



CIRCUIT BREAKER 3VA5 UL Frame 600 BREAKING CAPACITY CLASS
H 65kA @ 480 V 3POLE, LINE PROTECTION TM240, ATAM, $I_n=450A$
OVERLOAD PROTECTION IR=315A ...450A SHORT CIRCUIT
PROTECTION $I_i=5...10 \times I_n$ W/O CONNECTION

Model	
product brand name	SETRON
product designation	Molded-case circuit breaker
product designation / according to UL file	HLAS
Product version	System protection
design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
design of the load switch / according to UL 489 / High-Intensity-Discharge circuit breaker (HID Type)	No
design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)	No
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 DC	500 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	99 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	33 W
mechanical service life (switching cycles) / typical	20 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	4 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	2 700
electrical endurance (switching cycles) / at 480 V	4 000
electrical endurance (switching cycles) / at 600 V	2 700
Neutral conductors / upgradeable/retrofitable	No
product function	
• communication function	No
• other measurement function	No
Net Weight	5.2 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	450 A
• at 45 °C	440 A
• at 50 °C	429 A
• at 55 °C	419 A

• at 60 °C • at 65 °C • at 70 °C	409 A 398 A 388 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	H
breaking capacity maximum short-circuit current (I _{cu}) • at 240 V • at 415 V • at 690 V	100 kA 70 kA 10 kA
breaking capacity operating short-circuit current (I _{cs}) • at 240 V • at 415 V • at 690 V	100 kA 70 kA 6 kA
short-circuit current making capacity (I _{cm}) • at 240 V • at 415 V • at 690 V	220 kA 154 kA 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 • at 480 V • at 600 V	100 kA 65 kA 25 kA
Adjustable parameters	
Adjustable response value current / I _g min.	315 A
Adjustable response value current / I _g min.	450 A
Ground fault protection / tripping switchable / I _{2t} =ON/OFF	No
Mechanical Design	
height [in]	9.76 in
Height	248 mm
width [in]	5.43 in
Width	138 mm
depth [in]	4.33 in
depth	110 mm
Connections	
arrangement of electrical connectors / for main current circuit	Without connection
type of electrical connection / for main current circuit	Without
Auxiliary circuit	
product component • undervoltage release • voltage trigger • trip indicator	No No No
number of CO contacts / for auxiliary contacts	0
Accessories	
product extension / optional / motor drive	Yes
Environmental conditions	
protection class IP / on the front	IP40
ambient temperature • during operation / minimum • during operation / maximum • during storage / minimum • during storage / maximum	-25 °C 70 °C -40 °C 80 °C
Certificates	
reference code / according to IEC 81346-2	Q
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	No

General Product Approval



[Confirmation](#)



[Miscellaneous](#)

General Product
Approval

EMC

Declaration of Conformity

Marine / Shipping

other



[Miscellaneous](#)

other

[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=3VA5445-6EF31-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5445-6EF31-0AA0>

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

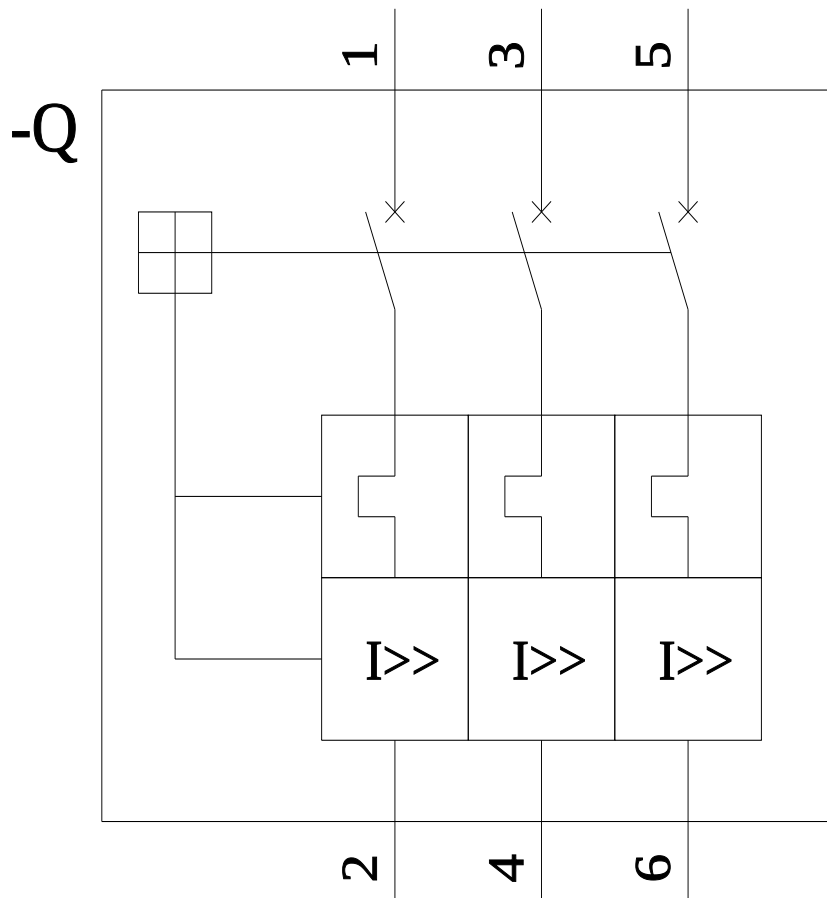
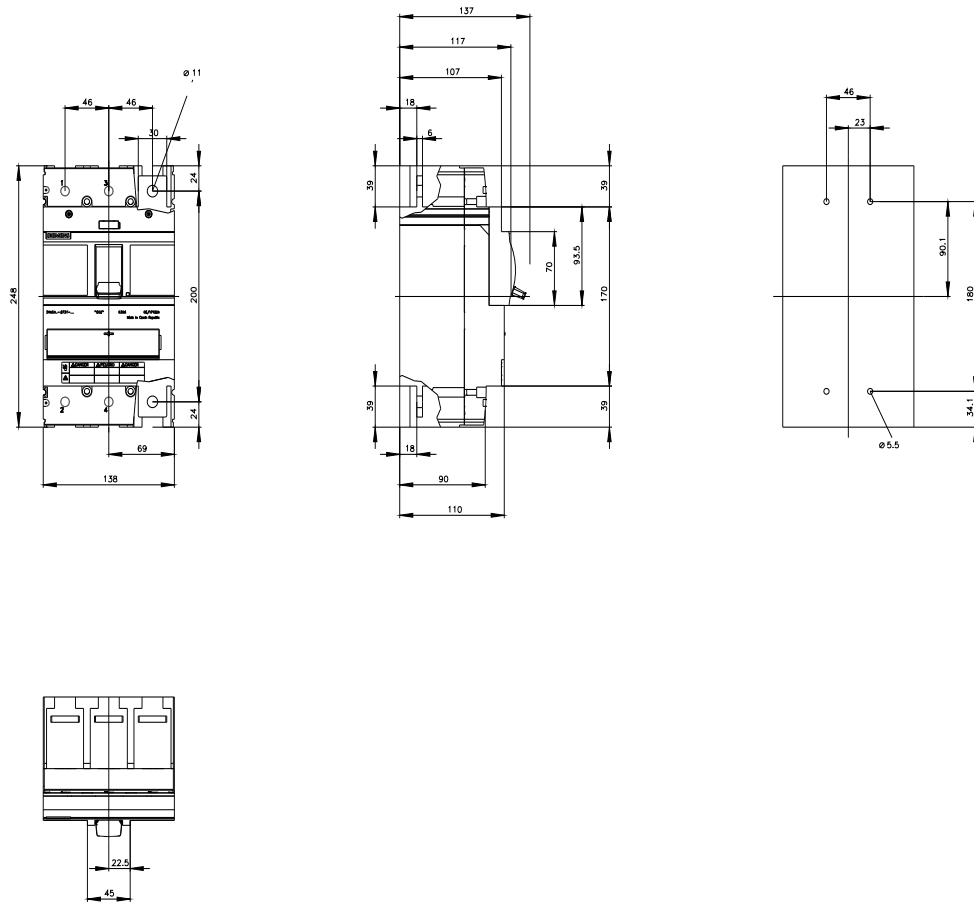
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5445-6EF31-0AA0

CAX-Online-Generator

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

Tender specifications

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



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last modified:

10/21/2021 [↗](#)

