



circuit breaker 3VA1 IEC frame 100 breaking capacity class S
Icu=36kA @ 415V 4-pole, line protection TM210, FTFM, In=80A
overload protection Ir=80A fixed short-circuit protection Ii=10 x In N
conductor unprotected nut keeper kit 1 auxiliary switch HQ 1 trip
alarm switch HQ

Model	
Product brand name	SETRON
Product designation	Molded case circuit breaker
Product version	Line protection
Design of the overcurrent release	TM210
Protective function of the overcurrent release	LI
Number of poles	4
Design of the auxiliary release	without auxiliary release
Auxiliary contact version	1 auxiliary switch + 1 trip alarm switch HQ
General technical data	
Rated insulation voltage Ui	800 V
Max. rated operational voltage Ue with AC 50/60Hz	690 V
Max. rated operational voltage Ue with DC	600 V
Latching - endurance	15 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	8 000
Neutral conductors / upgradeable/retrofitable	No
Ground fault monitoring version	Without
Product function	

• communication function	No
• Phase failure detection	No
• other measurement function	No
Net weight	1.26 kg

Current

Max. rated operational current of the frame size	100 A
Rated continuous current I _u	80 A
Operating current	
• at 40 °C	80 A
• at 45 °C	80 A
• at 50 °C	80 A
• at 55 °C	76.8 A
• at 60 °C	75.2 A
• at 65 °C	73.6 A
• at 70 °C	72 A

Switching capacity according to IEC 60947

Switching capacity class of the circuit breaker	S
Maximum short-circuit current breaking capacity (I _{cu})	
• at 240 V	55 kA
• at 415 V	36 kA
• at 440 V	25 kA
• at 690 V	7 kA
Operational short-circuit current breaking capacity (I _{cs})	
• at 240 V	55 kA
• at 415 V	36 kA
• at 440 V	25 kA
• at 690 V	5 kA
Short-circuit current making capacity (I _{cm})	
• at 240 V	121 kA
• at 415 V	75.6 kA
• at 440 V	52.5 kA
• at 690 V	11.9 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

Adjustable parameters

Adjustable response value current / I _r min.	80 A
Adjustable response value current / I _r max.	80 A
Adjustable response value time / t _r min.	1
Adjustable response value time / t _r max.	1

Short-term delayed / tripping switchable / I _{2t} =ON/OFF	No
Adjustable response value current / I _i min.	800 A
Adjustable response value current / I _i max.	800 A
Design of the N-conductor protection	Without

Mechanical Design

Height	130 mm
Width	101.6 mm
Depth	70 mm

Connections

Arrangement of electrical connectors / for main current circuit	Front terminal
Type of electrical connection / for main current circuit	lug terminal
Type of connectable conductor cross-section, connection screw, width x thickness , min.	12 x 0
Type of connectable conductor cross-section, connection screw, width x thickness , max.	17 x 6.5

Auxiliary circuit

Product component	
• undervoltage release	No
• Voltage trigger	No
• undervoltage release with leading contact	No
• Trip indicator	Yes
Number of CO contacts / for auxiliary contacts	2

Accessories

Product extension / optional / motor drive	No
Manufacturer's article number	
• of the integrated auxiliary switch/alarm switch	3VA9988-0AA12
• of the integrated auxiliary switch/alarm switch	3VA9988-0AB12

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
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General Product Approval	EMC	Declaration of Conformity
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CCC



VDE

[Miscellaneous](#)



RCM



EG-Konf.

Test Certificates	Shipping Approval
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[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Special Test Certificate](#)



ABS



BUREAU
VERITAS



GL

Shipping Approval	other
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LRS



RMRS

[Manufacturer Declaration](#)

[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=3VA1080-4ED42-0AF0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1080-4ED42-0AF0>

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

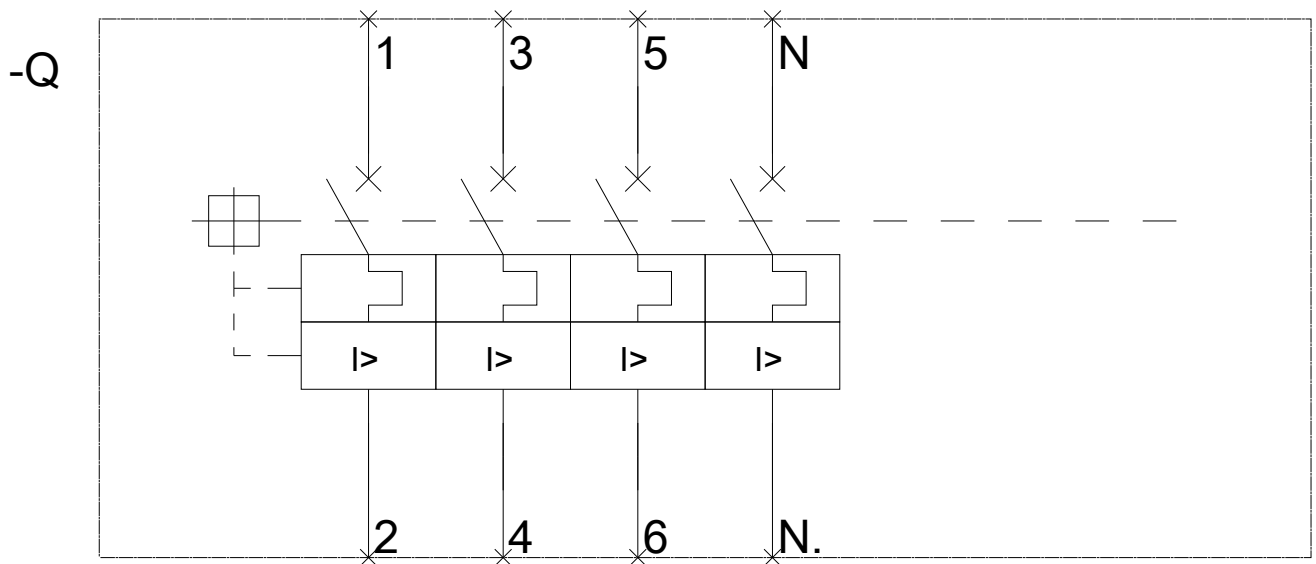
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1080-4ED42-0AF0

CAX-Online-Generator

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

Tender specifications

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



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