



circuit breaker 3VA1 IEC frame 250 breaking capacity class S Icu=36kA @ 415V 3-pole, line protection TM240, ATAM, In=200A overload protection Ir=140A...200A short-circuit protection Ii=5...10 x In nut keeper kit shunt trip (STL) 220-250V DC, 208-277V AC 2 auxiliary switches HQ

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
Product version	Line protection
design of the overcurrent release	TM240
protection function of the overcurrent release	LI
number of poles	3
Auxiliary contact version	2 auxiliary switches HQ
General technical data	
rated insulation voltage Ui	800 V
Max. rated operational voltage Ue with DC	500 V
power loss [W] / maximum	42 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	14 W
mechanical service life (switching cycles) / typical	20 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	8 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	5 400
Neutral conductors / upgradeable/retrofittable	No
ground-fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
Net Weight	1,7 kg
Current	
Max. rated operational current of the frame size	250 A
Courant permanent assigné Iu	200 A
operational current	
• at 40 °C	200 A
• at 45 °C	200 A
• at 50 °C	200 A
• at 55 °C	194 A
• at 60 °C	188 A
• at 65 °C	182 A
• at 70 °C	176 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	S
breaking capacity maximum short-circuit current (Icu)	
• at 240 V	55 kA

<ul style="list-style-type: none"> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>	36 kA 25 kA 10 kA 7 kA
breaking capacity operating short-circuit current (Ics) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>	55 kA 36 kA 25 kA 10 kA 5 kA
short-circuit current making capacity (Icm) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>	121 kA 75.6 kA 52.5 kA 17 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; link to be found under Service & Support in the last chapter

### Adjustable parameters

Adjustable response value current / I <sub>g</sub> min.	1
Adjustable response value current / I <sub>g</sub> min.	1
Adjustable response value current / I <sub>i</sub> min.	1 000 A
Adjustable response value current / I <sub>i</sub> max.	2 000 A
Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF	No

### Mechanical Design

height [in]	6.22 in
Height	158 mm
width [in]	4.13 in
Width	105 mm
depth [in]	2.76 in
depth	70 mm

### Connections

arrangement of electrical connectors / for main current circuit	Front terminal
type of electrical connection / for main current circuit	nut keeper kit on both ends
Type of connectable conductor cross-section, connection screw, width x thickness , min.	13 x 1 mm
Type of connectable conductor cross-section, connection screw, width x thickness , max.	25 x 8 mm
design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)	Silver

### Auxiliary circuit

product component <ul style="list-style-type: none"> <li>• undervoltage release</li> <li>• voltage trigger</li> <li>• undervoltage release with leading contact</li> <li>• trip indicator</li> </ul>	No Yes No No
number of CO contacts / for auxiliary contacts	2

### Accessories

product extension / optional / motor drive	Yes
manufacturer's article number <ul style="list-style-type: none"> <li>• of the supplied basic switch</li> <li>• of the integrated auxiliary switch/alarm switch</li> <li>• of the integrated auxiliary trip unit</li> </ul>	<a href="#">3VA12204EF320AA0</a> <a href="#">3VA9988-0AA12</a> <a href="#">3VA9688-0BL33</a>

### Environmental conditions

protection class IP / on the front	IP40
ambient temperature <ul style="list-style-type: none"> <li>• during operation / minimum</li> <li>• during operation / maximum</li> <li>• during storage / minimum</li> </ul>	-25 °C 70 °C -40 °C

• during storage / maximum

80 °C

## Certificates

reference code / acc. to IEC 81346-2

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General Product Approval

EMC

Declaration of  
Conformity



[Miscellaneous](#)



[UK Declaration of  
Conformity](#)

Declaration of  
Conformity

Test Certificates

Marine / Shipping



EG-Konf.

[Special Test Certificate](#)

[Miscellaneous](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping

other



LRS



RMRS

[Miscellaneous](#)

[Miscellaneous](#)

## Further information

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=3VA1220-4EF32-0KC0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1220-4EF32-0KC0>

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

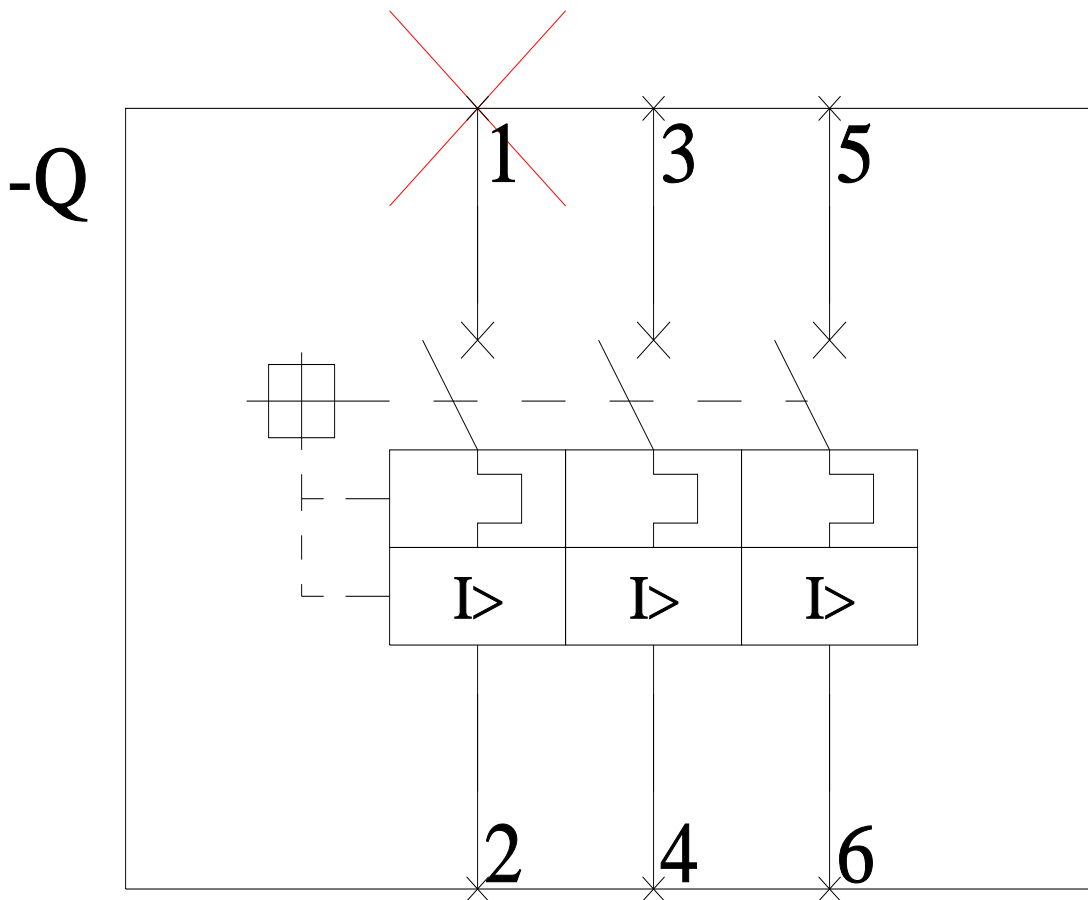
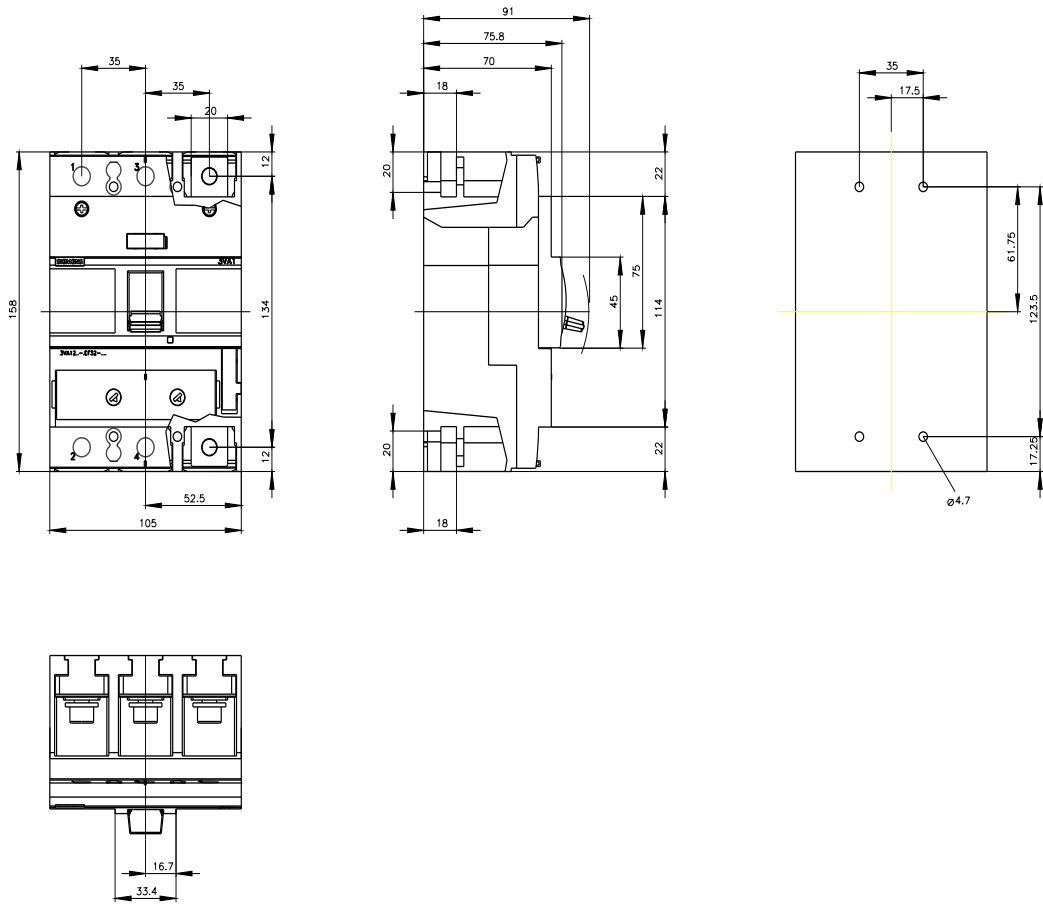
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA1220-4EF32-0KC0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1220-4EF32-0KC0)

CAx-Online-Generator

<http://www.siemens.com/cax>

Tender specifications

<http://www.siemens.com/specifications>



last modified:

10/3/2021



