



CIRCUIT BREAKER 3VA2 IEC FRAME 630 BREAKING CAPACITY CLASS M ICU=55KA @ 415 V 3-POLE, MOTOR PROTECTION ETU860M, LSIG, IN=500A OVERLOAD PROTECTION IR=200A ...500A SHORT CIRCUIT PROTECTION ISD=1,2...15X IN, II=3...15X IN NEUTRAL PROTECTION OPTIONAL WITH EXT. CT,UPTO 160% GROUND-FAULT, SWITCHABLE IG=0,2... 1 X IN, TG=0,05-0,8S BUSBAR CONNECTION

Model	
product brandname	SENTRON
Product designation	Molded case circuit breaker
Design of the product	Motor protection
Type of load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
Design of the overcurrent release	ETU860M
Protective function of the overcurrent release	LSIG
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
Active power loss / for rated value of the current / at AC / in hot operating state / per device	99 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	33 W
Mechanical service life (switching cycles) / typical	15 000

Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	4 000
Electrical endurance (switching cycles) / at AC-3 / at 380/415 V 50/60 Hz	2 500
Neutral conductors / upgradeable/retrofitable	No
Ground fault monitoring version	Summation current formation L-conductor
Product function	
• communication function	Yes
• Phase failure detection	Yes
• other measurement function	Yes
Net weight	4.3 kg

Electricity

Marking / according to UL 489 / 100%-rated breaker	No
Max. rated operational voltage of the size of the circuit-breaker	630 A
Courant permanent assigné lu	500 A
Operating current	
• at 40 °C	500 A
• at 45 °C	500 A
• at 50 °C	500 A
• at 55 °C	477 A
• at 60 °C	455 A
• at 65 °C	432 A
• at 70 °C	410 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	55 kA
• at 500 V	36 kA
• at 690 V	9 kA
Operational short-circuit current breaking capacity (Ics)	
• at 240 V	85 kA
• at 415 V	55 kA
• at 440 V	55 kA
• at 500 V	36 kA
• at 690 V	9 kA
Short-circuit current making capacity (Icm)	
• at 240 V	187 kA
• at 415 V	121 kA

• at 440 V	121 kA
• at 500 V	76 kA
• at 690 V	15.3 kA

Adjustable parameters

Adjustable response value current / I _g min.	200 A
Adjustable response value current / I _g min.	500 A
Adjustable response value current / I _g min.	3
Adjustable response value current / I _g min.	15
Adjustable response value current / I _g min.	600 A
Adjustable response value current / I _g min.	7 500 A
Short-term delayed / tripping switchable / I _{2t} =ON/OFF	No
Adjustable response value current / I _g min.	0.03 s
Adjustable response value current / I _g min.	0.03 s
Adjustable response value current / I _g min.	0 s
Adjustable response value current / I _g min.	0 s
Adjustable response value current / I _i min.	1 500 A
Adjustable response value current / I _i max.	7 500 A
Ground fault protection can be switched ON/OFF	Yes
Ground fault protection / tripping switchable / I _{2t} =ON/OFF	Yes
Adjustable response value current / I _g min.	100 A
Adjustable response value current / I _g max.	500 A
Adjustable response value current / t _g min.	0.05 s
Adjustable response value current / I _g min.	0.8 s
Adjustable response value current / for G-tripping / with I _{2t} characteristic / min.	0.2 A
Adjustable response value current / for G-tripping / with I _{2t} characteristic / max.	1 A

Mechanical Design

Height [in]	9.8 in
Height	248 mm
Width [in]	5.4 in
Width	138 mm
Depth [in]	4.3 in
Depth	110 mm

Connections

Arrangement of electrical connectors / for main current circuit	Front terminal
Type of electrical connection / for main current circuit	Lug terminal

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
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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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Certificate of suitability / as approval for NAVAL (no combat vessels) / Supplement SB	No
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General Product Approval

EMC

Declaration of Conformity

Test Certificates



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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/3VA2450-5MQ32-0AA0>

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

<http://support.automation.siemens.com/WW/view/en/3VA2450-5MQ32-0AA0/all>

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

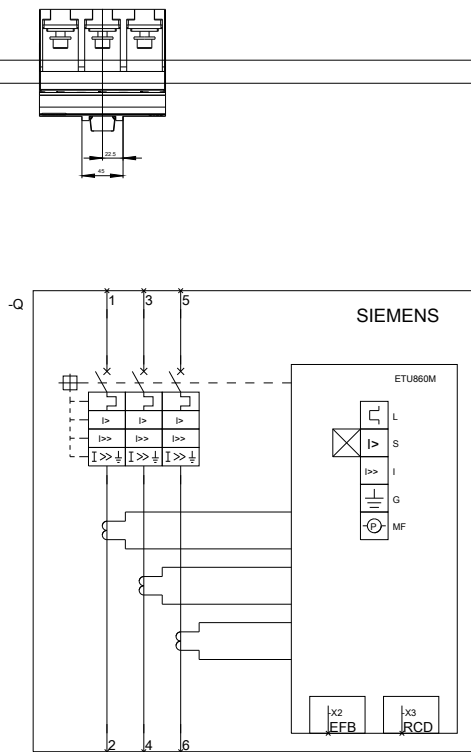
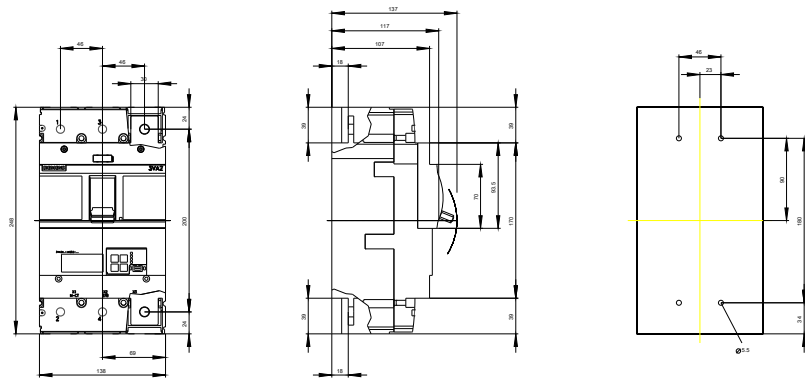
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2450-5MQ32-0AA0

CAX-Online-Generator

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

Tender specifications

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



Siemens

3VA2xxx-xMQ3x-0AA0

Format / Size: Hybrid quer

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10/29/2016