3VA5790-5EC31-0AA0

Data sheet



circuit breaker 3VA5 UL frame 1200 breaking capacity class M 35kA @ 480 V 3-pole, line protection TM230, FTAM, In=900A overload protection Ir=900A fixed short circuit protection Ii=5 - 10 x In w/o connection

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MNAS
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	167 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	167 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/retrofittable / short-circuit and overload proof	No
product function	
 communication function 	No
 phase failure detection 	No
other measurement function	No
Net Weight	24.635 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	900 A
• at 45 °C	868 A
• at 50 °C	837 A
• at 55 °C	805 A
• at 60 °C	774 A
• at 65 °C	742 A
• at 70 °C	710 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M

maximum short-circuit current breaking capacity (Icu)	
● at 240 V	65 kA
• at 415 V	50 kA
● at 690 V	20 kA
operating short-circuit current breaking capacity (lcs)	
• at 240 V	35 kA
• at 415 V	25 kA
● at 690 V	15 kA
short-circuit current making capacity (Icm)	
• at 240 V	143 kA
• at 415 V	105 kA
● at 690 V	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	
• at 240 V	85 kA
• at 480 V	35 kA
• at 600 Y/347 V	25 kA
• at 600 V	25 kA
Adjustable parameters	
adjustable response value setting current (Ir) / of the L-trip / with	
12t characteristic	
• minimum	900 A
• maximum	900 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
• minimum	1s
maximum	1s
adjustable response value setting current (li) / for I-tripping	
• minimum	4 500 A
• maximum	9 000 A
adjustable current response value current / of instantaneous short-circuit trip unit	
• minimum	4 500 A
• maximum	9 000 A
product function / grounding protection	No
Mechanical Design	
product component	
undervoltage release	No
• trip indicator	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
Environmental conditions	
protection class IP / on the front	IP40
ambient temperature	
during operation / minimum	-25 °C
during operation / maximum during operation / maximum	70 °C
during storage / minimum	-40 °C
during storage / maximum during storage / maximum	80 °C
Certificates	

reference code / according to IEC 81346-2

F

certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB

No

General Product Approval

Confirmation









Miscellaneous

General Product Approval

Declaration of Conformity

Test Certificates

Marine / Shipping

other

EHC





Type Test Certificates/Test Report



Confirmation

other

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=3VA5790-5EC31-0AA0

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

 $\underline{\text{https://support.industry.siemens.com/cs/ww/en/ps/3VA5790-5EC31-0AA0}}$

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

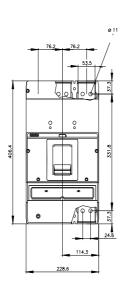
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5790-5EC31-0AA0

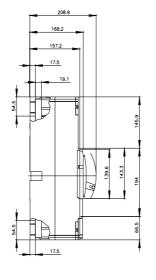
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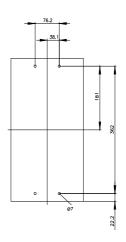
http://www.siemens.com/cax

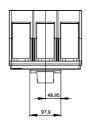
Tender specifications

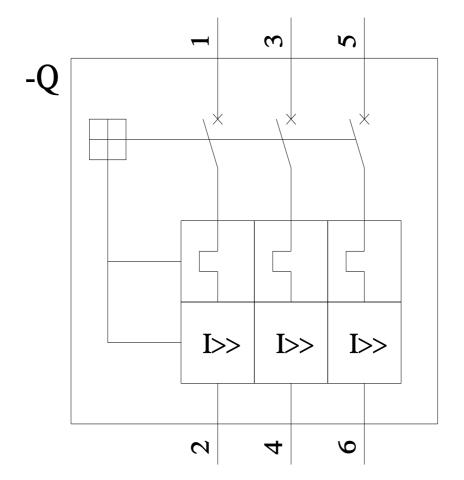
http://www.siemens.com/specifications

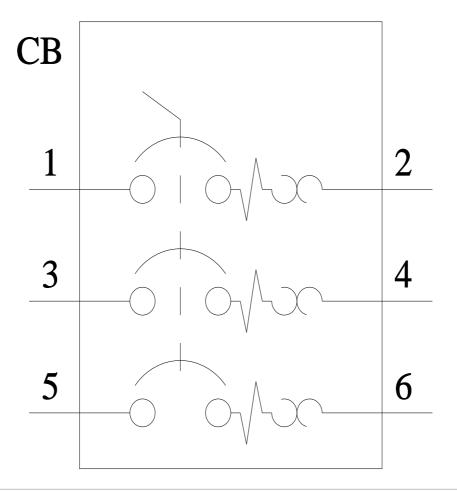












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