

circuit breaker 3VA1 IEC frame 160 breaking capacity class M
Icu=55kA @ 415V 2-pole, line protection TM210, FTFM, In=100A
overload protection Ir=100A fixed short-circuit protection li=10 x In
nut keeper kit

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
Product version	Line protection
design of the overcurrent release	TM210
protection function of the overcurrent release	LI
number of poles	2

General technical data	
Tension assignée d'isolement Ui	500 V
Max. rated operational voltage Ue with AC 50/60Hz	415 V
Max. rated operational voltage Ue with DC	250 V
power loss [W] / maximum	16.7 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	8.35 W
mechanical service life (switching cycles) / typical	20 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	8 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	8 000
Neutral conductors / upgradeable/retrofitable	No
ground fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No

Current	
Max. rated operational current of the frame size	160 A
Courant permanent assigné Iu	100 A
operating current	
• at 40 °C	100 A
• at 45 °C	100 A
• at 50 °C	100 A
• at 55 °C	98 A
• at 60 °C	96 A
• at 65 °C	94 A

- at 70 °C

91 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
operational short-circuit current breaking capacity (Ics)	
• at 240 V	85 kA
• at 415 V	55 kA
short-circuit current making capacity (Icm)	
• at 240 V	187 kA
• at 415 V	121 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 / Ig min.	100 A
Adjustable response value current / Ig min.	100 A
Adjustable response value current / li min.	1 000 A
Adjustable response value current / li max.	1 000 A
Ground fault protection / tripping switchable / I2t=ON/OFF	No

Mechanical Design

height [in]	5.1 in
Height	130 mm
width [in]	2 in
Width	50.8 mm
depth [in]	2.8 in
depth	70 mm

Connections

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

Auxiliary circuit

number of CO contacts / for auxiliary contacts	0
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Accessories

product extension / optional / motor drive	No
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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
 CCC	 EAC	 EG-Konf.
 VDE	 RCM	
Miscellaneous		

Test Certificates	Shipping Approval	other
Miscellaneous	 LRS	Type Test Certificates/Test Report
Special Test Certificate	CCS / China Classification Society	Manufacturer Declaration

other
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=3VA1110-5ED22-0AA0>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3VA1110-5ED22-0AA0>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1110-5ED22-0AA0

CAX-Online-Generator
<http://www.siemens.com/cax>

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

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