



circuit breaker 3VA4 UL Frame 125 breaking capacity class S 25 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 | SEAB |
| 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 | 415 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 | S |
| 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 | 65 kA |
| • at 480 Y/277 V | 25 kA |
| • at 480 V | 25 kA |
| • at 600 Y/347 V | 14 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](#)



[Miscellaneous](#)

other

Environment

[Confirmation](#)

[Miscellaneous](#)

[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=3VA4120-4ED24-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA4120-4ED24-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA4120-4ED24-0AA0

CAX-Online-Generator

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

Tender specifications

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





