



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS S ICU=36KA @ 240 V 1-POLE, LINE PROTECTION TM210, FTFM, IN=63A OVERLOAD PROTECTION IR=63A FIXED SHORT CIRCUIT PROTECTION II=10 X IN BUSBAR CONNECTION

| Model                                                                                                                |                             |
|----------------------------------------------------------------------------------------------------------------------|-----------------------------|
| product brandname                                                                                                    | SENTRON                     |
| Product designation                                                                                                  | Molded case circuit breaker |
| Design of the product                                                                                                | Line protection             |
| Type of load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) | Yes                         |
| Design of the overcurrent release                                                                                    | TM210                       |
| Protective function of the overcurrent release                                                                       | LI                          |
| Number of poles                                                                                                      | 1                           |
| General technical data                                                                                               |                             |
| Tension assignée d'isolement Ui                                                                                      | 500 V                       |
| Max. rated operational voltage Ue with AC 50/60Hz                                                                    | 415 V                       |
| Max. rated operational voltage Ue with DC                                                                            | 125 V                       |
| Active power loss / for rated value of the current / at AC / in hot operating state / per device                     | 5.8 W                       |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole                       | 5.8 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 |
| Product function                                                          |         |
| • communication function                                                  | No      |
| • other measurement function                                              | No      |
| Net weight                                                                | 0.36 kg |

## Electricity

|                                                                   |       |
|-------------------------------------------------------------------|-------|
| Marking / according to UL 489 / 100%-rated breaker                | No    |
| Max. rated operational voltage of the size of the circuit-breaker | 160 A |
| Courant permanent assigné Iu                                      | 63 A  |
| Operating current                                                 |       |
| • at 40 °C                                                        | 63 A  |
| • at 45 °C                                                        | 63 A  |
| • at 50 °C                                                        | 63 A  |
| • at 55 °C                                                        | 62 A  |
| • at 60 °C                                                        | 61 A  |
| • at 65 °C                                                        | 60 A  |
| • at 70 °C                                                        | 58 A  |

## Switching capacity according to IEC 60947

|                                                           |       |
|-----------------------------------------------------------|-------|
| Switching capacity class of the circuit breaker           | S     |
| Maximum short-circuit current breaking capacity (Icu)     |       |
| • at 240 V                                                | 36 kA |
| • at 415 V                                                | 6 kA  |
| Operational short-circuit current breaking capacity (Ics) |       |
| • at 240 V                                                | 36 kA |
| • at 415 V                                                | 6 kA  |
| Short-circuit current making capacity (Icm)               |       |
| • at 240 V                                                | 76 kA |
| • at 415 V                                                | 9 kA  |

## Adjustable parameters

|                                                                    |       |
|--------------------------------------------------------------------|-------|
| Adjustable response value current / I <sub>g</sub> min.            | 63 A  |
| Adjustable response value current / I <sub>g</sub> min.            | 63 A  |
| Adjustable response value current / I <sub>g</sub> min.            | 1     |
| Adjustable response value current / I <sub>g</sub> min.            | 1     |
| Short-term delayed / tripping switchable / I <sub>2t</sub> =ON/OFF | No    |
| Adjustable response value current / I <sub>i</sub> min.            | 630 A |
| Adjustable response value current / I <sub>i</sub> max.            | 630 A |

|                                                                                        |                |
|----------------------------------------------------------------------------------------|----------------|
| Ground fault protection / tripping switchable / I2t=ON/OFF                             | No             |
| <b>Mechanical Design</b>                                                               |                |
| Height [in]                                                                            | 5.1 in         |
| Height                                                                                 | 130 mm         |
| Width [in]                                                                             | 1 in           |
| Width                                                                                  | 25.4 mm        |
| Depth [in]                                                                             | 2.8 in         |
| Depth                                                                                  | 70 mm          |
| <b>Connections</b>                                                                     |                |
| Arrangement of electrical connectors / for main current circuit                        | Front terminal |
| Type of electrical connection / for main current circuit                               | lug terminal   |
| <b>Auxiliary circuit</b>                                                               |                |
| Number of CO contacts / for auxiliary contacts                                         | 0              |
| <b>Accessories</b>                                                                     |                |
| Product extension / optional / motor drive                                             | No             |
| <b>Environmental conditions</b>                                                        |                |
| 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          |
| <b>Certificates</b>                                                                    |                |
| Equipment marking / acc. to DIN EN 81346-2                                             | Q              |
| Certificate of suitability / as approval for NAVAL (no combat vessels) / Supplement SB | No             |

| General Product Approval                                                                 | EMC                                                                               | Declaration of Conformity                                                                | Test Certificates                                                                             |                                                                              |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| <br>VDE |  | <br>RCM | <br>EG-Konf. | <a href="#">Typprüfbescheinigung/Werkszeugnis</a><br><a href="#">sonstig</a> |

#### other

[sonstig](#)

#### 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/3VA1163-4ED12-0AA0>

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

<http://support.automation.siemens.com/WW/view/en/3VA1163-4ED12-0AA0/all>

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

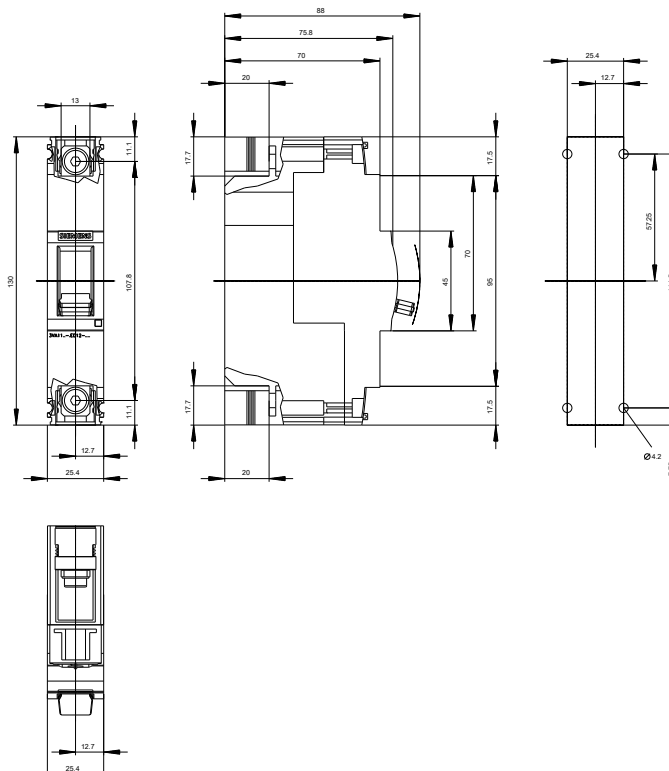
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA1163-4ED12-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1163-4ED12-0AA0)

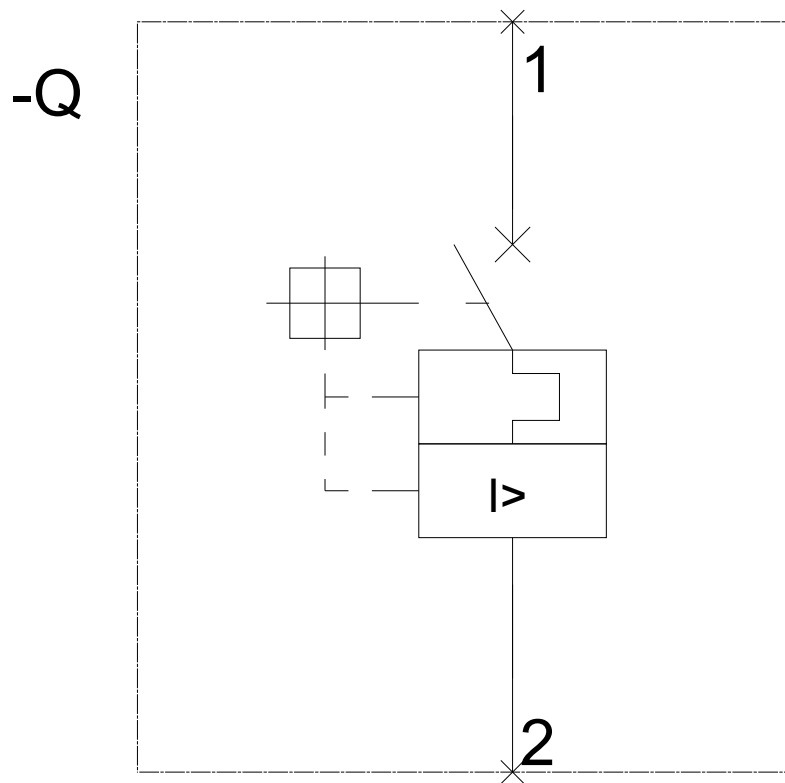
##### CAX-Online-Generator

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

##### Tender specifications

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





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