

**Siemens**  
**EcoTech**



circuit breaker 3VA6 UL Frame 600 breaking capacity class H 65 kA @ 480 V 3-pole, line protection ETU330, LIG, In=600 A overload protection Ir=240 A ...600 A short-circuit protection Ii=1.5...9 x In ground-fault protection IG=0.2... 1xIn, tg=0.1/0.3s cable connection on two sides



| Model                                                                                                                      |                                         |
|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| product brand name                                                                                                         | SENTRON                                 |
| product designation                                                                                                        | Molded-case circuit breaker             |
| product designation / according to UL file                                                                                 | H LAE                                   |
| design of the product                                                                                                      | System protection                       |
| design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) | Yes                                     |
| design of the overcurrent release                                                                                          | ETU330                                  |
| protection function of the overcurrent release                                                                             | LIG                                     |
| number of poles                                                                                                            | 3                                       |
| General technical data                                                                                                     |                                         |
| insulation voltage / rated value                                                                                           | 800 V                                   |
| operating voltage / at AC / rated value                                                                                    | 690 V                                   |
| power loss [W] / maximum                                                                                                   | 151 W                                   |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 50.33 W                                 |
| mechanical service life (operating cycles) / typical                                                                       | 20 000                                  |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V                                                           | 4 000                                   |
| electrical endurance (operating cycles) / at AC-1 / at 690 V                                                               | 3 500                                   |
| electrical endurance (operating cycles) / at 480 V                                                                         | 4 000                                   |
| electrical endurance (operating cycles) / at 600 V                                                                         | 3 500                                   |
| product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof                     | No                                      |
| ground-fault monitoring version                                                                                            | Summation current formation L-conductor |
| product function                                                                                                           |                                         |
| • communication function                                                                                                   | No                                      |
| • other measurement function                                                                                               | No                                      |
| Net Weight                                                                                                                 | 9.621 kg                                |
| Current                                                                                                                    |                                         |
| marking / according to UL 489 / 100%-rated breaker                                                                         | No                                      |
| operational current                                                                                                        |                                         |
| • at 40 °C                                                                                                                 | 600 A                                   |
| • at 45 °C                                                                                                                 | 600 A                                   |
| • at 50 °C                                                                                                                 | 593 A                                   |
| • at 55 °C                                                                                                                 | 575 A                                   |
| • at 60 °C                                                                                                                 | 557 A                                   |
| • at 65 °C                                                                                                                 | 538 A                                   |
| • at 70 °C                                                                                                                 | 520 A                                   |

|                                                                                                                   |                                           |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| <b>Switching capacity according to IEC 60947</b>                                                                  |                                           |
| switching capacity class of the circuit breaker                                                                   | H                                         |
| maximum short-circuit current breaking capacity (I <sub>cu</sub> )                                                |                                           |
| • at 240 V                                                                                                        | 110 kA                                    |
| • at 415 V                                                                                                        | 85 kA                                     |
| • at 690 V                                                                                                        | 6 kA                                      |
| operating short-circuit current breaking capacity (I <sub>cs</sub> )                                              |                                           |
| • at 240 V                                                                                                        | 110 kA                                    |
| • at 415 V                                                                                                        | 85 kA                                     |
| • at 690 V                                                                                                        | 6 kA                                      |
| short-circuit current making capacity (I <sub>cm</sub> )                                                          |                                           |
| • at 240 V                                                                                                        | 242 kA                                    |
| • at 415 V                                                                                                        | 187 kA                                    |
| • at 690 V                                                                                                        | 9 kA                                      |
| <b>Switching capacity according to UL 489</b>                                                                     |                                           |
| current breaking capacity                                                                                         |                                           |
| • at 240 V                                                                                                        | 100 kA                                    |
| • at 480 V                                                                                                        | 65 kA                                     |
| • at 600 V                                                                                                        | 22 kA                                     |
| <b>Adjustable parameters</b>                                                                                      |                                           |
| adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2t</sub> characteristic |                                           |
| • minimum                                                                                                         | 250 A                                     |
| • maximum                                                                                                         | 600 A                                     |
| adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic     |                                           |
| • minimum                                                                                                         | 0.5 s                                     |
| • maximum                                                                                                         | 15 s                                      |
| adjustable response value setting current (I <sub>i</sub> ) / for I-tripping                                      |                                           |
| • minimum                                                                                                         | 900 A                                     |
| • maximum                                                                                                         | 5 400 A                                   |
| adjustable current response value current / for G-tripping / with standard characteristic                         |                                           |
| • initial value                                                                                                   | 120 A                                     |
| • full-scale value                                                                                                | 600 A                                     |
| adjustable response value delay time (t <sub>g</sub> ) / for G-tripping / with I <sub>0t</sub> characteristic     |                                           |
| • minimum                                                                                                         | 0.1 s                                     |
| • maximum                                                                                                         | 0.3 s                                     |
| product function / grounding protection                                                                           | Yes                                       |
| <b>Mechanical Design</b>                                                                                          |                                           |
| product component                                                                                                 |                                           |
| • undervoltage release                                                                                            | No                                        |
| • voltage trigger                                                                                                 | No                                        |
| • trip indicator                                                                                                  | No                                        |
| height [in]                                                                                                       | 9.76 in                                   |
| height                                                                                                            | 248 mm                                    |
| width [in]                                                                                                        | 5.43 in                                   |
| type of connectable conductor cross-sections / of the round conductor terminal / stranded                         | 2 x (2/0 - 600 kcmil)                     |
| width                                                                                                             | 138 mm                                    |
| depth [in]                                                                                                        | 4.33 in                                   |
| depth                                                                                                             | 110 mm                                    |
| <b>Connections</b>                                                                                                |                                           |
| arrangement of electrical connectors / for main current circuit                                                   | Front connection                          |
| type of electrical connection / for main current circuit                                                          | circular conductor terminal on both sides |
| <b>Auxiliary circuit</b>                                                                                          |                                           |
| number of CO contacts / for auxiliary contacts                                                                    | 0                                         |
| <b>Accessories</b>                                                                                                |                                           |
| product extension / optional / motor drive                                                                        | Yes                                       |
| <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  |

#### Environmental footprint

|                                                          |                 |
|----------------------------------------------------------|-----------------|
| Environmental Product Declaration(EPD)                   | Yes             |
| global warming potential [CO2 eq] / total                | 495 kg          |
| global warming potential [CO2 eq] / during manufacturing | 28.7 kg         |
| global warming potential [CO2 eq] / during operation     | 470 kg          |
| global warming potential [CO2 eq] / after end of life    | -4.07 kg        |
| Siemens Eco Profile (SEP)                                | Siemens EcoTech |
| reference code / according to IEC 81346-2                | Q               |

#### Approvals / Certificates

##### General Product Approval



[Miscellaneous](#)

| General Product Approval | EMV | Maritime application | other |
|--------------------------|-----|----------------------|-------|
|--------------------------|-----|----------------------|-------|



[BIS CRS](#)



[Miscellaneous](#)

[Confirmation](#)

| other | Dangerous goods | Environment |
|-------|-----------------|-------------|
|-------|-----------------|-------------|

[Miscellaneous](#)

[Transport Information](#)



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[Environmental Confirmations](#)

#### Further information

##### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

##### 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=3VA6460-6HM36-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6460-6HM36-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6460-6HM36-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6460-6HM36-0AA0)

##### CAX-Online-Generator

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

##### Tender specifications

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





