

circuit breaker 3VA5 UL frame 250 breaking capacity class H 65kA @ 480V 4-pole, line protection TM240, ATAM, $I_n=100A$ overload protection $I_r=80A...100A$ short-circuit protection $I_i=5...10 \times I_n$ N conductor protection 100% without connection



Model	
Product brand name	SENTRON
Product designation	Molded-case circuit breaker
Product designation / according to UL file	HFAS
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
Protective function of the overcurrent release	LI
Number of poles	4
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	1 000 V
Power loss [W] / maximum	31.6 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	10.53 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	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	250 A
Rated continuous current I _u	100 A
Operating current	
• at 40 °C	100 A
• at 45 °C	100 A
• at 50 °C	100 A
• at 55 °C	97 A
• at 60 °C	95 A
• at 65 °C	92 A
• at 70 °C	88 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	100 kA
• at 415 V	70 kA
• at 690 V	10 kA
Operational short-circuit current breaking capacity (I _{cs})	
• at 240 V	100 kA
• at 415 V	70 kA
• at 690 V	10 kA
Short-circuit current making capacity (I _{cm})	
• at 240 V	220 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	
<ul style="list-style-type: none"> • at 240 V • at 480 V • at 600 Y/347 V 	<p>100 kA</p> <p>65 kA</p> <p>25 kA</p>

Adjustable parameters

Adjustable response value current / I _r min.	70 A
Adjustable response value current / I _r max.	100 A
Adjustable response value current / I _i min.	500 A
Adjustable response value current / I _i max.	1 000 A
Design of the N-conductor protection	100%
Ground fault protection / tripping switchable / I _{2t} =ON/OFF	No

Mechanical Design

Height [in]	7.3 in
Height	185 mm
Width [in]	5.5 in
Width	140 mm
Depth [in]	3.3 in
Depth	83 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	
<ul style="list-style-type: none"> • during operation / minimum • during operation / maximum • during storage / minimum • during storage / maximum 	<p>-25 °C</p> <p>70 °C</p> <p>-40 °C</p> <p>80 °C</p>

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	Declaration of Conformity
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[Miscellaneous](#)



Shipping Approval	other
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[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=3VA5210-6GF41-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5210-6GF41-0AA0>

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

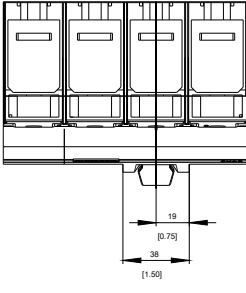
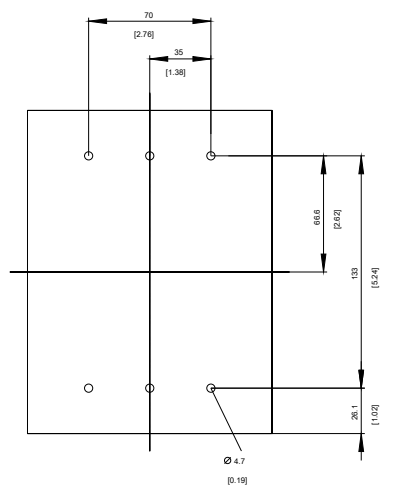
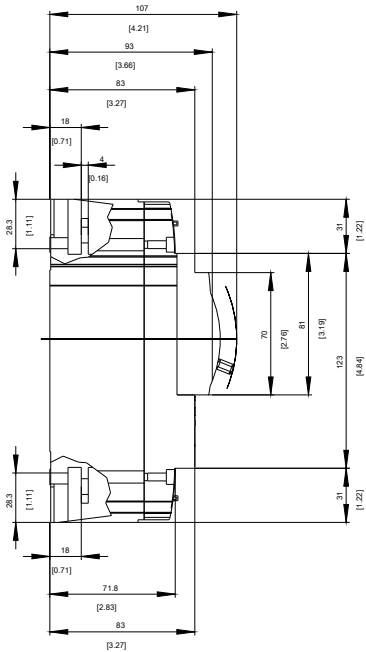
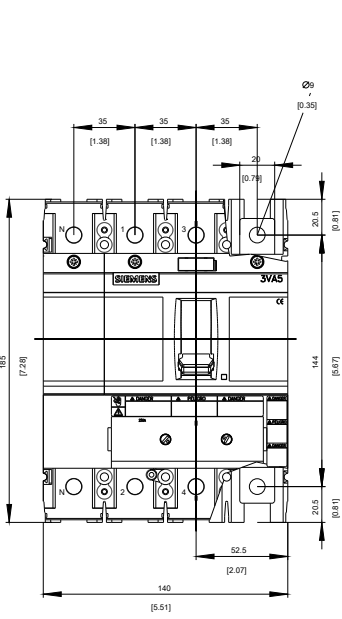
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5210-6GF41-0AA0

CAX-Online-Generator

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

Tender specifications

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



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