

CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY  
CLASS S ICU=36KA @ 240 V 1-POLE, LINE PROTECTION  
TM210, FTFM, IN=50A OVERLOAD PROTECTION IR=50A FIXED  
SHORT CIRCUIT PROTECTION II=10 X IN CABLE CONNECTION



| Model                                                                                            |                             |
|--------------------------------------------------------------------------------------------------|-----------------------------|
| product brand name                                                                               | SENTRON                     |
| Product designation                                                                              | Molded case circuit breaker |
| Design                                                                                           | Line protection             |
| 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                                                                  | 800 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 | 4.9 W                       |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole   | 4.9 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                                                        | 0.36 kg |
| <b>Electricity</b>                                                |         |
| Max. rated operational voltage of the size of the circuit-breaker | 160 A   |
| Courant permanent assigné lu                                      | 50 A    |
| Operating current                                                 |         |
| • at 40 °C                                                        | 50 A    |
| • at 45 °C                                                        | 50 A    |
| • at 50 °C                                                        | 50 A    |
| • at 55 °C                                                        | 49 A    |
| • at 60 °C                                                        | 48 A    |
| • at 65 °C                                                        | 46 A    |
| • at 70 °C                                                        | 45 A    |
| <b>Switching capacity</b>                                         |         |
| 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                                                        | 75.6 kA |
| • at 415 V                                                        | 9 kA    |
| <b>Adjustable parameters</b>                                      |         |
| Adjustable response value current / Ig min.                       | 50 A    |
| Adjustable response value current / Ig min.                       | 50 A    |
| Adjustable response value current / Ig min.                       | 1       |
| Adjustable response value current / Ig min.                       | 1       |
| Short-term delayed / tripping switchable / I2t=ON/OFF             | No      |
| Adjustable response value current / li min.                       | 500 A   |
| Adjustable response value current / li max.                       | 500 A   |
| Ground fault protection / tripping switchable / I2t=ON/OFF        | No      |
| <b>Mechanical Design</b>                                          |         |
| Height                                                            | 130 mm  |
| Width                                                             | 25.4 mm |
| Depth                                                             | 70 mm   |

## Connections

|                                                                                 |                    |
|---------------------------------------------------------------------------------|--------------------|
| Arrangement of electrical connectors / for main current circuit                 | Front terminal     |
| Type of electrical connection / for main current circuit                        | box terminal       |
| Type of connectable conductor cross-section, round conductor terminal, stranded | 1 x (1.5 - 70 mm²) |

## Auxiliary circuit

|                                                     |   |
|-----------------------------------------------------|---|
| Number of auxiliary contacts as changeover contacts | 0 |
|-----------------------------------------------------|---|

## Accessories

|                                            |    |
|--------------------------------------------|----|
| Product expansion / optional / motor drive | No |
|--------------------------------------------|----|

## 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 |
|--------------------------------------------|---|

| General Product Approval | EMC | Declaration of Conformity | Test Certificates | other |
|--------------------------|-----|---------------------------|-------------------|-------|
|--------------------------|-----|---------------------------|-------------------|-------|



[RCM](#)



[Typprüfbescheinigung/Werkszeugnis](#)

[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/3VA11504ED160AA0>

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

<http://support.automation.siemens.com/WW/view/en/3VA11504ED160AA0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA11504ED160AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA11504ED160AA0)

### CAX-Online-Generator

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

### Tender specifications

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



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