

circuit breaker 3VA6 UL frame 800 breaking capacity class C 100kA @ 480 V 4-pole, line protection ETU856, LSI,  $I_n=800A$  overload protection  $I_r=320A \dots 800A$  short circuit protection  $I_{sd}=0,6..10x I_n$ ,  $I_i=1,5..10x I_n$



| Model   |                             |
|---|-----------------------------|
| Product brand name  | SENTRON                     |
| Product designation   | Molded-case circuit breaker |
| Product designation / according to UL file  | CMAE                        |
| Product version   | System protection           |
| Design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) | Yes                         |
| Design of the overcurrent release   | ETU856                      |
| Protective function of the overcurrent release  | LSI                         |
| Number of poles   | 4                           |
| General technical data  |                             |
| Rated insulation voltage $U_i$  | 600 V                       |
| Max. rated operational voltage $U_e$ with AC 50/60Hz  | 600 V                       |
| Power loss [W] / maximum  | 231 W                       |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole                        | 77 W                        |
| Mechanical service life (switching cycles) / typical  | 10 000                      |

|   |         |
|---|---------|
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz | 5 800   |
| Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz     | 4 000   |
| Electrical endurance (switching cycles) / at 480 V / at 50/60 Hz          | 5 800   |
| Electrical endurance (switching cycles) / at 600 V / at 50/60 Hz          | 4 000   |
| Neutral conductors / upgradeable/retrofitable                             | No      |
| Ground fault monitoring version   | Without |
| Product function  |         |
| • communication function  | Yes     |
| • other measurement function  | Yes     |

### Current

|  |       |
|--|-------|
| Marking / acc. to UL 489 / 100%-rated breaker    | Yes   |
| Max. rated operational current of the frame size | 800 A |
| Rated continuous current I <sub>u</sub>          | 800 A |

### Switching capacity according to IEC 60947

|  |        |
|--|--------|
| Switching capacity class of the circuit breaker                        | C      |
| Maximum short-circuit current breaking capacity (I <sub>cu</sub> )     |        |
| • at 240 V   | 200 kA |
| • at 415 V   | 110 kA |
| • at 690 V   | 35 kA  |
| Operational short-circuit current breaking capacity (I <sub>cs</sub> ) |        |
| • at 240 V   | 150 kA |
| • at 415 V   | 85 kA  |
| • at 690 V   | 19 kA  |
| Short-circuit current making capacity (I <sub>cm</sub> )               |        |
| • at 240 V   | 440 kA |
| • at 415 V   | 242 kA |
| • at 690 V   | 74 kA  |

### Switching capacity according to UL 489

|                           |        |
|---------------------------|--------|
| Breaking capacity current |        |
| • at 240 V                | 200 kA |
| • at 480 V                | 100 kA |
| • at 600 V                | 50 kA  |

### Adjustable parameters

|   |       |
|---|-------|
| Adjustable response value current / I <sub>r</sub> min. | 320 A |
| Adjustable response value current / I <sub>r</sub> max. | 800 A |
| Adjustable response value time / t <sub>r</sub> min.    | 0.5   |
| Adjustable response value time / t <sub>r</sub> max.    | 25    |

|  |         |
|--|---------|
| Adjustable response value current / Isd min.               | 480 A   |
| Adjustable response value current / Isd max.               | 8 000 A |
| Adjustable response value time / tsd min.                  | 0.05 s  |
| Adjustable response value time / tsd max.                  | 0.5 s   |
| Adjustable response value time / tsd min.                  | 0.05 s  |
| Adjustable response value time / tsd max.                  | 0.5 s   |
| Adjustable response value current / li min.                | 1 200 A |
| Adjustable response value current / li max.                | 8 000 A |
| Ground fault protection can be switched ON/OFF             | Yes     |
| Ground fault protection / tripping switchable / I2t=ON/OFF | No      |
| Adjustable response value current / Ig min.                | 160 A   |
| Adjustable response value current / Ig max.                | 800 A   |
| Adjustable response value current / tg min.                | 0.05 s  |
| Adjustable response value current / tg max.                | 0.8 s   |

### Mechanical Design

|             |         |
|-------------|---------|
| Height [in] | 12.6 in |
| Height      | 328 mm  |
| Width [in]  | 11 in   |
| Width       | 280 mm  |
| Depth [in]  | 4.7 in  |
| Depth       | 120 mm  |

### Auxiliary circuit

|  |   |
|--|---|
| Number of CO contacts / for auxiliary contacts | 0 |
|--|---|

### Environmental conditions

|  |  |
|--|--|
| Protection class IP / on the front   | IP40   |
| Ambient temperature  |  |
| <ul style="list-style-type: none"> <li>• during operation / minimum</li> <li>• during operation / maximum</li> <li>• during storage / minimum</li> <li>• during storage / maximum</li> </ul> | <ul style="list-style-type: none"> <li>-25 °C</li> <li>70 °C</li> <li>-40 °C</li> <li>80 °C</li> </ul> |

### Certificates

|  |     |
|--|-----|
| Reference code / acc. to DIN EN 81346-2  | Q   |
| Certificate of suitability / as approval for NAVAL (no combat vessels) / Supplement SB | Yes |

### General Product Approval

[Miscellaneous](#)

## Further information

### 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?mfb=3VA6580-7KT42-2AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6580-7KT42-2AA0>

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

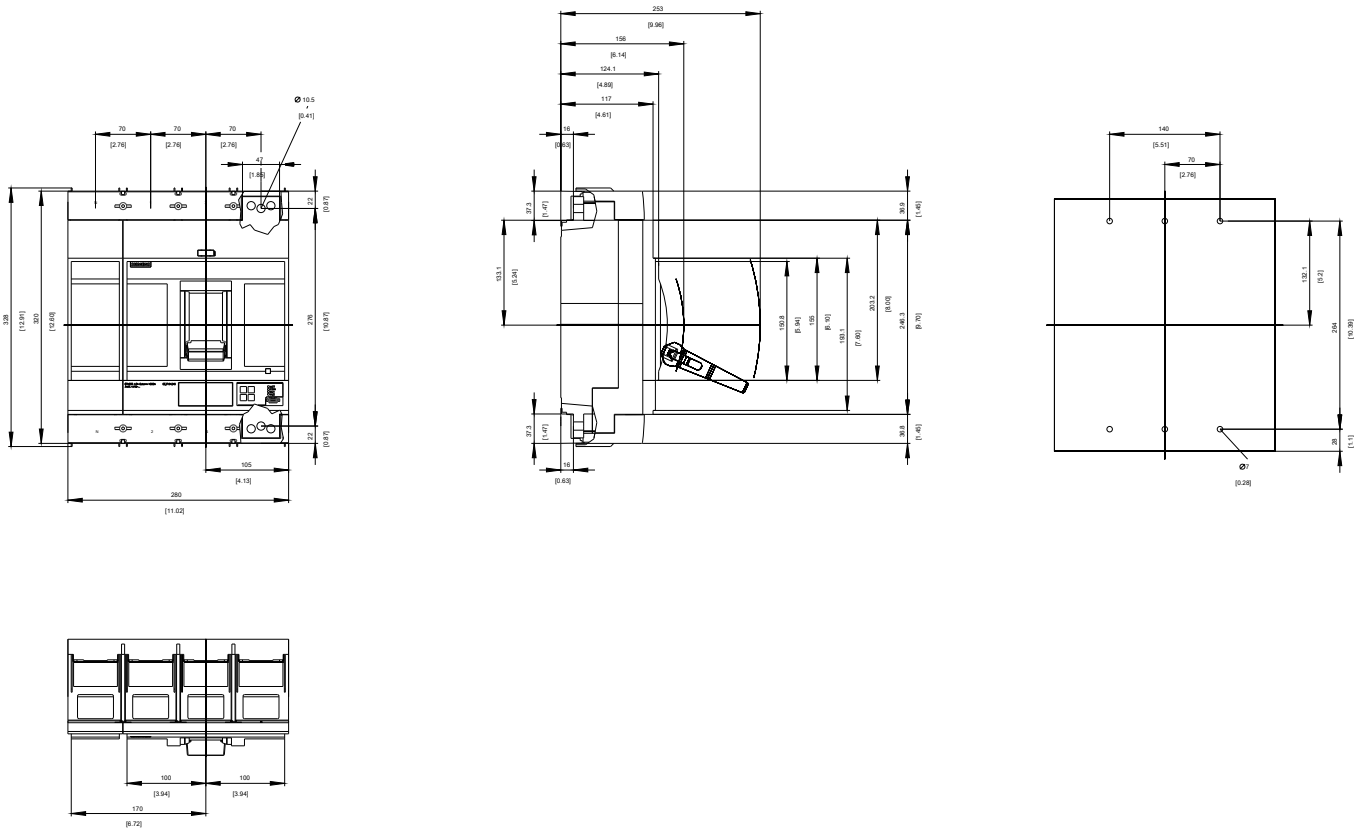
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA6580-7KT42-2AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA6580-7KT42-2AA0)

### CAX-Online-Generator

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

### Tender specifications

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



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