SIEMENS

Product data sheet 3RV2011-1HA10



CIRCUIT-BREAKER SZ S00, FOR MOTOR PROTECTION, CLASS 10, A-RELEASE 5.5...8A, N-RELEASE 104A, SCREW CONNECTION, STANDARD SW. CAPACITY

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 / 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	7.3
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 / typical of the auxiliary contacts / typical of the driving mechanism / motor drive Design of the operating mechanism overload protection overload prot	Mechanical operating cycles as operating time		
Type of the driving mechanism / motor drive Design of the operating mechanism Product function • overload protection • phase disturbance recognition Product component • auxiliary switch • undervoiltage release mechanism • trip indicator Product extension / optional / motor drive No Main circuit: Number of poles / for main current circuit Operating current / at AC-3 / rated value / maximum Operating current / at AC-3 / at 400 V / rated value • at 690 V / rat	of the main contacts / typical		100,000
Design of the operating mechanism Product function Operating vertection Product extension / optional / motor drive Main circuit: Number of poles / for main current circuit Operating ourrent / at AC-3 / at 400 V / rated value Operating ourrent / at AC-3 / according to IEC 60947-6-2 / maximum Arrangement of electrical connectors / for main current circuit Adjustable response current Of the non-delayed short-circuit release Of the non-delayed short-circuit release Of the non-delayed short-circuit release A 104 104 Operating current / at AC-3 / at 230 V / rated value A 8 Service power / at AC-3 / at 230 V / rated value Of the non-delayed short-circuit release Of the current-dependent overload release A 104 104 Operating current / rated value Of the current-dependent overload release A 25 8 Service power / at AC-3 / at 230 V / rated value Of the current-dependent overload release A 25 8 Service power / at AC-3 / at 230 V / rated value Of the current-dependent overload release A 25 8 Service power / at AC-3 / at 230 V / rated value Operating current / rated value A 8 Auxiliary circuit: Product extension / auxiliary contacts / instantaneous witching Number of NC contacts / for auxiliary contacts / instantaneous witching Number of on operation / auxiliary contacts / instantaneous witching Number of on operation / auxiliary contacts / instantaneous witching Number of on operation / auxiliary contacts / instantaneous witching	of the auxiliary contacts / typical		100,000
Product function • overload protection • phase disturbance recognition Product component • auxiliary switch • undervoltage release mechanism • trip indicator 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 • at 400 V / rated value • at 500 V / rated value • at 500 V / rated value • at 690 V / rated value • at 690 V / rated value • at 500 V / rated value • at 690 V / rated value • at 690 V / rated value • at 690 V / rated value • at 500 V / rated value • at 690 V / rated value • at 690 V / rated value • at 690 V / rated value • at 500 V / rated value • at 690 V / rated value • at 690 V / rated value • at 690 V / rated value • at 500 V / rated value • at 690 V / rated value • b 5,500 Top and bottom Adjustable response current • of the current-dependent overload release A 104 104 • of the current-dependent overload release A 5.5 8 Service power / at AC-3 / at 230 V / rated value W 1,500 Continuous current / rated value A 8 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 contacts Inputs/ Outputs:	Type of the driving mechanism / motor drive		No
veverload protection phase disturbance recognition Product component auxiliary switch vundervoltage release mechanism trip indicator Product extension / optional / motor drive Main circuit: Number of poles / for main current circuit Operating voltage / at AC-3 / rated value / maximum Versive power / at AC-3 / at 400 V / rated value at 400 V / rated value	Design of the operating mechanism		selector switch
Product component - auxiliary switch - undervoltage release mechanism - trip indicator Product extension / optional / motor drive Main circuit: Number of poles / for main current circuit Operating voltage / at AC-3 / rated value / maximum V 690 Operating voltrage / at AC-3 / at 400 V / rated value - at 400 V / rated value - at 690 V / rated va	Product function		
Product component - auxiliary switch - undervoltage release mechanism - trip indicator Product extension / optional / motor drive Main circuit: Number of poles / for main current circuit Operating voltage / at AC-3 / rated value / maximum V 690 Operating current / at AC-3 / at 400 V / rated value - at 400 V / rated value - at 400 V / rated value - at 500 V / rated value - at 690 V / rat	overload protection		Yes
auxiliary switch undervoltage release mechanism trip indicator Product extension / optional / motor drive No Main circuit: Number of poles / for main current circuit Operating voltage / at AC-3 / rated value / maximum V 690 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 - at 690 V / rated value - at 690 V / rated value - at 690 V / rated value - of the non-delayed short-circuit release - of the current-dependent overload release Service power / at AC-3 / at 230 V / rated value - of the current-dependent overload release Auxiliary circuit: Product extension / auxiliary switch Number of No contacts / for auxiliary contacts / instantaneous switching Number of Change-over switches / for auxiliary contacts No No No No No No No Availary circuit: 3 3 3 4 4 4 4 5 5 5 6 5 6 7 8 8 8 8 8 8 8 8 104 104 104 104 104 104 104 104 104 104 104 104 104 104 104 104 104 104 105 8 8 8 104 104 104 104 105 8 8 104 104 104 104 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105 105	phase disturbance recognition		Yes
Indervoltage release mechanism Inip indicator Product extension / optional / motor drive No Main circuit: Number of poles / for main current circuit Operating voltage / at AC-3 / rated value / maximum Very ogo Operating current / at AC-3 / at 400 V / rated value A 6.5 Service power / at AC-3 - at 400 V / rated value - at 600 V / rated	Product component		
trip indicator Product extension / optional / motor drive Main circuit: Number of poles / for main current circuit Operating voltage / at AC-3 / rated value / maximum V 690 Operating current / at AC-3 / at 400 V / rated value A 6.5 Service power / at AC-3 / at 400 V / rated value **at 400 V / rated value **at 400 V / rated value **at 690 V / rated value **at 690 V / rated value **Top and bottom **Top and bottom **Arrangement of electrical connectors / for main current circuit Adjustable response current **of the non-delayed short-circuit release **of the current-dependent overload release **of the current-dependent overload release **of the current-dependent overload release **of the current / rated value **Of the non-delayed short-circuit release **of the current / rated value **Of the non-delayed short-circuit release **of the current / rated value **Of the non-delayed short-circuit release **of the current / rated value **Of the current / r	auxiliary switch		No
Product extension / optional / motor drive Main circuit: Number of poles / for main current circuit Operating voltage / at AC-3 / rated value / maximum V 690 Operating current / at AC-3 / at 400 V / rated value A 6.5 Service power / at AC-3 - at 400 V / rated value - at 500 V / rated value - at 500 V / rated value - at 500 V / rated value - at 690 V / rated value Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum Arrangement of electrical connectors / for main current circuit Adjustable response current - of the non-delayed short-circuit release - of the current-dependent overload release A 104 104 - of the current-dependent overload release A 5.5 8 Service power / at AC-3 / at 230 V / rated value W 1,500 Continuous current / rated value A 8 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 contacts O	undervoltage release mechanism		No
Main circuit: Number of poles / for main current circuit Operating voltage / at AC-3 / rated value / maximum V 690 Operating current / at AC-3 / at 400 V / rated value A 6.5 Service power / at AC-3 - at 400 V / rated value - at 500 V / rated value - at 500 V / rated value - at 500 V / rated value - at 690 V / rated value - at 690 V / rated value Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum Arrangement of electrical connectors / for main current circuit Adjustable response current - of the non-delayed short-circuit release - of the current-dependent overload release A 104 104 - of the current-dependent overload release A 5.5 8 Service power / at AC-3 / at 230 V / rated value Continuous current / rated value A 8 Auxiliary circuit: Product extension / auxiliary switch Number of NC contacts / for auxiliary contacts / instantaneous switching Number of Change-over switches / for auxiliary contacts Inputs/ Outputs:	• trip indicator		No
Number of poles / for main current circuit Operating voltage / at AC-3 / rated value / maximum V 690 Operating current / at AC-3 / at 400 V / rated value A 6.5 Service power / at AC-3 • at 400 V / rated value • at 500 V / rated value • at 500 V / rated value • at 690 W 3,000 • at 500 V / rated value • at 690 V / rated value W 5,500 Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum Arrangement of electrical connectors / for main current circuit • of the non-delayed short-circuit release • of the current-dependent overload release A 104 104 • of the current-dependent overload release A 5.5 8 Service power / at AC-3 / at 230 V / rated value W 1,500 Continuous current / rated value A 8 Auxilliary circuit: Product extension / auxilliary switch Number of NC contacts / for auxilliary contacts / instantaneous switching Number of NO contacts / for auxilliary contacts / instantaneous switching Number of Change-over switches / for auxilliary contacts Inputs/ Outputs:	Product extension / optional / motor drive		No
Operating voltage / at AC-3 / rated value / maximum Operating current / at AC-3 / at 400 V / rated value A 6.5 Service power / at AC-3 • at 400 V / rated value • at 500 V / rated value • at 500 V / rated value • at 690 V rated value Top and bottom Adjustable response current • of the non-delayed short-circuit release • of the current-dependent overload release A 5.5 8 Service power / at AC-3 / at 230 V / rated value Continuous current / rated value 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 contacts Inputs/ Outputs:	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 • at 690 V / rated value • at 690 V / rated value • at 690 V / rated value Top and bottom Arrangement of electrical connectors / for main current circuit Adjustable response current • of the non-delayed short-circuit release • of the current-dependent overload release 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 contacts Inputs/ Outputs:	Number of poles / for main current circuit		3
Service power / at AC-3 • at 400 V / rated value • at 500 V / rated value • at 690 V / rated value • at 690 V / rated value Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum Arrangement of electrical connectors / for main current circuit Adjustable response current • of the non-delayed short-circuit release • of the current-dependent overload release A 104 104 • of the current-dependent overload release A 5.5 8 Service power / at AC-3 / at 230 V / rated value W 1,500 Continuous current / rated value A 8 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 contacts Inputs/ Outputs:	Operating voltage / at AC-3 / rated value / maximum	V	690
at 400 V / rated value at 500 V / rated value at 690 V / rated value by 5,500 Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum Arrangement of electrical connectors / for main current circuit Adjustable response current of the non-delayed short-circuit release of the current-dependent overload release A 104 104 continuous current / rated value A 8 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 contacts Inputs/ Outputs:	Operating current / at AC-3 / at 400 V / rated value	Α	6.5
• at 500 V / rated value • at 690 V / rated value W 5,500 Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum Arrangement of electrical connectors / for main current circuit Adjustable response current • of the non-delayed short-circuit release • of the current-dependent overload release A 104 104 • of the current-dependent overload release A 5.5 8 Service power / at AC-3 / at 230 V / rated value W 1,500 Continuous current / rated value A 8 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 contacts Inputs/ Outputs:	Service power / at AC-3		
• at 690 V / rated value Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum Arrangement of electrical connectors / for main current circuit Adjustable response current • of the non-delayed short-circuit release • of the current-dependent overload release A 5.5 8 Service power / at AC-3 / at 230 V / rated value W 1,500 Continuous current / rated value A 8 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 contacts Inputs/ Outputs:	• at 400 V / rated value	W	3,000
Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum Arrangement of electrical connectors / for main current circuit Adjustable response current • of the non-delayed short-circuit release • of the current-dependent overload release A 5.5 8 Service power / at AC-3 / at 230 V / rated value Continuous current / rated value A 8 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 contacts Inputs/ Outputs:	at 500 V / rated value	W	4,000
maximum Arrangement of electrical connectors / for main current circuit Adjustable response current of the non-delayed short-circuit release A 104 104 of the current-dependent overload release A 5.5 8 Service power / at AC-3 / at 230 V / rated value W 1,500 Continuous current / rated value A 8 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 contacts Inputs/ Outputs:	• at 690 V / rated value	W	5,500
Adjustable response current • of the non-delayed short-circuit release • of the current-dependent overload release A 5.5 8 Service power / at AC-3 / at 230 V / rated value W 1,500 Continuous current / rated value A 8 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 contacts Inputs/ Outputs:		1/h	15
of the non-delayed short-circuit release of the current-dependent overload release A 5.5 8 Service power / at AC-3 / at 230 V / rated value W 1,500 Continuous current / rated value A 8 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 contacts Inputs/ Outputs:	Arrangement of electrical connectors / for main current circuit		Top and bottom
• of the current-dependent overload release A 5.5 8 Service power / at AC-3 / at 230 V / rated value W 1,500 Continuous current / rated value A 8 Auxiliary circuit: Product extension / auxiliary switch Yes Number of NC contacts / for auxiliary contacts / instantaneous switching Number of NO contacts / for auxiliary contacts / instantaneous of switching Number of change-over switches / for auxiliary contacts Inputs/ Outputs:	Adjustable response current		
Service power / at AC-3 / at 230 V / rated value W 1,500 Continuous current / rated value A 8 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 contacts Inputs/ Outputs:	of the non-delayed short-circuit release	Α	104 104
A 8 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 contacts Inputs/ Outputs:	of the current-dependent overload release	Α	5.5 8
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 contacts Inputs/ Outputs:	Service power / at AC-3 / at 230 V / rated value	W	1,500
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 contacts 10 11 12 13 14 15 16 17 18 18 18 18 18 18 18 18 18	Continuous current / rated value	Α	8
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 contacts 0 Inputs/ Outputs:	Auxiliary circuit:		
Number of NO contacts / for auxiliary contacts / instantaneous switching Number of change-over switches / for auxiliary contacts 1	Product extension / auxiliary switch		Yes
Number of change-over switches / for auxiliary contacts Inputs/ Outputs:	•		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	Α	100,000
• at 500 V / rated value	Α	42,000
• at 690 V / rated value	Α	6,000
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	97
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	screw-type terminals
Type of the connectable conductor cross-section	
• for main contacts	

• solid

• finely stranded

• with conductor end processing

• for AWG conductors / for main contacts

2x (0.75 ... 2.5 mm²), 2x 4 mm²

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)

For use in hazardous locations

2x (18 ... 14), 2x 12

Certificates/approvals:

Verification of suitability

• für Staubexplosionsschutz für Zone 21/22

• for gas explosion protection for zone 1/2

CE / UL / CSA

no

no

General Product Approval













Test Certificates

other

Special Test Certificate Type Test
Certificates/Test
Report

Shipping Approval





GL









other



Declaration of Conformity

other

UL/CSA ratings

yielded mechanical performance (hp)		
• for single-phase squirrel cage motors		
• at 110/120 V / rated value	hp	0.333
• at 230 V / rated value	hp	1
• for three-phase squirrel cage motors		
• at 200/208 V / rated value	hp	2
• at 220/230 V / rated value	hp	2
• at 460/480 V / rated value	hp	5
• at 575/600 V / rated value	hp	5
Operating current (FLA) / for three-phase squirrel cage motors		
• at 480 V / rated value	Α	7.6
• at 600 V / rated value	Α	6.1

B10 value / with high demand rate

Safety:

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

Industry Mall (Online ordering system)

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

CAx-Online-Generator

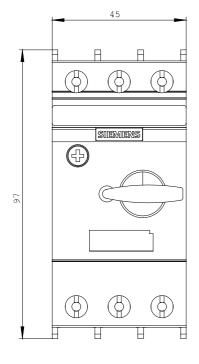
http://www.siemens.com/cax

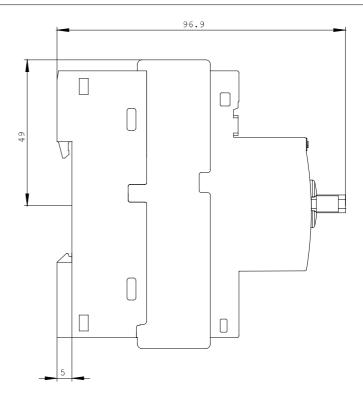
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

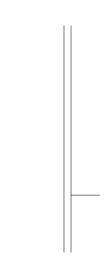
http://support.automation.siemens.com/WW/view/en/3RV2011-1HA10/all

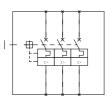
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RV2011-1HA10









last change: Mar 27, 2012