SIEMENS

Product data sheet 3RV2021-4NA25

CIRCUIT-BREAKER SZ S0,
FOR MOTOR PROTECTION, CLASS 10,
A-RELEASE 23...28A, N-RELEASE 364A,
SPRING-L. CONNECTION,
STANDARD SW. CAPACITY,
W. TRANSVERSE AUX. SWITCH 1NO+1NC

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	10.8
Item designation		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		F
• according to DIN EN 61346-2		F

Mechanical operating cycles as operating time		
• of the main contacts / typical		100,000
• of the auxiliary contacts / typical		100,000
Design of the auxiliary switch		transverse
Type of the driving mechanism / motor drive		No
Design of the operating mechanism		selector switch
Product function		
• overload protection		Yes
• phase disturbance recognition		Yes
Product component		
• auxiliary switch		Yes
• undervoltage release mechanism		No
• trip indicator		No
Product extension / optional / motor drive		No

Main circuit:		
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	28
Service power / at AC-3		
• at 400 V / rated value	W	11,000
• at 500 V / rated value	W	18,500
• at 690 V / rated value	W	22,000
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		
• of the current-dependent overload release	A	23 … 28
Service power / at AC-3 / at 230 V / rated value	W	7,500
Continuous current / rated value	A	28

Auxiliary circuit:		
Product extension / auxiliary switch		Yes
Number of NC contacts / for auxiliary contacts / instantaneous switching		1
Number of NO contacts / for auxiliary contacts / instantaneous switching		1
Number of change-over switches / for auxiliary contacts		0
Operating current / of the auxiliary contacts		
• at AC-12 / maximum	A	2.5
• at AC-15		

• at 24 V	A	2
• at 230 V	A	0.5
• at DC-13		
• maximum	A	1
• at 24 V	A	1
• at 60 V	A	0.15

Inputs/ Outputs:		
Number of digital inputs		0

Short-circuit:		
Breaking capacity limit short-circuit current (Icu)		
• at 400 V / rated value	A	55,000
• at 500 V / rated value	A	10,000
• at 690 V / rated value	A	4,000
Design of the fuse link / for short-circuit protection of the auxiliary switch / required		Fuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current Ik < 400 A)
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
• for auxiliary and control current circuit		spring-loaded terminals
Type of the connectable conductor cross-section		
• for main contacts		
• solid		2x (1 ... 10 mm2)
• stranded		2x (1 ... 10 mm²)
• finely stranded		
• with conductor end processing		2x (1 ... 6 mm2)
• without conductor final cutting		2x (1 ... 6 mm2)
• for AWG conductors / for main contacts		2x (18 ... 8)
• for auxiliary contacts		
• solid		2x (0.5 ... 2.5 mm2)
• finely stranded		
• with conductor end processing		2x (0.5 ... 1.5 mm2)
• without conductor final cutting		2 x (0.5 ... 1.5 mm2)
• for AWG conductors / for auxiliary contacts		2x (20 ... 14)

Certificates/approvals:

Verification of suitability		CE / UL / CSA
• für Staubexplosionsschutz für Zone 21/22		no
• for gas explosion protection for zone 1/2		no

General Product Approval			For use in hazardous locations	Test Certificates	
CQC	ROSTEST	UL	DEKRA EXAM, DMT	Manufacturer	other

Shipping Approval					
ABS	GL	LRS	PRS	RINA	RMRS

other	
Manufacturer	other

VDE

UL/CSA ratings

yielded mechanical performance (hp)		
• for single-phase squirrel cage motors		
• at 110/120 V / rated value	hp	2
• at 230 V / rated value	hp	5
• for three-phase squirrel cage motors		
• at 200/208 V / rated value	hp	7.5
• at 220/230 V / rated value	hp	10
• at 460/480 V / rated value	hp	20
Operating current (FLA) / for three-phase squirrel cage motors		
• at 480 V / rated value	A	27
Contact rating designation / for auxiliary contacts / according to UL		C300 / R300

Safety:

B10 value / with high demand rate		
• according to SN 31920		50,000
T1 value / for proof test interval or service life		
• according to IEC 61508	a	10
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:

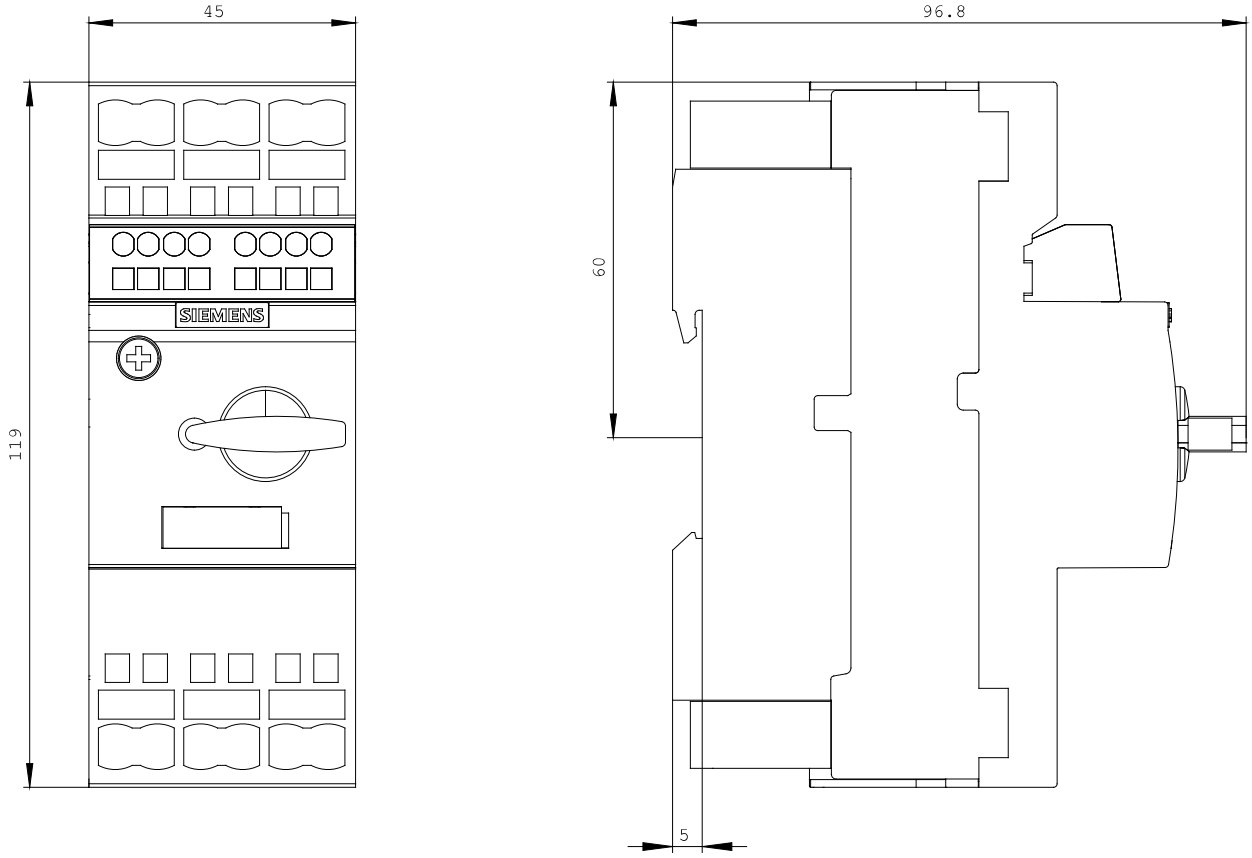
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

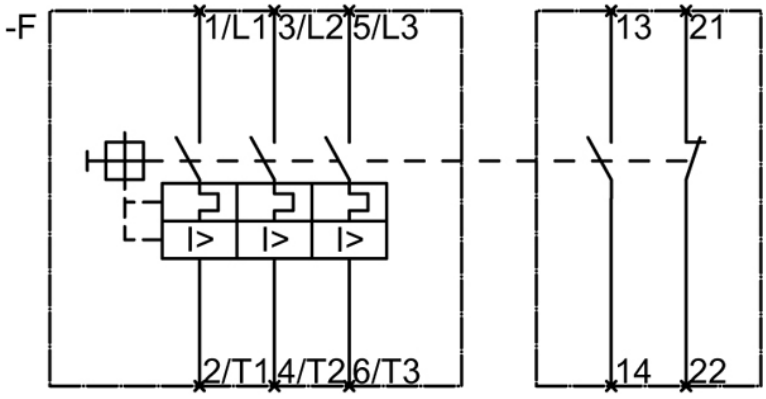
Industry Mall (Online ordering system)
http://www.siemens.com/industrial-controls/mall

CAx-Online-Generator
http://www.siemens.com/cax

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/3RV2021-4NA25/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RV2021-4NA25





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