SIEMENS

Data sheet

3RV2421-4BA10



Circuit breaker size S0 for transformer protection A-release 13...20 A N-release 325 A Screw terminal Standard switching capacity

2/11 2/12 6/13	
product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For transformer protection
product type designation	3RV2
General technical data	
size of the circuit-breaker	SO
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 	10.5 W
 at AC in hot operating state per pole 	3.5 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
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	13 20 A
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	20 A
operational current	
• at AC-3 at 400 V rated value	20 A
• at AC-3e at 400 V rated value	20 A

operation prover 		
- al 230 Vinet value55 Wi- al 230 Vinet value11 Wi- al 230 Vinet value13 Wi- al 230 Vinet value55 Ni- al 230 Vinet value55 Ni- al 230 Vinet value55 Ni- al 230 Vinet value15 Ni- al 230 Vinet value15 Ni- al 230 Vinet value15 Ni- al 2430 Vinet value0- al 2430 V	operating power	
	• at AC-3	
Al 200 Vitale value1 klW al 200 Vitale value3 klW al 200 Vitale value5 klW al 200 Vitale value5 klW al 200 Vitale value1 klW- al 200 Vitale value0- al 200 Vitale value10 klA- al 200 Vitale value0- al 200 Vitale value0	— at 230 V rated value	5.5 kW
	— at 400 V rated value	7.5 kW
• et AC-3e•• et A200 Yrade value75 kW- at 500 Yrade value180V- at 500 Yrade value180V- at 500 Yrade value180V• at AC-3e maximum19 Inh• et AC-3e maximum19 Inh• et AC-3e maximum19 Inh• et AC-3e maximum0• et AC-3e AC-3e Maximum0 </td <td>— at 500 V rated value</td> <td>11 kW</td>	— at 500 V rated value	11 kW
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	— at 230 V rated value	5.5 kW
	— at 400 V rated value	7.5 kW
operating frequency• AIAC3 maximum15 fb• AIAC3 maximum15 fb• AIAC3 maximum15 fbAuxinary clease0number of NC contacts for auxiliary contacts0number of Contacts for auxiliary contacts0• number of Contacts for auxiliary contacts0• optional faut detectionNo• of AG 250 V field value100 NA• of AG 250 V field value25 KA• of AG 250 V field value25 KA• of AG 250 V field value25 KA• of Optional value25 KA• of Optional value20 A• of Optional value20 A• of optional faut detection20 A• of optional faut detection30 P• of optional porformance (hp)-• of value Advalue1.5 Np• of value Advalue1.5 Np• of value Advalue1.5 Np• of value Advalue1.5 Np• of value Advalue	— at 500 V rated value	11 kW
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Protective and monitoring functions product function	number of NO contacts for auxiliary contacts	0
Protective and monitoring functions Product function orgound final identication No • product function Yes • at AC at 200 V rated value 100 kA • at AC at 200 V rated value 10 kA • at AC at 600 V rated value 25 kA • at AC at 600 V rated value 25 kA • at AC at 600 V rated value 100 kA • at AC at 600 V rated value 25 kA • at AC at 600 V rated value 25 kA • at 800 V rated value 25 kA • at 800 V rated value 25 kA • at 800 V rated value 20 A • at 800 V rated value 32 A • at 800 V rated value 32 A • at 800 V rated value 32 A • at 800 V rated value 20 A • at 800 V rated value </td <td></td> <td>0</td>		0
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UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value 20 A • at 600 V rated value 20 A • at 600 V rated value 20 A yielded mechanical performance [hp] • • for single-phase AC motor - - at 110/120 V rated value 3 hp • for 3-phase AC motor - - at 200/208 V rated value 3 hp • for 3-phase AC motor - - at 200/208 V rated value 5 hp - at 200/208 V rated value 10 hp Short-circuit protection Yes design of the short-circuit protection Yes design of the fuse link for IT network for short-circuit protection Yes • at 400 V gL/gG 63 A • at 500 V gL/gG 50 A • at 900 V		
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• at 500 V gL/gG 50 A • at 690 V gL/gG 50 A Installation/ mounting/ dimensions any fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height 97 mm width 45 mm	protection of the main circuit	al /aC 63 A
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fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height 97 mm width 45 mm		
height 97 mm width 45 mm		-
width 45 mm		
depth 97 mm		
	depth	97 mm

required spacing	
with side-by-side mounting at the side	0 mm
 with side-by-side mounting at the side for grounded parts at 400 V 	
 of grounded parts at 400 v — downwards 	30 mm
	30 mm
— upwards	9 mm
— at the side	9 11111
• for live parts at 400 V	
— downwards	30 mm
— 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 mm ²), 2x (2.5 6 mm ²), 1x 10 mm ²
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	Ma
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 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
protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529	IP20 finger-safe, for vertical contact from the front
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front

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					formity
<u>Confirmation</u>	CCC		KC	EAC	UK CA
Declaration of Con- formity	Test Certificates		Marine / Shipping		
CE EG-Konf.	<u>Special Test Certific-</u> <u>ate</u>	<u>Type Test Certific-</u> ates/Test Report	ABS	B U REAU VERITAS	
Marine / Shipping			other		Railway
Lloyd's Register urs	PRS	RINA	<u>Confirmation</u>	VDE	<u>Confirmation</u>
Railway					

Vibration and Shock

Further information

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

https://press.siemens.com/global/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=3RV2421-4BA10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2421-4BA10

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2421-4BA10

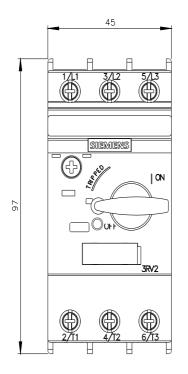
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

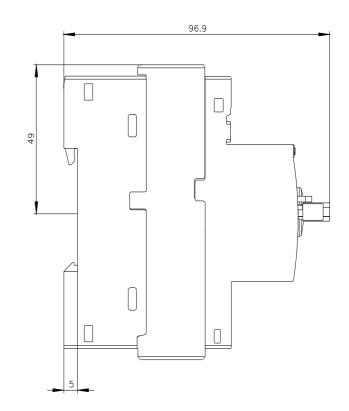
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2421-4BA10&lang=en

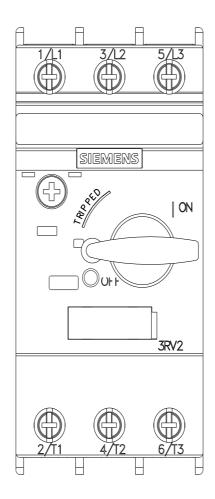
Characteristic: Tripping characteristics, I²t, Let-through current

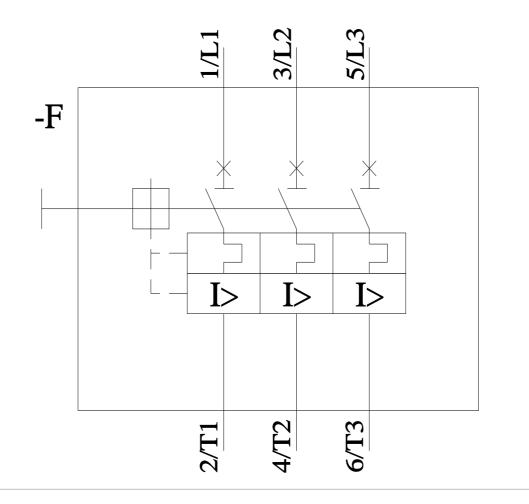
https://support.industry.siemens.com/cs/ww/en/ps/3RV2421-4BA10/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2421-4BA10&objecttype=14&gridview=view1









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