



circuit breaker 3VA2 IEC frame 250 breaking capacity class C  
 $I_{cu}=110\text{kA}$  @ 415V 3-pole, motor protection ETU860M, LSIG,  
 $I_n=200\text{A}$  overload protection  $I_r=80\text{A}\dots200\text{A}$  short-circuit protection  
 $I_{sd}=1.2\ldots15 \times I_n$ ,  $I_i=3\ldots15 \times I_n$  gr.-fault prot., can be sw. off  $I_g=0.2\ldots1 \times I_n$ ,  $t_g=0.05\text{--}0.8\text{s}$  nut keeper kit

| Model                                          |                             |
|------------------------------------------------|-----------------------------|
| product brand name                             | SENTRON                     |
| product designation                            | Molded case circuit breaker |
| Product version                                | Motor protection            |
| design of the overcurrent release              | ETU860M                     |
| protection function of the overcurrent release | LSIG                        |
| number of poles                                | 3                           |

| General technical data                                                                         |          |
|------------------------------------------------------------------------------------------------|----------|
| Tension assignée d'isolement $U_i$                                                             | 800 V    |
| Max. rated operational voltage $U_e$ with AC 50/60Hz                                           | 690 V    |
| operating power / at AC-3 / at 400 V                                                           | 75 000 W |
| operating power / at AC-3 / at 230 V                                                           | 55 000 W |
| power loss [W] / maximum                                                                       | 46 W     |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 15.33 W  |
| mechanical service life (switching cycles) / typical                                           | 20 000   |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz                      | 10 000   |

|                                                                           |                                         |
|---------------------------------------------------------------------------|-----------------------------------------|
| Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz     | 5 000                                   |
| Electrical endurance (switching cycles) / at AC-3 / at 380/415 V 50/60 Hz | 6 500                                   |
| 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                                                                | 2.3 kg                                  |

#### Current

|                                                  |       |
|--------------------------------------------------|-------|
| Max. rated operational current of the frame size | 250 A |
| Courant permanent assigné Iu                     | 200 A |
| operating current                                |       |
| • at 40 °C                                       | 200 A |
| • at 45 °C                                       | 200 A |
| • at 50 °C                                       | 200 A |
| • at 55 °C                                       | 200 A |
| • at 60 °C                                       | 200 A |
| • at 65 °C                                       | 200 A |
| • at 70 °C                                       | 200 A |

#### Switching capacity according to IEC 60947

|                                                           |        |
|-----------------------------------------------------------|--------|
| switching capacity class of the circuit breaker           | C      |
| maximum short-circuit current breaking capacity (Icu)     |        |
| • at 240 V                                                | 150 kA |
| • at 415 V                                                | 110 kA |
| • at 440 V                                                | 110 kA |
| • at 500 V                                                | 85 kA  |
| • at 690 V                                                | 3.6 kA |
| operational short-circuit current breaking capacity (Ics) |        |
| • at 240 V                                                | 150 kA |
| • at 415 V                                                | 110 kA |
| • at 440 V                                                | 110 kA |
| • at 500 V                                                | 85 kA  |
| • at 690 V                                                | 3.6 kA |
| short-circuit current making capacity (Icm)               |        |
| • at 240 V                                                | 330 kA |
| • at 415 V                                                | 242 kA |
| • at 440 V                                                | 242 kA |
| • at 500 V                                                | 187 kA |

• at 690 V

5.4 kA

## Adjustable parameters

|                                                                                                 |         |
|-------------------------------------------------------------------------------------------------|---------|
| Adjustable response value current / I <sub>g</sub> min.                                         | 80 A    |
| Adjustable response value current / I <sub>g</sub> min.                                         | 200 A   |
| Adjustable response value current / I <sub>g</sub> min.                                         | 240 A   |
| Adjustable response value current / I <sub>g</sub> min.                                         | 3 000 A |
| Short-term delayed / tripping switchable / I <sub>2t</sub> =ON/OFF                              | No      |
| Adjustable response value current / I <sub>g</sub> min.                                         | 0.03 s  |
| Adjustable response value current / I <sub>g</sub> min.                                         | 0.03 s  |
| Adjustable response value current / I <sub>i</sub> min.                                         | 600 A   |
| Adjustable response value current / I <sub>i</sub> max.                                         | 3 000 A |
| Ground fault protection can be switched ON/OFF                                                  | Yes     |
| Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF                         | Yes     |
| Adjustable response value current / I <sub>g</sub> min.                                         | 40 A    |
| Adjustable response value current / I <sub>g</sub> max.                                         | 200 A   |
| Adjustable response value current / t <sub>g</sub> min.                                         | 0.05 s  |
| Adjustable response value current / I <sub>g</sub> min.                                         | 0.8 s   |
| Adjustable response value current / for G-tripping / with I <sub>2t</sub> characteristic / min. | 0.2 A   |
| Adjustable response value current / for G-tripping / with I <sub>2t</sub> characteristic / max. | 1 A     |

## Mechanical Design

|             |        |
|-------------|--------|
| height [in] | 7.1 in |
| Height      | 181 mm |
| width [in]  | 4.1 in |
| Width       | 105 mm |
| depth [in]  | 3.4 in |
| depth       | 86 mm  |

## Connections

|                                                                                         |                              |
|-----------------------------------------------------------------------------------------|------------------------------|
| arrangement of electrical connectors / for main current circuit                         | Front terminal               |
| type of electrical connection / for main current circuit                                | on both sides nut keeper kit |
| Type of connectable conductor cross-section, connection screw, width x thickness , min. | 13 x 1 mm                    |
| Type of connectable conductor cross-section, connection screw, width x thickness , max. | 25 x 8.5 mm                  |

## 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                                                                                        |
|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------|
| <br>CCC | <br>VDE | <br>CB | <a href="#">Miscellaneous</a> | <br>EAC |
|                                                                                          |                                                                                          |                                                                                         |                               | <br>RCM |

| Declaration of Conformity                                                                     | Test Certificates             | Shipping Approval                        | other                                                                                    |                                                    |
|-----------------------------------------------------------------------------------------------|-------------------------------|------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------------|
| <br>EG-Konf. | <a href="#">Miscellaneous</a> | <a href="#">Special Test Certificate</a> | <br>LRS | <a href="#">CCS / China Classification Society</a> |
|                                                                                               |                               |                                          |                                                                                          | <a href="#">Confirmation</a>                       |

| other                                    |                               |
|------------------------------------------|-------------------------------|
| <a href="#">Manufacturer Declaration</a> | <a href="#">Miscellaneous</a> |

## 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=3VA2220-7MQ32-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2220-7MQ32-0AA0>

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

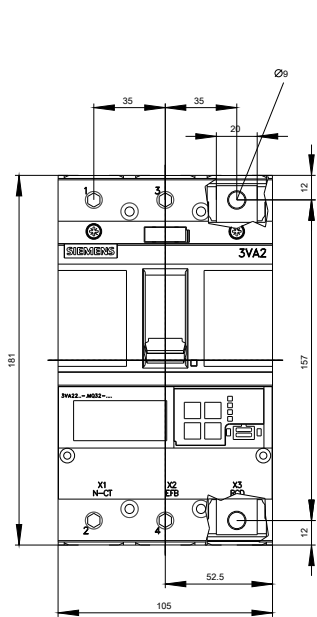
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2220-7MQ32-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2220-7MQ32-0AA0)

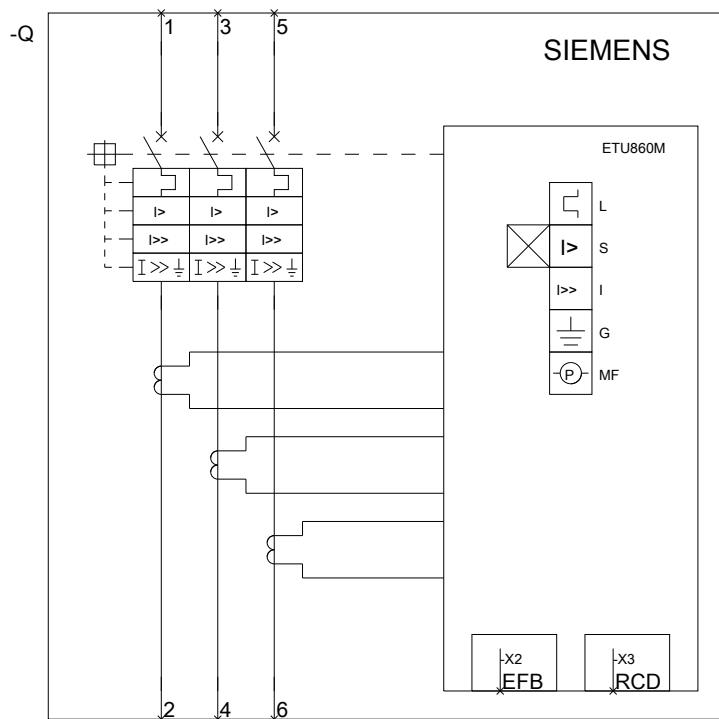
**CAX-Online-Generator**

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

**Tender specifications**

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





Siemens

3VA2xxx-xMQ3x-0AA

Format / Size: Hybrid quer

last modified:

10/30/2020