

CIRCUIT BREAKER 3VA5 UL FRAME 125 BREAKING CAPACITY CLASS H 65KA @ 480 V 3-POLE, LINE PROTECTION TM230, FTAM, IN=20A OVERLOAD PROTECTION IR=20A FIXED SHORT CIRCUIT PROTECTION II=5...10 X IN W/O CONNECTION



| Model                                                                                                                |         |
|----------------------------------------------------------------------------------------------------------------------|---------|
| product brandname                                                                                                    | SENTRON |
| Type of load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) | Yes     |
| Number of poles                                                                                                      | 3       |
| General technical data                                                                                               |         |
| Tension assignée d'isolement Ui                                                                                      | 800 V   |
| Max. rated operational voltage Ue with AC 50/60Hz                                                                    | 690 V   |
| Max. rated operational voltage Ue with DC                                                                            | 500 V   |
| Active power loss / for rated value of the current / at AC / in hot operating state / per device                     | 12.3 W  |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole                       | 4.1 W   |
| Mechanical service life (switching cycles) / typical                                                                 | 15 000  |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz                                            | 8 000   |
| Electrical lifetime (switching cycles) / at 480 V / at 50/60 Hz                                                      | 8 000   |

|                                                                 |       |
|-----------------------------------------------------------------|-------|
| Electrical lifetime (switching cycles) / at 600 V / at 50/60 Hz | 4 000 |
| Neutral conductors / upgradeable/retrofitable                   | No    |
| Product function                                                |       |
| • communication function                                        | No    |
| • other measurement function                                    | No    |

#### Electricity

|                                                                   |       |
|-------------------------------------------------------------------|-------|
| Marking / according to UL 489 / 100%-rated breaker                | No    |
| Max. rated operational voltage of the size of the circuit-breaker | 125 A |
| Courant permanent assigné lu                                      | 20 A  |
| Operating current                                                 |       |
| • at 40 °C                                                        | 20 A  |
| • at 45 °C                                                        | 20 A  |
| • at 50 °C                                                        | 19 A  |
| • at 55 °C                                                        | 19 A  |
| • at 60 °C                                                        | 19 A  |
| • at 65 °C                                                        | 19 A  |
| • at 70 °C                                                        | 18 A  |

#### Switching capacity according to IEC 60947

|                                                           |        |
|-----------------------------------------------------------|--------|
| Maximum short-circuit current breaking capacity (Icu)     |        |
| • at 240 V                                                | 150 kA |
| • at 415 V                                                | 70 kA  |
| • at 690 V                                                | 10 kA  |
| Operational short-circuit current breaking capacity (Ics) |        |
| • at 240 V                                                | 100 kA |
| • at 415 V                                                | 70 kA  |
| • at 690 V                                                | 5 kA   |
| Short-circuit current making capacity (Icm)               |        |
| • at 240 V                                                | 330 kA |
| • at 415 V                                                | 154 kA |
| • at 690 V                                                | 17 kA  |

#### Switching capacity according to UL 489

|                           |        |
|---------------------------|--------|
| Breaking capacity current |        |
| • at 240 V                | 100 kA |
| • at 480 Y/277 V          | 65 kA  |
| • at 600 Y/347 V          | 25 kA  |

#### Adjustable parameters

|                                             |      |
|---------------------------------------------|------|
| Adjustable response value current / Ig min. | 20 A |
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|                                                            |       |
|------------------------------------------------------------|-------|
| Adjustable response value current / li min.                | 150 A |
| Adjustable response value current / li max.                | 300 A |
| Ground fault protection / tripping switchable / I2t=ON/OFF | No    |

#### Mechanical Design

|             |         |
|-------------|---------|
| Height [in] | 5.5 in  |
| Height      | 140 mm  |
| Width [in]  | 3 in    |
| Width       | 76.2 mm |
| Depth [in]  | 3 in    |
| Depth       | 76.5 mm |

#### 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  |

#### Certificates

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

| General Product Approval | EMC | Declaration of Conformity | other |
|--------------------------|-----|---------------------------|-------|
|--------------------------|-----|---------------------------|-------|



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#### Further information

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

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

**Industry Mall (Online ordering system)**

<https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA5120-6EC31-0AA0>

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

<http://support.automation.siemens.com/WW/view/en/3VA5120-6EC31-0AA0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5120-6EC31-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5120-6EC31-0AA0)

