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Data sheet 3RV2021-4DA20



CIRCUIT-BREAKER SZ S0, FOR MOTOR PROTECTION, CLASS 10, A-RELEASE 18...25A, N-RELEASE 325A, SPRING-L. CONNECTION, STANDARD SW. CAPACITY,

product brand name		SIRIUS
Product designation		3RV2 circuit breaker

General technical data:		
Active power loss total typical	W	8
Insulation voltage		
• with degree of pollution 3 Rated value	V	690
Shock resistance		
• acc. to IEC 60068-2-27		25g / 11 ms
Surge voltage resistance Rated value	kV	6
Mechanical service life (switching cycles)		
• of the main contacts typical		100 000
• of the auxiliary contacts typical		100 000
Electrical endurance (switching cycles)		
• typical		100 000
Temperature compensation	°C	-20 ... +60
Size of contactor can be combined company-specific		S00
Protection class IP		
• on the front		IP20
• of the terminal		IP20
Type of protection		Increased safety
Equipment marking		
• acc. to DIN EN 81346-2		Q

Main circuit:		
Number of poles for main current circuit		3

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Adjustable response value current of the current-dependent overload release	A	18 ... 25
Operating voltage		
• Rated value	V	690
• at AC-3 Rated value maximum	V	690
Operating frequency Rated value	Hz	50 ... 60
Operating current Rated value	A	25
Operating current		
• at AC-3		
— at 400 V Rated value	A	25
Operating power		
• at AC-3		
— at 230 V Rated value	W	5 500
— at 400 V Rated value	W	11 000
— at 500 V Rated value	W	15 000
— at 690 V Rated value	W	22 000
Operating frequency		
• at AC-3 maximum	1/h	15

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
Product expansion Auxiliary switch		Yes

Protective and monitoring functions:		
Trip class		CLASS 10
Design of the overload circuit breaker		thermal
Operational short-circuit current breaking capacity (Ics) with AC		
• at 240 V Rated value	kA	100
• at 400 V Rated value	kA	25
• at 500 V Rated value	kA	5
• at 690 V Rated value	kA	2
Maximum short-circuit current breaking capacity (Icu)		
• with AC at 240 V Rated value	kA	100
• with AC at 400 V Rated value	kA	55
• with AC at 500 V Rated value	kA	10
• with AC at 690 V Rated value	kA	4
Breaking capacity short-circuit current (Icn)		
• with 1 current path for DC at 150 V Rated value	kA	10

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• with 2 current paths in series for DC at 300 V Rated value	kA	10
• with 3 current paths in series for DC at 450 V Rated value	kA	10
Response value current of the instantaneous short-circuit release	A	325

UL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor		
• at 480 V Rated value	A	25
• at 600 V Rated value	A	25
yielded mechanical performance [hp]		
• for single-phase AC motor at 110/120 V Rated value	metric hp	2
• for single-phase AC motor at 230 V Rated value	metric hp	3
• for three-phase AC motor at 200/208 V Rated value	metric hp	5
• for three-phase AC motor at 220/230 V Rated value	metric hp	7.5
• for three-phase AC motor at 460/480 V Rated value	metric hp	15

Short-circuit:		
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
Mounting type		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
Height	mm	119
Width	mm	45
Depth	mm	96
Required spacing		
• with side-by-side mounting		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	50
— downwards	mm	50
— at the side	mm	0

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• for grounded parts		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	50
— at the side	mm	30
— downwards	mm	50
• for live parts		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	50
— downwards	mm	50
— at the side	mm	30

Connections/ Terminals:

Type of electrical connection		
• for main current circuit		spring-loaded terminals
Arrangement of electrical connectors for main current circuit		Top and bottom
Product function		
• removable terminal for auxiliary and control circuit		No
Type of connectable conductor cross-section		
• for main contacts		
— single or multi-stranded		2x (1 ... 10 mm²)
— finely stranded with core end processing		2x (1 ... 6 mm²)
— finely stranded without core end processing		2x (1 ... 6 mm²)
• for AWG conductors for main contacts		2x (18 ... 8)
Design of screwdriver shaft		Diameter 5 to 6 mm

Safety related data:

B10 value with high demand rate acc. to SN 31920		50 000
Proportion of dangerous failures		
• with low demand rate acc. to SN 31920	%	40
• with high demand rate acc. to SN 31920	%	40
Failure rate [FIT] with low demand rate acc. to SN 31920	FIT	50
T1 value for proof test interval or service life acc. to IEC 61508	y	10
Protection against electrical shock		finger-safe

Mechanical data:

Size of the circuit-breaker		S0

Ambient conditions:

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Installation altitude at height above sea level maximum	m	2 000
Ambient temperature		
• during operation	°C	-20 ... +60
• during storage	°C	-50 ... +80
• during transport	°C	-50 ... +80
Relative humidity during operation	%	10 ... 95

Display:

Display version		
• for switching status		Handle

Certificates/ approvals:

General Product Approval				Declaration of Conformity	Test Certificates
CCC	CSA	UL	EAC	EG-Konf.	Type Test Certificates/Test Report

Test Certificates		Shipping Approval			
Special Test Certificate	Declaration of the Compliance with the order	ABS	BUREAU VERITAS	DNV	GL

Shipping Approval				other	
LRS	PRS	RINA	RMRS	Environmental Confirmations	Confirmation

other	
VDE	other

Further information

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

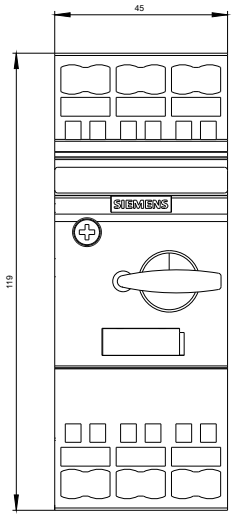
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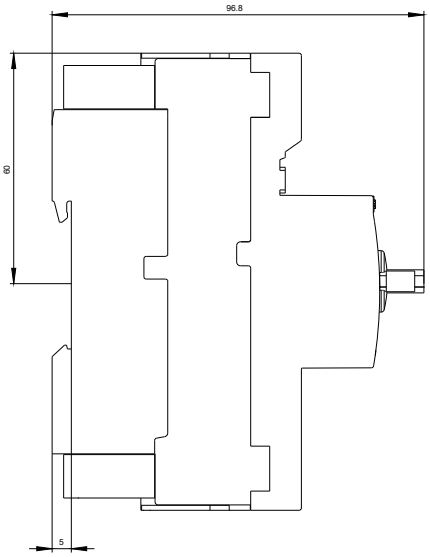
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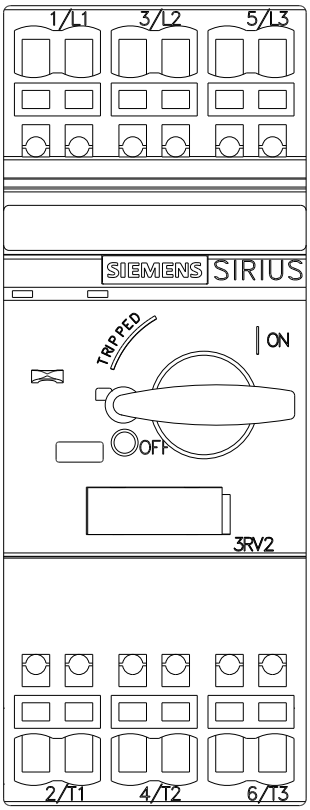
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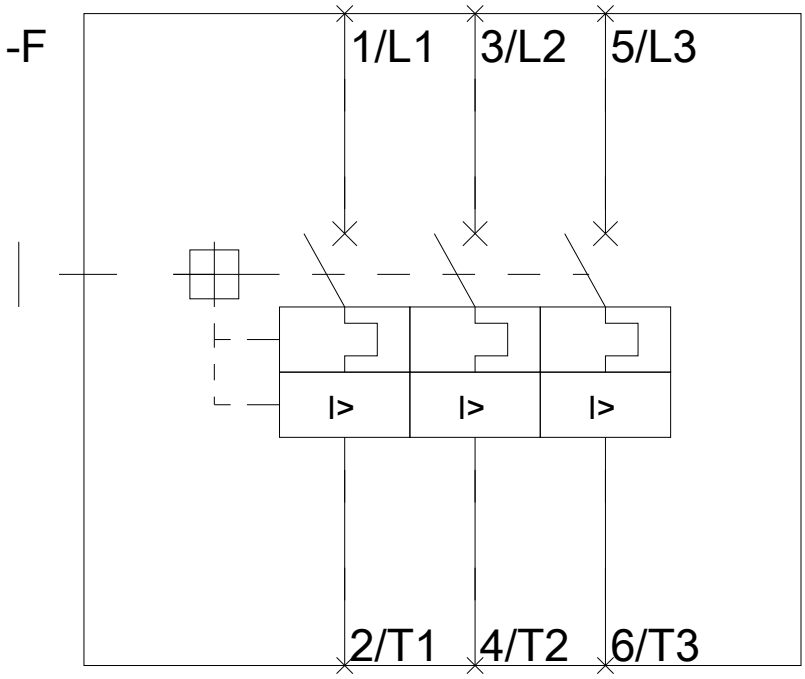
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