

Siemens  
EcoTech



circuit breaker 3VA6 UL Frame 400 breaking capacity class L 150 kA @ 480 V 3-pole, line protection ETU560, LSIG,  $I_n=400$  A overload protection  $I_r=160$  A...400 A short-circuit protection  $I_{sd}=0.6..10 \times I_n$ ,  $I_i=1.5..10 \times I_n$  neutral conductor protection optionally with external current transformer, up to 160% ground-fault protection  $I_g=0.2...1 \times I_n$ ,  $t_g=0.05-0.8$ s without connection



| Model  |   |
|--|---|
| product brand name   | SENTRON                                 |
| product designation  | Molded-case circuit breaker             |
| product designation / according to UL file   | LJAE                                    |
| 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  | ETU560                                  |
| protection function of the overcurrent release   | LSIG                                    |
| 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   | 70 W                                    |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 23.33 W                                 |
| mechanical service life (operating cycles) / typical   | 20 000                                  |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V   | 6 000                                   |
| electrical endurance (operating cycles) / at AC-1 / at 690 V   | 4 200                                   |
| electrical endurance (operating cycles) / at 480 V   | 6 000                                   |
| electrical endurance (operating cycles) / at 600 V   | 4 200                                   |
| product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof                      | Yes                                     |
| ground-fault monitoring version  | Summation current formation L-conductor |
| product function   |   |
| • communication function   | Yes                                     |
| • other measurement function   | No                                      |
| Net Weight   | 5.3 kg                                  |
| Current  |   |
| marking / according to UL 489 / 100%-rated breaker   | No                                      |
| operational current  |   |
| • at 40 °C   | 400 A                                   |
| • at 45 °C   | 400 A                                   |
| • at 50 °C   | 400 A                                   |
| • at 55 °C   | 375 A                                   |
| • at 60 °C   | 350 A                                   |
| • at 65 °C   | 325 A                                   |
| • at 70 °C   | 300 A                                   |

**Switching capacity according to IEC 60947**

|  |        |
|--|--------|
| switching capacity class of the circuit breaker                      | L      |
| maximum short-circuit current breaking capacity (I <sub>cu</sub> )   |        |
| • at 240 V   | 200 kA |
| • at 415 V   | 150 kA |
| • at 690 V   | 5 kA   |
| operating short-circuit current breaking capacity (I <sub>cs</sub> ) |        |
| • at 240 V   | 200 kA |
| • at 415 V   | 150 kA |
| • at 690 V   | 5 kA   |
| short-circuit current making capacity (I <sub>cm</sub> )             |        |
| • at 240 V   | 440 kA |
| • at 415 V   | 330 kA |
| • at 690 V   | 7.5 kA |

**Switching capacity according to UL 489**

|                           |        |
|---------------------------|--------|
| current breaking capacity |        |
| • at 240 V                | 200 kA |
| • at 480 V                | 150 kA |
| • at 600 V                | 50 kA  |

**Adjustable parameters**

|  |         |
|--|---------|
| adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2t</sub> characteristic  |         |
| • minimum  | 150 A   |
| • maximum  | 400 A   |
| adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic      |         |
| • minimum  | 0.5 s   |
| • maximum  | 17 s    |
| adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I <sub>0t</sub> characteristic     |         |
| • minimum  | 240 A   |
| • maximum  | 4 000 A |
| adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I <sub>2t</sub> characteristic     |         |
| • minimum  | 240 A   |
| • maximum  | 4 000 A |
| adjustable response value delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>0t</sub> characteristic     |         |
| • minimum  | 0.05 s  |
| • maximum  | 0.5 s   |
| adjustable response value delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>2t</sub> characteristic     |         |
| • minimum  | 0.05 s  |
| • maximum  | 0.5 s   |
| adjustable response value setting current (I <sub>i</sub> ) / for I-tripping                                       |         |
| • minimum  | 600 A   |
| • maximum  | 4 000 A |
| adjustable current response value current / for G-tripping / with standard characteristic                          |         |
| • initial value  | 80 A    |
| • full-scale value   | 400 A   |
| adjustable response value delay time (t <sub>g</sub> ) / for G-tripping / with I <sub>0t</sub> characteristic      |         |
| • minimum  | 0.05 s  |
| • maximum  | 0.8 s   |
| adjustable response value setting current (I <sub>g</sub> ) / for G-tripping / with I <sub>2t</sub> characteristic |         |
| • minimum  | 80 A    |
| • maximum  | 400 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 (I <sub>nN</sub> ) / for N-tripping   |         |

|   |                             |
|---|-----------------------------|
| • minimum                               | 0 A                         |
| • maximum                               | 0 A                         |
| design of the N-conductor protection    | adjustable OFF; 20% to 160% |
| product function / grounding protection | Yes                         |

### Mechanical Design

|                        |         |
|------------------------|---------|
| product component      |         |
| • undervoltage release | No      |
| • voltage trigger      | No      |
| • trip indicator       | No      |
| height [in]            | 9.76 in |
| height                 | 248 mm  |
| width [in]             | 5.43 in |
| width                  | 138 mm  |
| depth [in]             | 4.33 in |
| depth                  | 110 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

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



[Confirmation](#)



#### General Product Approval

EMV

Marine / Shipping



[Miscellaneous](#)



#### Marine / Shipping

other



[Miscellaneous](#)

[Confirmation](#)

[Miscellaneous](#)

#### Dangerous goods

Environment



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?mifb=3VA6340-8JQ31-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6340-8JQ31-0AA0>

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

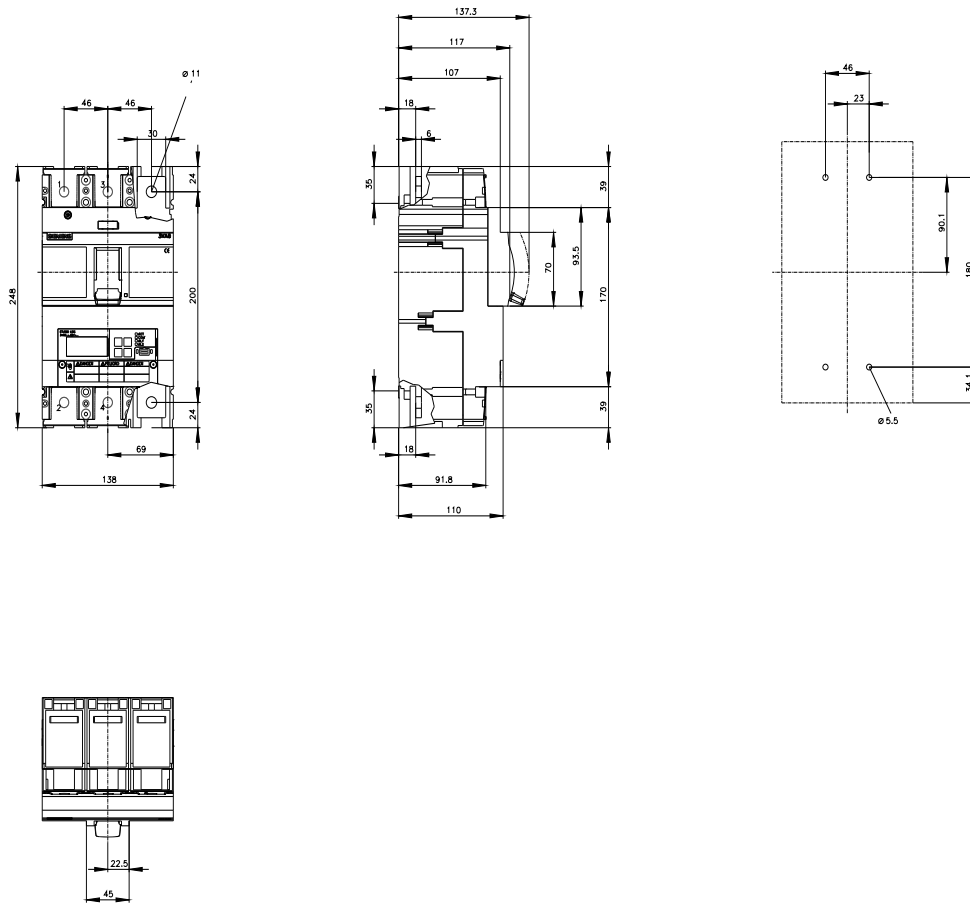
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mifb=3VA6340-8JQ31-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mifb=3VA6340-8JQ31-0AA0)

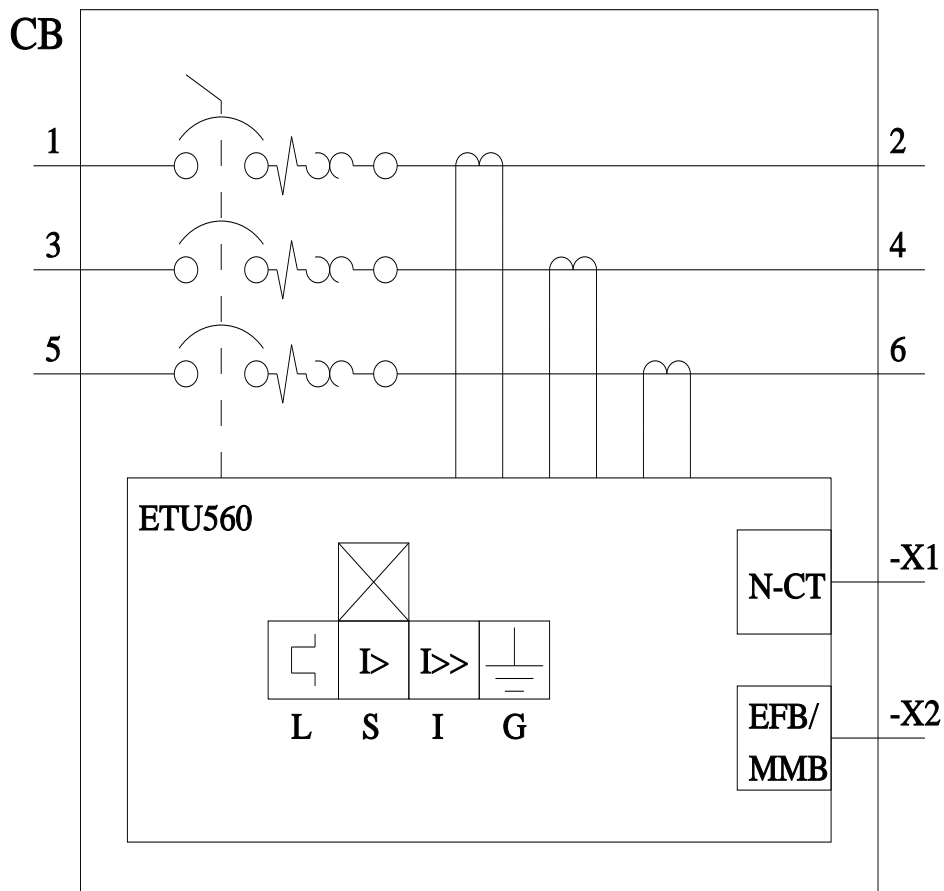
CAX-Online-Generator

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

Tender specifications

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





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