

circuit breaker 3VA6 UL frame 250 breaking capacity class H 65kA @ 480V 4-pole, line protection ETU320, LI, $I_n=250A$ overload protection $I_r=100A...250A$ short-circuit protection $i_i=1.5...10 \times I_n$ N conductor protection adjustable (OFF, 50%, 100%) without connection



| Model | |
|---|-----------------------------|
| Product brand name | SENTRON |
| Product designation | Molded-case circuit breaker |
| Product designation / according to UL file | HFAE-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 | ETU320 |
| Protective function of the overcurrent release | LI |
| Number of poles | 4 |
| General technical data | |
| Rated insulation voltage U_i | 600 V |
| Max. rated operational voltage U_e with AC 50/60Hz | 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 / at 50/60 Hz | 6 000 |
| Electrical endurance (switching cycles) / at 600 V / at 50/60 Hz | 7 500 |
| 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 | 250 A |
| Rated continuous current I _u | 250 A |
| Operating current | |
| • at 40 °C | 250 A |
| • at 45 °C | 250 A |
| • at 50 °C | 250 A |
| • at 55 °C | 250 A |
| • at 60 °C | 250 A |
| • at 65 °C | 250 A |
| • at 70 °C | 250 A |

Switching capacity according to IEC 60947

| | |
|--|--------|
| Switching capacity class of the circuit breaker | H |
| Maximum short-circuit current breaking capacity (I _{cu}) | |
| • at 240 V | 110 kA |
| • at 415 V | 85 kA |
| • at 690 V | 3 kA |
| Operational short-circuit current breaking capacity (I _{cs}) | |
| • at 240 V | 110 kA |
| • at 415 V | 85 kA |
| • at 690 V | 3 kA |
| Short-circuit current making capacity (I _{cm}) | |
| • at 240 V | 242 kA |
| • at 415 V | 187 kA |
| • at 690 V | 4.5 kA |

Switching capacity according to UL 489

| | |
|---------------------------|--|
| Breaking capacity current | |
|---------------------------|--|

| | |
|------------------|--------|
| • at 240 V | 100 kA |
| • at 480 V | 65 kA |
| • at 600 Y/347 V | 22 kA |

Adjustable parameters

| | |
|---|---------|
| Adjustable response value current / I _r min. | 100 A |
| Adjustable response value current / I _r max. | 250 A |
| Adjustable response value time / t _r min. | 0.5 |
| Adjustable response value time / t _r max. | 13 |
| Adjustable response value current / I _i min. | 375 A |
| Adjustable response value current / I _i max. | 2 500 A |
| Ground fault protection / tripping switchable / I _{2t} =ON/OFF | No |

Mechanical Design

| | |
|-------------|--------|
| Height [in] | 7.8 in |
| Height | 198 mm |
| Width [in] | 5.5 in |
| Width | 140 mm |
| Depth [in] | 3.4 in |
| Depth | 86 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 DIN EN 81346-2 | Q |
| Certificate of suitability / as approval for NAVAL (no combat vessels) / Supplement SB | Yes |

General Product Approval



CCC



CSA



UL



UL



VDE

CB

CB

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



RCM



EG-Konf.



ABS



LRS

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=3VA6225-6HL41-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6225-6HL41-0AA0>

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

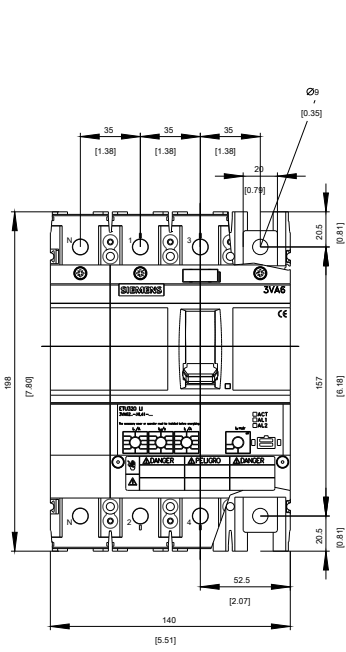
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6225-6HL41-0AA0

CAX-Online-Generator

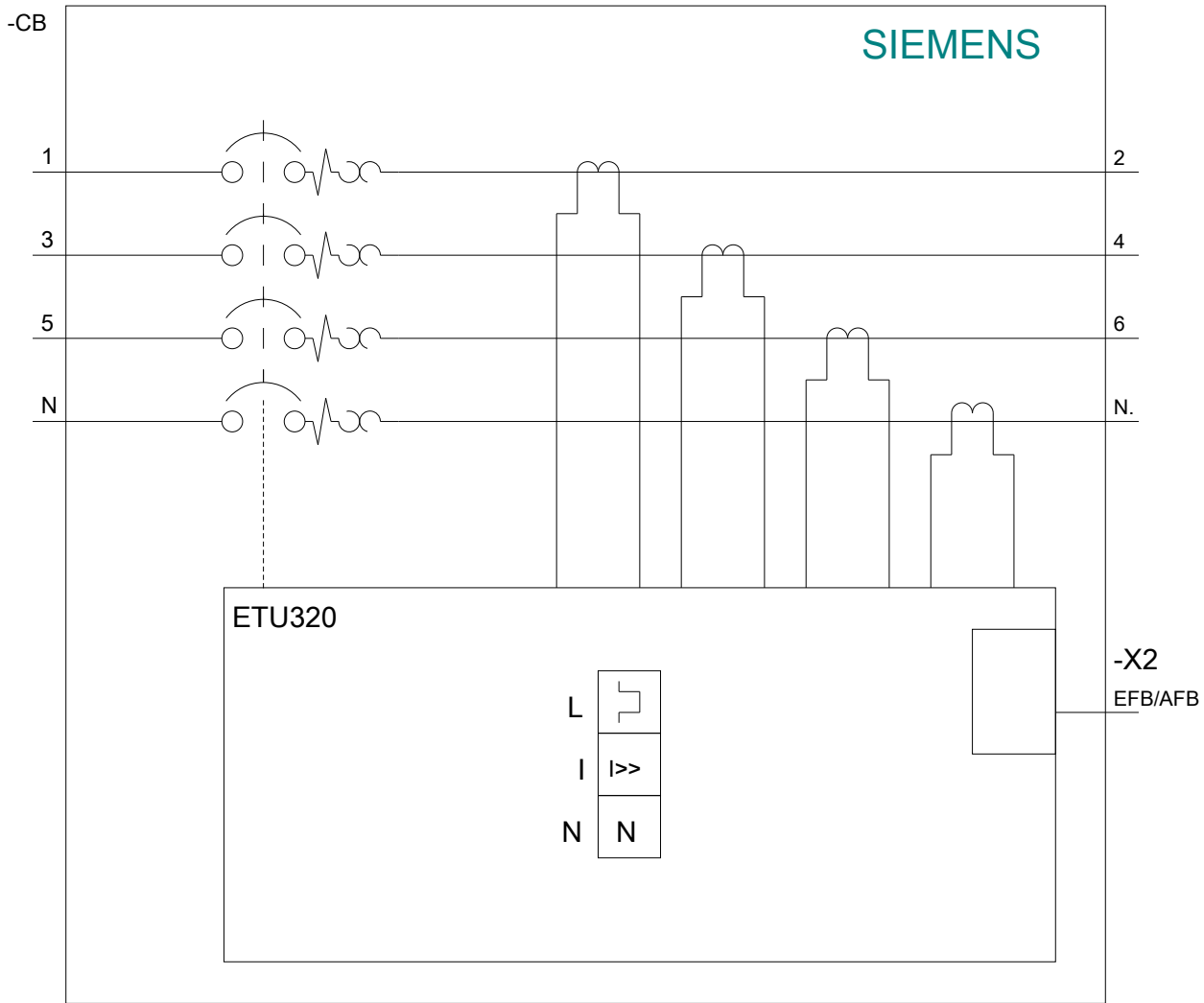
<http://www.siemens.com/cax>

Tender specifications

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







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