

Siemens  
EcoTech



circuit breaker 3VA6 UL Frame 150 breaking capacity class L 150 kA @ 480 V 4-pole, line protection ETU856, LSI, In=100 A overload protection, 100% rated Ir=40 A...100 A short-circuit protection Isd=0.6..10x In, li=1.5..12x In neutral conductor protection adjustable (OFF, up to 150%) ground fault alarm signaled via EFB300 or COM without connection



| Model  |   |
|--|---|
| product brand name   | SETRON                                      |
| product designation  | Molded-case circuit breaker                 |
| product designation / according to UL file   | LDAE  |
| 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  | ETU856                                      |
| protection function of the overcurrent release   | LSI-G-alarm only                            |
| number of poles  | 4   |
| General technical data   |   |
| insulation voltage / rated value   | 800 V                                       |
| operating voltage / at AC / rated value  | 690 V                                       |
| power loss [W] / maximum   | 13 W  |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 4.33 W                                      |
| mechanical service life (operating cycles) / typical   | 25 000                                      |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V   | 14 000                                      |
| electrical endurance (operating cycles) / at AC-1 / at 690 V   | 9 800                                       |
| electrical endurance (operating cycles) / at 480 V   | 14 000                                      |
| electrical endurance (operating cycles) / at 600 V   | 9 800                                       |
| product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof                      | No  |
| ground-fault monitoring version  | Summation current formation L + N-conductor |
| product function   |   |
| • communication function   | Yes   |
| • other measurement function   | Yes   |
| Net Weight   | 2.9 kg                                      |
| Current  |   |
| marking / according to UL 489 / 100%-rated breaker   | Yes   |
| operational current  |   |
| • at 40 °C   | 100 A                                       |
| • at 45 °C   | 100 A                                       |
| • at 50 °C   | 100 A                                       |
| • at 55 °C   | 100 A                                       |
| • at 60 °C   | 100 A                                       |
| • at 65 °C   | 100 A                                       |

|  |                            |
|--|----------------------------|
| <ul style="list-style-type: none"> <li>• at 70 °C</li> </ul>   | 100 A                      |
| <b>Switching capacity according to IEC 60947</b>   |                            |
| switching capacity class of the circuit breaker  | L                          |
| maximum short-circuit current breaking capacity (I <sub>cu</sub> )   |                            |
| <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 690 V</li> </ul>               | 200 kA<br>150 kA<br>2.5 kA |
| operating short-circuit current breaking capacity (I <sub>cs</sub> )   |                            |
| <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 690 V</li> </ul>               | 200 kA<br>150 kA<br>2.5 kA |
| short-circuit current making capacity (I <sub>cm</sub> )   |                            |
| <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 690 V</li> </ul>               | 440 kA<br>330 kA<br>3.8 kA |
| <b>Switching capacity according to UL 489</b>  |                            |
| current breaking capacity  |                            |
| <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 480 V</li> <li>• at 600 V</li> </ul>               | 200 kA<br>150 kA<br>50 kA  |
| <b>Adjustable parameters</b>   |                            |
| adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2t</sub> characteristic  |                            |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                     | 40 A<br>100 A              |
| adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic      |                            |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                     | 0.5 s<br>25 s              |
| adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I <sub>0t</sub> characteristic     |                            |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                     | 60 A<br>1 000 A            |
| adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I <sub>2t</sub> characteristic     |                            |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                     | 60 A<br>1 000 A            |
| adjustable response value delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>0t</sub> characteristic     |                            |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                     | 0.05 s<br>0.5 s            |
| adjustable response value delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>2t</sub> characteristic     |                            |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                     | 0.05 s<br>0.5 s            |
| adjustable response value setting current (I <sub>l</sub> ) / for I-tripping                                       |                            |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                     | 150 A<br>1 200 A           |
| adjustable current response value current / for G-tripping / with standard characteristic                          |                            |
| <ul style="list-style-type: none"> <li>• initial value</li> <li>• full-scale value</li> </ul>                      | 20 A<br>100 A              |
| adjustable response value delay time (t <sub>g</sub> ) / for G-tripping / with I <sub>0t</sub> characteristic      |                            |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                     | 0.05 s<br>0.8 s            |
| adjustable response value setting current (I <sub>g</sub> ) / for G-tripping / with I <sub>2t</sub> characteristic |                            |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                     | 20 A<br>100 A              |
| adjustable response value delay time (t <sub>g</sub> ) / for G-tripping / with I <sub>2t</sub> characteristic      |                            |

|   |                             |
|---|-----------------------------|
| • minimum   | 0.05 s                      |
| • maximum   | 0.8 s                       |
| adjustable setting current (InN) / for N-tripping |                             |
| • minimum   | 20 A                        |
| • maximum   | 150 A                       |
| design of the N-conductor protection              | adjustable OFF; 20% to 150% |
| product function / grounding protection           | Yes                         |

### Mechanical Design

|                        |         |
|------------------------|---------|
| product component      |         |
| • undervoltage release | No      |
| • voltage trigger      | No      |
| • trip indicator       | No      |
| height [in]            | 7.8 in  |
| height                 | 198 mm  |
| width [in]             | 5.51 in |
| width                  | 140 mm  |
| depth [in]             | 3.39 in |
| depth                  | 86 mm   |

### Connections

|   |                    |
|---|--------------------|
| arrangement of electrical connectors / for main current circuit | Without connection |
| type of electrical connection / for main current circuit        | Without            |

### 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  |

### Environmental footprint

|  |                 |
|--|-----------------|
| Environmental Product Declaration (EPD)                  | Yes             |
| global warming potential [CO2 eq] / total                | 61.814 kg       |
| global warming potential [CO2 eq] / during manufacturing | 14.6 kg         |
| global warming potential [CO2 eq] / during operation     | 48.9 kg         |
| global warming potential [CO2 eq] / after end of life    | -2.2 kg         |
| Siemens Eco Profile (SEP)                                | Siemens EcoTech |
| reference code / according to IEC 81346-2                | Q               |

### Approvals / Certificates

#### General Product Approval



[Confirmation](#)



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

[Miscellaneous](#)



[Confirmation](#)

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



## Further information

## Information on the packaging

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

## Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

## Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/lowvoltage/catalogs>

## Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA6110-8KT41-2AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6110-8KT41-2AA0>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6110-8KT41-2AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6110-8KT41-2AA0)

## CAx-Online-Generator

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

## Tender specifications

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





