3VA1150-4GE42-0AA0

Data sheet



circuit breaker 3VA1 IEC Frame 160 breaking capacity class S Icu=36 kA @ 415 V 4-pole, line protection TM220, ATFM, In=50 A overload protection Ir=35 A...50 A short-circuit protection Ii=10 x In neutral conductor protection 100% nut keeper kit

Model		
product brand name	SENTRON	
product designation	Molded case circuit breaker	
design of the product	Line protection	
design of the overcurrent release	TM220	
protection function of the overcurrent release	U	
number of poles	4	
General technical data		
insulation voltage / rated value	800 V	
operating voltage / at DC / rated value	600 V	
operating voltage / at AC / rated value	690 V	
power loss [W] / maximum	14.6 W	
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	4.87 W	
mechanical service life (operating cycles) / typical	20 000	
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	9 000	
electrical endurance (operating cycles) / at AC-1 / at 690 V	6 300	
product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof	No	
ground-fault monitoring version	Without	
product function		
 communication function 	No	
 other measurement function 	No	
Net Weight	1.213 kg	
Current		
operational current		
● at 40 °C	50 A	
● at 45 °C	50 A	
● at 50 °C	50 A	
• at 55 °C	49 A	
• at 60 °C	48 A	
• at 65 °C	46 A	
• at 70 °C	45 A	
Switching capacity according to IEC 60947		
switching capacity class of the circuit breaker	S	
maximum short-circuit current breaking capacity (lcu)		
• at 240 V	55 kA	
• at 415 V	36 kA	
• at 440 V	25 kA	
• at 500 V	7 kA	
● at 690 V	7 kA	

#			
4 41 5 7 5 5 5 5 5 5 5 5			
# 144 0 V			
* st 500 V			
- et 200 V - et 415 V - et 415 V - et 416 V - et 500 V - et 500 V - et 500 V - et 600 V			
short-forcial current making capacity (forn) a 121 kA a 145 V a 145 V a 145 V a 145 V b 146 V c 156 kA 2.5 kA 3.5 kA 3.1 yek a 1600 V 11.9 kA Adjustable parameters Cesign of short-circuit protection Cesign of the surface / of the connections / on the bottom of the carrier circuit protection / control short circuit protection Cesign of the surface / of the connections / on			
and 145 V and 145 V and 146 V and 145 V and 140 V and 150 V and 150 D V and 119 LNA design of short-circuit protection For exhibiting power values in DC networks, see the 3VA moided case circuit breaker device manual, link to be found under Service & Support in the last conspiler Adjustable sparameters product feature / for L-tripping / can be switched onloff adjustable response value delay time (tr) / for L-tripping / with 12t characteristic animum		5 kA	
e at 45 V e at 460 V e at 600 V e		404 1-4	
e at 440 V e at 500 V 11.9 kA 11.9 kA design of short-circuit protection For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; limk to be found under Service & Support in the last chapter Adjustablisto parameters product feature if for L-tripping / can be switched on/off adjustable response value setting current (tr) / of the L-trip / with 12t characteristic - minimum - maximum - so 0A - maxi			
e at 800 V design of short-circuit protection For writching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the least challenge of the state of for L-Vipping / can be switched on/off adjustable response value setting current (tr) of the L-trip / with 12t characteristic minimum 50 A adjustable response value delay time (tr) / for L-tripping / with 12t characteristic minimum 1s Amarimum 1			
### 11.9 L& design of short-circuit protection ### Adjustable parameters product feature if not L-tripping if can be switched on/off adjustable response value setting current (tr) / of the L-trip / with lat characteristic **minimum** **maximum** **maximum** **adjustable response value setting current (tr) / for L-tripping / with 12t characteristic **minimum** **maximum** **adjustable response value setting current (ti) / for I-tripping / with 12t characteristic **minimum** **maximum** **adjustable response value setting current (tii) / for I-tripping / with 12t characteristic **minimum** **maximum** **sadjustable setting current (tii) / for I-tripping **minimum** **maximum** **500 A **adjustable setting current (tin) / for N-tripping **minimum** **maximum** **50 A design of the N-conductor protection product function / grounding protection **product component** **undencotage release **voltage trigger** **No **pip indicator **No **Peipht [in] **5:12 in **height [in] **Jo mm **depth [in] **Jo mm **depth [in] **Jo mm **Jo			
design of short-circuit protection For entitlehing power values in IDC networks, see the 3VA molded case circuit breaker device manual; tink to be found under Service & Support in the last chapter Adjustable parameters			
breaker device manual: link to be found under Service & Support in the last chapter Adjustable parameters product feature / for L-tripping / can be switched on/off adjustable response value setting current (ir) / of the L-trip / with 12t characteristic — minimum — maximum — soo A — maximum — maximum — soo A — soo A — maximum — soo A — maximum — soo A — maximum — soo A — so			
product feature / for L-tripping / can be switched on/off adjustable response value setting current (in) / of the L-trip / with IZ characteristics • minimum adjustable response value delay time (itr) / for L-tripping / with IZt characteristics • minimum 1 s • maximum adjustable response value setting current (iii) / for I-tripping / with IZt characteristic • minimum • maximum 500 A • maximum 500 A • maximum • maximum • maximum • moximum • mox	design of anoth around protection	breaker device manual; link to be found under Service & Support in the last	
adjustable response value setting current (ir) / of the L-trip / with L2t characteristic minimum maximum son A s	Adjustable parameters		
Zi characteristic minimum 35 A 50 A	product feature / for L-tripping / can be switched on/off	No	
maximum 50 A adjustable response value delay time (tr) / for L-tripping / with 12t characteristic minimum 1 s maximum 1 s adjustable response value setting current (li) / for I-tripping minimum 500 A maximum 100 A mundation 100 A			
adjustable response value delay time (tr) / for L-tripping / with 12t characteristic	• minimum	35 A	
characteristic minimum maximum maximum minimum minim	maximum	50 A	
maximum adjustable response value setting current (ii) / for I-tripping eminimum			
adjustable response value setting current (iii) / for I-tripping	• minimum	1 s	
minimum 500 A maximum 500 A maximum 500 A maximum 50 A design of the N-conductor protection 100% product function / grounding protection No Mochanical Dosign product component undervoltage release No voltage trigger No height [in] 5.12 in height 130 nm width [in] 4 in width [in] 4 in width 101.6 mm depth [in] 2.76 in depth 70 mm Connections arrangement of electrical connectors / for main current circuit ype of connectable conductor cross-sections / for flat-bar terminal connection / minimum bype of connectable conductor cross-sections / for flat-bar terminal connection / minimum design of the surface / of the connections / on the top of the switch (N. 1. 3. 5) design of the surface / of the connections / on the top of the switch (N. 1. 3. 5) design of the surface / of the connections / on the bottom of the switch (N. 1. 3. 5) design of the surface / of the connections / on the bottom of the switch (N. 1. 3. 5) product extension / optional / motor drive Yes Environmental conditions protection class IP / on the front input in the protection also IP on the front input in the protection also IP on the front input in the minimum in the protection also IP on the front input in the minimum in the protection class IP / on the front input in the minimum in the m	maximum	1s	
maximum adjustable setting current (inN) / for N-tripping minimum minimum maximum 50 A design of the N-conductor protection product function / grounding protection Mo Mechanical Dasign product component undervoltage release voltage trigger no trip indicator height [in] depth [in] formal depth [in] formal connections arrangement of electrical connectors / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts 0 Accessories product extension / optional / motor drive Environmental conditions protection class IP / on the front minimum IP40 ambient temperature	adjustable response value setting current (li) / for I-tripping		
adjustable setting current (inN) / for N-tripping	• minimum	500 A	
• minimum 50 A • maximum 50 A cesign of the N-conductor protection 100% product function / grounding protection No Mechanical Design product component • undervoltage release No • voltage trigger No • trip indicator No height [in] 5.12 in height 130 mm width [in] 4 in width 101.6 mm depth [in] 2.76 in depth 70 mm Connections arrangement of electrical connections / for main current circuit 199 of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type		500 A	
maximum 50 A design of the N-conductor protection 100% product function / grounding protection No Mechanical Design product component			
design of the N-conductor protection product function / grounding protection No Mechanical Design product component • undervoltage release • voltage trigger • trip indicator height [in] height 130 mm width [in] width 101.6 mm depth [in] 2.76 in depth [in] connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / mainimum type of connectable conductor cross-sections / for flat-bar terminal connection / mainimum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 1, 3, 6) design of the surface / of the connections / on the bottom of the switch (N, 1, 3, 6) design of the surface / of the connections / on the bottom of the switch (N, 1, 3, 6) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Accessories product extension / optional / motor drive Protection class IP / on the front muber temperature			
product function / grounding protection Mechanical Design product component • undervoltage release • voltage trigger • trip indicator height [in] height [in] width [in] width [in] depth [in] depth [in] depth [in] connections arrangement of electrical connectors / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor cross-sections / for flat-bar terminal connector / maximum design of the surface / of the connections / on the top of the switch (N, 2, 4, 6) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Accessories product component protection cannel / motor drive Yes protection class IP / on the front IP40 ambient temperature			
product component • undervoltage release • voltage trigger • trip indicator height [in] height [in] height [in] • trip indicator how depth [in] from terminal nut keeper kit on both ends type of connectable conductor cross-sections / for flat-bar terminal connection / inhimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts 0 Accessories product extension / optional / motor drive Yes Environmental conditions protection class IP / on the front IP40 ambient temperature			
product component • undervoltage release • voltage trigger • trip indicator No height [in] feight height heigh		INU	
• undervoltage release • voltage trigger • voltage trigger • trip indicator No • trip indicator No height [in] 5.12 in height 130 mm width [in] 4 in width 101.6 mm depth [in] 2.76 in depth 70 mm Connections arrangement of electrical connectors / for main current circuit type of electrical connecton / for main current circuit reminal connectable conductor cross-sections / for flat-bar terminal connection / mainimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxillary circuit number of CO contacts / for auxillary contacts Protection class IP / on the front ambient temperature No			
voltage trigger voltage trigger trip indicator No height [in]		No	
trip indicator height [in] height [in] height 130 mm width [in] deth 101.6 mm depth [in] depth 70 mm Connections arrangement of electrical connectors / for main current circuit for one connection / for main current circuit nut keeper kit on both ends type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts product extension / optional / motor drive Yes Environmental conditions protection class IP / on the front ambient temperature	-		
height [in] 5.12 in height 130 mm width [in] 4 in width 101.6 mm depth [in] 2.76 in depth 70 mm Connections arrangement of electrical connectors / for main current circuit from terminal type of electrical connection / for main current circuit nut keeper kit on both ends type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts Accessories product extension / optional / motor drive Environmental conditions protection class IP / on the front ambient temperature			
height 130 mm width [in] 4 in width 101.6 mm depth [in] 2.76 in depth 70 mm Connections arrangement of electrical connectors / for main current circuit fype of electrical connection / for main current circuit nut keeper kit on both ends type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts 0 Accessories product extension / optional / motor drive Yes Environmental conditions protection class IP / on the front and in the switch (IP40) method in the surface in the fornt and in the switch (IP40) The switch	·		
width [in] 4 in width 101.6 mm depth [in] 2.76 in depth 70 mm Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit nut keeper kit on both ends type of connectable conductor cross-sections / for flat-bar terminal connection / minimum 12 x 1 mm type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor or cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts o Accessories product extension / optional / motor drive Yes Environmental conditions protection class IP / on the front IP40 ambient temperature	<u> </u>	130 mm	
depth [in] 2.76 in depth 70 mm Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit nut keeper kit on both ends type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts Accessories product extension / optional / motor drive Environmental conditions protection class IP / on the front ambient temperature		4 in	
depth 70 mm Connections arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit nut keeper kit on both ends type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts O Accessories product extension / optional / motor drive Environmental conditions protection class IP / on the front ambient temperature	width	101.6 mm	
arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit nut keeper kit on both ends type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts Accessories product extension / optional / motor drive Environmental conditions protection class IP / on the front arrangement circuit Front terminal nut keeper kit on both ends 12 x 1 mm 17 x 6,5 mm 17 x 6,5 mm Tin Silver Silver Silver Silver Silver Front terminal 10 x 6,5 mm	depth [in]	2.76 in	
arrangement of electrical connectors / for main current circuit type of electrical connection / for main current circuit nut keeper kit on both ends type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts O Accessories product extension / optional / motor drive Environmental conditions protection class IP / on the front ambient temperature	depth	70 mm	
type of electrical connection / for main current circuit type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts O Accessories product extension / optional / motor drive Environmental conditions protection class IP / on the front ambient temperature	Connections		
type of connectable conductor cross-sections / for flat-bar terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts product extension / optional / motor drive Environmental conditions protection class IP / on the front ambient temperature	arrangement of electrical connectors / for main current circuit	Front terminal	
terminal connection / minimum type of connectable conductor cross-sections / for flat-bar terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts product extension / optional / motor drive Environmental conditions protection class IP / on the front ambient temperature 17 x 6,5 mm Tin Silver Silver O Are section of the connections / on the bottom of the syline in the position of the syline in the syline in the position of the syline in the s	type of electrical connection / for main current circuit	nut keeper kit on both ends	
terminal connection / maximum design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts product extension / optional / motor drive Environmental conditions protection class IP / on the front ambient temperature		12 x 1 mm	
switch (N, 1, 3, 5) design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts product extension / optional / motor drive Environmental conditions protection class IP / on the front ambient temperature		17 x 6,5 mm	
switch (N, 2, 4, 6) Auxiliary circuit number of CO contacts / for auxiliary contacts 0 Accessories product extension / optional / motor drive Environmental conditions protection class IP / on the front ambient temperature		Silver	
number of CO contacts / for auxiliary contacts Accessories product extension / optional / motor drive Environmental conditions protection class IP / on the front ambient temperature		Tin	
Accessories product extension / optional / motor drive Environmental conditions protection class IP / on the front ambient temperature	Auxiliary circuit		
product extension / optional / motor drive Environmental conditions protection class IP / on the front ambient temperature IP40	number of CO contacts / for auxiliary contacts	0	
Environmental conditions protection class IP / on the front IP40 ambient temperature	Accessories		
protection class IP / on the front IP40 ambient temperature	product extension / optional / motor drive	Yes	
ambient temperature	Environmental conditions		
	protection class IP / on the front	IP40	
■ during operation / minimum	ambient temperature		
	during operation / minimum	-25 °C	

during operation / maximum	70 °C
during storage / minimum	-40 °C
during storage / maximum	80 °C

Environmental footprint	
Environmental Product Declaration(EPD)	Yes
Global Warming Potential [CO2 eq] / total	190 kg
Global Warming Potential [CO2 eq] / during manufacturing	4.67 kg
Global Warming Potential [CO2 eq] / during operation	186 kg
Global Warming Potential [CO2 eq] / after end of life	-0.826 kg
reference code / according to IEC 81346-2	Q

Approvals / Certificates

General Product Approval





Confirmation





Miscellaneous

General	Produc	t Approval
---------	--------	------------

EMV

Test Certificates

<u>KC</u>





Miscellaneous

Special Test Certificate

Type Test Certificates/Test Report

Marine / Shipping











CCS (China Classification Society)

other

Environment

Confirmation

Miscellaneous

Miscellaneous





Environmental Confirmations

Environment

Environmental Confirmations

Further informatior

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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

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

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA1150-4GE42-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA1150-4GE42-0AA0

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

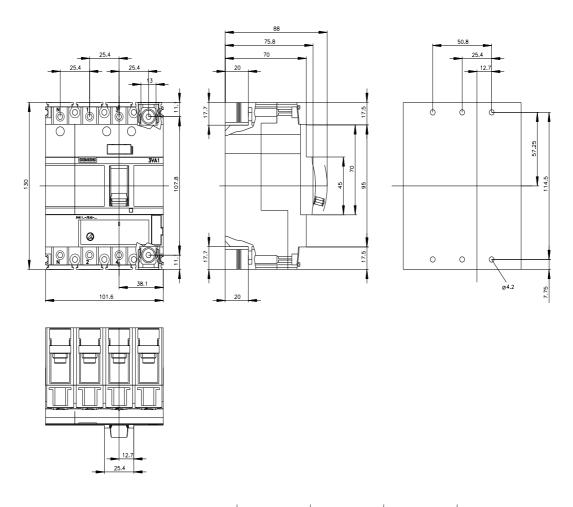
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1150-4GE42-0AA0

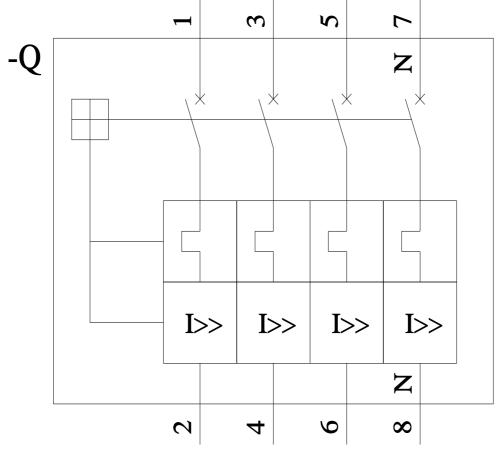
CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications





last modified: 3/11/2024 🖸

