



circuit breaker 3VA4 UL Frame 125 breaking capacity class M 35 kA @ 480 V 2-pole, line protection TM210, FTFM,  $I_n=20$  A overload protection  $I_r=20$  A permanently set short-circuit protection  $I_i=15 \times I_n$  terminal connection

| Model                                                                                                                      |                             |
|----------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| product brand name                                                                                                         | SENTRON                     |
| product designation                                                                                                        | Molded-case circuit breaker |
| product designation / according to UL file                                                                                 | MEAB                        |
| 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)                      | Yes                         |
| design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)                                | Yes                         |
| design of the overcurrent release                                                                                          | TM210                       |
| protection function of the overcurrent release                                                                             | LI                          |
| number of poles                                                                                                            | 2                           |
| General technical data                                                                                                     |                             |
| operating voltage / at AC / rated value                                                                                    | 480 V                       |
| power loss [W] / maximum                                                                                                   | 5.6 W                       |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 2.8 W                       |
| mechanical service life (operating cycles) / typical                                                                       | 15 000                      |
| electrical endurance (operating cycles) / at 480 V                                                                         | 8 000                       |
| electrical endurance (operating cycles) / at 600 V                                                                         | 4 000                       |
| product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof                     | No                          |
| ground-fault monitoring version                                                                                            | Without                     |
| product function                                                                                                           |                             |
| • communication function                                                                                                   | No                          |
| • other measurement function                                                                                               | No                          |
| Net Weight                                                                                                                 | 0.514 kg                    |
| Current                                                                                                                    |                             |
| marking / according to UL 489 / 100%-rated breaker                                                                         | No                          |
| operational current                                                                                                        |                             |
| • at 40 °C                                                                                                                 | 20 A                        |
| • at 45 °C                                                                                                                 | 20 A                        |
| • at 50 °C                                                                                                                 | 19 A                        |
| • at 55 °C                                                                                                                 | 19 A                        |
| • at 60 °C                                                                                                                 | 18 A                        |
| • at 65 °C                                                                                                                 | 18 A                        |
| • at 70 °C                                                                                                                 | 17 A                        |
| Switching capacity according to IEC 60947                                                                                  |                             |

|                                                 |                                                                                                                                                                |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| switching capacity class of the circuit breaker | M                                                                                                                                                              |
| 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 |       |
| • at 240 V                | 85 kA |
| • at 480 Y/277 V          | 35 kA |
| • at 480 V                | 35 kA |
| • at 600 Y/347 V          | 18 kA |

#### Adjustable parameters

|                                                                                      |     |
|--------------------------------------------------------------------------------------|-----|
| adjustable response value delay time (tr) / for L-tripping / with I2t characteristic |     |
| • minimum                                                                            | 1 s |
| • maximum                                                                            | 1 s |
| product function / grounding protection                                              | No  |

#### Mechanical Design

|                                                                                           |                      |
|-------------------------------------------------------------------------------------------|----------------------|
| product component                                                                         |                      |
| • undervoltage release                                                                    | No                   |
| • voltage trigger                                                                         | No                   |
| • trip indicator                                                                          | No                   |
| height [in]                                                                               | 5.09 in              |
| height                                                                                    | 129.4 mm             |
| width [in]                                                                                | 2 in                 |
| type of connectable conductor cross-sections / of the round conductor terminal / stranded | 1 x (14 AWG - 8 AWG) |
| width                                                                                     | 50.8 mm              |
| depth [in]                                                                                | 2.96 in              |
| depth                                                                                     | 75.1 mm              |

#### Connections

|                                                                                       |                                            |
|---------------------------------------------------------------------------------------|--------------------------------------------|
| arrangement of electrical connectors / for main current circuit                       | output side: circular conductor connection |
| type of electrical connection / for main current circuit                              | Infeed side: Low tab                       |
| 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 | No |
|--------------------------------------------|----|

#### 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  |

#### Approvals / Certificates

|                          |     |       |
|--------------------------|-----|-------|
| General Product Approval | EMV | other |
|--------------------------|-----|-------|



[Miscellaneous](#)



[Confirmation](#)

|       |             |
|-------|-------------|
| other | Environment |
|-------|-------------|

[Miscellaneous](#)

[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,...)

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

### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA4120-5ED24-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA4120-5ED24-0AA0>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA4120-5ED24-0AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA4120-5ED24-0AA0)

### CAX-Online-Generator

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

### Tender specifications

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





