# SIEMENS

# **Product data sheet**

## 3RV2011-1JA10



CIRCUIT-BREAKER SZ S00, FOR MOTOR PROTECTION, CLASS 10, A-RELEASE 7...10A, N-RELEASE 130A, 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	8.7	
Item designation			
<ul> <li>according to DIN 40719 extendable after IEC 204-2 / according to IEC 750</li> </ul>		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 mechanismselector switchProduct functionselector switch• overload protectionYes• phase disturbance recognitionYesProduct componentNo• auxiliary switchNo	
Type of the driving mechanism / motor driveNoDesign of the operating mechanismselector switchProduct functionYes• overload protectionYes• phase disturbance recognitionYesProduct componentImage: Selector switch	
Design of the operating mechanism       selector switch         Product function       Yes         • overload protection       Yes         • phase disturbance recognition       Yes         Product component       Yes	
Product function     Yes       • overload protection     Yes       • phase disturbance recognition     Yes       Product component     Yes	
• overload protection     Yes       • phase disturbance recognition     Yes       Product component     Image: Component for the second se	
• phase disturbance recognition Yes  Product component	
Product component	
auxiliary switch     No	
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 8.5	
Service power / at AC-3	
• at 400 V / rated value W 4,000	
• at 500 V / rated value W 5,500	
• at 690 V / rated value W 7,500	
Frequency of operation / at AC-3 / according to IEC 60947-6-2 /       1/h       15         maximum       15	
Arrangement of electrical connectors / for main current circuit Top and bottom	
Adjustable response current	
• of the non-delayed short-circuit release A 130 130	
• of the current-dependent overload release A 7 10	
Service power / at AC-3 / at 230 V / rated value W 2,200	
Continuous current / rated value A 10	
Auxiliary circuit:	
Product extension / auxiliary switch Yes	
Number of NC contacts / for auxiliary contacts / instantaneous         0           switching         0	
Number of NO contacts / for auxiliary contacts / instantaneous         0           switching         0	
Number of change-over switches / for auxiliary contacts 0	
Inputs/ Outputs:	
Number of digital inputs 0	

Short-circuit:				
Breaking capacity limit short-circuit current (Icu)				
• at 400 V / rated value	А	100,000		
• at 500 V / rated value	А	42,000		
• at 690 V / rated value	А	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				

Verification of suitability       CE /UL / CSA         • für Staubexplosionsschutz für Zone 21/22       no       no         • for gas explosion protection for zone 1/2       no       no         General Product Approval       For use in hazardous locations         OERRA EXAM, Dur $\widetilde{Cgc}$ $\widetilde{Cgc}$ $\widetilde{Cgc}$ DEKRA EXAM, Dur         Test Certificates         Shipping Approval $\widetilde{Cgc}$							
• finely stranded • with conductor end processing • for AWG conductors / for main contacts       2x (0.5 1.5 mm <sup>3</sup> ), 2x (0.75 2.5 mm <sup>3</sup> ), 2x (18 14), 2x 12         Cortificates/approvation         Certification of suitability         OPTING COLSPANS         CERTIFICATION OF SUITABILITY         OPTING COLSPANS         OPTING Colspan="2">CERTIFICATION OF SUITABILITY         OPTING COLSPANS	• solid			2x (0.7	5 2.5 mm²), 2x (1 4	mm²)	
$\cdot$ with conductors of a processing $\cdot$ for XWG conductors / for main contacts $2x (0.5 \dots 1.5 \text{ mm}^3), 2x (0.75 \dots 2.5 \text{ mm}^3), 2x (0.75 \dots 2.5$	• stranded			2x (0.7	5 2.5 mm²), 2x 4 mm²	2	
2x (18 14), 2x 12Cotificates/approvals:Cotificates/approvals:Cotificates/approvals:Cotificates/approvals:Cotificates/approval:Cotificates/approval:Cotificates/approval:Cotificates/approval:Cotificates <th colspa<="" td=""><td><ul> <li>finely stranded</li> </ul></td><td></td><td></td><td></td><td></td><td></td></th>	<td><ul> <li>finely stranded</li> </ul></td> <td></td> <td></td> <td></td> <td></td> <td></td>	<ul> <li>finely stranded</li> </ul>					
Certificates/approvals:       CE / UL / CSA         Verification of suitability       CE / UL / CSA         • for sale explosion protection for zone 1/2       no         Central Product Approval       For use in hazardous locations         Certificates       DEKRA EXAM, DMT         Certificates       DEKRA EXAM, DMT         Test Certificates       DEKRA EXAM, DMT         Shipping Approval       Certification of use of the second seco	<ul> <li>with conductor end processing</li> </ul>			2x (0.5	1.5 mm²), 2x (0.75	. 2.5 mm²)	
Verification of suitability       CE / UL / CSA         • für Staubexplosionsschutz für Zone 21/22       no       no         • for gas explosion protection for zone 1/2       no       no         General Product Approval       For use in hazardous locations         General Product Approval       Second Statut für Zone 21/22       no         General Product Approval       For use in hazardous locations         OEKRA EXAM, DMT         DEKRA EXAM, DMT         Manufacturer       other         Manufacturer       OEKRA EXAM, DMT         Shipping Approval         Suppose Colspan="2">Suppose Colspan="2">Suppose Colspan="2">Suppose Colspan="2">Suppose Colspan="2">Suppose Colspan="2">Suppose Colspan="2">Suppose Colspan="2">Suppose Colspan="2">Suppose Colspan= 2"Suppose Colspan="2">Suppose Colspan="2"Suppose Colspan="	<ul> <li>for AWG conductors / for main contacts</li> </ul>			2x (18	14), 2x 12		
$1  für Staubexplosions brutz für Zone 21/2 in ono0 \text{ for gas explosion protection for zone 1/2 in oFor use in hazardous locationsGeneral Product AprovalOSTESTFor use in hazardous locationsOotgoodOotgoodDEKRA EXAM, DurOotgoodOotgoodDerTesterificatesImage: Constant set of the set of the$	Certificates/approvals:						
no         General Product Jpt value       For use in hazardous locations         General Product Jpt value       Image: Second Se	Verification of suitability			CE / UI	_ / CSA		
For use in hazardous locations         Ceneral Product Approval       ROSTEST       DEKRA EXAM, DMT         Copy optimized       Other       Description         Test Certificates       Unit       Description         Manufacturer       other       Unit       Unit         Shipping Approval ass       Implication       Implication       Implication         Optimized       Implication       Implication       Implication       Implication         Shipping Approval       Implication       Implication       Implication       Implication       Implication         Other       Implication       Implication       Implication       Implication       Implication       Implication         Other       Implication       Implication       Implication       Implication       Implication       Implication         Outcome       Implication       Implication       Implication       Implication       Implication       Implication         Outcome       Implication       Implication       Implication       Implication       Implication       Implication         Outcome       Implication       Implication       Implication       Implication       Implication       Implication       Implication <thimplication< th=""></thimplication<>	• für Staubexplosionsschutz für Zone 21/22			no			
For use in hazardous locations         Ceneral Product Approval       ROSTEST       DEKRA EXAM, DMT         Copy optimized       Other       Description         Test Certificates       Unit       Description         Manufacturer       other       Unit       Unit         Shipping Approval ass       Implication       Implication       Implication         Optimized       Implication       Implication       Implication       Implication         Shipping Approval       Implication       Implication       Implication       Implication       Implication         Other       Implication       Implication       Implication       Implication       Implication       Implication         Other       Implication       Implication       Implication       Implication       Implication       Implication         Outcome       Implication       Implication       Implication       Implication       Implication       Implication         Outcome       Implication       Implication       Implication       Implication       Implication       Implication         Outcome       Implication       Implication       Implication       Implication       Implication       Implication       Implication <thimplication< th=""></thimplication<>	• for gas explosion protection for zone 1/2			no			
$\widetilde{Q_C}$ $\widetilde{Q_C}$ $\widetilde{Q_C}$ $\widetilde{DM}$ Test CertificatesManufacturerotherShipping Approval $\widetilde{Q_C}$ <					For use in hazardou	s locations	
Manufacturer       other         Shipping Approval       Image: Constraint of the single-phase squirrel cage motors of the	coc CSA	<u>ROSTEST</u>					
Shipping Approval $\widehat{M}_{BS}$ $\widehat{M}_{CL}$ $\widehat{M}_{CS}$ $\widehat{M}_{PS}$ $\widehat{M}_$	Test Certificates						
Image: Note of the second se	Manufacturer other						
ABS GL LRS PRS RINA RMRS   other   Manufacturer other   UL/CSA ratings Vielded mechanical performance (hp) • for single-phase squirrel cage motors • at 110/120 V / rated value hp 0.5	Shipping Approval						
Manufacturer       other         LVCSA ratings         vielded mechanical performance (hp)         • for single-phase squirrel cage motors         • at 110/120 V / rated value	Or SHIPP NO	Lloyd's Register LRS	PRS		RINA	RMRS	
UL/CSA ratings         vielded mechanical performance (hp)         • for single-phase squirrel cage motors         • at 110/120 V / rated value    hp 0.5	other						
vielded mechanical performance (hp)     ·       • for single-phase squirrel cage motors     hp       • at 110/120 V / rated value     hp	Manufacturer other						
for single-phase squirrel cage motors     at 110/120 V / rated value     hp     0.5	UL/CSA ratings						
• at 110/120 V / rated value hp 0.5	yielded mechanical performance (hp)						
	<ul> <li>for single-phase squirrel cage motors</li> </ul>						
a of 220 V / rated value	• at 110/120 V / rated value		hp	0.5			
- at 250 v / lated value lip 1.5	• at 230 V / rated value		hp	1.5			
for three-phase squirrel cage motors	<ul> <li>for three-phase squirrel cage motors</li> </ul>						
• at 200/208 V / rated value hp 2	• at 200/208 V / rated value		hp	2			
• at 220/230 V / rated value hp 3			hp	3			
• at 460/480 V / rated value hp 5			hp	5			
• at 575/600 V / rated value hp 7.5							

Operating current (FLA) / for three-phase squirrel cage motors

- at 480 V / rated value
- at 600 V / rated value

# Safety:

### B10 value / with high demand rate

А

А

7.6

9

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)

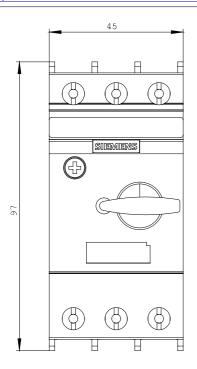
http://www.siemens.com/industrial-controls/mall

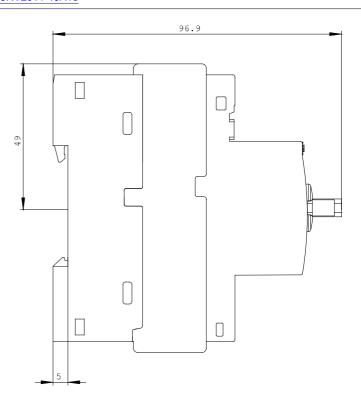
#### **CAx-Online-Generator**

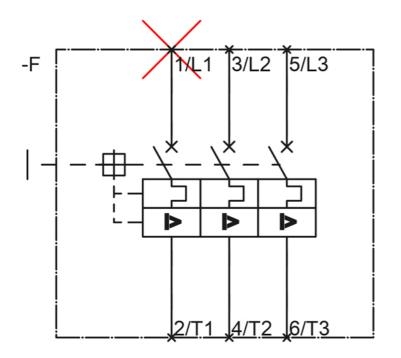
http://www.siemens.com/cax

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RV2011-1JA10/all

#### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RV2011-1JA10







last change:

Oct 24, 2011