



circuit breaker 3VA1 IEC frame 160 breaking capacity class N Icu=25kA @ 415V 3-pole, line protection TM220, ATFM, In=160A overload protection Ir=112A...160A short-circuit protection Ii=10 x In 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	TM220
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	500 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	38 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 /	No
upgradable/retrofitable / short-circuit and overload proof	
ground-fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
Net Weight	988 g
Current	
operational current	
• at 40 °C	160 A
• at 45 °C	160 A
• at 50 °C	160 A
• at 55 °C	158 A
• at 60 °C	155 A
• at 65 °C	153 A
• at 70 °C	150 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	N
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	36 kA
• at 415 V	25 kA
• at 440 V	16 kA
• at 500 V	7 kA
• at 690 V	7 kA
operating short-circuit current breaking capacity (Ics)	
• at 240 V	36 kA

• at 415 V • at 440 V • at 500 V • at 690 V	25 kA
short-circuit current making capacity (I _{cm})	16 kA
• at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	5 kA
design of short-circuit protection	5 kA
	75.6 kA
	52.5 kA
	32 kA
	11.9 kA
	11.9 kA
	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 (I _r) / of the L-trip / with I _{2t} characteristic	
• minimum • maximum	112 A
adjustable response value delay time (t _r) / for L-tripping / with I _{2t} characteristic	160 A
• minimum • maximum	1 s
adjustable response value setting current (I _i) / for I-tripping	1 s
• minimum • maximum	1 600 A
adjustable absolute value setting current (I _N) / for N-tripping	1 600 A
• minimum • maximum	0 A
product function / grounding protection	0 A
	No

Mechanical Design

product component	
• undervoltage release • voltage trigger • trip indicator	No
height [in]	No
height	No
width [in]	5.12 in
width	130 mm
depth [in]	3 in
depth	76.2 mm
	2.76 in
	70 mm

Connections

arrangement of electrical connectors / for main current circuit	Front terminal
type of electrical connection / for main current circuit	nut keeper kit on both ends
type of connectable conductor cross-sections / for flat-bar terminal connection / minimum	12 x 1 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	17 x 6,5 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)	Tin

Auxiliary circuit

number of CO contacts / for auxiliary contacts	0
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Accessories

product extension / optional / motor drive	Yes
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Environmental conditions

protection class IP / on the front	IP40
ambient temperature	
• during operation / minimum • during operation / maximum • during storage / minimum	-25 °C
	70 °C
	-40 °C

• during storage / maximum

80 °C

Certificates

reference code / according to IEC 81346-2

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General Product Approval

EMC

[Confirmation](#)



[Miscellaneous](#)



Declaration of Conformity

Test Certificates

Marine / Shipping



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

[Miscellaneous](#)



Marine / Shipping

other



[CCS / China Classification Society](#)

[Confirmation](#)

[Miscellaneous](#)

other

Environment

[Miscellaneous](#)

[Environmental Confirmations](#)

Further information

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=3VA1116-3EE32-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1116-3EE32-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1116-3EE32-0AA0

CAX-Online-Generator

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

Tender specifications

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



