## **SIEMENS**

Data sheet 3NP1163-1BC22



FUSE-SWITCH-DISCONNECTOR 3-POLE, NH3, 630A 60MM BUSBAR SYSTEM COVER LEVEL 32/70 MM BOX TERMINAL FUSE MONITORING ELECTRONIC, EFM 10

Model	
product brand name	SENTRON
Product designation	Fuse switch disconnector
Design of the product	3-pole
Busbar design	busbar thickness 5 or 10 mm
Design of the safety monitoring	electronic EFM 10
Design of the operating mechanism	handle unit
Design of the load switch / Strip form	No
Type of the driving mechanism / motor drive	No

General technical data		
Number of poles		3
Type of device		snap on mount on busbar system Siemens 8US 60
		mm
Size of disconnecting link		3 and 2
Size of fuse link		NH2, NH3
Continuous current / at 35 °C / Rated value	Α	630
Let-through current / with closed switch / maximum	kA	60
permissible		
cut-off value I**2t,max. / 500 V	A <sup>2</sup> ·s	5 400 000
I2t value / with closed switch / maximum permissible	kA2.s	5 400
Power factor		
● at AC-22 B		0.65
● at AC-23 B		0.35
with capacitive load		-0.25
circuit-breaker / Design		3NP11

Protection class IP  with closed switch / with cover or cable lug cover  with closed switch / without cover or cable lug cover  on the front open  IP40  IP30  IP40  IP40  IP40  IP40  IP40  IP20  Dissipation  Active power loss maximum  W 48  Electricity  Continuous current Rated value A 630 A 610 A 610 A 610 A 575 At 5° C / Rated value A 575 At 5° C / Rated value A 555 At 5° C / Rated value A 555 At 5° C / Rated value A 530  Let-through current / with high-speed activation / maximum permissible  Let-through current / Ic / maximum permissible  400 V 500V A 60 000  cut-off value I**2t,max. / 400 V A*-s 5 400 000	Mechanical service life (switching cycles) / typical		1 000
Insulation voltage / Rated value	Fuse system	_	LV HRC fuse
Insulation voltage / Rated value	V-ll-v-	_	
Power factor / at AC-21 B   Surge voltage resistance / Rated value   RV   8		V	690
Surge voltage resistance / Rated value   RV   8	-		
Protection class IP  • with closed switch / with cover or cable lug cover  • with closed switch / without cover or cable lug cover  • with closed switch / without cover or cable lug cover  • on the front  • open IP20  Dissipation  Active power loss  • maximum  W 48		k\/	
Protection class IP  • with closed switch / with cover or cable lug cover  • with closed switch / without cover or cable lug cover  • with closed switch / without cover or cable lug cover  • on the front • open    IP40   IP20   IP20   IP20   IP20   IP20   IP20   IP20   IP20   IP20   IP30   IP30   IP40   IP40	ourge voltage resistance / realed value	KV	0
with closed switch / with cover or cable lug cover     with closed switch / without cover or cable lug cover     • on the front	Protection class		
over  • with closed switch / without cover or cable lug cover  • on the front • open    IP40   IP20    IP20    IP20    IP20   IP20    IP20			
over	•		IP40
on the front     open	• with closed switch / without cover or cable lug		IP30
• open IP20  Dissipation  Active power loss • maximum W 48  Electricity  Continuous current • Rated value A 630 • at 40 °C / Rated value A 610 • at 45 °C / Rated value A 575 • at 50 °C / Rated value A 555 • at 55 °C / Rated value A 530 Let-through current / with high-speed activation / maximum permissible  Let-through current / lc / maximum permissible • 400 V A 60 000 cut-off value I**2t,max. / 400 V A**s 5 400 000  Main circuit  Operating ovitage • with AC / Rated value / minimum V 690  Operating current • at AC-21 B / at 400 V / Rated value A 630 • at AC-22 B / at 400 V / Rated value A 630 • at AC-22 B / at 400 V / Rated value A 630 • at AC-22 B / at 500 V / Rated value A 630 • at AC-22 B / at 500 V / Rated value A 630 • at AC-22 B / at 500 V / Rated value A 630 • at AC-22 B / at 500 V / Rated value A 630 • at AC-22 B / at 500 V / Rated value A 630 • at AC-22 B / at 500 V / Rated value A 630 • at AC-22 B / at 500 V / Rated value A 630 • at AC-22 B / at 500 V / Rated value A 630 • at AC-22 B / at 500 V / Rated value A 630 • at AC-22 B / at 500 V / Rated value A 630 • at AC-22 B / at 500 V / Rated value A 630 • at AC-22 B / at 500 V / Rated value A 630 • at AC-22 B / at 500 V / Rated value A 630 • at AC-22 B / at 500 V / Rated value A 630	cover		
Dissipation  Active power loss  • maximum  W 48  Electricity  Continuous current  • Rated value  • at 40 °C / Rated value  • at 40 °C / Rated value  • at 55 °C / Rated value  • at 55 °C / Rated value  A 555  • at 55 °C / Rated value  A 530  Let-through current / with high-speed activation / maximum permissible  Let-through current / lc / maximum permissible  • 400 V  • 500V  Cut-off value I**2t_max. / 400 V  A**s 5 400 000  Cut-off value I**2t_max. / 400 V  A**s 5 400 000  Operating voltage  • with AC / Rated value / maximum  V 690  Operating current  • at AC-21 B / at 400 V / Rated value  • at AC-21 B / at 690 V / Rated value  • at AC-22 B / at 400 V / Rated value  • at AC-22 B / at 400 V / Rated value  • at AC-22 B / at 400 V / Rated value  • at AC-22 B / at 400 V / Rated value  • at AC-22 B / at 400 V / Rated value  • at AC-22 B / at 400 V / Rated value  • at AC-22 B / at 400 V / Rated value  • at AC-22 B / at 400 V / Rated value  • at AC-22 B / at 400 V / Rated value  • at AC-22 B / at 400 V / Rated value  • at AC-22 B / at 500 V / Rated value	• on the front		IP40
## Active power loss  • maximum    W	• open		IP20
## Active power loss  • maximum    W	Dissipation		
Continuous current			
Continuous current       Rated value       A       630         • at 40 °C / Rated value       A       610         • at 45 °C / Rated value       A       575         • at 50 °C / Rated value       A       555         • at 55 °C / Rated value       A       530         Let-through current / with high-speed activation / maximum permissible       kA       50         Let-through current / Ic / maximum permissible       √       A       60 000         • 400 V       A       60 000       A       60 000         cut-off value  **2t,max. / 400 V       A²-s       5 400 000       A       50 000         Wain circuit         Operating voltage         • with AC / Rated value / minimum       V       230       230       20 </td <td>• maximum</td> <td>W</td> <td>48</td>	• maximum	W	48
Rated value     at 40 °C / Rated value     at 45 °C / Rated value     at 45 °C / Rated value     at 50 °C / Rated value     at 50 °C / Rated value     A 555     at 55 °C / Rated value     A 530  Let-through current / with high-speed activation / maximum permissible  Let-through current / Ic / maximum permissible     400 ∨     500∨     A 60 000 cut-off value I**2t,max. / 400 ∨  A²-s 5 400 000  Cut-off value I**2t,max. / 400 ∨  A²-s 5 400 000  Main circuit  Operating voltage     with AC / Rated value / minimum     v 230     with AC / Rated value / maximum  Operating current      at AC-21 B / at 400 V / Rated value     at AC-21 B / at 500 V / Rated value     at AC-22 B / at 400 V / Rated value     at AC-22 B / at 400 V / Rated value     at AC-22 B / at 400 V / Rated value     at AC-22 B / at 400 V / Rated value     at AC-22 B / at 400 V / Rated value     at AC-22 B / at 400 V / Rated value     at AC-22 B / at 400 V / Rated value     at AC-22 B / at 400 V / Rated value     at AC-22 B / at 400 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at	Electricity		
<ul> <li>at 40 °C / Rated value</li> <li>at 45 °C / Rated value</li> <li>at 50 °C / Rated value</li> <li>at 50 °C / Rated value</li> <li>at 55 °C / Rated value</li> <li>at 55 °C / Rated value</li> <li>A 530</li> <li>Let-through current / with high-speed activation / maximum permissible</li> <li>400 V</li> <li>A 60 000</li> <li>Cut-off value I**2t,max. / 400 V</li> <li>A 60 000</li> <li>Cut-off value I**2t,max. / 400 V</li> <li>A 60 000</li> <li>Main circuit</li> <li>Operating voltage</li> <li>with AC / Rated value / maximum</li> <li>with AC / Rated value / maximum</li> <li>W 690</li> <li>Operating current</li> <li>at AC-21 B / at 400 V / Rated value</li> <li>at AC-21 B / at 690 V / Rated value</li> <li>at AC-22 B / at 400 V / Rated value</li> <li>at AC-22 B / at 400 V / Rated value</li> <li>at AC-22 B / at 400 V / Rated value</li> <li>at AC-22 B / at 400 V / Rated value</li> <li>at AC-22 B / at 400 V / Rated value</li> <li>at AC-22 B / at 400 V / Rated value</li> <li>at AC-22 B / at 400 V / Rated value</li> <li>at AC-22 B / at 400 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> </ul>	Continuous current		
at 45 °C / Rated value     at 50 °C / Rated value     at 50 °C / Rated value     at 55 °C / Rated value     at 55 °C / Rated value     A 530  Let-through current / with high-speed activation / maximum permissible     at 400 V     a 60 000     cut-off value I**2t,max. / 400 V  A 60 000  cut-off value I**2t,max. / 400 V  A²-s 5400 000  Main circuit  Operating voltage     with AC / Rated value / minimum     with AC / Rated value / maximum     V 690  Operating current     at AC-21 B / at 400 V / Rated value     at AC-21 B / at 690 V / Rated value     at AC-22 B / at 400 V / Rated value     at AC-22 B / at 400 V / Rated value     at AC-22 B / at 400 V / Rated value     at AC-22 B / at 400 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22	Rated value	Α	630
at 50 °C / Rated value     at 55 °C / Rated value     at 55 °C / Rated value     A 530  Let-through current / with high-speed activation / maximum permissible  Let-through current / Ic / maximum permissible     400 V     500V     A 60 000  cut-off value I**2t,max. / 400 V  A²-s 5 400 000  Main circuit  Operating voltage     with AC / Rated value / minimum     with AC / Rated value / maximum     V 230     with AC / Rated value / maximum  Operating current     at AC-21 B / at 400 V / Rated value     at AC-21 B / at 500 V / Rated value     at AC-22 B / at 400 V / Rated value     at AC-22 B / at 400 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at 500 V / Rated value	• at 40 °C / Rated value	Α	610
at 55 °C / Rated value     A 530  Let-through current / with high-speed activation / maximum permissible     400 V     500V     A 60 000  cut-off value I**2t,max. / 400 V  A²-s 5 400 000  Vain circuit  Operating voltage     with AC / Rated value / minimum     with AC / Rated value / maximum     V 230  Operating current      at AC-21 B / at 400 V / Rated value     at AC-21 B / at 690 V / Rated value     at AC-22 B / at 400 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at 500 V / Rated value     at AC-22 B / at 500 V / Rated value     A 630     at AC-22 B / at 500 V / Rated value     A 630     at AC-22 B / at 500 V / Rated value     A 630     at AC-22 B / at 500 V / Rated value     A 630     at AC-22 B / at 500 V / Rated value     A 630     at AC-22 B / at 500 V / Rated value     A 630     at AC-22 B / at 500 V / Rated value     A 630	• at 45 °C / Rated value	Α	575
Let-through current / with high-speed activation / maximum permissible  Let-through current / Ic / maximum permissible  400 V  500V  A  60 000  Cut-off value I**2t,max. / 400 V  A²-s  5 400 000  Main circuit  Operating voltage  with AC / Rated value / minimum  with AC / Rated value / maximum  V  690  Operating current  at AC-21 B / at 400 V / Rated value  at AC-21 B / at 500 V / Rated value  at AC-22 B / at 400 V / Rated value  at AC-22 B / at 400 V / Rated value  at AC-22 B / at 400 V / Rated value  A  630  at AC-22 B / at 400 V / Rated value  A  630  at AC-22 B / at 500 V / Rated value  A  630  at AC-22 B / at 500 V / Rated value  A  630  A  630	• at 50 °C / Rated value	Α	555
Name	• at 55 °C / Rated value	Α	530
Let-through current / Ic / maximum permissible	Let-through current / with high-speed activation /	kA	50
	maximum permissible		
● 500V  cut-off value I**2t,max. / 400 V  A²-s 5 400 000  Main circuit  Operating voltage  ● with AC / Rated value / minimum  ● with AC / Rated value / maximum  V 690  Operating current  ● at AC-21 B / at 400 V / Rated value  ● at AC-21 B / at 500 V / Rated value  A 630  ● at AC-21 B / at 690 V / Rated value  A 630  ● at AC-22 B / at 400 V / Rated value  A 630  ● at AC-22 B / at 400 V / Rated value  A 630  ● at AC-22 B / at 400 V / Rated value  A 630  ● at AC-22 B / at 500 V / Rated value  A 630  ● at AC-22 B / at 500 V / Rated value  A 630	Let-through current / lc / maximum permissible		
Cut-off value I**2t,max. / 400 V  A²·s 5 400 000  Main circuit  Operating voltage  • with AC / Rated value / minimum  • with AC / Rated value / maximum  V 690  Operating current  • at AC-21 B / at 400 V / Rated value  • at AC-21 B / at 500 V / Rated value  • at AC-21 B / at 690 V / Rated value  • at AC-22 B / at 400 V / Rated value  • at AC-22 B / at 500 V / Rated value  • at AC-22 B / at 500 V / Rated value  • at AC-22 B / at 500 V / Rated value  • at AC-22 B / at 500 V / Rated value  • at AC-22 B / at 500 V / Rated value  • at AC-22 B / at 500 V / Rated value  • at AC-22 B / at 500 V / Rated value  • at AC-22 B / at 500 V / Rated value  • at AC-22 B / at 500 V / Rated value  • at AC-22 B / at 500 V / Rated value	• 400 V	Α	60 000
Main circuit  Operating voltage  • with AC / Rated value / minimum  • with AC / Rated value / maximum  V 690  Operating current  • at AC-21 B / at 400 V / Rated value  • at AC-21 B / at 500 V / Rated value  • at AC-21 B / at 690 V / Rated value  • at AC-22 B / at 400 V / Rated value  • at AC-22 B / at 500 V / Rated value  • at AC-22 B / at 500 V / Rated value  • at AC-22 B / at 500 V / Rated value  • at AC-22 B / at 500 V / Rated value  • at AC-22 B / at 500 V / Rated value  • at AC-22 B / at 500 V / Rated value  • at AC-22 B / at 500 V / Rated value  • at AC-22 B / at 500 V / Rated value	• 500V	Α	60 000
Operating voltage	cut-off value I**2t,max. / 400 V	A²-s	5 400 000
<ul> <li>with AC / Rated value / minimum</li> <li>with AC / Rated value / maximum</li> <li>690</li> <li>Operating current</li> <li>at AC-21 B / at 400 V / Rated value</li> <li>at AC-21 B / at 500 V / Rated value</li> <li>at AC-21 B / at 690 V / Rated value</li> <li>at AC-22 B / at 400 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> </ul>	Main circuit		
<ul> <li>with AC / Rated value / maximum</li> <li>Operating current</li> <li>at AC-21 B / at 400 V / Rated value</li> <li>at AC-21 B / at 500 V / Rated value</li> <li>at AC-21 B / at 690 V / Rated value</li> <li>at AC-22 B / at 400 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> </ul>	Operating voltage		
Operating current         • at AC-21 B / at 400 V / Rated value       A       630         • at AC-21 B / at 500 V / Rated value       A       630         • at AC-21 B / at 690 V / Rated value       A       630         • at AC-22 B / at 400 V / Rated value       A       630         • at AC-22 B / at 500 V / Rated value       A       630	• with AC / Rated value / minimum	V	230
<ul> <li>at AC-21 B / at 400 V / Rated value</li> <li>at AC-21 B / at 500 V / Rated value</li> <li>at AC-21 B / at 690 V / Rated value</li> <li>at AC-22 B / at 400 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> </ul>	<ul><li>with AC / Rated value / maximum</li></ul>	V	690
<ul> <li>at AC-21 B / at 500 V / Rated value</li> <li>at AC-21 B / at 690 V / Rated value</li> <li>at AC-22 B / at 400 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> </ul>	Operating current		
<ul> <li>at AC-21 B / at 690 V / Rated value</li> <li>at AC-22 B / at 400 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>A 630</li> <li>A 630</li> </ul>	• at AC-21 B / at 400 V / Rated value	Α	630
<ul> <li>at AC-22 B / at 400 V / Rated value</li> <li>at AC-22 B / at 500 V / Rated value</li> <li>A 630</li> </ul>	• at AC-21 B / at 500 V / Rated value	Α	630
• at AC-22 B / at 500 V / Rated value A 630	• at AC-21 B / at 690 V / Rated value	Α	630
	• at AC-22 B / at 400 V / Rated value	Α	630
• at AC-22 B / at 690 V / Rated value A 500	• at AC-22 B / at 500 V / Rated value	Α	630
	• at AC-22 B / at 690 V / Rated value	Α	500

• at AC-23 B / at 400 V / Rated value	Α	630
• at AC-23 B / at 500 V / Rated value	Α	500
• at AC-23 B / at 690 V / Rated value	Α	200
<ul> <li>with capacitive load / at 400 V / maximum</li> </ul>	Α	72
• with capacitive load / at 500 V / maximum	Α	55
Auxiliary circuit		
Number of CO contacts / for auxiliary contacts		0
Number of NC contacts / for auxiliary contacts		0
Number of NO contacts / for auxiliary contacts		0
Suitability		
Suitability for use		
Main switch		No
<ul><li>switch disconnector</li></ul>		Yes
<ul> <li>EMERGENCY OFF switch</li> </ul>		No
<ul><li>safety switch</li></ul>		Yes
maintenance/repair switch		Yes
Product details		
Product feature / interlock		Yes
Product component		
Trip indicator		Yes
<ul> <li>Phase failure monitoring</li> </ul>		No
undervoltage release		No
<ul> <li>undervoltage release with leading contact</li> </ul>		No
Product property / sealable		Yes
Product expansion		
Auxiliary switch		Yes
• optional		
<ul> <li>locking capability</li> </ul>		Yes
— motor drive		No
<ul> <li>Phase failure monitoring</li> </ul>		Yes
— Voltage trigger		No
<ul> <li>Overvoltage protection monitoring</li> </ul>		Yes
Product function		
Product function		
• fuse monitoring		Yes
Overvoltage protection monitoring		No
Short circuit		
Conditional short-circuit current (Iq)		
Rated value	kA	50

<ul> <li>with AC / at 500 V / with high-speed activation / Rated value</li> </ul>	kA	50
<ul> <li>with AC / at 690 V / with high-speed activation / Rated value</li> </ul>	kA	50
<ul> <li>with closed switch / with AC / at 500 V / Rated value</li> </ul>	kA	100
• with closed switch / with AC / at 690 V / Rated value	kA	100
Connections		
Arrangement of electrical connectors / for main current circuit		other
Connectable conductor cross-section / for main contacts		
• single or multi-stranded / minimum	mm²	50
• single or multi-stranded / maximum	mm²	300
• stranded / minimum	mm²	50
• stranded / maximum	mm²	300
Tightening torque / with screw-type terminals		
• minimum	N·m	10
• maximum	N·m	25
Type of connectable conductor cross-section / of the		20 x 32 mm
laminated conductors / maximum		
Type of electrical connection / for main current circuit		box terminals
Mechanical Design		
Height	mm	306
Width	mm	249.4
Depth	mm	195.7
mounting position		horizontally or vertically
N. d. a. v. and the second sec		harden and a section of

Mechanical Design		
Height	mm	306
Width	mm	249.4
Depth	mm	195.7
mounting position		horizontally or vertically
Mounting type		busbar mounting
Mounting type		
• floor mounting		No
• front mounting		No
<ul> <li>front mounting with 4-hole attachment</li> </ul>		No
<ul> <li>front mounting with central attachment</li> </ul>		No
• rail mounting		Yes
Busbar center-to-center spacing	mm	60

Environmental conditions		
Ambient temperature		
<ul><li>during operation / minimum</li></ul>	°C	-25
<ul> <li>during operation / maximum</li> </ul>	°C	55
during storage / minimum	°C	-50
during storage / maximum	°C	80

## Certificates **Equipment marking** Q • acc. to DIN EN 61346-2 Q • acc. to DIN EN 81346-2

## **General Product Approval**

**Declaration of** Conformity













Test	Shipping Approval			
Certificates				
Type Test Certificates/Test Report	<u> </u>	[GL⊚]	Lloyd's Register	
	DNV	GL	LRS	

## Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/lowvoltage/catalogs

Industry Mall (Online ordering system)

https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3NP11631BC22

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3NP11631BC22/all

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

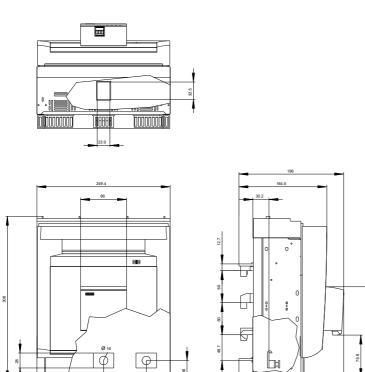
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3NP11631BC22

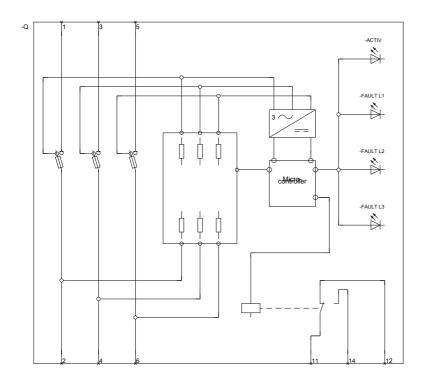
**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 

http://ausschreibungstexte.siemens.com/tiplv





last modified: 11.03.2015