## 3VA1120-3GD42-0AA0

**Data sheet** 



circuit breaker 3VA1 IEC frame 160 breaking capacity class N Icu=25kA @ 415V 4-pole, line protection TM210, FTFM, In=20A overload protection Ir=20A fixed short-circuit protection Ii=16 x In N 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	TM210
protection function of the overcurrent release	Ц
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	12 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
<ul> <li>other measurement function</li> </ul>	No
Net Weight	1.22 kg
Current	
operational current	
• at 40 °C	20 A
• at 45 °C	20 A
● at 50 °C	20 A
● at 55 °C	20 A
● at 60 °C	19 A
● at 65 °C	19 A
● at 70 °C	19 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	N
maximum short-circuit current breaking capacity (lcu)	
• at 240 V	36 kA
• at 415 V	25 kA
• at 440 V	16 kA
● at 500 V	7 kA
• at 690 V	7 kA
operating short-circuit current breaking capacity (lcs)	

• at 240 V	36 kA
• at 415 V	25 kA
• at 440 V	16 kA
● at 500 V	5 kA
• at 690 V	5 kA
short-circuit current making capacity (Icm)	
• at 240 V	75.6 kA
• at 415 V	52.5 kA
● at 440 V	32 kA
● at 500 V	11.9 kA
• at 690 V	11.9 kA
design of short-circuit protection	For switching power values in DC networks, see the 3VA molded case circuit 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	No
adjustable response value setting current (Ir) / of the L-trip / with	
I2t characteristic	00 A
• minimum	20 A
• maximum	20 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
• minimum	1 s
• maximum	1 s
adjustable response value setting current (li) / for I-tripping	200 A
• minimum	320 A
• maximum	320 A
adjustable setting current (InN) / for N-tripping	22.4
• minimum	20 A
• maximum	20 A
design of the N-conductor protection	100%
product function / grounding protection	No
Mechanical Design	
product component	Ma
undervoltage release	No
voltage trigger     trip indicator.	No No
• trip indicator	No 5 12 in
height [in]	5.12 in
height	130 mm 4 in
width [in]	
width	101.6 mm
depth [in]	2.76 in
depth	70 mm
Connections	Front terminal
arrangement of electrical connectors / for main current circuit	Front terminal
type of connectable conductor cross sections / for flat har	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	17 x 6,5 mm
design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)	Silver
design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)	Tin
Auxiliary circuit	
number of CO contacts / for auxiliary contacts	0
Accessories	
product extension / optional / motor drive	Yes
product extension / optional / motor drive Environmental conditions	
product extension / optional / motor drive  Environmental conditions  protection class IP / on the front	Yes IP40
product extension / optional / motor drive  Environmental conditions  protection class IP / on the front  ambient temperature	IP40
product extension / optional / motor drive  Environmental conditions  protection class IP / on the front  ambient temperature  • during operation / minimum	IP40 -25 °C
product extension / optional / motor drive  Environmental conditions  protection class IP / on the front  ambient temperature	IP40

• during storage / minimum

-40 °C 80 °C

during storage / maximum

Certificates

reference code / according to IEC 81346-2

Q

**General Product Approval** 

**EMC** 

Confirmation





**Miscellaneous** 





**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping





Type Test Certificates/Test Report

**Miscellaneous** 

Special Test Certificate



Marine / Shipping

other







CCS / China Classification Society

Confirmation

**Miscellaneous** 

other

Environment

**Miscellaneous** 

Environmental Confirmations

## Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3VA1120-3GD42-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA1120-3GD42-0AA0

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

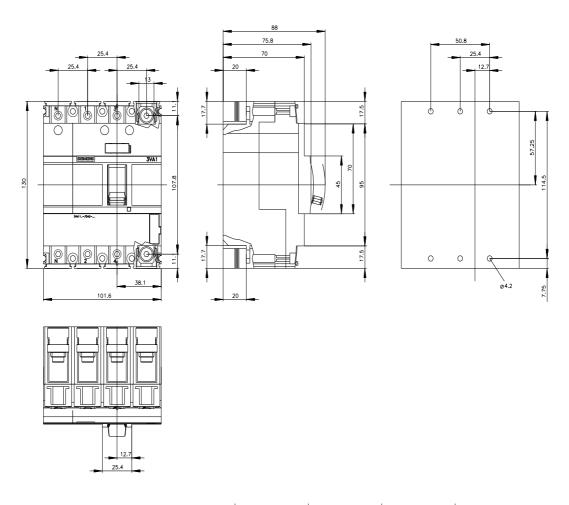
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA1120-3GD42-0AA0

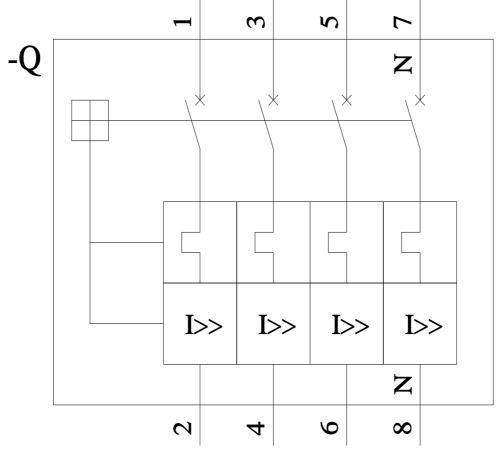
**CAx-Online-Generator** 

http://www.siemens.com/cax

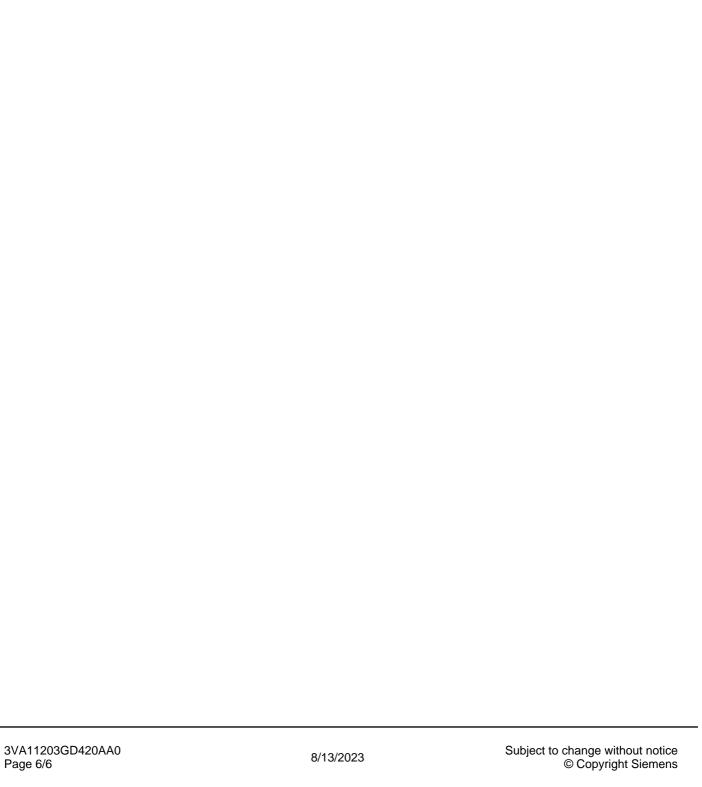
**Tender specifications** 

http://www.siemens.com/specifications





last modified: 8/10/2023 🖸



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