



circuit breaker 3VA5 UL frame 2000 breaking capacity class C 100kA @ 480 V 3-pole, line protection TM230, FTAM,  $I_n=1800A$  overload protection  $I_r=1800A$  fixed short circuit protection  $I_i=5 - 6,7 \times I_n$  UL489 SB (NAVAL), 50 deg. CEL. w/o connection

| Model                                                                                                                      |                             |
|----------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| product brand name                                                                                                         | SENTRON                     |
| product designation                                                                                                        | Molded-case circuit breaker |
| product designation / according to UL file                                                                                 | CRAM                        |
| 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                                                                                          | TM230                       |
| protection function of the overcurrent release                                                                             | LI                          |
| number of poles                                                                                                            | 3                           |
| General technical data                                                                                                     |                             |
| insulation voltage / rated value                                                                                           | 800 V                       |
| operating voltage / at DC / rated value                                                                                    | 750 V                       |
| operating voltage / at AC / rated value                                                                                    | 600 V                       |
| power loss [W] / maximum                                                                                                   | 531 W                       |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 531 W                       |
| mechanical service life (operating cycles) / typical                                                                       | 3 000                       |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V                                                           | 500                         |
| electrical endurance (operating cycles) / at AC-1 / at 690 V                                                               | 500                         |
| electrical endurance (operating cycles) / at 480 V                                                                         | 500                         |
| electrical endurance (operating cycles) / at 600 V                                                                         | 500                         |
| product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof                      | No                          |
| product function                                                                                                           |                             |
| • communication function                                                                                                   | No                          |
| • phase failure detection                                                                                                  | No                          |
| • other measurement function                                                                                               | No                          |
| Net Weight                                                                                                                 | 3.133 kg                    |
| Current                                                                                                                    |                             |
| marking / according to UL 489 / 100%-rated breaker                                                                         | No                          |
| operational current                                                                                                        |                             |
| • at 40 °C                                                                                                                 | 1 800 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                                                                                                                 | 200 kA                      |
| • at 415 V                                                                                                                 | 110 kA                      |
| • at 690 V                                                                                                                 | 35 kA                       |
| operating short-circuit current breaking capacity (Ics)                                                                    |                             |

|                                                                                                                                                                                              |                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 690 V</li> </ul>                                                                                         | 100 kA            |
| short-circuit current making capacity (I <sub>cm</sub> )                                                                                                                                     | 55 kA             |
| <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 690 V</li> </ul>                                                                                         | 17 kA             |
| design of short-circuit protection                                                                                                                                                           | 440 kA            |
|                                                                                                                                                                                              | 242 kA            |
|                                                                                                                                                                                              | 77 kA             |
| Switching capacity according to UL 489                                                                                                                                                       |                   |
| current breaking capacity                                                                                                                                                                    |                   |
| <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 480 V</li> <li>• at 600 Y/347 V</li> <li>• at 600 V</li> </ul>                                                               | 200 kA            |
|                                                                                                                                                                                              | 100 kA            |
|                                                                                                                                                                                              | 65 kA             |
|                                                                                                                                                                                              | 65 kA             |
| Adjustable parameters                                                                                                                                                                        |                   |
| 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>                                                                                                               | 1 800 A           |
|                                                                                                                                                                                              | 1 800 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>                                                                                                               | 1 s               |
|                                                                                                                                                                                              | 1 s               |
| adjustable response value setting current (I <sub>i</sub> ) / for I-tripping                                                                                                                 |                   |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                                                                                               | 5 000 A           |
|                                                                                                                                                                                              | 10 000 A          |
| product function / grounding protection                                                                                                                                                      | No                |
| Mechanical Design                                                                                                                                                                            |                   |
| product component                                                                                                                                                                            |                   |
| <ul style="list-style-type: none"> <li>• undervoltage release</li> <li>• trip indicator</li> </ul>                                                                                           | No                |
|                                                                                                                                                                                              | No                |
| height [in]                                                                                                                                                                                  | 8.14 in           |
| height                                                                                                                                                                                       | 207 mm            |
| width [in]                                                                                                                                                                                   | 8.99 in           |
| width                                                                                                                                                                                        | 228.4 mm          |
| depth [in]                                                                                                                                                                                   | 16 in             |
| depth                                                                                                                                                                                        | 406.4 mm          |
| Connections                                                                                                                                                                                  |                   |
| type of electrical connection / for main current circuit                                                                                                                                     | without terminals |
| design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)                                                                                                           | silver            |
| design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)                                                                                                        | silver            |
| 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> | -25 °C            |
|                                                                                                                                                                                              | 70 °C             |
|                                                                                                                                                                                              | -40 °C            |
|                                                                                                                                                                                              | 80 °C             |
| reference code / according to IEC 81346-2                                                                                                                                                    | F                 |
| Approvals / Certificates                                                                                                                                                                     |                   |
| General Product Approval                                                                                                                                                                     | EMV               |

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[Miscellaneous](#)



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Environment

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firmations](#)

#### 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=3VA5918-7EC31-1AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5918-7EC31-1AA0>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5918-7EC31-1AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5918-7EC31-1AA0)

##### CAX-Online-Generator

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

##### Tender specifications

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





