



CIRCUIT BREAKER 3VA1 IEC FRAME 250 BREAKING CAPACITY
CLASS H ICU=70KA @ 415 V 3-POLE,MOTOR STARTER
PROTECTION TM120M, AM, IN=160A WITHOUT OVERLOAD
PROTECTION SHORT CIRCUIT PROTECTION II=7...16 X IN
BUSBAR CONNECTION

Model	
product brand name	SENTRON
Product designation	Molded case circuit breaker
Design	Starter protection
Design of the overcurrent release	TM120M
Protective 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
Max. rated operational voltage Ue with DC	500 V
Operating power / at AC-3 / at 400 V	90 000 W
Operating power / at AC-3 / at 230 V	45 000 W
Active power loss / for rated value of the current / at AC / in hot operating state / per device	33 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	11 W
Mechanical service life (switching cycles) / typical	15 000

Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	8 000
Neutral conductors / upgradeable/retrofitable	No
Ground fault monitoring version	Without
Net weight	1.8 kg

Electricity

Max. rated operational voltage of the size of the circuit-breaker	250 A
Courant permanent assigné Iu	160 A
Operating current • at 40 °C • at 45 °C • at 50 °C • at 55 °C • at 60 °C • at 65 °C • at 70 °C	160 A 160 A 160 A 155.6 A 151.2 A 146.8 A 142.4 A

Switching capacity

Switching capacity class of the circuit breaker	H
Maximum short-circuit current breaking capacity (Icu) • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	100 kA 70 kA 36 kA 15 kA 3 kA
Operational short-circuit current breaking capacity (Ics) • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	100 kA 70 kA 36 kA 10 kA 3 kA
Short-circuit current making capacity (Icm) • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	220 kA 154 kA 75.6 kA 30 kA 4.5 kA

Adjustable parameters

Short-term delayed / tripping switchable / I2t=ON/OFF	No
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Adjustable response value current / li min.	1 120 A
Adjustable response value current / li max.	2 560 A
Ground fault protection / tripping switchable / I2t=ON/OFF	No

Mechanical Design

Height	158 mm
Width	105 mm
Depth	70 mm

Connections

Arrangement of electrical connectors / for main current circuit	Front terminal
Type of electrical connection / for main current circuit	lug terminal
Type of connectable conductor cross-section, connection screw, width x thickness , min.	13 x 1
Type of connectable conductor cross-section, connection screw, width x thickness , max.	25 x 8

Auxiliary circuit

Number of auxiliary contacts as changeover contacts	0
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Accessories

Product expansion / optional / motor drive	Yes
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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

Equipment marking / acc. to DIN EN 81346-2	Q
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General Product Approval	EMC	Declaration of Conformity	other
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Further information

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

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

Industry Mall (Online ordering system)

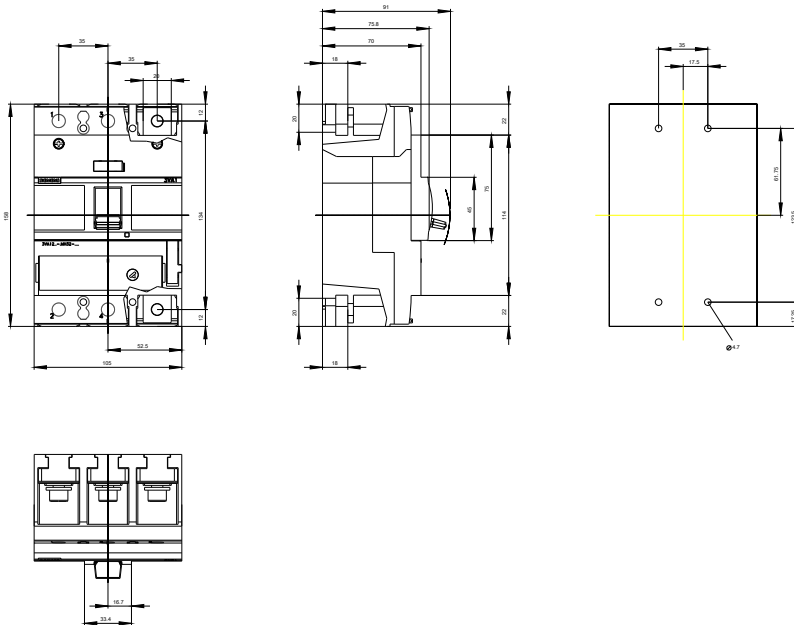
<https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA12166MH320AA0>

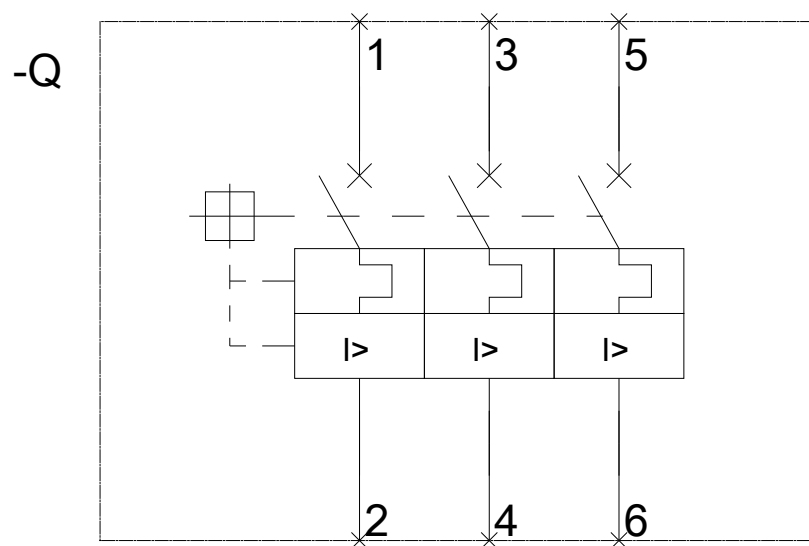
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<http://support.automation.siemens.com/WW/view/en/3VA12166MH320AA0/all>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA12166MH320AA0

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

Tender specifications
<http://ausschreibungstexte.siemens.com/tiplv>





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