



CIRCUIT BREAKER 3VA2 IEC FRAME 160 BREAKING CAPACITY CLASS C ICU=110KA @ 415 V 4POLE, LINE PROTECTION ETU850, LSI, IN=40A OVERLOAD PROTECTION IR=16A ...40A SHORT CIRCUIT PROTECTION ISD=0,6..10X IN, II=1,5..12X IN NEUTRAL PROTECTION ADJUSTABLE (OFF, UPTO 160%) CABLE 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                                                                                    | ETU850                      |
| Protective function of the overcurrent release                                                                       | LSI                         |
| Number of poles                                                                                                      | 4                           |
| 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                     | 1.6 W                       |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole                       | 0.53 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  |
| Neutral conductors / upgradeable/retrofitable                             | No      |
| Ground fault monitoring version                                           | Without |
| Product function                                                          |         |
| • communication function                                                  | Yes     |
| • other measurement function                                              | Yes     |
| Net weight                                                                | 3.15 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                                      | 40 A  |
| Operating current                                                 |       |
| • at 40 °C                                                        | 40 A  |
| • at 45 °C                                                        | 40 A  |
| • at 50 °C                                                        | 40 A  |
| • at 55 °C                                                        | 40 A  |
| • at 60 °C                                                        | 40 A  |
| • at 65 °C                                                        | 40 A  |
| • at 70 °C                                                        | 40 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.                 | 16 A                         |
| Adjustable response value current / I <sub>g</sub> min.                 | 40 A                         |
| Adjustable response value current / I <sub>g</sub> min.                 | 0.5                          |
| Adjustable response value current / I <sub>g</sub> min.                 | 25                           |
| Adjustable response value current / I <sub>g</sub> min.                 | 24 A                         |
| Adjustable response value current / I <sub>g</sub> min.                 | 400 A                        |
| Short-term delayed / tripping switchable / I <sub>2t</sub> =ON/OFF      | Yes                          |
| Adjustable response value current / I <sub>g</sub> min.                 | 0.05 s                       |
| Adjustable response value current / I <sub>g</sub> min.                 | 0.5 s                        |
| Adjustable response value current / I <sub>g</sub> min.                 | 0.05 s                       |
| Adjustable response value current / I <sub>g</sub> min.                 | 0.5 s                        |
| Adjustable response value current / I <sub>i</sub> min.                 | 60 A                         |
| Adjustable response value current / I <sub>i</sub> max.                 | 480 A                        |
| Design of the N-conductor protection                                    | adjustable OFF; 40% bis 160% |
| Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF | No                           |

| Mechanical Design |        |
|-------------------|--------|
| Height [in]       | 7.1 in |
| Height            | 181 mm |
| Width [in]        | 5.5 in |
| Width             | 140 mm |
| Depth [in]        | 4.2 in |
| Depth             | 107 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 (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

|                                                                                        |    |
|----------------------------------------------------------------------------------------|----|
| 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 |
|--------------------------|-----|---------------------------|
|--------------------------|-----|---------------------------|



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| Test Certificates | Shipping Approval |
|-------------------|-------------------|
|-------------------|-------------------|

[Typprüfbescheinigung/Werkszeugnis](#)

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| Shipping Approval | other |
|-------------------|-------|
|-------------------|-------|



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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/3VA2140-7KP46-0AA0>

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

<http://support.automation.siemens.com/WW/view/en/3VA2140-7KP46-0AA0/all>

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

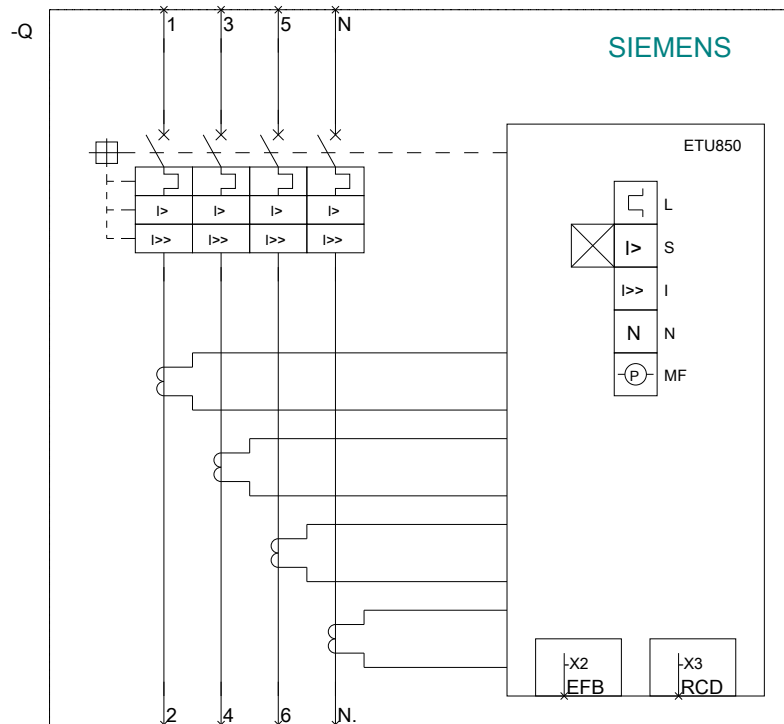
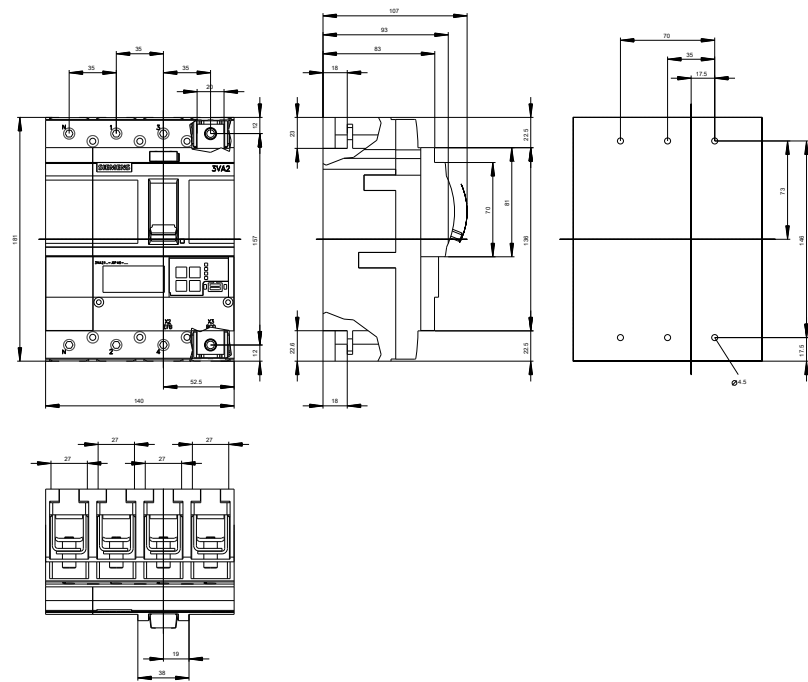
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2140-7KP46-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2140-7KP46-0AA0)

**CAX-Online-Generator**

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

**Tender specifications**

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



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