



molded case switch 3VA5 UL frame 125 max. sh-circ breaking capacity 65kA @ 480V 3-pole, line protection MCS110,  $I_n=100A$  without overload protection self-protection  $I_i=16 \times I_n$  without connection

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	HEAS
Product version	Molded case switch
design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
design of the overcurrent release	MCS110
protection function of the overcurrent release	I
number of poles	3
General technical data	
Tension assignée d'isolement $U_i$	800 V
Max. rated operational voltage $U_e$ with AC 50/60Hz	690 V
Max. rated operational voltage $U_e$ with DC	500 V
power loss [W] / maximum	19.2 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	6.4 W
mechanical service life (switching cycles) / typical	15 000
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	4 000
electrical endurance (switching cycles) / at 480 V	8 000
electrical endurance (switching cycles) / at 600 V	4 000
Neutral conductors / upgradeable/retrofitable	No
ground-fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
Current	
marking / acc. to UL 489 / 100%-rated breaker	No
Max. rated operational current of the frame size	125 A
Courant permanent assigné $I_u$	100 A
operational current	
• at 40 °C	100 A
• at 45 °C	100 A
• at 50 °C	100 A
• at 55 °C	100 A

- at 60 °C 100 A
- at 65 °C 97 A
- at 70 °C 94 A

### Switching capacity according to IEC 60947

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
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### Adjustable parameters

Adjustable response value current / li min.	1 600 A
Adjustable response value current / li max.	1 600 A
Ground fault protection / tripping switchable / I2t=ON/OFF	No

### Mechanical Design

height [in]	5.5 in
Height	140 mm
width [in]	3 in
Width	76.2 mm
depth [in]	3 in
depth	76.5 mm

### Connections

arrangement of electrical connectors / for main current circuit	Without connection
type of electrical connection / for main current circuit	Without

### Auxiliary circuit

number of CO contacts / for auxiliary contacts	0
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### Accessories

product extension / optional / motor drive	Yes
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### Environmental conditions

protection class IP / on the front	IP40
ambient temperature	
• during operation / minimum	-25 °C
• during operation / maximum	70 °C
• during storage / minimum	-40 °C
• during storage / maximum	80 °C

### Certificates

reference code / acc. to IEC 81346-2	Q
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	No

### General Product Approval



[Miscellaneous](#)

General Product Approval	EMC	Declaration of Conformity	Test Certificates	Shipping Approval
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[Miscellaneous](#)

[Special Test Certificate](#)



Shipping Approval	other
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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?mfb=3VA5110-1BB31-0AA0>

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

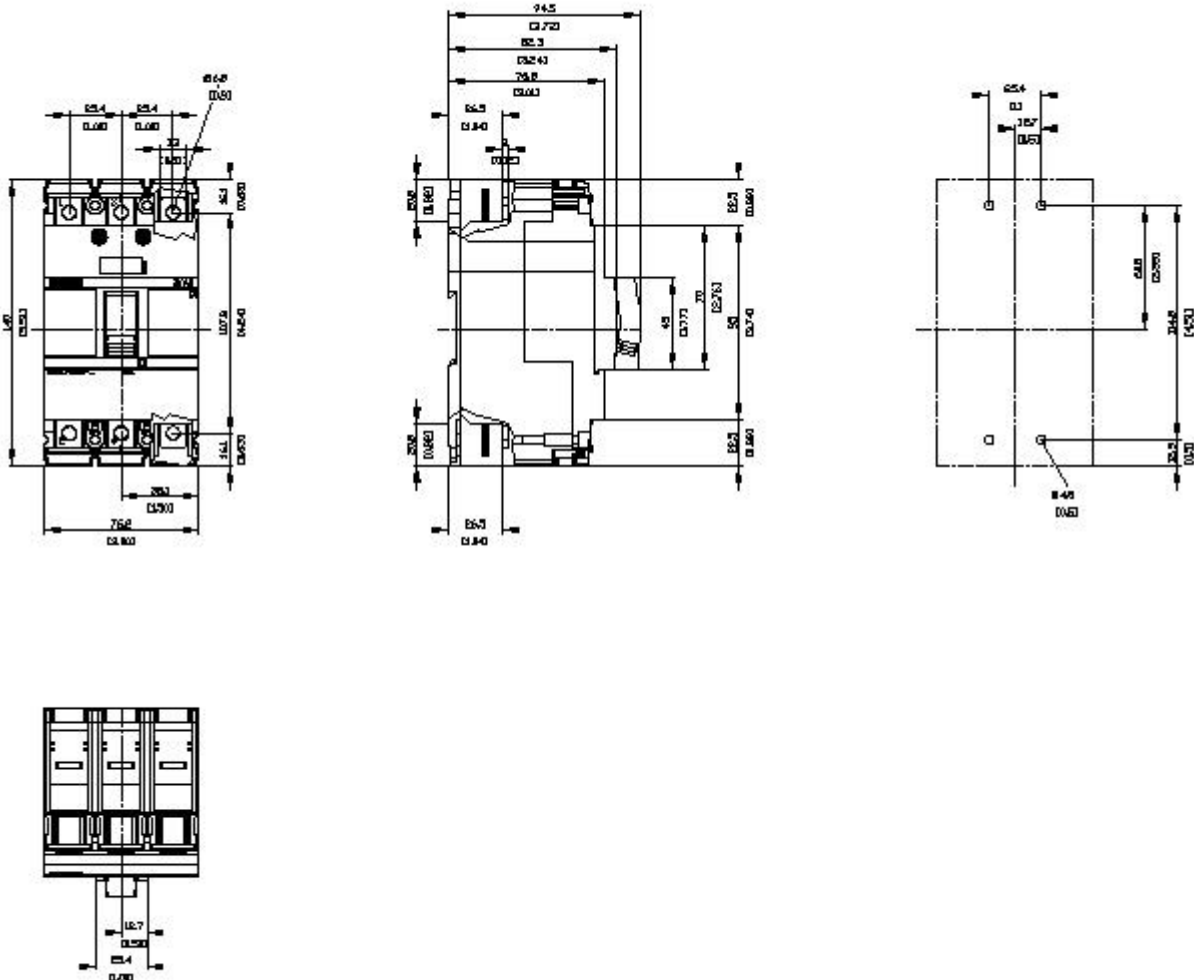
<https://support.industry.siemens.com/cs/ww/en/ps/3VA5110-1BB31-0AA0>

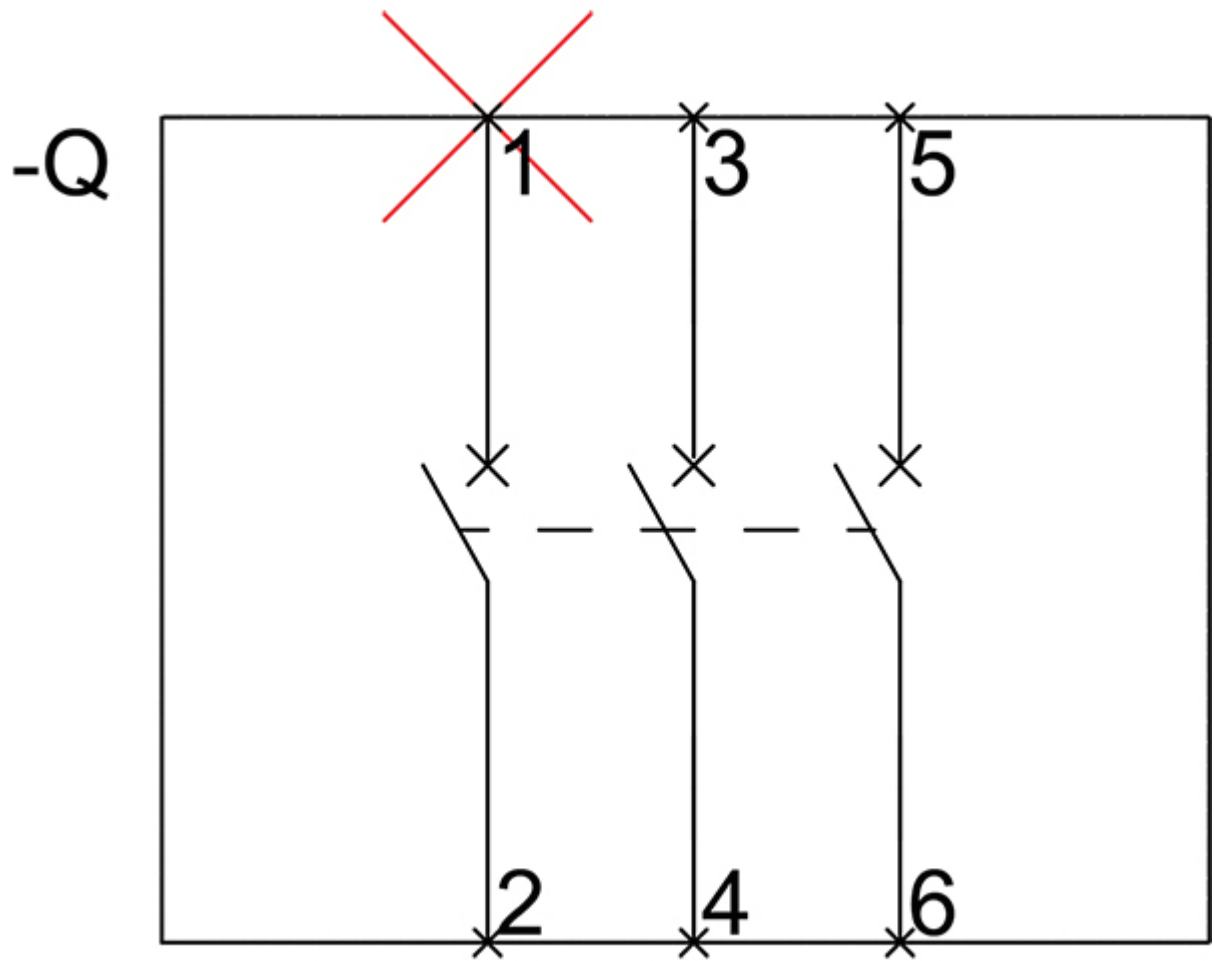
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

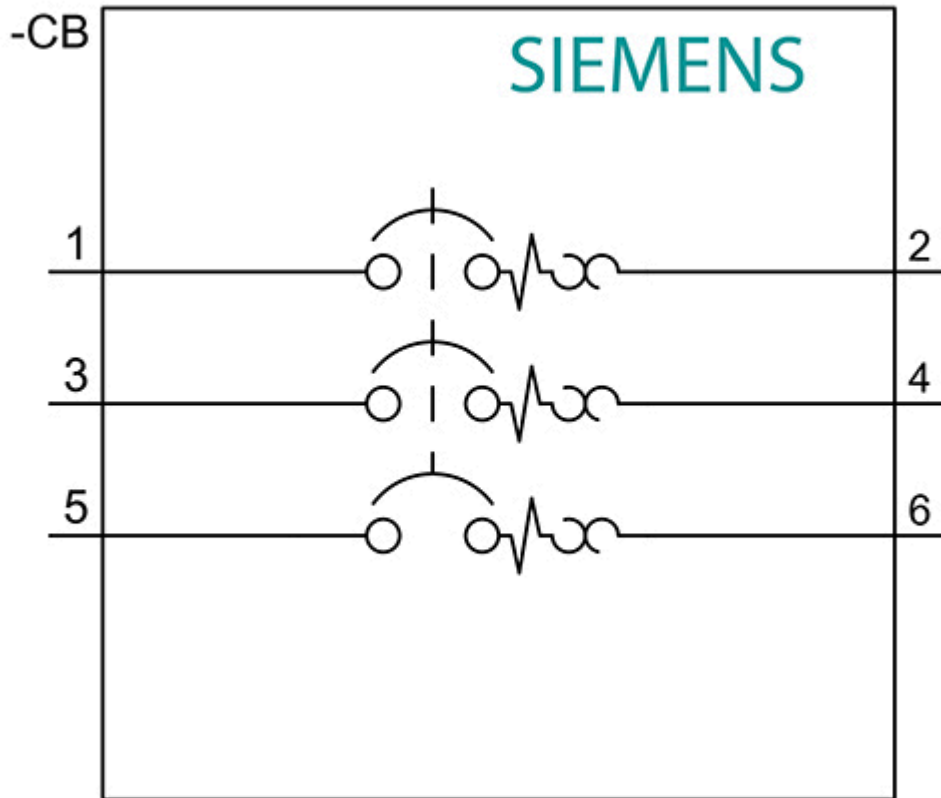
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA5110-1BB31-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA5110-1BB31-0AA0)

Tender specifications

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







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