SIEMENS

Data sheet 3RV2021-4BA10



Circuit breaker size S0 for motor protection, CLASS 10 A-release 13...20 A N-release 260 A screw terminal Standard switching capacity





size of the circuit-breaker 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 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 mechanical service life (operating cycles) of auxiliary contacts typical of auxiliary contacts typical 100 000 electrical endurance (operating cycles) typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.36 kg Ambient conditions installation altitude at height above sea level maximum during storage during operation during storage during operation during storage during transport elative humidity during operation 1095 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage a rated value maximum a so	product brand name	SIRIUS
product type designation 38RV2 39noral tochnical data 31ze of the circuit-breaker \$1ze of the circuit-breaker \$1ze of the contactor can be combined company-specific \$00, \$00 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 insulation voltage with degree of pollution 3 at AC rated value \$10,5 W surge voltage resistance rated value \$10,5 W shock resistance according to IEC 80068-2-27 \$25g 11 ms mechanical service life (operating cycles) • of the main contacts typical • of auxiliary contacts	product designation	Circuit breaker
size of the circuit-breaker S00 S00 S00 S00 S00 S00 S00 S00 S00 S0	design of the product	For motor protection
size of the circuit-breaker 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 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 mechanical service life (operating cycles) of auxiliary contacts typical of auxiliary contacts typical 100 000 electrical endurance (operating cycles) typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.36 kg Ambient conditions installation altitude at height above sea level maximum during storage during operation during storage during operation during storage during transport elative humidity during operation 1095 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage a rated value maximum a so	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 insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value 6 kV for the main contacts typical 6 for fine main contacts typical 6 for fine main contacts typical 7 for auxiliary contacts typical 7 for auxiliary contacts typical 8 for fine main contacts typical 9 for switiary contacts typical 100 000	General technical data	
product extension auxiliary switch power loss IWJ 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 shock resistance according to IEC 60068-2-27 • of the main contacts typical • of auxiliary contacts typical • of auxili	size of the circuit-breaker	S0
power loss [W] for rated value of the current	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 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 • of according to IEC 81346-2 Q Substance Prohibitance (Date) 8VHC substance name Lead - 7439-92-1 Weight 0.36 kg Amblent 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 3 adjustable current response value current of the current-dependent overload release operating voltage • 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 shock resistance according to IEC 60088-2-27 25g / 11 ms mechanical service life (operating cycles) of the main contacts typical of auxiliary contacts typical of auxiliary contacts typical ledectrical endurance (operating cycles) typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.36 kg Ambient conditions Installation altitude at height above sea level maximum ambient temperature olduring operation olduring storage olduring transport relative humidity during operation value relative humidity during operation 1095 % Wash circuit number of poles for main current circuit 3 adjustable current response value current of the current-dependent overload release operating voltage 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 25g / 11 ms mechanical service life (operating cycles) of the main contacts typical of auxiliary contacts typical lelectrical endurance (operating cycles) lelectrical endurance (operating cycles) typical lelectrical endurance (opera	 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 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 SVHC substance name Lead - 7439-92-1 Weight 0.36 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 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 • rated value - rated value - 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 electrical endurance (operating cycles) typical Teference code according to IEC 81346-2 Q Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.36 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature of during operation of during storage of during storage of 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 orated value orated value at AC-3 rated value maximum 690 V	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 ference code according to IEC 81346-2 Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.36 kg 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	surge voltage resistance rated value	6 kV
of the main contacts typical of auxiliary contacts typical electrical endurance (operating cycles) typical feference code according to IEC 81346-2 Q Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.36 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation during storage during transport relative humidity during operation adjustable current response value current of the current-dependent overload release operating voltage rated value at AC-3 rated value maximum 100 000 100 00	shock resistance according to IEC 60068-2-27	25g / 11 ms
of auxiliary contacts typical electrical endurance (operating cycles) typical loo 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.36 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature oduring operation during storage during transport elative 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 electrical endurance (operation operation op	mechanical service life (operating cycles)	
electrical endurance (operating cycles) typical reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/01/2009 SVHC substance name Lead - 7439-92-1 Weight 0.36 kg Ambient conditions installation altitude at height above sea level maximum 4 during operation 4 during storage 4 during storage 5 during transport 6 during transport 7 elative 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 1 rated value 1 at AC-3 rated value maximum 6 90 V	 of the main contacts typical 	100 000
reference code according to IEC 81346-2 Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.36 kg Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • 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	of auxiliary contacts typical	100 000
Substance Prohibitance (Date) SVHC substance name Lead - 7439-92-1 Weight 0.36 kg 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 10.001/2009 Lead - 7439-92-1 Lead - 749-92-1 Lead - 749-	electrical endurance (operating cycles) typical	100 000
SVHC substance name Lead - 7439-92-1 Weight 0.36 kg 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 Lead - 7439-92-1 0.36 kg 2 000 m 3 000 C 3 000 C 4 000 C	reference code according to IEC 81346-2	Q
Weight Ambient conditions 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 -20 +80 °C -50 +80 °C -50 +80 °C 10 95 % 4 20 A	Substance Prohibitance (Date)	10/01/2009
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 2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 11 20 A	SVHC substance name	Lead - 7439-92-1
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 12 20 A	Weight	0.36 kg
ambient temperature	Ambient conditions	
 during operation 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 -20 +60 °C -50 +80 °C 13 20 A 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 690 V 	ambient temperature	
	 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
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 13 20 A	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	10 95 %
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 690 V	Main circuit	
dependent overload release operating voltage • rated value	number of poles for main current circuit	3
 rated value at AC-3 rated value maximum 20 690 V 690 V 		13 20 A
• at AC-3 rated value maximum 690 V	operating voltage	
	rated value	20 690 V
at AC-3e rated value maximum 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	20 A
operational current	
at AC-3 at 400 V rated value	20 A
at AC-3e at 400 V rated value	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
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 	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 (lcs) at AC	400 1 4
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
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	20.4
 at 480 V rated value at 600 V rated value 	20 A
at 600 V rated value yielded mechanical performance [hp]	20 A
for single-phase AC motor	
ior single-phase AC motor — at 110/120 V rated value	1.5 hp
— at 230 V rated value	3 hp
for 3-phase AC motor	· · · p
— at 200/208 V rated value	7.5 hp
— at 220/230 V rated value	5 hp
— at 460/480 V rated value	10 hp
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	gL/gG 63 A
• at 500 V	gL/gG 50 A
• at 690 V	gL/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	V
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for live parts at 400 V	3 111111
·	30 mm
— downwards	
— upwards	30 mm
— at the side	9 mm
• for grounded parts at 500 V	
— downwards	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
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	I OZIGITY SIZO Z
• for main contacts	M4
	IVI T
Safety related data	Van
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 low demand rate according to 514 5 1920	40 /0

B10 value with high demand rate according to SN 31920	5 000
failure rate [FIT] with low demand rate according to SN 31920	50 FIT
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	Type A
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	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
Display	
display version for switching status	Handle
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











Miscellaneous

other

other

Railway

Environment

Confirmation



Special Test Certificate

Confirmation







Environment

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=3RV2021-4BA10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-4BA10

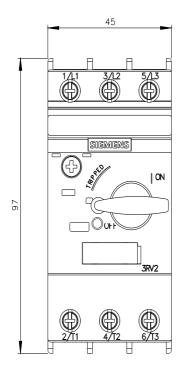
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

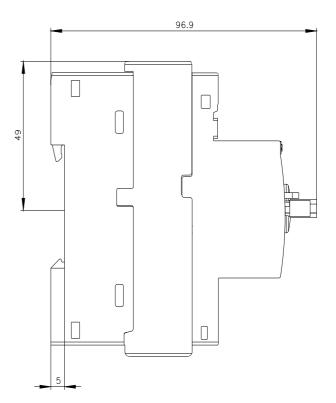
https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4BA10

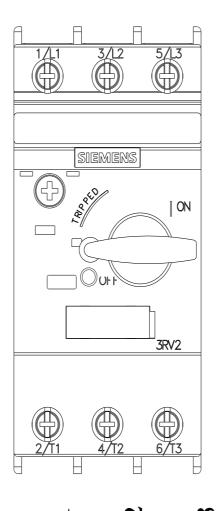
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax de.aspx?mlfb=3RV2021-4BA10&lang=en

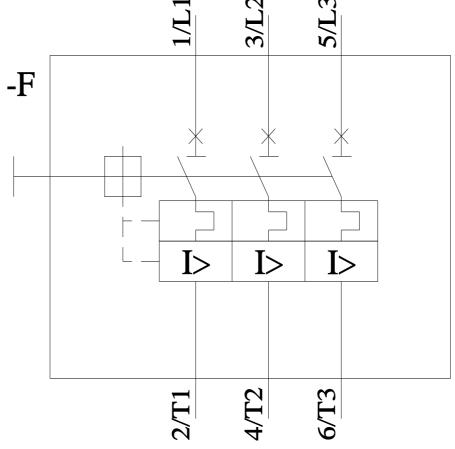
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4BA10/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2021-4BA10&objecttype=14&gridview=view1









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