



circuit breaker 3VA6 UL frame 250 breaking capacity class M 35kA @ 480V 4-pole, line protection ETU830, LIG, In=250A overload protection Ir=100A...250A short-circuit protection Ii=1.5...10 x In ground-fault protection Ig=0.2...1 x In, tg=0.05-0.8s without connection

| Model                                                                                                                 |                                             |
|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| product brand name                                                                                                    | SENTRON                                     |
| product designation                                                                                                   | Molded-case circuit breaker                 |
| product designation / according to UL file                                                                            | MFAE-Y                                      |
| 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                                                                                     | ETU830                                      |
| protection function of the overcurrent release                                                                        | LIG                                         |
| number of poles                                                                                                       | 4                                           |
| General technical data                                                                                                |                                             |
| Tension assignée d'isolement Ui                                                                                       | 600 V                                       |
| power loss [W] / maximum                                                                                              | 42 W                                        |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole                        | 14 W                                        |
| mechanical service life (switching cycles) / typical                                                                  | 20 000                                      |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz                                             | 6 000                                       |
| Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz                                                 | 3 000                                       |
| electrical endurance (switching cycles) / at 480 V                                                                    | 6 000                                       |
| electrical endurance (switching cycles) / at 600 V                                                                    | 7 500                                       |
| Neutral conductors / upgradeable/retrofitable                                                                         | No                                          |
| ground-fault monitoring version                                                                                       | Summation current formation L + N-conductor |
| product function                                                                                                      |                                             |
| • communication function                                                                                              | Yes                                         |
| • other measurement function                                                                                          | Yes                                         |
| Current                                                                                                               |                                             |
| marking / acc. to UL 489 / 100%-rated breaker                                                                         | No                                          |
| operational current                                                                                                   |                                             |
| • at 55 °C                                                                                                            | 238 A                                       |
| • at 60 °C                                                                                                            | 225 A                                       |
| • at 65 °C                                                                                                            | 213 A                                       |
| • at 70 °C                                                                                                            | 200 A                                       |
| Switching capacity according to IEC 60947                                                                             |                                             |
| switching capacity class of the circuit breaker                                                                       | M                                           |
| breaking capacity maximum short-circuit current (Icu)                                                                 |                                             |
| • at 240 V                                                                                                            | 85 kA                                       |

|                                                                                                                                                                                                                  |                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| <ul style="list-style-type: none"> <li>• at 415 V</li> <li>• at 690 V</li> </ul>                                                                                                                                 | 55 kA<br>3 kA                      |
| breaking capacity operating short-circuit current (Ics) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 690 V</li> </ul>                                                     | 85 kA<br>55 kA<br>3 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 690 V</li> </ul>                                                                 | 187 kA<br>121 kA<br>4.5 kA         |
| <b>Switching capacity according to UL 489</b>                                                                                                                                                                    |                                    |
| breaking capacity current <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 480 V</li> <li>• at 600 Y/347 V</li> <li>• at 600 V</li> </ul>                                                         | 100 kA<br>35 kA<br>18 kA<br>18 kA  |
| <b>Adjustable parameters</b>                                                                                                                                                                                     |                                    |
| Adjustable response value current / I <sub>g</sub> min.                                                                                                                                                          | 100 A                              |
| Adjustable response value current / I <sub>g</sub> min.                                                                                                                                                          | 250 A                              |
| Adjustable response value current / I <sub>i</sub> min.                                                                                                                                                          | 375 A                              |
| Adjustable response value current / I <sub>i</sub> max.                                                                                                                                                          | 2 500 A                            |
| Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF                                                                                                                                          | Yes                                |
| Adjustable response value current / I <sub>g</sub> min.                                                                                                                                                          | 50 A                               |
| Adjustable response value current / I <sub>g</sub> max.                                                                                                                                                          | 250 A                              |
| Adjustable response value current / t <sub>g</sub> min.                                                                                                                                                          | 0.05 s                             |
| Adjustable response value current / I <sub>g</sub> min.                                                                                                                                                          | 0.8 s                              |
| <b>Mechanical Design</b>                                                                                                                                                                                         |                                    |
| height [in]                                                                                                                                                                                                      | 7.8 in                             |
| Height                                                                                                                                                                                                           | 198 mm                             |
| width [in]                                                                                                                                                                                                       | 5.5 in                             |
| Width                                                                                                                                                                                                            | 140 mm                             |
| depth [in]                                                                                                                                                                                                       | 3.4 in                             |
| depth                                                                                                                                                                                                            | 86 mm                              |
| <b>Connections</b>                                                                                                                                                                                               |                                    |
| arrangement of electrical connectors / for main current circuit                                                                                                                                                  | Without connection                 |
| type of electrical connection / for main current circuit                                                                                                                                                         | Without                            |
| <b>Auxiliary circuit</b>                                                                                                                                                                                         |                                    |
| number of CO contacts / for auxiliary contacts                                                                                                                                                                   | 0                                  |
| <b>Accessories</b>                                                                                                                                                                                               |                                    |
| product extension / optional / motor drive                                                                                                                                                                       | Yes                                |
| <b>Environmental conditions</b>                                                                                                                                                                                  |                                    |
| protection class IP / on the front                                                                                                                                                                               | IP40                               |
| ambient temperature <ul style="list-style-type: none"> <li>• during operation / minimum</li> <li>• during operation / maximum</li> <li>• during storage / minimum</li> <li>• during storage / maximum</li> </ul> | -25 °C<br>70 °C<br>-40 °C<br>80 °C |
| <b>Certificates</b>                                                                                                                                                                                              |                                    |
| reference code / acc. to IEC 81346-2                                                                                                                                                                             | Q                                  |
| certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB                                                                                                                           | Yes                                |
| <b>General Product Approval</b>                                                                                                                                                                                  |                                    |



General Product Approval

EMC

Declaration of  
Conformity

Shipping Approval

[Miscellaneous](#)



Shipping  
Approval

other



[Miscellaneous](#)

#### Further information

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=3VA6225-5KM41-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6225-5KM41-0AA0>

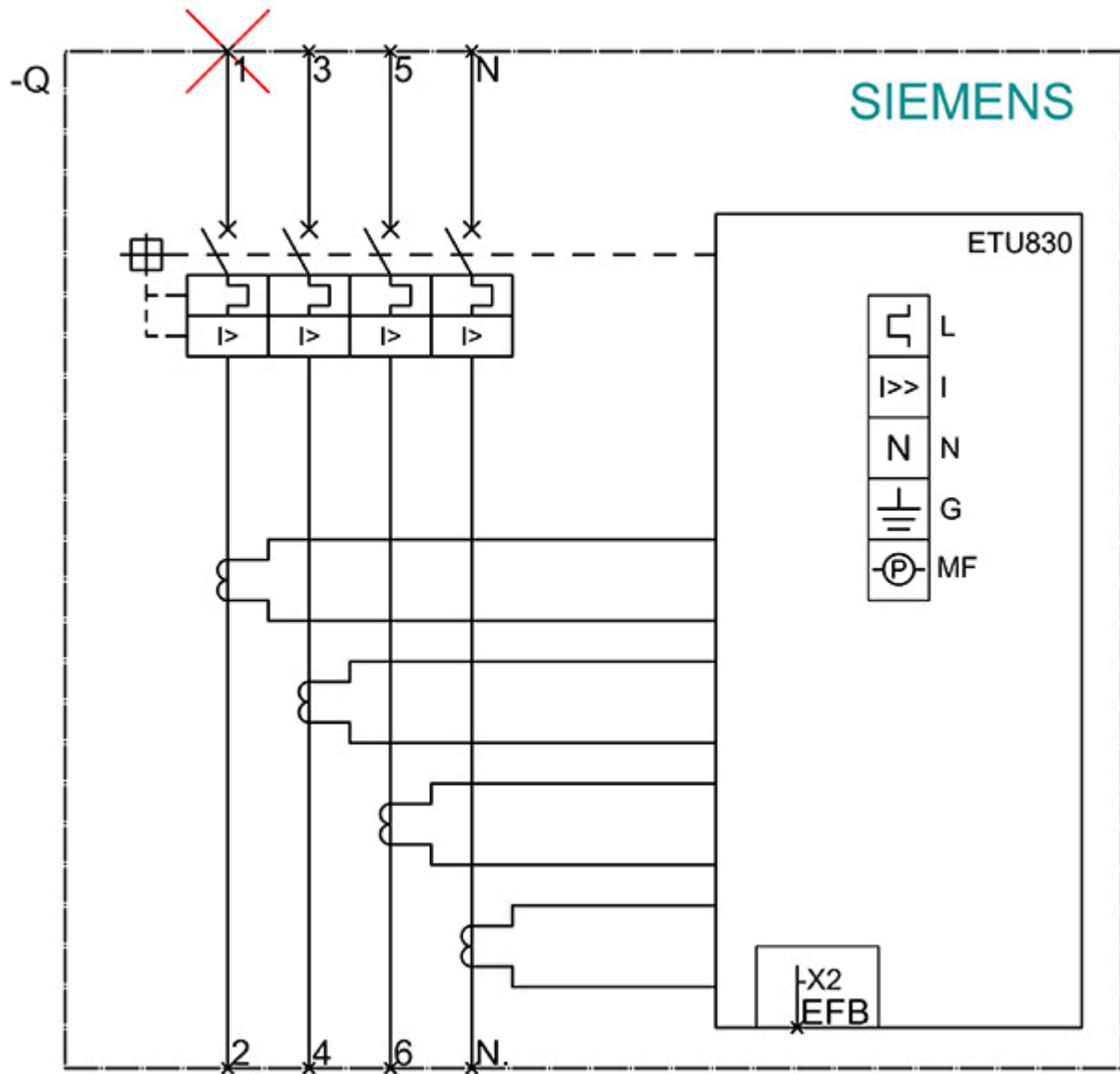
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

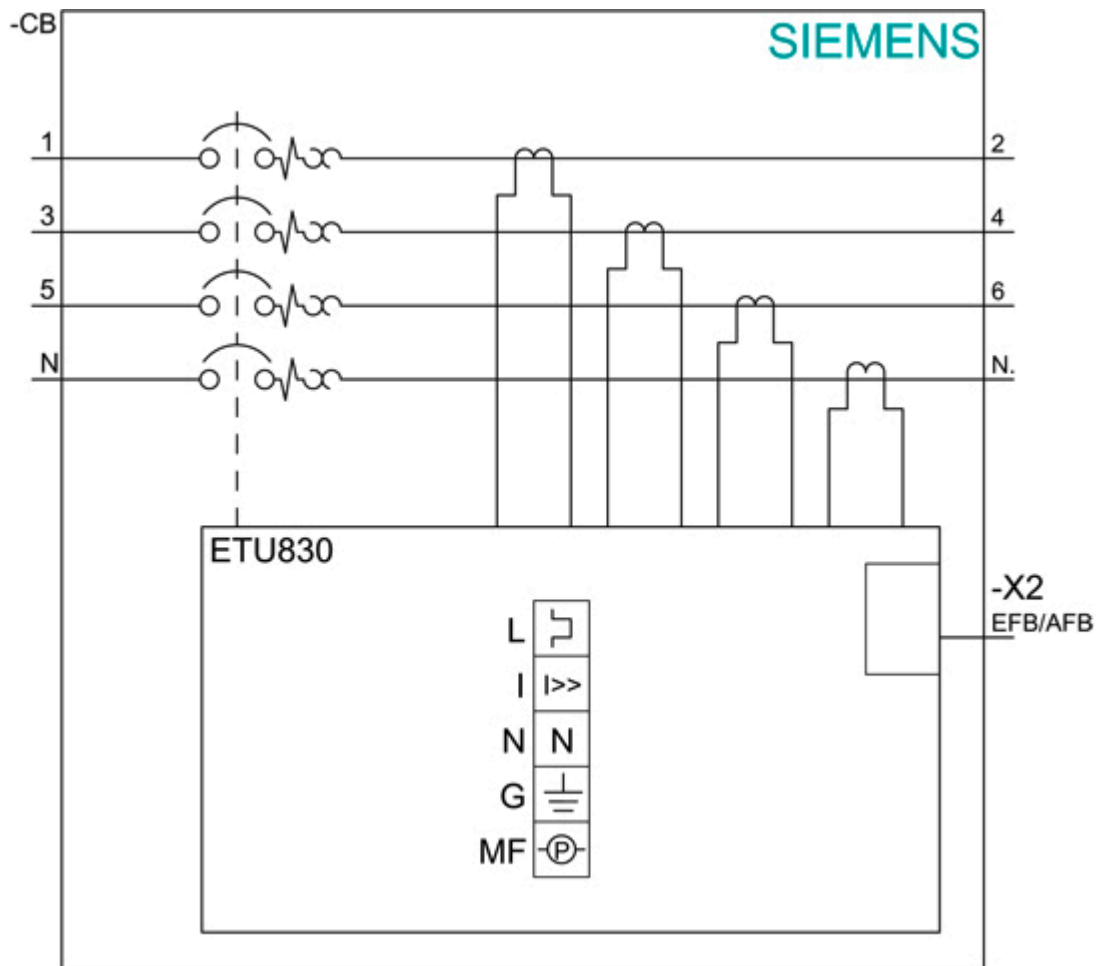
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6225-5KM41-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6225-5KM41-0AA0)

Tender specifications

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







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