

circuit breaker 3VA5 UL frame 125 breaking capacity class H 65kA @ 480V 3-pole, line protection TM240, ATAM, $I_n=50A$ overload protection $I_r=40A...50A$ short-circuit protection $I_i=5...10 \times I_n$ without connection



Model	
Product brand name	SETRON
Product designation	Molded-case circuit breaker
Product designation / according to UL file	HEAS
Product version	System protection
Design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
Design of the overcurrent release	TM240
protection function of the overcurrent release	LI
Number of poles	3
General technical data	
Rated insulation voltage 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	11.1 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	3.7 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 / at 50/60 Hz	8 000
Electrical endurance (switching cycles) / at 600 V / at 50/60 Hz	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
Rated continuous current I _u	50 A
Operating current	
• at 40 °C	50 A
• at 45 °C	49.1 A
• at 50 °C	48.3 A
• at 55 °C	47.5 A
• at 60 °C	46.7 A
• at 65 °C	46 A
• at 70 °C	45.2 A

Switching capacity according to IEC 60947

Switching capacity class of the circuit breaker	H
Maximum short-circuit current breaking capacity (I _{cu})	
• at 240 V	150 kA
• at 415 V	70 kA
• at 690 V	10 kA
Operational short-circuit current breaking capacity (I _{cs})	
• at 240 V	150 kA
• at 415 V	70 kA
• at 690 V	5 kA
Short-circuit current making capacity (I _{cm})	
• at 240 V	330 kA
• at 415 V	154 kA
• at 690 V	17 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

Switching capacity according to UL 489

Breaking capacity current

• at 240 V	150 kA
• at 480 V	65 kA
• at 600 Y/347 V	25 kA

Adjustable parameters

Adjustable response value current / Ig min.	35 A
Adjustable response value current / Ig min.	50 A
Adjustable response value current / li min.	250 A
Adjustable response value current / li max.	500 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 DIN EN 81346-2	Q
Certificate of suitability / as approval for NAVAL (no combat vessels) / Supplement SB	No

General Product Approval					EMC
 CSA	 UL	 UL	 VDE	 EAC	 RCM

Declaration of Conformity	Test Certificates	Shipping Approval	other
 EG-Konf.	Miscellaneous Special Test Certificate	 ABS  LRS	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=3VA5150-6EF31-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5150-6EF31-0AA0>

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

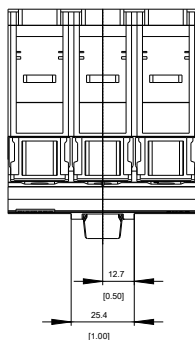
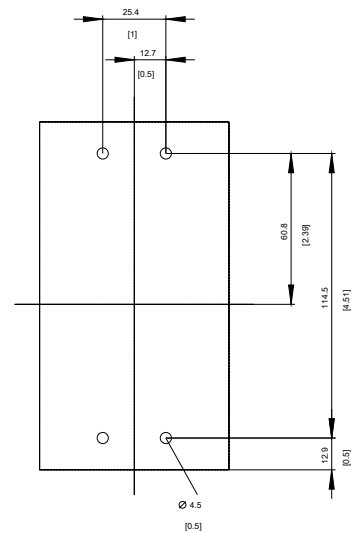
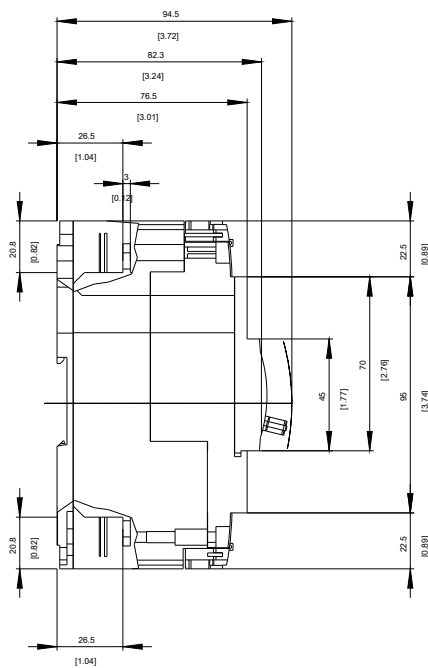
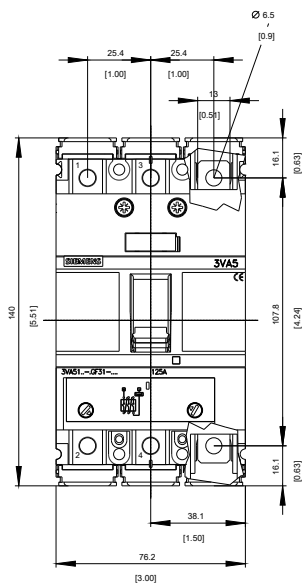
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5150-6EF31-0AA0

CAX-Online-Generator

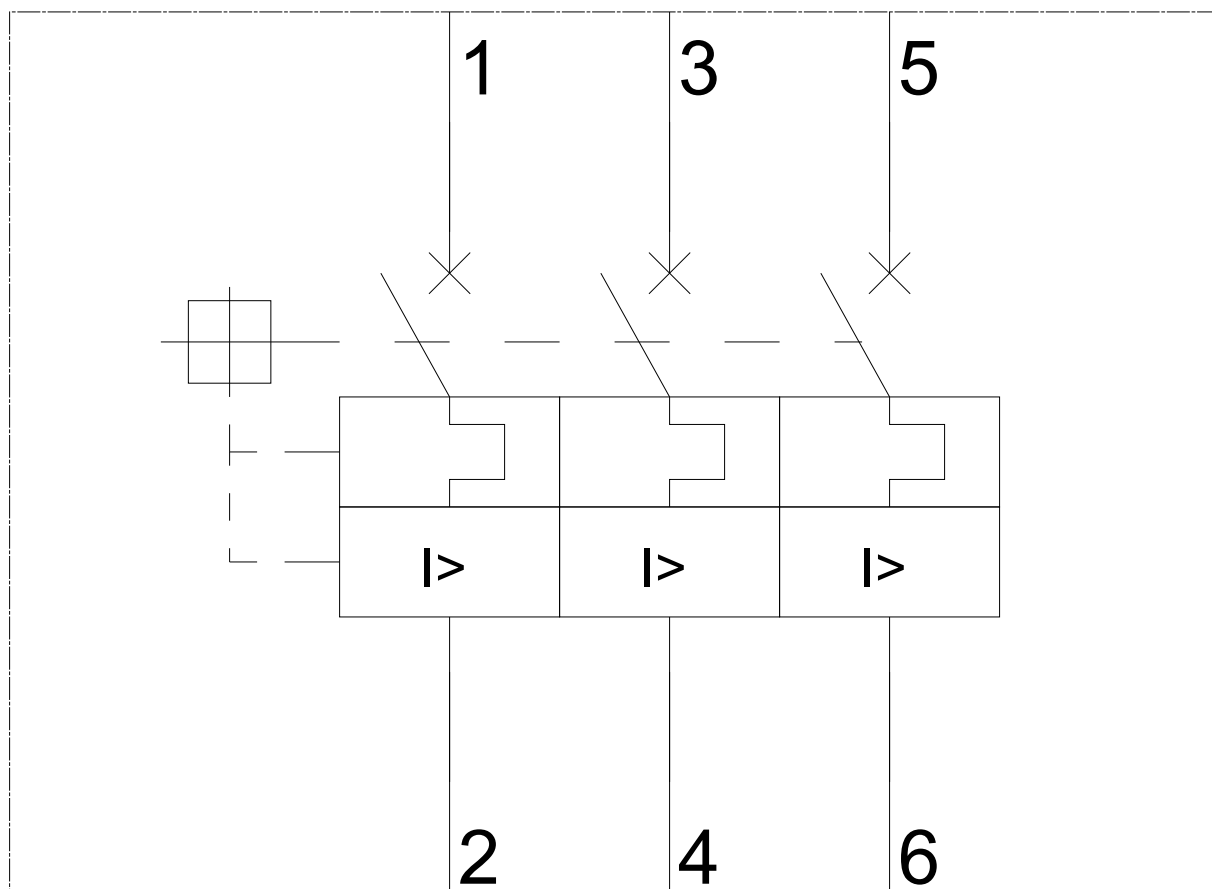
<http://www.siemens.com/cax>

Tender specifications

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

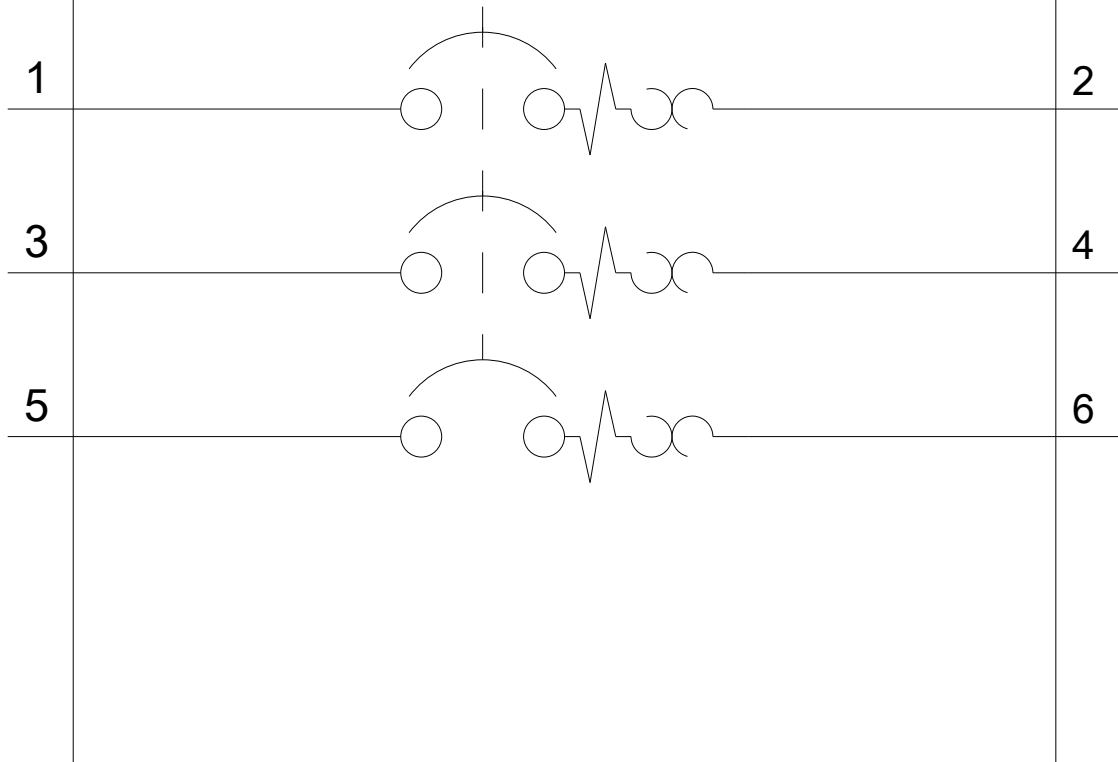


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