



circuit breaker 3VA5 UL frame 1200 breaking capacity class M 35kA @ 480 V 3-pole, line protection TM230, FTAM, In=800A overload protection Ir=800A fixed short circuit protection Ii=5 - 10 x In UL489 SB (NAVAL), 50 deg. CEL. w/o connection

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MNAM
design of the product	System protection
design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
design of the overcurrent release	TM230
protection function of the overcurrent release	LI
number of poles	3
General technical data	
insulation voltage / rated value	800 V
operating voltage / at DC / rated value	750 V
operating voltage / at AC / rated value	600 V
power loss [W] / maximum	134 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	134 W
mechanical service life (operating cycles) / typical	3 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	1 500
electrical endurance (operating cycles) / at AC-1 / at 690 V	500
electrical endurance (operating cycles) / at 480 V	1 500
electrical endurance (operating cycles) / at 600 V	500
product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof	No
product function	
• communication function	No
• phase failure detection	No
• other measurement function	No
Net Weight	3.133 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	800 A
• at 45 °C	776 A
• at 50 °C	752 A
• at 55 °C	728 A
• at 60 °C	704 A
• at 65 °C	680 A
• at 70 °C	655 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M

maximum short-circuit current breaking capacity (I _{cu})	
<ul style="list-style-type: none"> • at 240 V • at 415 V • at 690 V 	65 kA 50 kA 20 kA
operating short-circuit current breaking capacity (I _{cs})	
<ul style="list-style-type: none"> • at 240 V • at 415 V • at 690 V 	35 kA 25 kA 15 kA
short-circuit current making capacity (I _{cm})	
<ul style="list-style-type: none"> • at 240 V • at 415 V • at 690 V 	143 kA 105 kA 63 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

current breaking capacity	
<ul style="list-style-type: none"> • at 240 V • at 480 V • at 600 Y/347 V • at 600 V 	85 kA 35 kA 25 kA 25 kA

Adjustable parameters

adjustable response value setting current (I _r) / of the L-trip / with I ² t characteristic	
<ul style="list-style-type: none"> • minimum • maximum 	800 A 800 A
adjustable response value delay time (t _r) / for L-tripping / with I ² t characteristic	
<ul style="list-style-type: none"> • minimum • maximum 	1 s 1 s
adjustable response value setting current (I _i) / for I-tripping	
<ul style="list-style-type: none"> • minimum • maximum 	4 000 A 8 000 A
adjustable current response value current / of instantaneous short-circuit trip unit	
<ul style="list-style-type: none"> • minimum • maximum 	4 000 A 8 000 A
product function / grounding protection	No

Mechanical Design

product component	
<ul style="list-style-type: none"> • undervoltage release • trip indicator 	No No
height [in]	8.14 in
height	207 mm
width [in]	8.99 in
width	228.4 mm
depth [in]	16 in
depth	406.4 mm

Connections

type of electrical connection / for main current circuit	without terminals
design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)	silver

Auxiliary circuit

number of CO contacts / for auxiliary contacts	0
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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 	-25 °C 70 °C -40 °C 80 °C

Certificates

reference code / according to IEC 81346-2	F
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	Yes
General Product Approval	Test Certificates

[Confirmation](#)



[Miscellaneous](#)



[Type Test Certificates/Test Report](#)

other

[Confirmation](#)

[Miscellaneous](#)

Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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=3VA5780-5EC31-1AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5780-5EC31-1AA0>

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

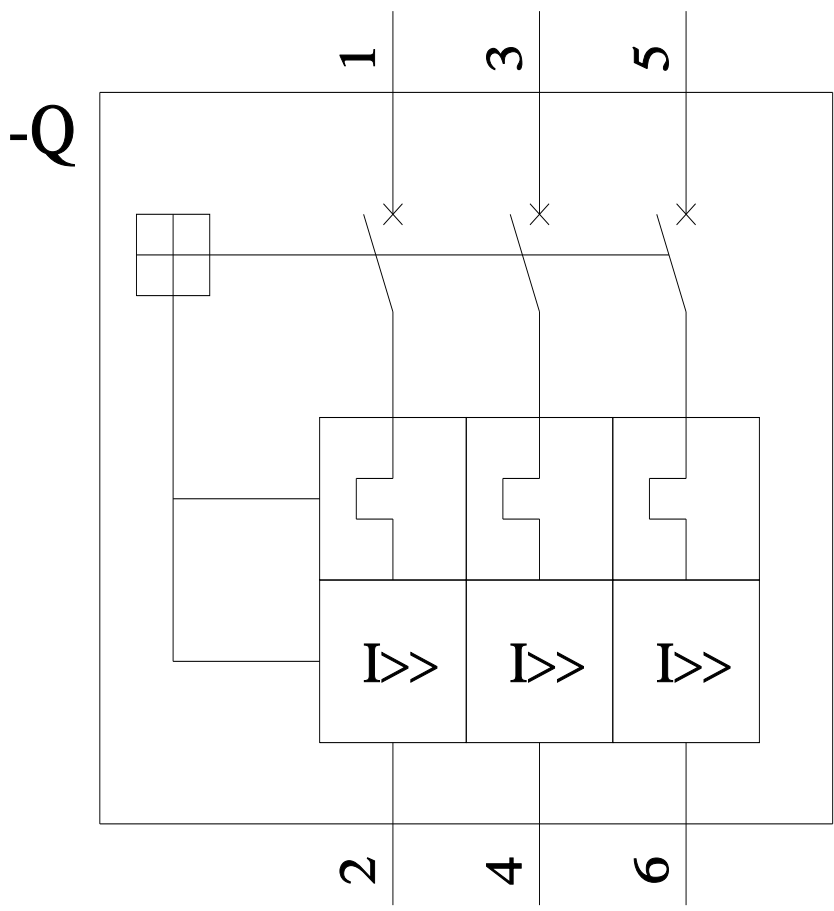
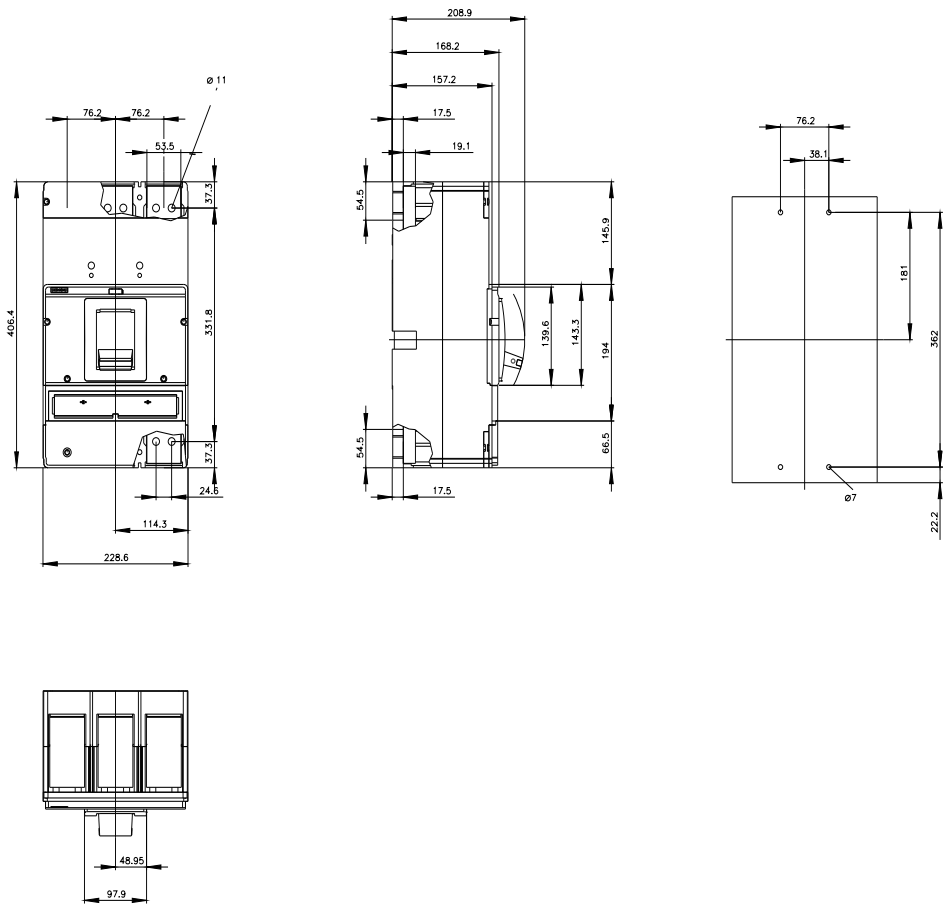
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5780-5EC31-1AA0

CAX-Online-Generator

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

Tender specifications

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



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