



circuit breaker 3VA5 UL Frame 250 breaking capacity class M 35 kA @ 480 V 3-pole, line protection TM210, FTFM,  $I_n=40$  A overload protection  $I_r=40$  A permanently set short-circuit protection  $I_i=10 \times I_n$  UL 489 SB (naval), 50 °C, without connection

| Model                                                                                                                      |                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| product brand name                                                                                                         | SETRON                                                                                                                                                         |
| product designation                                                                                                        | Molded-case circuit breaker                                                                                                                                    |
| product designation / according to UL file                                                                                 | MFAM                                                                                                                                                           |
| 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                                                                                          | TM210                                                                                                                                                          |
| protection function of the overcurrent release                                                                             | LI                                                                                                                                                             |
| number of poles                                                                                                            | 3                                                                                                                                                              |
| General technical data                                                                                                     |                                                                                                                                                                |
| operating voltage / at AC / rated value                                                                                    | 690 V                                                                                                                                                          |
| power loss [W] / maximum                                                                                                   | 20 W                                                                                                                                                           |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 6.8 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/retrofittable / short-circuit and overload proof                     | No                                                                                                                                                             |
| product function                                                                                                           |                                                                                                                                                                |
| • communication function                                                                                                   | No                                                                                                                                                             |
| • other measurement function                                                                                               | No                                                                                                                                                             |
| Net Weight                                                                                                                 | 2 kg                                                                                                                                                           |
| Current                                                                                                                    |                                                                                                                                                                |
| marking / according to UL 489 / 100%-rated breaker                                                                         | No                                                                                                                                                             |
| 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 V                                                                                                                 | 35 kA                                                                                                                                                          |
| • at 600 V                                                                                                                 | 18 kA                                                                                                                                                          |

| Adjustable parameters                                                                                             |       |
|-------------------------------------------------------------------------------------------------------------------|-------|
| adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2t</sub> characteristic |       |
| • minimum                                                                                                         | 40 A  |
| • maximum                                                                                                         | 40 A  |
| adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic     |       |
| • minimum                                                                                                         | 1 s   |
| • maximum                                                                                                         | 1 s   |
| adjustable response value setting current (I <sub>i</sub> ) / for I-tripping                                      |       |
| • minimum                                                                                                         | 400 A |
| • maximum                                                                                                         | 400 A |
| adjustable setting current (I <sub>nN</sub> ) / for N-tripping                                                    |       |
| • minimum                                                                                                         | 0 A   |
| • maximum                                                                                                         | 0 A   |
| product function / grounding protection                                                                           | No    |

| Mechanical Design      |         |
|------------------------|---------|
| product component      |         |
| • undervoltage release | No      |
| • voltage trigger      | No      |
| • trip indicator       | No      |
| height [in]            | 7.28 in |
| height                 | 185 mm  |
| width [in]             | 4.13 in |
| width                  | 105 mm  |
| depth [in]             | 3.27 in |
| depth                  | 83 mm   |

| Connections                                                     |                    |
|-----------------------------------------------------------------|--------------------|
| arrangement of electrical connectors / for main current circuit | Without connection |
| type of electrical connection / for main current circuit        | Without            |

| 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  |
| reference code / according to IEC 81346-2 | Q      |

| Approvals / Certificates |  |
|--------------------------|--|
| General Product Approval |  |



[Miscellaneous](#)

| General Product Approval | EMV | Maritime application | other | Environment |
|--------------------------|-----|----------------------|-------|-------------|
|--------------------------|-----|----------------------|-------|-------------|



[Confirmation](#)

[Miscellaneous](#)

[Environmental Confirmations](#)

| Further information |
|---------------------|
|---------------------|

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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





