SIEMENS

Data sheet



Circuit breaker size S0 for system protection without phase failure protection A-release 13...20 A N-release 260 A screw terminal Standard switching capacity

product designation design of the product for system protection product type designation 3RV2 General technical data size of the circuit-breaker size of contactor can be combined company-specific product extension auxiliary switch yes power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole at AC in hot operating state per pole surge voltage resistance rated value shock resistance according to IEC 60068-2-27 general service life (operating cycles) • of the main contacts typical • of auxiliary contacts typical electrical endurance (operating cycles) typical electrical endurance (operating to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation verlative humidity during operation 10 95 % Main current A AC-3 rated value A AC-3 rated value maximum 690 V	product brand name	SIRIUS
product type designation General technical data size of the circuit-breaker size of ornatctor can be combined company-specific product extension auxiliary switch ***es** **power loss [W] for rated value of the current ***at AC in hot operating state per pole **at AC in hot operating state per pole **surge voltage resistance rated value **surge voltage resistance rated value **of the main contacts typical place (sooks-2-27 point acts typical place) **of of main contacts typical place (sooks-2-28 point acts) **of auxiliary contacts typical place (sooks-2-29 point acts) **of auxi	product designation	Circuit breaker
Size of the circuit-breaker size of the circuit-breaker size of contactor can be combined company-specific soo, so product extension auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value 6 kV shock resistance according to IEC 60068-2-27 25g / 11 ms Sinus mechanical service life (operating cycles) • of the main contacts typical • of auxiliary contacts typical 100 000 electrical endurance (operating cycles) typical electrical endurance (operating cycles) typical electrical endurance (operating cycles) typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit number of poles for main current circuit 3 adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3 rated value maximum 690 V	design of the product	for system protection
size of the circuit-breaker size of contactor can be combined company-specific product extension auxiliary switch e at AC in hot operating state • at AC in hot operating state per pole • at AC in hot operating state per pole • at AC in hot operating state per pole • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value 6 kV shock resistance according to IEC 60068-2-27 mechanical service life (operating cycles) • of the main contacts typical • of auxiliary contacts typical lou 000 electrical endurance (operating cycles) typical electrical endurance (operating cycles) typical electrical endurance (operating cycles) typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during operation • during storage • during transport relative humidity during operation 10 95 % 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 690 V	product type designation	3RV2
size of contactor can be combined company-specific product extension auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole • at AC in hot operating state per pole surge voltage resistance rated value shock resistance according to IEC 60068-2-27 25g / 11 ms Sinus mechanical service life (operating cycles) • of the main contacts typical • of auxiliary contacts typical of auxiliary contacts typical lelectrical endurance (operating cycles) typical reference code according to IEC 81346-2 Quibstance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during operation • during transport relative humidity during operation number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • at AC-3 rated value maximum 690 V	General technical data	
product extension auxiliary switch power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value surge voltage resistance rated value shock resistance according to IEC 60068-2-27 mechanical service life (operating cycles) • of the main contacts typical • of auxiliary contacts typical electrical endurance (operating cycles) typical 100 000 reference code according to IEC 81346-2 Qu Substance Prohibitance (Date) 10/01/2009 Ambient conditions installation altitude at height above sea level maximum 2 000 m 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 • poerating voltage • rated value • at AC-3 rated value maximum 10.5 W 3.5 W 10.5 W 3.5 W 10.0 000 10.0 000 10.0 000 20.0	size of the circuit-breaker	S0
power loss [W] for rated value of the current • at AC in hot operating state • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value surge voltage resistance rated value 6 kV shock resistance according to IEC 60068-2-27 25g / 11 ms Sinus mechanical service life (operating cycles) • of the main contacts typical • of auxiliary contacts typical lectrical endurance (operating cycles) typical electrical endurance (operating cycles) typical 100 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 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 690 V	size of contactor can be combined company-specific	S00, S0
at AC in hot operating state at AC in hot operating state per pole at AC in hot operating state per pole 3.5 W insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value shock resistance according to IEC 60068-2-27 25g / 11 ms Sinus mechanical service life (operating cycles) of the main contacts typical of auxiliary contacts typical of auxiliary contacts typical lelectrical endurance (operating cycles) typical lelectrical endurance (operating cycles) typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature olduring operation during storage olduring storage olduring transport relative humidity during operation 10 95 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage or rated value at AC-3 rated value maximum 690 V	product extension auxiliary switch	Yes
at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value 6 kV shock resistance according to IEC 60068-2-27 25g / 11 ms Sinus mechanical service life (operating cycles) of the main contacts typical 100 000 electrical endurance (operating cycles) typical 100 000 reference code according to IEC 81346-2 Qusubstance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature during operation during storage during transport relative humidity during operation 10 95 % 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 690 V	power loss [W] for rated value of the current	
insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value shock resistance according to IEC 60068-2-27 mechanical service life (operating cycles) of the main contacts typical of auxiliary contacts typical lectrical endurance (operating cycles) typical 100 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/01/2009 Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature oluring operation -20 +60 °C during storage -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 operating voltage o rated value o at AC-3 rated value maximum 690 V	 at AC in hot operating state 	10.5 W
surge voltage resistance rated value 6 kV shock resistance according to IEC 60068-2-27 25g / 11 ms Sinus mechanical service life (operating cycles) of the main 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 Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature olduring operation -20 +60 °C olduring storage -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 operating voltage rated value 20 690 V at AC-3 rated value maximum 690 V	 at AC in hot operating state per pole 	3.5 W
shock resistance according to IEC 60068-2-27 mechanical service life (operating cycles) of the main contacts typical of auxiliary contacts typical lectrical endurance (operating cycles) typical lectrical endurance (operating cycles) typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation oduring storage oduring 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 or rated value or at AC-3 rated value maximum end 100 000 100 000 100 0	insulation voltage with degree of pollution 3 at AC rated value	690 V
mechanical service life (operating cycles) of the main contacts typical of auxiliary contacts typical electrical endurance (operating cycles) typical lou 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature of during operation of during storage of 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 or at AC-3 rated value maximum one of poles for wain current circuit at AC-3 rated value maximum one of poles for wain current of the current-depole of the current of the current-dependent overload release operating voltage of the main contacts typical 100 000 one of auxiliary contacts typica	surge voltage resistance rated value	6 kV
of the main contacts typical of auxiliary contacts typical electrical endurance (operating cycles) typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation oduring storage oduring 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 of the main current circuit and 100 000 100 000	shock resistance according to IEC 60068-2-27	25g / 11 ms Sinus
of auxiliary contacts typical electrical endurance (operating cycles) typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation oduring storage oduring 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 orated value at AC-3 rated value maximum 100 000 100 000 100 000 0000 0000 0000 0000 0000	mechanical service life (operating cycles)	
electrical endurance (operating cycles) typical reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation 10 95 % 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 100 000	 of the main contacts typical 	100 000
reference code according to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation 10 95 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value • rated value • at AC-3 rated value maximum 10 95 W	of auxiliary contacts typical	100 000
Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature • during operation • during storage • during transport relative humidity during operation 10 95 % 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 10 //01/2009	electrical endurance (operating cycles) typical	100 000
installation altitude at height above sea level maximum ambient temperature during operation during storage during transport relative humidity during operation 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 2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 11 20 A	reference code according to IEC 81346-2	Q
installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation 10 95 % 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 2 000 m	Substance Prohibitance (Date)	10/01/2009
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 • rated value • at AC-3 rated value maximum -20 +60 °C -50 +80 °C 10 95 % 11 95 % 12 20 A	Ambient conditions	
 during operation during storage during transport 50 +80 °C during transport 50 +80 °C relative humidity during operation 10 95 % 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 c20 690 V 690 V 	installation altitude at height above sea level maximum	2 000 m
 during storage during transport 50 +80 °C relative humidity during operation 10 95 % 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 -50 +80 °C 10 95 % 11 20 A 12 20 A 690 V 	ambient temperature	
• during transport relative humidity during operation 10 95 % 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 -50 +80 °C 13 95 % 13 95 %	 during operation 	-20 +60 °C
relative humidity during operation 10 95 % 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 10 95 % 3 20 690 V 690 V	during storage	-50 +80 °C
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 690 V	during transport	-50 +80 °C
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 3 13 20 A 20 690 V 690 V	relative humidity during operation	4
adjustable current response value current of the current- dependent overload release operating voltage • rated value • at AC-3 rated value maximum 13 20 A 20 690 V	and the same of th	10 95 %
dependent overload release operating voltage • rated value		10 95 %
 rated value at AC-3 rated value maximum 20 690 V 690 V 	Main circuit	
• at AC-3 rated value maximum 690 V	Main circuit number of poles for main current circuit adjustable current response value current of the current-	3
	Main circuit number of poles for main current circuit adjustable current response value current of the current- dependent overload release	3
	Main circuit number of poles for main current circuit adjustable current response value current of the current- dependent overload release operating voltage	3 13 20 A
at AC-3e rated value maximum 690 V	Main circuit number of poles for main current circuit adjustable current response value current of the current- dependent overload release operating voltage • rated value	3 13 20 A 20 690 V
operating frequency rated value 50 60 Hz	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	3 13 20 A 20 690 V 690 V
operational current rated value 20 A	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	3 13 20 A 20 690 V 690 V
operational current	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	3 13 20 A 20 690 V 690 V 690 V 50 60 Hz
at AC-3 at 400 V rated value 20 A	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 operational current rated value	3 13 20 A 20 690 V 690 V 690 V 50 60 Hz
	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 operational current rated value	3 13 20 A 20 690 V 690 V 50 60 Hz 20 A
	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 operational current rated value operational current	3 13 20 A 20 690 V 690 V 50 60 Hz 20 A

operating power	
• at AC-3	
— at 230 V rated value	5.5 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	11 kW
— at 690 V rated value	15 kW
• at AC-3e	
— at 230 V rated value	5.5 kW
— at 400 V rated value	7.5 kW
— at 500 V rated value	11 kW
— at 690 V rated value	15 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
·	0
Protective and monitoring functions	
product function	Ne
ground fault detection	No
phase failure detection	No
trip class	CLASS 10
design of the overload release	thermal
maximum short-circuit current breaking capacity (lcu)	
 at AC at 240 V rated value 	100 kA
 at AC at 400 V rated value 	55 kA
 at AC at 500 V rated value 	10 kA
at AC at 690 V rated value	4 kA
operating short-circuit current breaking capacity (Ics) at AC	
• at 240 V rated value	100 kA
at 400 V rated value	25 kA
 at 500 V rated value 	5 kA
at 690 V rated value	2 kA
response value current of instantaneous short-circuit trip unit	260 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 400 V	gG 63 A
• at 500 V	gG 50 A
• at 690 V	gG 50 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 400 V	
— downwards	30 mm
— upwards	30 mm
— upwards — at the side	9 mm
	3 mm
• for live parts at 400 V	20
— downwards	
	30 mm
— upwards	30 mm
— at the side	
·	30 mm

— upwards	30 mm
— at the side	9 mm
 for live parts at 500 V 	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
 for grounded parts at 690 V 	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	30 mm
— forwards	0 mm
 for live parts at 690 V 	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	30 mm
— forwards	0 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
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	

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 high demand rate according to SN 31920 	50 %
failure rate [FIT]	
 with low demand rate according to SN 31920 	50 FIT
T1 value for proof test interval or service life according to IEC 61508	10 a
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
display version for switching status	Handle
Certificates/ approvals	

General Product Approval

Declaration of Conformity

Confirmation



<u>KC</u>







Test Certificates

Marine / Shipping

Type Test Certificates/Test Report

Special Test Certificate









Marine / Shipping

other

Railway



Confirmation



Confirmation

Vibration and Shock

Further information

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

https://press.siemens.com/qlobal/en/pressrelease/siemens-wind-down-russian-business

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=3RV2021-4BA10-0DA0

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RV2021-4BA10-0DA0}$

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4BA10-0DA0

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

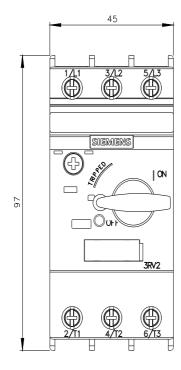
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-4BA10-0DA0&lang=en

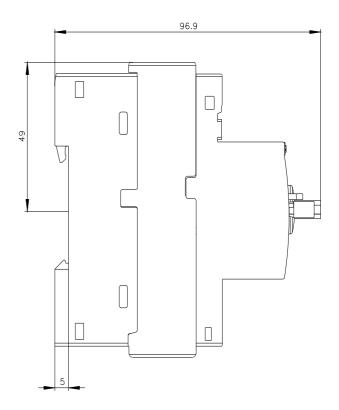
Characteristic: Tripping characteristics, I2t, Let-through current

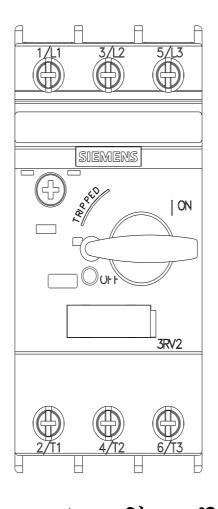
https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4BA10-0DA0/char

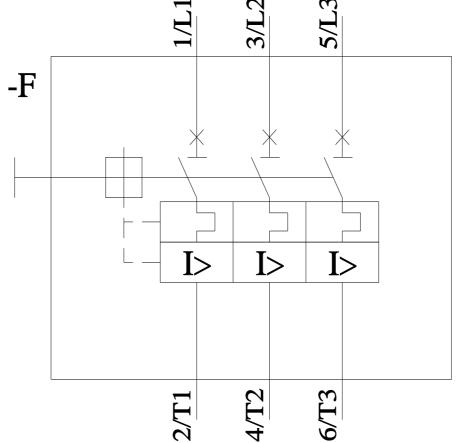
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2021-4BA10-0DA0&objecttype=14&gridview=view1









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