

**Siemens**  
**EcoTech**



circuit breaker 3VA2 IEC Frame 100 breaking capacity class M Icu=55 kA @ 415 V  
3-pole, line protection ETU330, LIG, In=40 A overload protection Ir=16 A...40 A  
short-circuit protection Ii=1.5...12 x In ground-fault protection Ig=0.4... 1 x In,  
tg=0.1/0.3s nut keeper kit



| Model                                                                                                 |                                         |
|-------------------------------------------------------------------------------------------------------|-----------------------------------------|
| product brand name                                                                                    | SENTRON                                 |
| product designation                                                                                   | Molded case circuit breaker             |
| design of the product                                                                                 | Line protection                         |
| design of the overcurrent release                                                                     | ETU330                                  |
| protection function of the overcurrent release                                                        | LIG                                     |
| 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                                                                              | 2.2 W                                   |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole           | 0.73 W                                  |
| mechanical service life (operating cycles) / typical                                                  | 25 000                                  |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V                                      | 15 000                                  |
| electrical endurance (operating cycles) / at AC-1 / at 690 V                                          | 10 500                                  |
| product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof | No                                      |
| ground-fault monitoring version                                                                       | Summation current formation L-conductor |
| product function                                                                                      |                                         |
| • communication function                                                                              | No                                      |
| • other measurement function                                                                          | No                                      |
| Net Weight                                                                                            | 2.133 kg                                |
| Current                                                                                               |                                         |
| operational current                                                                                   |                                         |
| • at 40 °C                                                                                            | 40 A                                    |
| • at 45 °C                                                                                            | 40 A                                    |
| • at 50 °C                                                                                            | 40 A                                    |
| • at 55 °C                                                                                            | 40 A                                    |
| • at 60 °C                                                                                            | 40 A                                    |
| • at 65 °C                                                                                            | 40 A                                    |
| • at 70 °C                                                                                            | 40 A                                    |
| Switching capacity according to IEC 60947                                                             |                                         |
| switching capacity class of the circuit breaker                                                       | M                                       |
| maximum short-circuit current breaking capacity (Icu)                                                 |                                         |
| • at 240 V                                                                                            | 85 kA                                   |
| • at 415 V                                                                                            | 55 kA                                   |
| • at 440 V                                                                                            | 55 kA                                   |

|                                                                                                                                                                                                      |                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <ul style="list-style-type: none"> <li>• at 500 V</li> <li>• at 690 V</li> </ul>                                                                                                                     | 36 kA<br>2 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 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul> | 85 kA<br>55 kA<br>55 kA<br>36 kA<br>2 kA      |
| short-circuit current making capacity (Icm) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>             | 187 kA<br>121 kA<br>121 kA<br>75.6 kA<br>3 kA |

#### Adjustable parameters

|                                                                                                                                                                                         |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| product feature / for L-tripping / can be switched on/off                                                                                                                               | No             |
| adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                 | 16 A<br>40 A   |
| adjustable response value delay time (tr) / for L-tripping / with I2t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                     | 0.5 s<br>17 s  |
| adjustable response value setting current (Ii) / for I-tripping <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                          | 60 A<br>480 A  |
| adjustable current response value current / for G-tripping / with standard characteristic <ul style="list-style-type: none"> <li>• initial value</li> <li>• full-scale value</li> </ul> | 16 A<br>40 A   |
| adjustable response value delay time (tg) / for G-tripping / with I0t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                     | 0.1 s<br>0.3 s |
| product function / grounding protection                                                                                                                                                 | Yes            |

#### 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]                                                                                                                                     | 7.13 in        |
| height                                                                                                                                          | 181 mm         |
| width [in]                                                                                                                                      | 4.13 in        |
| width                                                                                                                                           | 105 mm         |
| depth [in]                                                                                                                                      | 3.39 in        |
| depth                                                                                                                                           | 86 mm          |

#### Connections

|                                                                                           |                              |
|-------------------------------------------------------------------------------------------|------------------------------|
| arrangement of electrical connectors / for main current circuit                           | Front terminal               |
| type of electrical connection / for main current circuit                                  | on both sides nut keeper kit |
| type of connectable conductor cross-sections / for flat-bar terminal connection / minimum | 13 x 1 mm                    |
| type of connectable conductor cross-sections / for flat-bar terminal connection / maximum | 25 x 8 mm                    |
| design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)        | tin                          |
| design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)     | tin                          |

#### 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                | 61.814 kg       |
| global warming potential [CO2 eq] / during manufacturing | 14.6 kg         |
| global warming potential [CO2 eq] / during operation     | 48.9 kg         |
| global warming potential [CO2 eq] / after end of life    | -2.2 kg         |
| Siemens Eco Profile (SEP)                                | Siemens EcoTech |
| reference code / according to IEC 81346-2                | Q               |

#### Approvals / Certificates

##### General Product Approval



[Confirmation](#)



[Miscellaneous](#)

| General Product Approval | EMV | Test Certificates | Marine / Shipping |
|--------------------------|-----|-------------------|-------------------|
|--------------------------|-----|-------------------|-------------------|



[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Special Test Certificate](#)



| Marine / Shipping | other |
|-------------------|-------|
|-------------------|-------|



[CCS \(China Classification Society\)](#)

[Confirmation](#)

[Miscellaneous](#)

| other | Dangerous goods | Environment |
|-------|-----------------|-------------|
|-------|-----------------|-------------|

[Miscellaneous](#)

[Transport Information](#)



Siemens EcoTech



[Environmental Confirmations](#)

[Environmental Confirmations](#)

#### 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?mlfb=3VA2040-5HM32-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2040-5HM32-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2040-5HM32-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2040-5HM32-0AA0)

##### CAX-Online-Generator

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

##### Tender specifications

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





