

circuit breaker 3VA1 IEC frame 160 breaking capacity class M
Icu=55kA @ 415V 3-pole, starter protection TM120M, AM, In=20A
without overload protection short-circuit protection Ii=7...16 x In
clamp connection



Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
Product version	Starter protection
design of the overcurrent release	TM120M
protection function of the overcurrent release	I
number of poles	3

General technical data	
Tension assignée d'isolement Ui	800 V
Max. rated operational voltage Ue with AC 50/60Hz	690 V
power loss [W] / maximum	1.5 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	0.5 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
• phase failure detection	No
• other measurement function	No
net weight	0.9 kg

Current

Max. rated operational current of the frame size	160 A
Courant permanent assigné lu	20 A
operating current	
• at 40 °C	20 A
• at 45 °C	20 A
• at 50 °C	20 A
• at 55 °C	19.4 A
• at 60 °C	19 A
• at 65 °C	18.4 A
• at 70 °C	17.6 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	36 kA
• at 500 V	10 kA
• at 690 V	5 kA
operational short-circuit current breaking capacity (Ics)	
• at 240 V	85 kA
• at 415 V	55 kA
• at 440 V	36 kA
• at 500 V	5 kA
• at 690 V	5 kA
short-circuit current making capacity (Icm)	
• at 240 V	187 kA
• at 415 V	121 kA
• at 440 V	75 kA
• at 500 V	17 kA
• at 690 V	7.5 kA

Adjustable parameters

Short-term delayed / tripping switchable / I2t=ON/OFF	No
---	----

Adjustable response value current / li min.	140 A
Adjustable response value current / li max.	320 A
Ground fault protection / tripping switchable / I2t=ON/OFF	No

Mechanical Design

height [in]	5.1 in
Height	130 mm
width [in]	3 in
Width	76.2 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, round conductor terminal, stranded	1 x (1.5 - 70 mm²)

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 / acc. to DIN EN 81346-2	Q
---	---

General Product Approval				EMC	Declaration of Conformity
 CCC	Miscellaneous	KC	 EAC	 RCM	 EG-Konf.

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

other	
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=3VA1120-5MH36-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1120-5MH36-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1120-5MH36-0AA0

CAX-Online-Generator

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

Tender specifications

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

-Q



last modified:

10/29/2020