



circuit breaker 3VA5 UL frame 125 breaking capacity class H 65kA @ 480V  
3-pole, line protection TM230, FTAM, In=90A overload protection Ir=90A  
fixed short-circuit protection li=5...10 x In UL 489 SB (naval), 50° C without  
connection

| Model   |                             |
|---|-----------------------------|
| product brand name  | SENTRON                     |
| product designation   | Molded-case circuit breaker |
| product designation / according to UL file  | HEAM                        |
| Product version   | System protection           |
| design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) | Yes                         |
| design of the overcurrent release   | TM230                       |
| protection function of the overcurrent release  | LI                          |
| number of poles   | 3                           |
| General technical data  |                             |
| power loss [W] / maximum  | 17.7 W                      |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole                        | 5.9 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 endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz   | 4 000                       |
| electrical endurance (switching cycles) / at 480 V  | 8 000                       |
| electrical endurance (switching cycles) / at 600 V  | 4 000                       |
| Neutral conductors / upgradeable/retrofitable   | No                          |
| ground-fault monitoring version   | Without                     |
| product function  |                             |
| • communication function  | No                          |
| • other measurement function  | No                          |
| Current   |                             |
| marking / acc. to UL 489 / 100%-rated breaker   | No                          |
| Max. rated operational current of the frame size  | 125 A                       |
| Courant permanent assigné lu  | 90 A                        |
| operational current   |                             |
| • at 40 °C  | 90 A                        |
| • at 45 °C  | 90 A                        |
| • at 50 °C  | 90 A                        |
| • at 55 °C  | 86.9 A                      |
| • at 60 °C  | 84.9 A                      |
| • at 65 °C  | 83 A                        |
| • at 70 °C  | 81.2 A                      |

| Switching capacity according to IEC 60947  |  |
|--|--|
| switching capacity class of the circuit breaker  | H  |
| 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   |  |
| breaking capacity current  |  |
| • at 240 V   | 100 kA   |
| • at 480 V   | 65 kA  |
| • at 600 Y/347 V   | 25 kA  |
| Adjustable parameters  |  |
| Adjustable response value current / I <sub>g</sub> min.                                | 90 A   |
| Adjustable response value current / I <sub>g</sub> min.                                | 90 A   |
| Adjustable response value current / I <sub>i</sub> min.                                | 450 A  |
| Adjustable response value current / I <sub>i</sub> max.                                | 900 A  |
| Ground fault protection / tripping switchable / I <sub>2t</sub> =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  |
| 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  |
| Certificates   |  |
| reference code / acc. to IEC 81346-2   | Q  |
| certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB | Yes  |

#### General Product Approval



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| General Product Approval | EMC | Declaration of Conformity | Test Certificates | Shipping Approval | other |
|--------------------------|-----|---------------------------|-------------------|-------------------|-------|
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