SIEMENS

Product data sheet

3RV2011-1CA40



CIRCUIT-BREAKER SZ S00, FOR MOTOR PROTECTION, CLASS 10, A-REL.1.8...2.5A, N-RELEASE 33A, RING CABLE LUG 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		IP00
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		
 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 / typical100,000Type of the diving mechanism / motor driveNoDesign of the operating mechanismelector witchProduct functionYes• overload protectionYes• base disturbance recognitionYesProduct componentNo• auxiliary switchNo• undervolage release mechanismNo• auximumV0 perating current / at AC-3 / rated valueNo• at 400 V rated valueNo• at 400 V rated valueW• at 400 V rated valueNo• at 400 V rated valueNo• at 500 V rated valueW• of the non-delayed athort-ficial releaseA• of the non-delayed athort-ficial releaseA• of the current-dependent overload releaseA• of the current-dependent overload releaseA• of the current-dependent	Mechanical operating cycles as operating time	_	
Type of the driving mechanism / motor drive No Design of the operating mechanism selector switch Product function Yes • overload protection Yes • phase disturbance recognition Yes Product opponent Yes • audiliary switch No • undervoltage release mechanism No • tip indicator No Product extension / optional / motor drive No Main circuit: No Number of poles / for main current circuit 3 Operating current / at AC-3 / rated value / maximum V 690 Operating current / at AC-3 / rated value W 1.9 Service power / at AC-3 at 400 V / rated value W • at 400 V / rated value W 1.500 • at 600 V / rated value W 1.500 Frequency of operation / at AC-3 / according to IEC 60947-6-21 1/h 15 Arrangement of electrical connectors / for main current circuit Top and bottom Adjustable response current A 3	of the main contacts / typical		100,000
Design of the operating mechanism selector switch Product function Yes • overload protection Yes • phase disturbance recognition Yes Product component Yes • 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 / at 400 V / rated value A service power / at AC-3 1.9 Service power / at AC-3 W * at 400 V / rated value W * at 600 V / rated value W * at 600 V / rated value M * of the non-delayed short-drout release <th>of the auxiliary contacts / typical</th> <th></th> <th>100,000</th>	of the auxiliary contacts / typical		100,000
Product function Yes • overload 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 Service power / at AC-3 8 • at 400 V / rated value W • at 400 V rated value W • at 600 V / rated value W • at 600 V rated value W • of the non-delayed short-circuit release A • of the non-delayed short-dircuit release A	Type of the driving mechanism / motor drive	_	No
• overload protectionYes• phase disturbance recognitionYesProduct componentYes• auxiliary switchNo• undervoltage release mechanismNo• indip indicatorNoProduct extension / optional / motor driveNoProduct extension / optional / motor driveNoMumber of poles / for main current circuit3Operating voltage / at AC-3 / rated value / maximumVOperating current / at AC-3 / rated value / maximumVService power / at AC-31.9Service power / at AC-3W* at 400 V / rated valueW* at 400 V rated valueY* at 400 V rated valueA* at 400 V rated value	Design of the operating mechanism	_	selector switch
• phase disturbance recognitionImage: Second Se	Product function		
Product component No • auxiliary switch No • undervoltage release mechanism No • trip indicator No Product extension / optional / motor drive No Main circuit: No Mumber of poles / for main current circuit 3 Operating voltage / at AC-3 / rated value / maximum V 690 Operating current / at AC-3 / rated value A 1.9 Service power / at AC-3 V 750 • at 400 V / rated value W 1,100 • at 600 V / rated value W 1,500 • at 600 V / rated value W 1,500 • at 600 V / rated value M 1,500 • at 600 V / rated value W 1,500 • at 600 V / rated value W 1,500 • at 600 V / rated value W 1,500 • at 600 V / rated value W 1,500 • of the non-delayed short-circuit release A 333 • of the current-dependent overload release A 182.5 Service power / at AC-3 / at 230 V / rated value W 370 • of the current-dependent overload release A 182.5 Service power / at AC-3 / at 230 V / rated value W 370	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 / maximumVOperating current / at AC-3 / rated value / maximumVOperating current / at AC-3 / rated value / maximumVOperating current / at AC-3 / rated valueA1.9Service power / at AC-3V• at 400 V / rated valueW• at 400 V / rated valueM• at 400 V / rated valueA• at 400 V / rated valueM• at 4	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 valueW750• at 400 V / rated valueW1.100• at 600 V / rated valueW1.500Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximumTop and bottomAdjustable response currentA333• of the non-delayed short-fricuit releaseA1.82.5Service power / at AC-3 / at 230 V / rated valueW370Continuous current / rated valueW370Continuous current / rated valueM2.5Mumber of NO contacts / for auxillary contacts / instantaneous switchingYesNumber of NO contacts / for auxillary contacts / instantaneous switching0Number of NO contacts / for auxillary contacts / instantaneous switching0	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 / rated value / maximum V 690 Operating current / at AC-3 / rated value / maximum V 690 • at 400 V / rated value A 1.9 • at 400 V / rated value W 1,100 • at 600 V / rated value W 1,500 • at 600 V / rated value W 1,500 • at 690 V / rated value W 1,500 • at 690 V / rated value W 1,500 • at 690 V / rated value W 1,500 • at 690 V / rated value W 1,500 • at 690 V / rated value W 1,500 • at 690 V / rated value W 1,500 • at 690 renon-delexed short-circuit release A 333 • of the non-delayed short-circuit release A 182.5 Service power / at AC-3 / at 230 V / rated value W 370 <td< th=""><th>auxiliary switch</th><th></th><th>No</th></td<>	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 / 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 1,000 • at 400 V / rated value W 1,000 • at 600 V / rated value W 1,500 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 33 33 • of the non-delayed short-circuit release A 33 33 • of the current-dependent overload release A 18 2.5 Service power / at AC-3 / at 230 V / rated value Y Yes Number of NC contacts / for auxillary contacts / instantaneous switching Quitary curcuit: Yes Product extension / auxillary contacts / instantaneous switching 0 0	undervoltage release mechanism		No
Main circuit: 3 Operating voltage / at AC-3 / rated value / maximum V 690 Operating vortage / 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 1,100 • at 500 V / rated value W 1,500 • at 600 V / rated value W 1,500 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 Inh 15 • of the non-delayed short-circuit release A 33 33 • of the current-dependent overload release A 18 2.5 Service power / at AC-3 / at 230 V / rated value W 370 Continuous current / rated value Yes 0 Number of NC contacts / for 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 </th <th>trip indicator</th> <th></th> <th>No</th>	trip indicator		No
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 A 1.9 Service power / at AC-3 W 750 • at 400 V / rated value W 750 • at 500 V / rated value W 1.100 • at 690 V / rated value W 1.500 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 33 33 • of the current-dependent overload release A 1.8 2.5 Service power / at AC-3 / at 230 V / rated value W 370 Continuous current / rated value A 2.5 Arkiliary circuit: Yes 1.100 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-o	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 W 750 • at 400 V / rated value W 750 • at 600 V / rated value W 1,100 • at 690 V / rated value W 1,500 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	Main circuit:		
Operating current / at AC-3 / at 400 V / rated valueA1.9Service power / at AC-3Image: Constant of the current / at 400 V / rated valueV750• at 400 V / rated valueW750• at 500 V / rated valueW1,100• at 690 V / rated valueW1,500Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum1/h15Arrangement of electrical connectors / for main current circuitTop and bottomAdjustable response currentA33 33• of the non-delayed short-circuit releaseA33 33• of the current-dependent overload releaseA1.8 2.5Service power / at AC-3 / at 230 V / rated valueW370Continuous current / rated valueA2.5Auxiliary 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 contacts / instantaneous switching0	Number of poles / for main current circuit		3
Service power / at AC-3 W 750 • at 400 V / rated value W 1,100 • at 500 V / rated value W 1,500 • at 690 V / rated value W 1,500 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 I Service power / at AC-3 / at 230 V / rated value • of the non-delayed short-circuit release A 33 33 • of the current-dependent overload release A 1.8 2.5 Service power / at AC-3 / at 230 V / rated value W 370 Continuous current / rated value Yes Number of NC contacts / for auxiliary contacts / instantaneous switching Number of NC contacts / for auxiliary contacts / instantaneous switching 0 0 Number of NC contacts / for 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	Operating voltage / at AC-3 / rated value / maximum	V	690
• at 400 V / rated valueW750• at 500 V / rated valueW1,100• at 690 V / rated valueW1,500Frequency of operation / at AC-3 / according to IEC 60947-6-2 / maximum1/h15Arrangement of electrical connectors / for main current circuitTop and bottomAdjustable response currentImage: Comparison of the non-delayed short-circuit releaseA33 33• of the non-delayed short-circuit releaseA33 33• of the current-dependent overload releaseA1.8 2.5Service 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	Operating current / at AC-3 / at 400 V / rated value	А	1.9
• at 500 V / rated valueW1,100• at 690 V / rated valueW1,500Frequency 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 releaseA33 33• of the current-dependent overload releaseA18 2.5Service 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 contacts0Number of change-over switches / for auxiliary contacts0Number of change-over switches / for auxiliary contacts0	Service power / at AC-3	_	
• at 690 V / rated valueW1,500Frequency 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 releaseA33 33• of the current-dependent overload releaseA1.8 2.5Service power / at AC-3 / at 230 V / rated valueW370Continuous current / rated valueW370Auxiliary circuit:Product 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 Top and bottom • of the non-delayed short-circuit release A 33 33 • of the current-dependent overload release A 1.8 2.5 Service power / at AC-3 / at 230 V / rated value W 370 Continuous current / rated value A 2.5 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: Inputs/ Outputs:	• at 500 V / rated value	W	1,100
maximum Imaximum Imaximum Arrangement of electrical connectors / for main current circuit Top and bottom Adjustable response current Imaximum Imaximum • of the non-delayed short-circuit release A 33 33 • of the current-dependent overload release A 1.8 2.5 Service power / at AC-3 / at 230 V / rated value W 370 Continuous current / rated value M 3 33 Auxiliary circuit: Product extension / auxiliary switch A 2.5 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 Number of change-over switches / for auxiliary contacts 0 0 Inputs/ Outputs: Imputs/ Outputs: 0 0	• at 690 V / rated value	W	1,500
Adjustable response currentAdjustable response current• of the non-delayed short-circuit releaseA33 33• of the current-dependent overload releaseA1.8 2.5Service power / at AC-3 / at 230 V / rated valueW370Continuous current / rated valueA2.5Auxiliary circuit:Product 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 contacts0		1/h	15
• of the non-delayed short-circuit releaseA33 33• of the current-dependent overload releaseA1.8 2.5Service power / at AC-3 / at 230 V / rated valueW370Continuous current / rated valueA2.5Auxiliary 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:0	Arrangement of electrical connectors / for main current circuit		Top and bottom
• of the current-dependent overload releaseA1.8 2.5Service power / at AC-3 / at 230 V / rated valueW370Continuous current / rated valueA2.5Auxiliary circuit:YesProduct extension / auxiliary switchYesNumber of NC contacts / for auxiliary contacts / instantaneous switching0Number of NO 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 2.5 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	of the non-delayed short-circuit release	А	33 33
Continuous current / rated value A 2.5 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 Inputs/ Outputs: 0	of the current-dependent overload release	А	1.8 2.5
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	2.5
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: 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	-		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	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		ring cable connection		
Certificates/approvals:				

Maddau da an	- 1. 194						
Verification of suitability				CE / UL / CSA			
für Staubexplosionsschutz für Zone 21/22				no			
	n protection for zone	1/2		no			
General Product	Approval				For use in hazar	dous locations	
coc		ROSTEST			<u>DEKRA EXAM,</u> <u>DMT</u>		
Test Certificates							
Manufacturer	other						
Shipping Approv							
CAN BI			(SES)		IN		
ABS	GL	Lloyds Register Lrs	PRS			RMRS	
other							
Manufacturer	<u>other</u>						
UL/CSA ratings							
yielded mechanica	l performance (hp)						
 for single-phase 	e squirrel cage motors						
• at 230 V / rated value		hp	0.167				
 for three-phase 	squirrel cage motors						
• at 200/208 V	/ rated value		hp	0.5			
• at 220/230 V / rated value		hp	0.5				
• at 460/480 V	/ rated value		hp	1			
• at 575/600 V	/ rated value		hp	1.5			
Operating current	(FLA) / for three-pha	se squirrel cage motors					
• at 480 V / rated	value		А	2.1			
• at 600 V / rated	value		А	2.4			
Safety:							
B10 value / with high	gh demand rate						
 according to SN 	l 31920			50,000	1		
T1 value / for proof	f test interval or serv	rice life					
 according to IEC 	C 61508		а	10			
Failure rate (FIT va	lue) / with low dema	nd rate					
according to SN 31920			FIT	50			
Proportion of dang							
with low demand rate / according to SN 31920			%	40			
	• with high demand rate / according to SN 31920						

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)

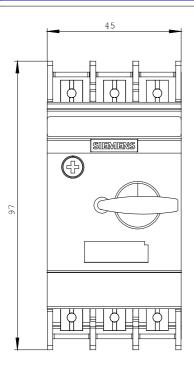
http://www.siemens.com/industrial-controls/mall

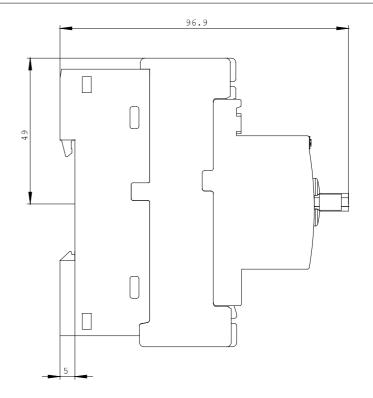
CAx-Online-Generator

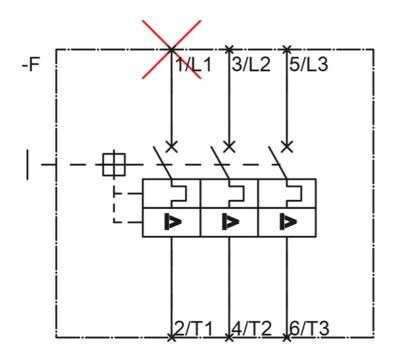
http://www.siemens.com/cax

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RV2011-1CA40/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RV2011-1CA40







last change:

Oct 24, 2011