



circuit breaker 3VA2 IEC frame 160 breaking capacity class C  
 $I_{cu}=110\text{kA}$  @ 415V 3-pole, motor protection ETU860M, LSIG,  
 $I_n=63\text{A}$  overload protection  $I_r=25\text{A} \dots 63\text{A}$  short-circuit protection  
 $I_{sd}=1.2 \dots 15 \times I_n$ ,  $I_i=3 \dots 15 \times I_n$  gr.-fault prot., can be sw. off  $I_g=0.25 \dots 1 \times I_n$ ,  $t_g=0.05-0.8\text{s}$  clamp connection

| 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                                                           | 30 000 W |
| operating power / at AC-3 / at 230 V                                                           | 18 500 W |
| power loss [W] / maximum                                                                       | 10 W     |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 3.33 W   |
| mechanical service life (switching cycles) / typical                                           | 20 000   |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz                      | 12 000   |

|                                                                           |                                         |
|---------------------------------------------------------------------------|-----------------------------------------|
| Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz     | 8 000                                   |
| Electrical endurance (switching cycles) / at AC-3 / at 380/415 V 50/60 Hz | 7 500                                   |
| 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                                                                | 2.4 kg                                  |

#### Current

|                                                  |       |
|--------------------------------------------------|-------|
| Max. rated operational current of the frame size | 160 A |
| Courant permanent assigné lu                     | 63 A  |
| operating current                                |       |
| • at 40 °C                                       | 63 A  |
| • at 45 °C                                       | 63 A  |
| • at 50 °C                                       | 63 A  |
| • at 55 °C                                       | 63 A  |
| • at 60 °C                                       | 63 A  |
| • at 65 °C                                       | 63 A  |
| • at 70 °C                                       | 63 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                                                | 2.5 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                                                | 2.5 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

3.8 kA

## Adjustable parameters

|                                                                                                 |        |
|-------------------------------------------------------------------------------------------------|--------|
| Adjustable response value current / I <sub>g</sub> min.                                         | 25 A   |
| Adjustable response value current / I <sub>g</sub> min.                                         | 63 A   |
| Adjustable response value current / I <sub>g</sub> min.                                         | 76 A   |
| Adjustable response value current / I <sub>g</sub> min.                                         | 945 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.                                         | 189 A  |
| Adjustable response value current / I <sub>i</sub> max.                                         | 945 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.                                         | 13 A   |
| Adjustable response value current / I <sub>g</sub> max.                                         | 63 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                        | double-sided box terminal    |
| Type of connectable conductor cross-section, round conductor terminal, stranded | 1 x (6-120 mm <sup>2</sup> ) |

## 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



CCC



VDE

**CB**

CB

[Miscellaneous](#)

**EAC**



RCM

### Declaration of Conformity

### Test Certificates

### Shipping Approval

### other



EG-Konf.

[Miscellaneous](#)

[Special Test Certificate](#)



LRS

[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=3VA2163-7MQ36-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2163-7MQ36-0AA0>

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

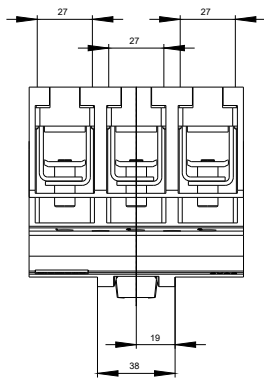
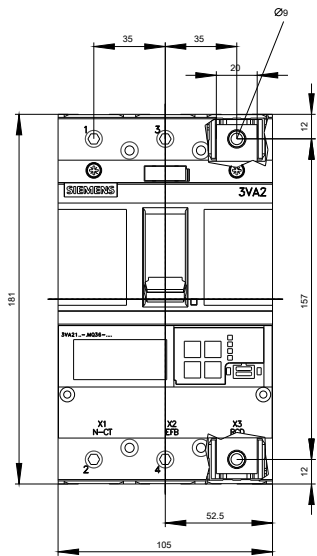
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2163-7MQ36-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2163-7MQ36-0AA0)

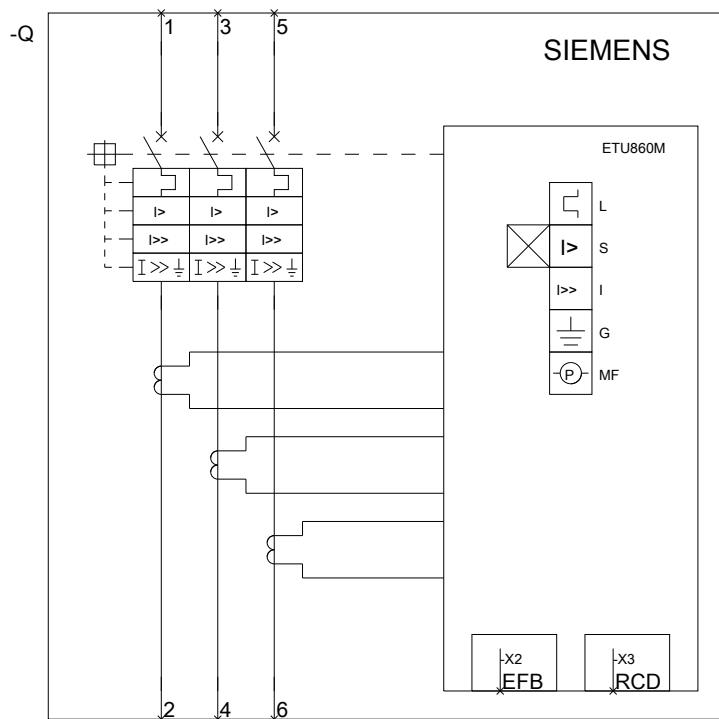
CAX-Online-Generator

<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