



circuit breaker 3VA2 IEC Frame 1000 breaking capacity class M Icu=55 kA @ 415 V 4-pole, line protection ETU320, LI, In=1000 A overload protection Ir=400 A...1000 A short-circuit protection Ii=1.5...10 x In neutral conductor protection adjustable (OFF, 50%, 100%) nut keeper kit

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
design of the product	Line protection
design of the overcurrent release	ETU320
protection function of the overcurrent release	LI
number of poles	4
General technical data	
insulation voltage / rated value	800 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	330 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	110 W
mechanical service life (operating cycles) / typical	10 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	4 900
electrical endurance (operating cycles) / at AC-1 / at 690 V	3 400
product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof	No
ground-fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
Net Weight	17.785 kg
Current	
operational current	
• at 40 °C	1 000 A
• at 45 °C	1 000 A
• at 50 °C	1 000 A
• at 55 °C	1 000 A
• at 60 °C	955 A
• at 65 °C	885 A
• at 70 °C	815 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	85 kA
• at 415 V	55 kA
• at 440 V	55 kA
• at 500 V	36 kA

<ul style="list-style-type: none"> • at 690 V 	25 kA
operating short-circuit current breaking capacity (Ics)	
<ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V 	85 kA 55 kA 55 kA 36 kA 19 kA
short-circuit current making capacity (Icm)	
<ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V 	187 kA 121 kA 121 kA 75.5 kA 52.5 kA
Adjustable parameters	
product feature / for L-tripping / can be switched on/off	No
adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic	
<ul style="list-style-type: none"> • minimum • maximum 	400 A 1 000 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
<ul style="list-style-type: none"> • minimum • maximum 	0.5 s 17 s
adjustable response value setting current (Ii) / for I-tripping	
<ul style="list-style-type: none"> • minimum • maximum 	1 500 A 10 000 A
adjustable setting current (InN) / for N-tripping	
<ul style="list-style-type: none"> • minimum • maximum 	200 A 1 000 A
design of the N-conductor protection	adjustable OFF; 50%; 100%
product function / grounding protection	No
Mechanical Design	
product component	
<ul style="list-style-type: none"> • undervoltage release • voltage trigger • trip indicator 	No No No
height [in]	12.6 in
height	320 mm
width [in]	11.02 in
width	280 mm
depth [in]	4.72 in
depth	120 mm
Connections	
arrangement of electrical connectors / for main current circuit	Front terminal
type of electrical connection / for main current circuit	on both sides nut keeper kit
type of connectable conductor cross-sections / for flat-bar terminal connection / minimum	20 x 4 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	50 x 28 mm
design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)	silver
design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)	silver
Auxiliary circuit	
number of CO contacts / for auxiliary contacts	0
Accessories	
product extension / optional / motor drive	No
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

reference code / according to IEC 81346-2

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Approvals / Certificates

General Product Approval



[Miscellaneous](#)



[Confirmation](#)



General Product Approval

EMV

Test Certificates

Maritime application



[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Special Test Certificate](#)



Maritime application

other



[CCS \(China Classification Society\)](#)

[Miscellaneous](#)

other

Dangerous goods

Environment

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Further information

Information on the packaging

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

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA2510-5HL42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2510-5HL42-0AA0>

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

https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2510-5HL42-0AA0

CAX-Online-Generator

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

Tender specifications

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

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)

