

Product data sheet 3RV2011-0GA20

CIRCUIT-BREAKER SZ S00, FOR MOTOR PROTECTION, CLASS 10, A-REL. 0.45...0.63A, N-RELEASE8.2A SPRING-L. CONNECTION

General technical data:				
Product brand name		SIRIUS		
Product designation		3RV2 circuit breaker		
Size of the circuit-breaker		S00		
Trip class		CLASS 10		
Protection class IP / frontal/front side		IP20		
Degree of pollution		3		
Altitude of installation site / at a height over sea level / maximum	m	2,000		
Ambient temperature				
during storage	°C	-50 80		
during the operating phase	°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		
Real loss power / total / typical	W	5		
Item designation				
 according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 		F		
according to DIN EN 61346-2		F		
Mechanical switching cycle as operating period				
of the main contacts / typical		100,000		
of the auxiliary contacts / typical		100,000		
Type of the driving mechanism / Motor drive		No		
design of the operating mechanism		selector switch		
Product function				
Overload protection		Yes		
Short-circuit to earth recognition		No		
Phase disturbance recognition		Yes		
Product component				
auxiliary switch		No		

No			
Product extension / optional / Motor drive Main circuit: Number of poles / for main current circuit Operating voltage / at 3 AC / rated value / maximum Operating current / at AC-3 / at 400 V / rated value Service power / at AC-3 - at 400 V / rated value - at 690 V / rate	Undervoltage release mechanism		No
Number of poles / for main current circuit Operating voltage / at 3 AC / rated value / maximum Operating current / at AC-3 / at 400 V / rated value A 0.6 Service power / at AC-3 - at 400 V / rated value - at 690 V rated va	trip indicator		No
Number of poles / for main current circuit Operating voltage / at 3 AC / rated value / maximum Operating current / at AC-3 / at 400 V / rated value Service power / at AC-3 - at 400 V / rated value - at 690 V / rated valu	Product extension / optional / Motor drive		No
Operating voltage / at 3 AC / rated value / maximum Operating current / at AC-3 / at 400 V / rated value A 0.6 Service power / at AC-3 - at 400 V / rated value - at 500 V / rated value - w 250 Switching frequency / at AC-3 / according to IEC 60947-6-2 / maximum Arrangement of electrical connectors / for main current circuit Adjustable response current - of the current-dependent overload release - A 0.45 0.63 Service power / at AC-3 / at 230 V / rated value - of the current-dependent overload release - A 0.63 Service power / at AC-3 / at 230 V / rated value - A 0.63 Auxiliary circuit: Product extension / auxiliary switch - Yes Number of NC contacts / for auxiliary contacts / instantaneous switching - Number of NC contacts / for auxiliary contacts / instantaneous switching - Number of change-over switches / for auxiliary contact Inputs/ Outputs: Breaking capacity limit short-circuit current (Icu) - at 400 V / rated value - at 500 V / rated va	Main circuit:		
Operating current / at AC-3 / at 400 V / rated value Service power / at AC-3 - at 400 V / rated value - at 500 V / rated value Arrangement of electrical connectors / for main current circuit - of the current-dependent overload release - of the current-dependent overload release - of 0.45 0.63 - of	Number of poles / for main current circuit		3
Service power / at AC-3 - at 400 V / rated value - at 500 V / rated value - AC-3 / according to IEC 60947-6-2 / maximum - Arrangement of electrical connectors / for main current circuit - Adjustable response current - of the current-dependent overload release - A	Operating voltage / at 3 AC / rated value / maximum	V	690
• at 400 V / rated value • at 500 V / rated value • at 690 V / rated value • at 690 V / rated value Switching frequency / at AC-3 / according to IEC 60947-6-2 / maximum Arrangement of electrical connectors / for main current circuit Adjustable response current • of the current-dependent overload release A	Operating current / at AC-3 / at 400 V / rated value	Α	0.6
- at 500 V / rated value - at 690 V / rated value - at 690 V / rated value Switching frequency / at AC-3 / according to IEC 60947-6-2 / maximum Arrangement of electrical connectors / for main current circuit - of the current-dependent overload release - of the current-dependent overload release - A	Service power / at AC-3		
Switching frequency / at AC-3 / according to IEC 60947-6-2 / maximum Arrangement of electrical connectors / for main current circuit Adjustable response current • of the current-dependent overload release A 0.45 0.63 Service power / at AC-3 / at 230 V / rated value Continuous current / rated value Auxiliary circuit: Product extension / auxiliary switch Number of NC contacts / for auxiliary contacts / instantaneous switching Number of NO contacts / for auxiliary contacts / instantaneous switching Number of digital inputs O Short-circuit: Breaking capacity limit short-circuit current (Icu) • at 400 V / rated value • at 500 V / rated value • at 600 V / rated value • at	• at 400 V / rated value	W	180
Switching frequency / at AC-3 / according to IEC 60947-6-2 / maximum Arrangement of electrical connectors / for main current circuit Adjustable response current • of the current-dependent overload release A	• at 500 V / rated value	W	180
Maximum Arrangement of electrical connectors / for main current circuit Adjustable response current • of the current-dependent overload release A 0.45 0.63 Service power / at AC-3 / at 230 V / rated value W 90 Continuous current / rated value A 0.63 Auxiliary circuit: Product extension / auxiliary switch Number of NC contacts / for auxiliary contacts / instantaneous switching Number of NO contacts / for auxiliary contacts / instantaneous switching Number of Quitable response switches / for auxiliary contacts / instantaneous switching Number of Unitable response switches / for auxiliary contacts / instantaneous switching Number of Unitable response switches / for auxiliary contacts / instantaneous switching Number of Unitable response switches / for auxiliary contacts / instantaneous of Unitable response switches / for auxiliary contacts / instantaneous of Unitable response re	• at 690 V / rated value	W	250
Adjustable response current of the current-dependent overload release A 0.45 0.63 Service power / at AC-3 / at 230 V / rated value Continuous current / rated value A 0.63 Auxiliary circuit: Product extension / auxiliary switch Number of NC contacts / for auxiliary contacts / instantaneous switching Number of NO contacts / for auxiliary contacts / instantaneous switching Number of digital inputs O Short-circuit: Breaking capacity limit short-circuit current (Icu) at 400 V / rated value at 500 V / rated value at 690 V / rated value a		1/h	15
• of the current-dependent overload release Service power / at AC-3 / at 230 V / rated value Continuous current / rated value A 0.63 Auxillary circuit: Product extension / auxiliary switch Number of NC contacts / for auxiliary contacts / instantaneous switching Number of NO contacts / for auxiliary contacts / instantaneous switching Number of change-over switches / for auxiliary contact Inputs/ Outputs: Number of digital inputs O Short-circuit: Breaking capacity limit short-circuit current (Icu) • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value • at 690 V / rated value • at 690 V / rated value •	Arrangement of electrical connectors / for main current circuit		Top and bottom
Service power / at AC-3 / at 230 V / rated value Continuous current / rated value Auxiliary circuit: Product extension / auxiliary switch Number of NC contacts / for auxiliary contacts / instantaneous switching Number of NO contacts / for auxiliary contacts / instantaneous switching Number of change-over switches / for auxiliary contact Inputs/ Outputs: Number of digital inputs O Short-circuit: Breaking capacity limit short-circuit current (Icu) • at 400 V / rated value • at 500 V / rated value • at 690	Adjustable response current		
A 0.63	of the current-dependent overload release	Α	0.45 0.63
Auxiliary circuit: Product extension / auxiliary switch Number of NC contacts / for auxiliary contacts / instantaneous switching Number of NO contacts / for auxiliary contacts / instantaneous switching Number of change-over switches / for auxiliary contact Inputs/ Outputs: Number of digital inputs O Short-circuit: Breaking capacity limit short-circuit current (Icu) • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value • at 690 V / rated value Installation/mounting/dimensions: Installation/mounting/dimensions: built in orientation Type of fixing/fixation Yes O 10 10 10 10 10 10 10 10 10	Service power / at AC-3 / at 230 V / rated value	W	90
Product extension / auxiliary switch Number of NC contacts / for auxiliary contacts / instantaneous switching Number of NO contacts / for auxiliary contacts / instantaneous switching Number of change-over switches / for auxiliary contact Inputs/ Outputs: Number of digital inputs O Short-circuit: Breaking capacity limit short-circuit current (Icu) • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value • at 690 V / rated value Installation/mounting/dimensions: built in orientation Type of fixing/fixation Yes O 10 0 10 10 10 10 10 10 10	Continuous current / rated value	Α	0.63
Number of NC contacts / for auxiliary contacts / instantaneous switching Number of NO contacts / for auxiliary contacts / instantaneous switching Number of change-over switches / for auxiliary contact Inputs/ Outputs: Number of digital inputs O Short-circuit: Breaking capacity limit short-circuit current (Icu) • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value • at 690 V / rated value Installation/mounting/dimensions: built in orientation Type of fixing/fixation O availary contacts / instantaneous 0 0 4 100,000 A 100,000 A 100,000 A 100,000 Screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715	Auxiliary circuit:		
Switching Number of NO contacts / for auxiliary contacts / instantaneous switching Number of change-over switches / for auxiliary contact Inputs / Outputs: Number of digital inputs O Short-circuit: Breaking capacity limit short-circuit current (Icu) • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value • at 690 V / rated value Installation/mounting/dimensions: built in orientation Type of fixing/fixation O O availiary contact / 0 0 10 0 10 10 10 10 10 10 10	Product extension / auxiliary switch		Yes
Number of change-over switches / for auxiliary contact Inputs/ Outputs: Number of digital inputs O Short-circuit: Breaking capacity limit short-circuit current (Icu) • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value • at 690 V / rated value Design of the overcurrent release and short-circuit release Installation/mounting/dimensions: built in orientation Type of fixing/fixation O O O O O O O O O O O O O			0
Inputs/ Outputs: Number of digital inputs O Short-circuit: Breaking capacity limit short-circuit current (Icu) • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value Design of the overcurrent release and short-circuit release Installation/mounting/dimensions: built in orientation Type of fixing/fixation o 0 100,000 A 100,000 A 100,000 A 100,000 A 100,000 any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715			0
Number of digital inputs Short-circuit:	Number of change-over switches / for auxiliary contact		0
Short-circuit: Breaking capacity limit short-circuit current (Icu) • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value A 100,000 Design of the overcurrent release and short-circuit release Installation/mounting/dimensions: built in orientation Type of fixing/fixation any Screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715	Inputs/ Outputs:		
Breaking capacity limit short-circuit current (Icu) • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value A 100,000 Design of the overcurrent release and short-circuit release Installation/mounting/dimensions: built in orientation Type of fixing/fixation A 100,000 A 100,000 A 100,000 A 100,000 A 100,000 A 100,000 Serious and short-circuit release Thermomagnetic any Screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715	Number of digital inputs		0
 • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value Design of the overcurrent release and short-circuit release Installation/mounting/dimensions: built in orientation Type of fixing/fixation A 100,000 A 1	Short-circuit:		
at 500 V / rated value at 690 V / rated value A 100,000 Design of the overcurrent release and short-circuit release Installation/mounting/dimensions: built in orientation Type of fixing/fixation A 100,000 A 100,000 Thermomagnetic any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715	Breaking capacity limit short-circuit current (lcu)		
• at 690 V / rated value Design of the overcurrent release and short-circuit release Installation/mounting/dimensions: built in orientation Type of fixing/fixation A 100,000 thermomagnetic any screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715	• at 400 V / rated value	Α	100,000
Design of the overcurrent release and short-circuit release Installation/mounting/dimensions: built in orientation any Type of fixing/fixation screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715	• at 500 V / rated value	Α	100,000
Installation/mounting/dimensions: built in orientation any Type of fixing/fixation screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715	• at 690 V / rated value	Α	100,000
built in orientation any Type of fixing/fixation screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715	Design of the overcurrent release and short-circuit release		thermomagnetic
Type of fixing/fixation screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715	Installation/mounting/dimensions:		
mounting rail according to DIN EN 60715	built in orientation		any
	Type of fixing/fixation		screw and snap-on mounting onto 35 mm standard
IIIII 7J	Width	mm	45

Height	mm	109		
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				
for main contacts				
• unifilar		2x (0.5 4 mm2)		
• stranded wire		2x (0.5 4 mm2)		
• stranded wire				
with conductor end processing		2 x (0.5 2.5 mm2)		
without conductor final cutting		2x (0.5 2.5 mm2)		
at AWG-conductors / for main contacts		2x (20 12)		
Certificates/approvals:				
101 11 11 11 11 11 11				

verification of suitability

• für Staubexplosionsschutz für Zone 21/22

ullet for gas explosion protection for zone 1/2

CE/UL/CSA

no

no

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	а	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

Global Industry Mall (Online ordering system)

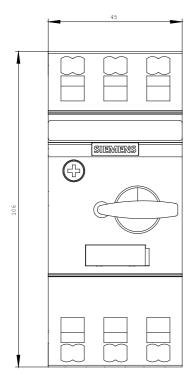
http://www.siemens.com/industrial-controls/mall

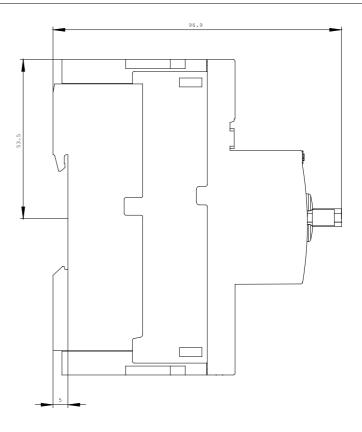
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

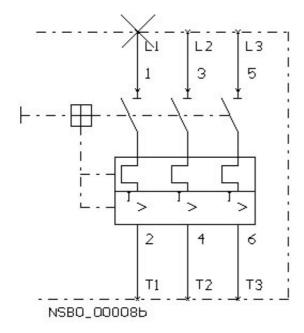
http://support.automation.siemens.com/WW/view/en/3RV2011-0GA20/all

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

 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RV2011-0GA20}$







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