# SIEMENS

## **Product data sheet**

## 3RV2411-1BA20



CIRCUIT-BREAKER SZ S00, FOR TRANSFORMER PROT. A-RELEASE 1.4...2A, N-RELEASE 42A, SPRING-L. 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	6
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 diriving mechanism / motor driveNoDesign of the operating mechanismSector switch• overload protectionYes• prises disturbance recognitionYes• auxiliary switchNo• auxiliary switchNo• undervolage release mechanismNo• auxiliary switchNo• auxiliary switchNo• auxiliary cortext of valueNo• auxiliary cortext of valueNo• auxiliary cortext of valueNo• auxiliary cortext of valueNo• auxiliary cortext of valueW• auxiliary switchNo• auxiliary cortext of rom and current circuitInfin• auxiliary cortext of rom and current circuitNo• auxiliary cortext of rom and current circuitNo• auxiliary cortext / for auxiliary cortext of	Mechanical operating cycles as operating time	-	
Type of the driving mechanism / motor drive         No           Design of the operating mechanism         selector switch           Product function         Yes           • oreidoal protection         Yes           • phase disturbance recognition         Yes           Product component         Yes           • audilary switch         No           • undervoltage release mechanism         No           • trip indicator         No           Product extension / optional / motor drive         No           Main circuit:         3           Operating voltage / at AC-3 / rated value / maximum         V         6300           Operating current / at AC-3 / at 400 V / rated value         A         1.9           Service power / at AC-3         at 400 V / rated value         W         750           • at 600 V / rated value         W         750         1/h         15           • at 600 V / rated value         W         750         1/h         15           • at 600 V / rated value         W         750         1/h         15           • at 600 V / rated value         W         3.00         1/h         15           • at 600 V / rated value         W         3.00         1/h         15	of the main contacts / typical		100,000
Design of the operating mechanism         selector switch           Product function         Ves           • overload protection         Ves           • phase disturbance recognition         Ves           Product component         Ves           • auditary switch         No           • undervoltage release mechanism         No           • trip indicator         No           Product extension / optional / motor drive         No           Main circuit:         3           Number of poles / for main current circuit         3           Operating voltage / at AC-3 / at do V / rated value         No           • at 400 V / rated value         W           • of the non-delayed short-circui	<ul> <li>of the auxiliary contacts / typical</li> </ul>		100,000
Product function     Yes       • overfoad protection     Yes       • phase disturbance recognition     Yes       Product component     No       • auxiliary switch     No       • undervoltage release mechanism     No       • trip indicator     No       Product extension / optional / motor drive     No       Main circuit:     3       Number of poles / for main current circuit     3       Operating voltage / at AC-3 / rated value / maximum     V       Operating current / at AC-3 / rated value / maximum     V       Service power / at AC-3     -       • at 400 V / rated value     W       • at 400 V / rated value     W       W     750       • at 600 V / rated value     W       W     750       • at 600 V / rated value     W       W     750       • at 600 V / rated value     W       W     1,100       Frequency of operation / at AC-3 / at 20 cording to IEC 60947-6-2/     1/h       • of the non-delayed short-circuit release     A     42 42       • of the non-delayed short-circuit release     A     14 2       Service power / at AC-3 at 230 V / rated value     W     370       Continuous current / rated value     Yes       Number of NC contacts / for a	Type of the driving mechanism / motor drive	-	No
• overlead protectionYes• phase disturbance recognitionYesProduct componentYes• auxiliary switchNo• undervoltage release mechanismNo• itrip indicatorNoProduct extension / optional / motor driveNoMain circcuit:3Mumber of poles / for main current circuit3Operating voltage / at AC-3 / rated value / maximumV690690Operating current / at AC-3 / rated valueNo• at 400 V / rated valueW• at 400 V / rated valueA• at 400 V / rated valueA• at 400 V / rated valueA	Design of the operating mechanism	-	selector switch
• phase distubance recognition         Yes           Product component	Product function	-	
Product component       No         • auxiliary switch       No         • undervoltage release mechanism       No         • trip indicator       No         Product extension / optional / motor drive       No         Main circuit:       3         Number of poles / for main current circuit       3         Operating voltage / at AC-3 / rated value / maximum       V       690         Operating current / at AC-3 / rated value / maximum       V       690         Operating current / at AC-3 / rated value       A       1.9         Service power / at AC-3       -       -         • at 400 V / rated value       W       750         • at 600 V / rated value       W       1,100         Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum       Top and bottom         • of the non-delayed short-circuit release       A       42 42         • of the non-delayed short-circuit release       A       1.4 2         Service power / at AC-3 / at 230 V / rated value       W       370         • of the current-dependent overload release       A       1.4 2         Service power / at AC-3 / at 230 V / rated value       W       370         Continuous current / rated value       Vesi       0	overload protection		Yes
• auxiliary switchNo• undervoltage release mechanismNo• trip indicatorNoProduct extension / optional / motor driveNoMumber of poles / for main current circuit3Operating voltage / at AC-3 / rated value / maximumV690Operating current / at AC-3 / rated value / maximumV0Operating current / at AC-3 / rated value / maximumV00000111011 <td>phase disturbance recognition</td> <td></td> <td>Yes</td>	phase disturbance recognition		Yes
• undervoltage release mechanismNo• trip indicatorNoProduct extension / optional / motor driveNoMumber of poles / for main current circuit3Operating voltage / at AC-3 / rated value / maximumV690Operating current / at AC-3 / at 400 V / rated valueA1.9Service power / at AC-3 / at 400 V / rated valueW• at 600 V / rated valueM• of the non-delayed short-circuit releaseA• of the non-delayed short-circuit releaseA• of the non-delayed short-circuit releaseA• of the current / rated valueW• of the current / rated valueM• of the cur	Product component		
• trip indicator       No         Product extension / optional / motor drive       No         Main circuit:       No         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       1.9         Service power / at AC-3       W       750         • at 400 V / rated value       W       750         • at 500 V / rated value       W       750         • at 600 V / rated value       W       750         • at 690 V / rated value       W       1,100         Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum       Top and bottom         Adjustable response current       •       V         • of the non-delayed short-circuit release       A       1.42         Service power / at AC-3 / at 230 V / rated value       W       370         Continuous current / rated value       W       370         Continuous current / rated value       A       2         Auxiliary circuit:       Yes         Product extension / auxiliary sontacts / instantaneous switching       0         Number of NO contacts / for auxiliary contacts / instantaneous switching       0	auxiliary switch		No
Product extension / optional / motor drive       No         Main circuit:       3         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       1.9         Service power / at AC-3       W       750         • at 400 V / rated value       W       750         • at 400 V / rated value       W       750         • at 500 V / rated value       W       750         • at 600 V / rated value       W       750         • at 600 V / rated value       W       750         • at 600 V / rated value       W       750         • at 600 V / rated value       W       100         Frequency of operation / at AC-3 / according to IEC 60947-6-2/ maximum       Top and bottom         Arrangement of electrical connectors / for main current circuit       Top and bottom         Adjustable response current • of the non-delayed short-circuit release       A       42 42         • of the current-dependent overload release       A       14 2         Service power / at AC-3 / at 230 V / rated value       Yes         Number of NC contacts / for auxillary contacts / instantaneous switching       0       0	undervoltage release mechanism		No
Main circuit:     3       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     1.9       Service power / at AC-3     W     750       • at 400 V / rated value     W     750       • at 500 V / rated value     W     750       • at 600 V / rated value     W     750       • at 600 V / rated value     W     1.100       Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum     Top and bottom       Arrangement of electrical connectors / for main current circuit     Top and bottom       Adjustable response current     A     42 42       • of the non-delayed short-circuit release     A     14 2       Service power / at AC-3 / at 230 V / rated value     W     370       Continuous current / rated value     A     2       Auxiliary circuit:     Yes     0       Number of NC contacts / for auxiliary contacts / instantaneous switching     0       Number of change-over switches / for auxiliary contacts     0       Number of change-over switches / for auxiliary contacts     0	trip indicator		No
Number of poles / for main current circuit         3           Operating voltage / at AC-3 / rated value / maximum         V         630           Operating current / at AC-3 / rated value         A         1.9           Service power / at AC-3         W         750           • at 400 V / rated value         W         750           • at 600 V / rated value         W         750           • at 600 V / rated value         W         100           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	Product extension / optional / motor drive		No
Operating voltage / at AC-3 / rated value / maximum       V       690         Operating current / at AC-3 / at 400 V / rated value       A       1.9         Service power / at AC-3       V       750         • at 400 V / rated value       W       750         • at 600 V / rated value       W       750         • at 600 V / rated value       W       1.100         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 non-delayed short-circuit release       A       42 42         • of the current-dependent overload release       A       1.4 2         Service power / at AC-3 / at 230 V / rated value       W       370         Continuous current / rated value       A       2         Auxiliary circuit:       Yes       1         Product extension / auxiliary switch       Yes       0         Number of NC contacts / for auxiliary contacts / instantaneous switching       0       0         Number of Change-over switches / for auxiliary contacts       0       0         Number of change-over switches / for auxiliary contacts       0       0 <td>Main circuit:</td> <td></td> <td></td>	Main circuit:		
Operating current / at AC-3 / at 400 V / rated valueA1.9Service power / at AC-3Image: Content of the service power / at AC-3Image: Content of the service power / at AC-3• at 400 V / rated valueW750• at 500 V / rated valueW750• at 690 V / rated valueW750• at 690 V / rated valueW1,100Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum1/h15Arrangement of electrical connectors / for main current circuitTop and bottomAdjustable response currentImage: Content of the non-delayed short-circuit releaseA42 42• of the non-delayed short-circuit releaseA1.4 2Service power / at AC-3 / at 230 V / rated valueW370Continuous current / rated valueA2Product extension / auxiliary switchYes0Number of NC contacts / for auxiliary contacts / instantaneous switching0Number of NO contacts / for auxiliary contacts / instantaneous switching0Number of ND contacts / for auxiliary contacts / instantaneous switching0	Number of poles / for main current circuit		3
Service power / at AC-3       W       750         • at 400 V / rated value       W       750         • at 500 V / rated value       W       750         • at 690 V / rated value       W       750         • at 690 V / rated value       W       750         • at 690 V / rated value       W       1,100         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 non-delayed short-circuit release       A       42 42         • of the current-dependent overload release       A       14 2         Service power / at AC-3 / at 230 V / rated value       W       370         Continuous current / rated value       A       2         Auxiliary circuit:        Yes         Product extension / auxiliary contacts / instantaneous switching       0       0         Number of NC contacts / for auxiliary contacts / instantaneous switching       0       0         Number of change-over switches / for auxiliary contacts       0       0         Number of change-over switches / for auxiliary contacts       0       0	Operating voltage / at AC-3 / rated value / maximum	V	690
• at 400 V / rated valueW750• at 500 V / rated valueW750• at 690 V / rated valueW1,100Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum1/h15Arrangement of electrical connectors / for main current circuitTop and bottomAdjustable response current • of the non-delayed short-circuit releaseA42 42• of the current-dependent overload releaseA14 2Service power / at AC-3 / at 230 V / rated valueW370Continuous current / rated valueW370Auxiliary circuit:YesProduct extension / auxiliary contacts / instantaneous switching0Number of NC contacts / for auxiliary contacts / instantaneous switching0Number of change-over switches / for auxiliary contacts0Inputs/Outputs:0	Operating current / at AC-3 / at 400 V / rated value	А	1.9
• at 500 V / rated valueW750• at 690 V / rated valueW1,100Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum1/h15Arrangement of electrical connectors / for main current circuitTop and bottomAdjustable response current • of the non-delayed short-circuit releaseA42 42• of the current-dependent overload releaseA1.4 2Service power / at AC-3 / at 230 V / rated valueW370Continuous current / rated valueW370Auxiliary circuit:YesProduct extension / auxiliary contacts / instantaneous switching0Number of NC contacts / for auxiliary contacts / instantaneous switching0Number of change-over switches / for auxiliary contacts0Number of change-over switches / for auxiliary contacts0	Service power / at AC-3	-	
• at 690 V / rated valueW1,100Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum1/h15Arrangement of electrical connectors / for main current circuitTop and bottomAdjustable response current• of the non-delayed short-circuit releaseA42 42• of the current-dependent overload releaseA1.4 2Service power / at AC-3 / at 230 V / rated valueW370Continuous current / rated valueW370Auxiliary circuit:-YesProduct extension / auxiliary switchYesNumber of NC contacts / for auxiliary contacts / instantaneous switching0Number of change-over switches / for auxiliary contacts0Inputs/ Outputs:-0	• at 400 V / rated value	W	750
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 non-delayed short-circuit release       A       42 42         • of the current-dependent overload release       A       1.4 2         Service power / at AC-3 / at 230 V / rated value       W       370         Continuous current / rated value       A       2         Auxiliary circuit:       -       Yes         Product extension / auxiliary switch       Yes         Number of NC contacts / for auxiliary contacts / instantaneous switching       0         Number of NO contacts / for auxiliary contacts / instantaneous switching       0         Number of change-over switches / for auxiliary contacts       0         Inputs/ Outputs:       -	• at 500 V / rated value	W	750
maximum       Imaximum         Arrangement of electrical connectors / for main current circuit       Top and bottom         Adjustable response current       Top and bottom         • of the non-delayed short-circuit release       A       42 42         • of the current-dependent overload release       A       1.4 2         Service power / at AC-3 / at 230 V / rated value       W       370         Continuous current / rated value       W       370         Auxiliary circuit:       Product extension / auxiliary switch       A       2         Number of NC contacts / for auxiliary contacts / instantaneous switching       0       0         Number of NO contacts / for auxiliary contacts / instantaneous switching       0       0         Number of change-over switches / for auxiliary contacts       0       0	• at 690 V / rated value	W	1,100
Adjustable response current       A       Imputs/ Outputs:         • of the non-delayed short-circuit release       A       42 42         • of the current-dependent overload release       A       1.4 2         Service power / at AC-3 / at 230 V / rated value       W       370         Continuous current / rated value       A       2         Auxiliary circuit:       Yes       0         Product extension / auxiliary switch       Yes       0         Number of NC contacts / for auxiliary contacts / instantaneous switching       0       0         Number of NO contacts / for auxiliary contacts / instantaneous switching       0       0		1/h	15
• of the non-delayed short-circuit releaseA42 42• of the current-dependent overload releaseA1.4 2Service power / at AC-3 / at 230 V / rated valueW370Continuous current / rated valueA2Auxiliary circuit:YesProduct extension / auxiliary switchYesNumber of NC contacts / for auxiliary contacts / instantaneous switching0Number of NO contacts / for auxiliary contacts / instantaneous switching0Number of change-over switches / for auxiliary contacts0Inputs/ Outputs:U	Arrangement of electrical connectors / for main current circuit	_	Top and bottom
• of the current-dependent overload releaseA1.4 2Service power / at AC-3 / at 230 V / rated valueW370Continuous current / rated valueA2Auxiliary circuit:YesProduct extension / auxiliary switchYesNumber of NC contacts / for auxiliary contacts / instantaneous switching0Number of NO contacts / for auxiliary contacts / instantaneous switching0Number of change-over switches / for auxiliary contacts0Inputs/ Outputs:U	Adjustable response current		
Service power / at AC-3 / at 230 V / rated value       W       370         Continuous current / rated value       A       2         Auxiliary circuit:       Yes         Product extension / auxiliary switch       Yes         Number of NC contacts / for auxiliary contacts / instantaneous switching       0         Number of NO contacts / for auxiliary contacts / instantaneous switching       0         Number of NO contacts / for auxiliary contacts / instantaneous switching       0         Number of change-over switches / for auxiliary contacts       0         Inputs/ Outputs:       U	<ul> <li>of the non-delayed short-circuit release</li> </ul>	А	42 42
Continuous current / rated value       A       2         Auxiliary circuit:       Yes         Product extension / auxiliary switch       Yes         Number of NC contacts / for auxiliary contacts / instantaneous switching       0         Number of NO contacts / for auxiliary contacts / instantaneous switching       0         Number of NO contacts / for auxiliary contacts / instantaneous switching       0         Imputs/ Outputs:       0	of the current-dependent overload release	А	1.4 2
Auxiliary circuit:       Yes         Product extension / auxiliary switch       Yes         Number of NC contacts / for auxiliary contacts / instantaneous switching       0         Number of NO contacts / for auxiliary contacts / instantaneous switching       0         Number of NO contacts / for auxiliary contacts / instantaneous switching       0         Number of change-over switches / for auxiliary contacts       0         Inputs/ Outputs:       0	Service power / at AC-3 / at 230 V / rated value	W	370
Product extension / auxiliary switch       Yes         Number of NC contacts / for auxiliary contacts / instantaneous switching       0         Number of NO contacts / for auxiliary contacts / instantaneous switching       0         Number of NO contacts / for auxiliary contacts / instantaneous switching       0         Number of NO contacts / for auxiliary contacts / instantaneous switching       0         Number of change-over switches / for auxiliary contacts       0         Inputs/ Outputs:       0	Continuous current / rated value	А	2
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:       0	Auxiliary circuit:		
switching     0       Number of NO contacts / for auxiliary contacts / instantaneous switching     0       Number of change-over switches / for auxiliary contacts     0       Inputs/ Outputs:     0	Product extension / auxiliary switch		Yes
switching     0       Number of change-over switches / for auxiliary contacts     0       Inputs/ Outputs:     0			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	А	100,000
• at 500 V / rated value	А	100,000
• at 690 V / rated value	А	10,000
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	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		

• solid				2x (0.5	4 mm2)	
<ul> <li>stranded</li> </ul>				2x (0.5	4 mm²)	
<ul> <li>finely stranded</li> </ul>						
<ul> <li>with conduct</li> </ul>	tor end processing			2 x (0.5	2.5 mm2)	
<ul> <li>without cond</li> </ul>	ductor final cutting			2x (0.5	2.5 mm2)	
<ul> <li>for AWG conductor</li> </ul>	ors / for main contacts	;		2x (20 .	12)	
Certificates/approv	vals:					
Verification of suitab	bility			CE / UL	/ CSA	
• für Staubexplosio	nsschutz für Zone 21/	22		no		
<ul> <li>for gas explosion</li> </ul>	protection for zone 1/	2		no		
General Product Ap	oproval				Test Certificates	
		ROSTEST			Manufacturer	
Cec	(OP					
CQC	CSA		UL			
Shipping Approval						
AN BURE DE	GL	Lloyd's Kegister				
ABS	GL	LRS	PRS		RINA	RMRS
other						
Manufacturer	other					
		VDE				
UL/CSA ratings						
yielded mechanical p	performance (hp)		_	_		
	quirrel cage motors					
• at 230 V / rated			hp	0.125		
• for three-phase so			ΠP	0.120		
• at 460/480 V /			hp	0.75		
• at 575/600 V /			hp	1		
		e squirrel cage motors				
• at 480 V / rated va		- 1	А	1.6		
• at 600 V / rated va			A	1.7		
Safety:						
B10 value / with high	demand rate					
according to SN 3	31920			50,000		
T1 value / for proof to	est interval or servic	e life				

• according to IEC 61508

а

10

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

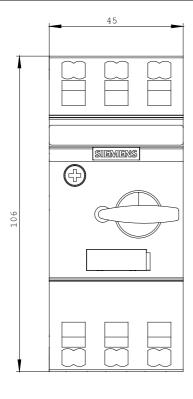
#### CAx-Online-Generator

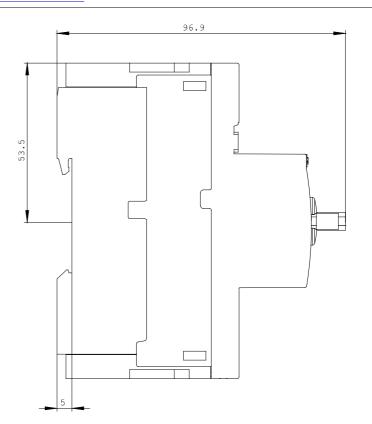
http://www.siemens.com/cax

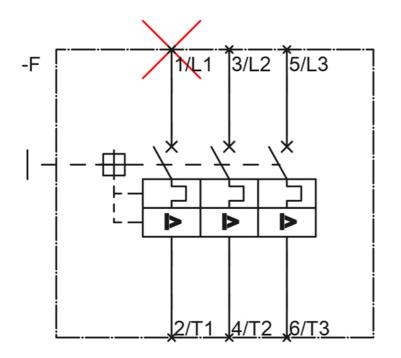
## Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

http://support.automation.siemens.com/WW/view/en/3RV2411-1BA20/all

#### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RV2411-1BA20







last change:

Oct 17, 2011