SIEMENS

Product data sheet

3RV2421-4BA20



CIRCUIT-BREAKER SZ S0, FOR TRANSFORMER PROT. A-RELEASE 14...20A, N-RELEASE 325A, SPRING-L. CONNECTION, STANDARD SW. CAPACITY

General technical data:			
Product brand name		SIRIUS	
product designation		3RV2 circuit breaker	
Size of the circuit-breaker		S0	
Trip class		CLASS 10	
Protection class IP / on the front		IP20	
Degree of pollution		3	
Installation altitude / at a height over sea level / maximum	m	2,000	
Ambient temperature			
during storage	°C	-50 80	
during operating	°C	-20 60	
during transport	°C	-50 80	
Resistance against shock		25g / 11 ms	
Impulse voltage resistance / rated value	kV	6	
Insulation voltage / rated value	V	690	
Active power loss / total / typical	W	9.6	
Item designation			
 according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 		F	
according to DIN EN 61346-2		F	

• of the main contacts / typical100,000• of the auxiliary contacts / typical100,000Type of the driving mechanism / motor driveNoDesign of the operating mechanismNo• overload protectionYes• overload protectionYes• haviliary switchNo• auxiliary	Mechanical operating cycles as operating time		
Type of the driving mechanism / motor drive Image: mechanism / motor drive No Design of the operating mechanism Image: mechanism Image: mechanism • oreidad protection Image: mechanism Yes • phase disturbance recognition Image: mechanism Yes Product component Image: mechanism No • undiary switch No No • undiary switch No No • inp indicator No No Product component Image: mechanism Image: mechanism • inp indicator No No Product control optional / motor drive Image: mechanism Image: mechanism • inp indicator No No No Product control optional / motor drive Image: mechanism Image: mechanism Image: mechanism • inp indicator No No No Image: mechanism Ima	of the main contacts / typical		100,000
Design of the operating mechanism Product function • verifical protection Yes • phase disturbance recognition Yes Product component Yes • auxiliary switch No • undervoltage release mechanism No • trip indicator No Product extension / optional / motor drive No Main circuit: No Number of poles / for main current circuit 3 Operating voltage / at AC-3 / at do V / rated value NO • at 400 V / rated value W 7,500 • at 400 V / rated value W 10,000 • at 500 V / rated value W 10,000 • at 500 V / rated value W 15,000 Prequency of operation / at AC-3 / according to IEC 60947-6-2/ 1th 15 Arrangement of electrical connectors / for main current circuit Top and bottom Adjustable response current A 325	• of the auxiliary contacts / typical		100,000
Product function Yes • overload protection Yes • phase disturbance recognition Yes Product component Yes • audilary switch No • undervoltage release mechanism No • trip indicator No Product extension / optional / motor drive No Main circuit No Number of poles / for main current circuit 3 Operating voltage / at AC-3 / rated value / maximum V 690 Operating current / at AC-3 / at 400 V / rated value A 15.5 Service power / at AC-3 W 7.500 • at 400 V / rated value W 15,600 • at 400 V / rated value W 15,600 • at 600 V / rated value W 15,600 • at 600 V / rated value W 16,800 • of the non-delayed short-circuit release A 325 325 • of the non-delayed short-circuit release A 30 • of the current / rated value W 5,500 Continuous current / rated value Yes Num	Type of the driving mechanism / motor drive		No
• overload protectionYes• phase disturbance recognitionYesProduct componentYes• auxiliary switchNo• undervoltage release mechanismNo• indicatorNoProduct extension / optional / motor driveNoProduct extension / optional / motor driveNoMuther of poles / for main current circuit3Operating voltage / at AC-3 / rated value / maximumVService power / at AC-3 / rated value / maximumV• at 400 V / rated valueW• at 400 V rated valueNo• at 400 V rated valueW• at 400 V rated valueNo• at 400 V rated valueNo	Design of the operating mechanism		selector switch
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• auxiliary switchNo• undervoltage release mechanismNo• trip indicatorNoProduct extension / optional / motor driveNoMumber of poles / for main current circuitSoOperating voltage / at AC-3 / rated value / maximumVOperating current / at AC-3 / rated value / maximumVOperating current / at AC-3 / rated value / maximumVOperating current / at AC-3 / rated valueAService power / at AC-3V• at 400 V / rated valueW• at 500 V / rated valueW• at 600 V / rated valueV• at 600 V / rated value </td <td>phase disturbance recognition</td> <td></td> <td>Yes</td>	phase disturbance recognition		Yes
• undervoltage release mechanismNo• trip indicatorNoProduct extension / optional / motor driveNoMumber of poles / for main current circuit3Operating voltage / at AC-3 / rated value / maximumV690Operating current / at AC-3 / at 400 V / rated valueA15.5Service power / at AC-3 / at 400 V / rated valueW7.500• at 400 V / rated valueW11,000• at 600 V / rated valueW15,000• frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximumTop and bottom• d the non-delayed short-fricuit releaseA325 325• of the non-delayed short-fricuit releaseA14 20• of the current - frated valueM	Product component		
• trip indicator No Product extension / optional / motor drive No Main circuit: No Number of poles / for main current circuit 3 Operating voltage / at AC-3 / rated value / maximum V 690 Operating current / at AC-3 / rated value / maximum V 690 Operating current / at AC-3 / rated value / maximum V 690 • at 400 V / rated value M 15.5 Service power / at AC-3 W 7.500 • at 400 V / rated value W 15.000 • at 600 V / rated value W 15.000 • at 600 V / rated value W 15.000 • at 600 V / rated value W 15.000 • at 600 V / rated value W 15.000 Frequency of operation / at AC-3 / according to IEC 60947-6-21 1/h 15 Arrangement of electrical connectors / for main current circuit M Adjustable response current - • of the non-delayed short-circuit release A 14 20 Service power / at AC-3 / at 230 V / rated value W 5,500 Continuous current	auxiliary switch		No
Product extension / optional / motor drive No Main circuit: Image: Contract of the circuit the ci	undervoltage release mechanism		No
Main circuit: Image: Image	• trip indicator		No
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Operating voltage / at AC-3 / rated value / maximum V 690 Operating current / at AC-3 / at 400 V / rated value A 15.5 Service power / at AC-3 W 7,500 • at 400 V / rated value W 7,500 • at 500 V / rated value W 1000 • at 600 V / rated value W 1000 • at 600 V / rated value W 15,000 Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum I/h 15 Arrangement of electrical connectors / for main current circuit Top and bottom Adjustable response current I/h 325 • of the non-delayed short-circuit release A 325 • of the current-dependent overload release A 14 Service power / at AC-3 / at 230 V / rated value W 5,500 Continuous current / rated value A 20 Auxiliary circuit: Yes Product extension / auxiliary contacts / instantaneous switching 0 Number of NC contacts / for auxiliary contacts / instantaneous switching 0 Number of Chan	Main circuit:		
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Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum 1/h 15 Arrangement of electrical connectors / for main current circuit Top and bottom Adjustable response current Top and bottom • of the non-delayed short-circuit release A 325 325 • of the current-dependent overload release A 14 20 Service power / at AC-3 / at 230 V / rated value W 5,500 Continuous current / rated value A 20 Auxiliary circuit: Ves Product extension / auxiliary switch Yes Number of NC contacts / for auxiliary contacts / instantaneous switching 0 Number of change-over switches / for auxiliary contacts 0 Number of change-over switches / for auxiliary contacts 0	• at 500 V / rated value	W	11,000
maximum Imaximum Image: Transmission of the current of the current of the current overload release Image: Transmission overload release <thimage: overlease<="" th="" transmission=""> <th< td=""><td>• at 690 V / rated value</td><td>W</td><td>15,000</td></th<></thimage:>	• at 690 V / rated value	W	15,000
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• of the current-dependent overload release A 14 20 Service power / at AC-3 / at 230 V / rated value W 5,500 Continuous current / rated value A 20 Auxiliary circuit: Ves Product extension / auxiliary switch Yes Number of NC contacts / for auxiliary contacts / instantaneous switching 0 Number of NO contacts / for auxiliary contacts / instantaneous switching 0 Number of change-over switches / for auxiliary contacts 0 Inputs/ Outputs: Ves	Adjustable response current	_	
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Continuous current / rated value A 20 Auxiliary circuit: Yes Product extension / auxiliary switch Yes Number of NC contacts / for auxiliary contacts / instantaneous switching 0 Number of NO contacts / for auxiliary contacts / instantaneous switching 0 Number of change-over switches / for auxiliary contacts 0 Inputs/ Outputs: 0	• of the current-dependent overload release	А	14 20
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Number of NC contacts / for auxiliary contacts / instantaneous switching 0 Number of NO contacts / for auxiliary contacts / instantaneous switching 0 Number of change-over switches / for auxiliary contacts 0 Inputs/ Outputs: 0	Auxiliary circuit:		
switching 0 Number of NO contacts / for auxiliary contacts / instantaneous switching 0 Number of change-over switches / for auxiliary contacts 0 Inputs/ Outputs: 0	Product extension / auxiliary switch		Yes
switching 0 Number of change-over switches / for auxiliary contacts 0	•		0
Inputs/ Outputs:	-		0
	Number of change-over switches / for auxiliary contacts		0
Number of digital inputs 0	Inputs/ Outputs:		
	Number of digital inputs		0

Short-circuit:		
Breaking capacity limit short-circuit current (lcu)		
• at 400 V / rated value	А	55,000
• at 500 V / rated value	А	10,000
• at 690 V / rated value	А	4,000
Design of the overcurrent release and short-circuit release		thermomagnetic
Installation/mounting/dimensions:		
Built in orientation		any
Type of mounting		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
Width	mm	45
Height	mm	119
Depth	mm	91
Distance, to be maintained, to the ranks assembly		
forwards	mm	0
backwards	mm	0
• upwards	mm	50
downwards	mm	50
• sidewards	mm	0
Distance, to be maintained, to earthed part		
• forwards	mm	0
backwards	mm	0
• upwards	mm	50
• sidewards	mm	30
downwards	mm	50
Distance, to be maintained, conductive elements		
• forwards	mm	0
backwards	mm	0
• upwards	mm	50
downwards	mm	50
• sidewards	mm	30
Connections:		
Product function		
removable terminal for main circuit		No
removable terminal for auxiliary and control circuit		No
Design of the electrical connection		
for main current circuit		spring-loaded terminals
Type of the connectable conductor cross-section		

• solid				2x (1	. 10 mm2)		
 stranded 				2x (1	. 10 mm²)		
 finely stranded 	d						
 with conduct 	ctor end processing			2x (1 6 mm2)			
 without cor 	nductor final cutting			2x (1	. 6 mm2)		
 for AWG conduct 	tors / for main contac	ts		2x (18	8)		
Certificates/appro	ovals:						
Verification of suita	bility			CE / UI	L/CSA		
 f ür Staubexplosie 	onsschutz für Zone 27	1/22		no	no		
 for gas explosior 	n protection for zone 1	/2		no			
General Product A	pproval				Test Certificates		
	(Ch	ROSTEST			Manufacturer		
Cac	U		U				
cqc	CSA		UL				
Shipping Approva							
THEAN BURE	GL	Lloyd's Register	and the second				
OF SHIPPING	GL	LRS	DBS		BINIA	PADE	
ABS other	GL	LKS	FK3		RINA	RMRS	
Manufacturer	other	^					
Manadator		DVE					
		VDE					
UL/CSA ratings							
yielded mechanical	performance (hp)						
 for single-phase 	squirrel cage motors						
• at 110/120 V /	rated value		hp	1.5			
• at 230 V / rate	• at 230 V / rated value		hp	3			
 for three-phase s 	squirrel cage motors						
• at 200/208 V / rated value			hp	5			
• at 220/230 V / rated value			hp	5			
• at 460/480 V /	rated value		hp	10			
Operating current (I	FLA) / for three-phas	se squirrel cage motors					
• at 480 V / rated v	/alue		А	14			
Safety:							
B10 value / with hig	h demand rate						
 according to SN 	31920			50,000			
T1 value / for proof	test interval or serv	ice life					

• according to IEC 61508

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Failure rate (FIT value) / with low demand rate		
according to SN 31920	FIT	50
Proportion of dangerous failures		
with low demand rate / according to SN 31920	%	40
 with high demand rate / according to SN 31920 	%	40
Protection against electrical shock		finger-safe

Further information:

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

http://www.siemens.com/industrial-controls/mall

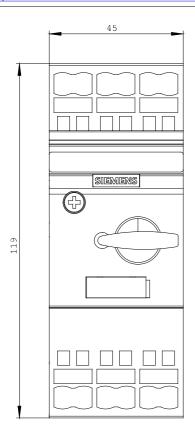
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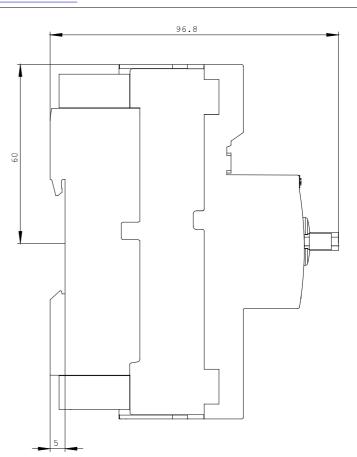
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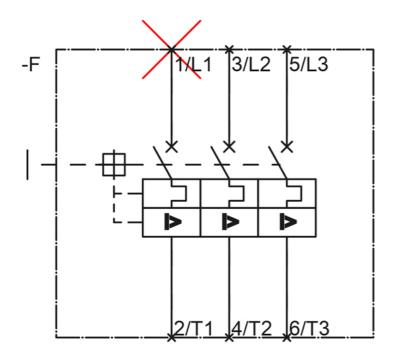
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

http://support.automation.siemens.com/WW/view/en/3RV2421-4BA20/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RV2421-4BA20







last change:

Oct 17, 2011