary  IEC 61508  safety device type according to IEC 61508-2  Electrical Safety  protection class IP on the front according to IEC 60529  touch protection on the front according to IEC 60529  Display	10 a Yes  40 % 50 % 5 000 50 FIT  3 Yes  Type A  IP20 finger-safe, for vertical contact from the front
service life maximum  test wear-related service life necessary proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  ISO 13849  device type according to ISO 13849-1  overdimensioning according to ISO 13849-2 necessary IEC 61508  safety device type according to IEC 61508-2  Electrical Safety protection class IP on the front according to IEC 60529  touch protection on the front according to IEC 60529	10 a Yes  40 % 50 % 5 000 50 FIT  3 Yes  Type A

## **Approvals Certificates**

## **General Product Approval**







Confirmation



<u>KC</u>

General Product Approval

For use in hazardous locations

**Test Certificates** 

Marine / Shipping







Type Test Certificates/Test Report Special Test Certificate



## Marine / Shipping













other

er Railway Environment

Confirmation

**Miscellaneous** 



Special Test Certificate Environmental Confirmations

#### Further information

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=3RV1011-0EA10

Cax online generator

 $\underline{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RV1011-0EA10}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-0EA10

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

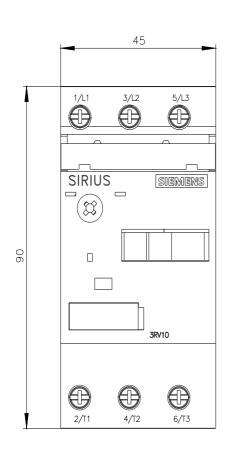
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV1011-0EA10&lang=en

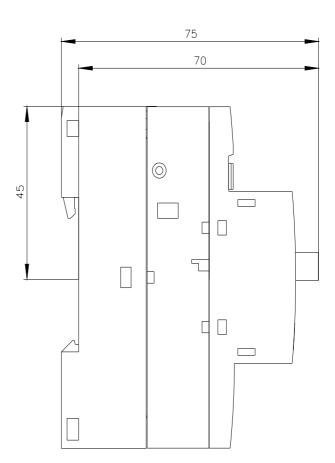
Characteristic: Tripping characteristics, I²t, Let-through current

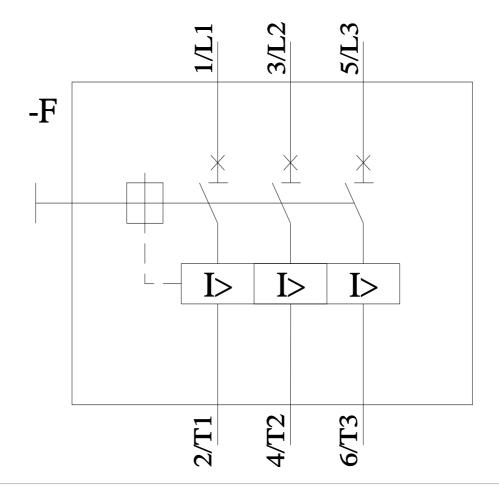
https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-0EA10/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV1011-0EA10&objecttype=14&gridview=view1







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