



circuit breaker 3VA1 IEC frame 160 breaking capacity class S $I_{cu}=36\text{kA}$ @ 415V 4-pole, line protection TM210, FTFM, $I_n=63\text{A}$ overload protection $I_r=63\text{A}$ fixed short-circuit protection $I_i=10 \times I_n$ N conductor unprotected clamp connection

Model

product brand name	SENTRON
product designation	Molded case circuit breaker
design of the product	Line protection
design of the overcurrent release	TM210
protection function of the overcurrent release	LI
number of poles	4

General technical data

insulation voltage / rated value	800 V
operating voltage / at DC / rated value	600 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	17.3 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	5.77 W
mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	9 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	6 300
product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof	No
ground-fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
Net Weight	1.265 kg

Current

continuous current / rated value / maximum	160 A
continuous current / rated value	63 A
operational current	
• at 40 °C	63 A
• at 45 °C	63 A
• at 50 °C	63 A
• at 55 °C	62 A
• at 60 °C	61 A
• at 65 °C	60 A
• at 70 °C	58 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 500 V • at 690 V	7 kA
operating short-circuit current breaking capacity (Ics)	7 kA
• at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	55 kA
	36 kA
	25 kA
	5 kA
	5 kA
short-circuit current making capacity (Icm)	
• at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	121 kA
	75.6 kA
	52.5 kA
	11.9 kA
	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	
product feature / for L-tripping / can be switched on/off	No
adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic	
• minimum • maximum	63 A
	63 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
• minimum • maximum	1 s
	1 s
adjustable response value setting current (Ii) / for I-tripping	
• minimum • maximum	630 A
	630 A
adjustable absolute value setting current (InN) / for N-tripping	
• minimum • maximum	0 A
	0 A
adjustable current response value current / of instantaneous short-circuit trip unit	
• minimum • maximum	630 A
	630 A
design of the N-conductor protection	without
product function / grounding protection	No
Mechanical Design	
product component	
• undervoltage release • voltage trigger • trip indicator	No
	No
	No
height [in]	5.12 in
height	130 mm
width [in]	4 in
type of connectable conductor cross-sections / of the round conductor terminal / stranded	1 x (1,5 - 70 mm²)
width	101.6 mm
depth [in]	2.76 in
depth	70 mm
Connections	
arrangement of electrical connectors / for main current circuit	Front terminal
type of electrical connection / for main current circuit	box terminal on both sides
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)	Tin
Auxiliary circuit	
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	-25 °C
• during operation / maximum	70 °C
• during storage / minimum	-40 °C
• during storage / maximum	80 °C
Certificates	
reference code / according to IEC 81346-2	Q
General Product Approval	



[Confirmation](#)



[Miscellaneous](#)

[KC](#)



EMC	Declaration of Conformity	Test Certificates
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[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

Marine / Shipping	other
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[CCS / China Classification Society](#)

[Miscellaneous](#)

other	Environment
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[Confirmation](#)

[Miscellaneous](#)

[Environmental Confirmations](#)

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=3VA1163-4ED46-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1163-4ED46-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1163-4ED46-0AA0

CAX-Online-Generator

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

Tender specifications

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



