



circuit breaker 3VA5 UL Frame 250 breaking capacity class H 65 kA @ 480 V 3-pole, line protection TM230, FTAM,  $I_n=250$  A overload protection  $I_r=250$  A permanently set short-circuit protection  $I_i=5...10 \times I_n$  cable connection on two sides

| Model                                                                                                                      |                             |
|----------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| product brand name                                                                                                         | SENTRON                     |
| product designation                                                                                                        | Molded-case circuit breaker |
| product designation / according to UL file                                                                                 | HFAS                        |
| 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 load switch / according to UL 489 / High-Intensity-Discharge circuit breaker (HID Type)                      | No                          |
| design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)                                | No                          |
| 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                                                                                    | 690 V                       |
| power loss [W] / maximum                                                                                                   | 58 W                        |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 19.33 W                     |
| mechanical service life (operating cycles) / typical                                                                       | 20 000                      |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V                                                           | 8 000                       |
| electrical endurance (operating cycles) / at AC-1 / at 690 V                                                               | 4 000                       |
| electrical endurance (operating cycles) / at 480 V                                                                         | 8 000                       |
| electrical endurance (operating cycles) / at 600 V                                                                         | 4 000                       |
| product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof                      | No                          |
| product function                                                                                                           |                             |
| • communication function                                                                                                   | No                          |
| • other measurement function                                                                                               | No                          |
| Net Weight                                                                                                                 | 2.256 kg                    |
| Current                                                                                                                    |                             |
| marking / according to UL 489 / 100%-rated breaker                                                                         | No                          |
| operational current                                                                                                        |                             |
| • at 40 °C                                                                                                                 | 250 A                       |
| • at 45 °C                                                                                                                 | 244 A                       |
| • at 50 °C                                                                                                                 | 239 A                       |
| • at 55 °C                                                                                                                 | 233 A                       |
| • at 60 °C                                                                                                                 | 227 A                       |
| • at 65 °C                                                                                                                 | 222 A                       |
| • at 70 °C                                                                                                                 | 216 A                       |

**Switching capacity according to IEC 60947**

|                                                                                                                                                                       |                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| switching capacity class of the circuit breaker                                                                                                                       | H                                                                                                                                                              |
| 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>   | 100 kA<br>70 kA<br>10 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> | 100 kA<br>70 kA<br>10 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>             | 220 kA<br>154 kA<br>17 kA                                                                                                                                      |
| design of short-circuit protection                                                                                                                                    | For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter |

**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 V</li></ul> | 100 kA<br>65 kA<br>25 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> | 250 A<br>250 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<br>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>                                      | 1 250 A<br>2 500 A |
| adjustable setting current (I <sub>nN</sub> ) / for N-tripping <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul>                                                    | 0 A<br>0 A         |
| product function / grounding protection                                                                                                                                                       | No                 |

**Mechanical Design**

|                                                                                                                                             |                         |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| product component <ul style="list-style-type: none"><li>• undervoltage release</li><li>• voltage trigger</li><li>• trip indicator</li></ul> | No<br>No<br>No          |
| height [in]                                                                                                                                 | 7.28 in                 |
| height                                                                                                                                      | 185 mm                  |
| width [in]                                                                                                                                  | 4.13 in                 |
| type of connectable conductor cross-sections / of the round conductor terminal / stranded                                                   | 1 x (6 AWG - 350 kcmil) |
| width                                                                                                                                       | 105 mm                  |
| depth [in]                                                                                                                                  | 3.27 in                 |
| depth                                                                                                                                       | 83 mm                   |

**Connections**

|                                                                 |                                           |
|-----------------------------------------------------------------|-------------------------------------------|
| arrangement of electrical connectors / for main current circuit | Front connection                          |
| type of electrical connection / for main current circuit        | circular conductor terminal on both sides |

**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 <ul style="list-style-type: none"><li>• during operation / minimum</li></ul> | -25 °C |

- during operation / maximum
- during storage / minimum
- during storage / maximum

70 °C  
-40 °C  
80 °C

reference code / according to IEC 81346-2

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## Approvals / Certificates

### General Product Approval



[Miscellaneous](#)

### General Product Approval

### EMV

### Maritime application

### other



[Confirmation](#)

[Miscellaneous](#)

## Environment

[Environmental Con-  
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,...)

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

### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA5225-6EC36-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5225-6EC36-0AA0>

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

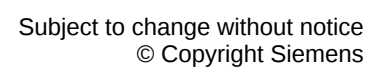
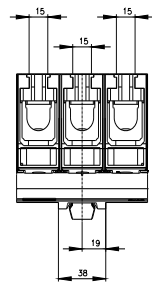
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5225-6EC36-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5225-6EC36-0AA0)

### CAX-Online-Generator

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

### Tender specifications

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



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