



circuit breaker 3VA2 IEC frame 630 breaking capacity class M
 $I_{cu}=55kA @ 415V$ 4-pole, line protection ETU860, LSIG, $I_n=500A$
 overload protection $I_r=200A...500A$ short-circuit protection
 $I_{sd}=0.6..10x I_n$, $I_i=1.5..14x I_n$ N conductor protection adjustable
 (OFF, up to 100%) gr.-fault prot., can be sw. off $I_g=0.2...1 x I_n$
 $t_g=0.05-0.8s$ nut keeper kit

| Model | |
|--|-----------------------------|
| Product brand name | SENTRON |
| Product designation | Molded case circuit breaker |
| Product version | Line protection |
| Design of the overcurrent release | ETU860 |
| Protective function of the overcurrent release | LSIG |
| Number of poles | 4 |
| General technical data | |
| Rated insulation voltage U_i | 800 V |
| Max. rated operational voltage U_e with AC 50/60Hz | 690 V |
| Power loss [W] / maximum | 99 W |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 33 W |
| Mechanical service life (switching cycles) / typical | 15 000 |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz | 4 000 |
| Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz | 4 000 |
| Neutral conductors / upgradeable/retrofitable | No |

| | |
|---------------------------------|---|
| Ground fault monitoring version | Summation current formation L + N conductor |
| Product function | |
| • communication function | Yes |
| • other measurement function | Yes |
| Net weight | 5.7 kg |

Current

| | |
|--|-------|
| Max. rated operational current of the frame size | 630 A |
| Rated continuous current I _u | 500 A |
| Short-time withstand current (I _{cw}) | |
| • at AC / limited to 0.5 s / rated value | 6 kA |
| • limited to 1 s | 6 kA |
| Operating current | |
| • at 40 °C | 500 A |
| • at 45 °C | 500 A |
| • at 50 °C | 500 A |
| • at 55 °C | 477 A |
| • at 60 °C | 455 A |
| • at 65 °C | 432 A |
| • at 70 °C | 410 A |

Switching capacity according to IEC 60947

| | |
|--|--------|
| Switching capacity class of the circuit breaker | M |
| Maximum short-circuit current breaking capacity (I _{cu}) | |
| • at 240 V | 85 kA |
| • at 415 V | 55 kA |
| • at 440 V | 55 kA |
| • at 500 V | 36 kA |
| • at 690 V | 6 kA |
| Operational short-circuit current breaking capacity (I _{cs}) | |
| • at 240 V | 85 kA |
| • at 415 V | 55 kA |
| • at 440 V | 55 kA |
| • at 500 V | 36 kA |
| • at 690 V | 6 kA |
| Short-circuit current making capacity (I _{cm}) | |
| • at 240 V | 187 kA |
| • at 415 V | 121 kA |
| • at 690 V | 9 kA |

Adjustable parameters

| | |
|---|-------|
| Adjustable response value current / I _r min. | 200 A |
| Adjustable response value current / I _r max. | 500 A |

| | |
|---|---------|
| Adjustable response value time / tr min. | 0.5 |
| Adjustable response value time / tr max. | 20 |
| Adjustable response value current / Isd min. | 300 A |
| Adjustable response value current / Isd max. | 5 000 A |
| Short-term delayed / tripping switchable / I2t=ON/OFF | Yes |
| Adjustable response value time / tsd min. | 0.05 s |
| Adjustable response value time / tsd max. | 0.5 s |
| Adjustable response value time / tsd min. | 0.05 s |
| Adjustable response value time / tsd max. | 0.5 s |
| Adjustable response value current / li min. | 750 A |
| Adjustable response value current / li max. | 7 000 A |
| Ground fault protection can be switched ON/OFF | Yes |
| Ground fault protection / tripping switchable / I2t=ON/OFF | Yes |
| Adjustable response value current / lg min. | 100 A |
| Adjustable response value current / lg max. | 500 A |
| Adjustable response value current / tg min. | 0.05 s |
| Adjustable response value current / tg max. | 0.8 s |
| Adjustable response value current / for G-tripping / with I2t characteristic / min. | 0.2 A |
| Adjustable response value current / for G-tripping / with I2t characteristic / max. | 1 A |

Mechanical Design

| | |
|-------------|--------|
| Height [in] | 9.8 in |
| Height | 248 mm |
| Width [in] | 7.2 in |
| Width | 184 mm |
| Depth [in] | 4.3 in |
| Depth | 110 mm |

Connections

| | |
|---|------------------------------|
| Arrangement of electrical connectors / for main current circuit | Front terminal |
| Type of electrical connection / for main current circuit | on both sides nut keeper kit |
| Type of connectable conductor cross-section, connection screw, width x thickness , min. | 20 x 1 mm |
| Type of connectable conductor cross-section, connection screw, width x thickness , max. | 35 x 10 mm |

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 |
|---|---|

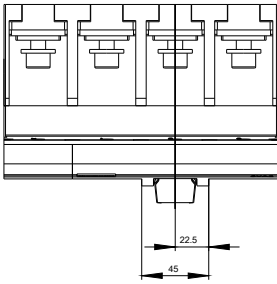
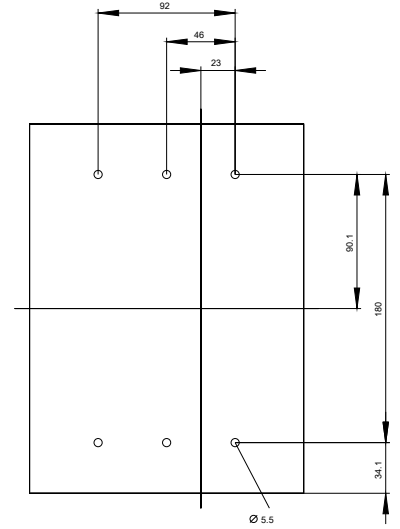
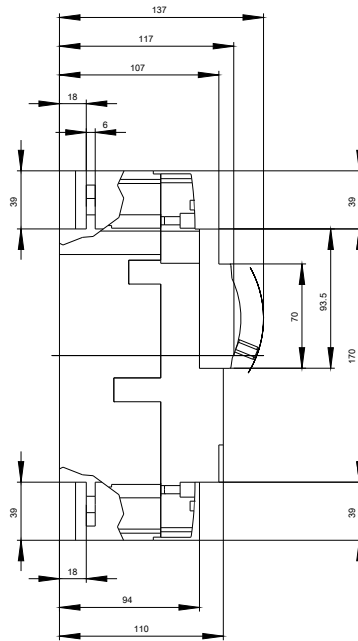
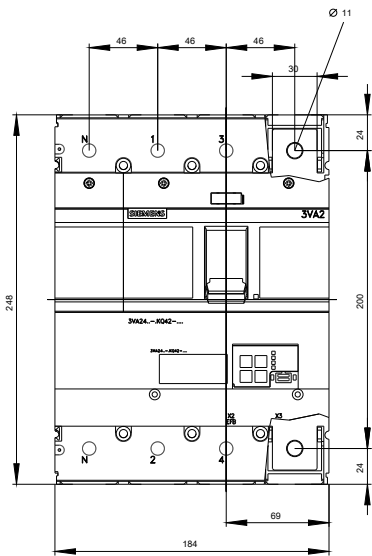
| General Product Approval | EMC | Declaration of Conformity |
|--|--|---|
|  CCC |  EAC |  EG-Konf. |
|  VDE |  RCM | |
| Miscellaneous | | |

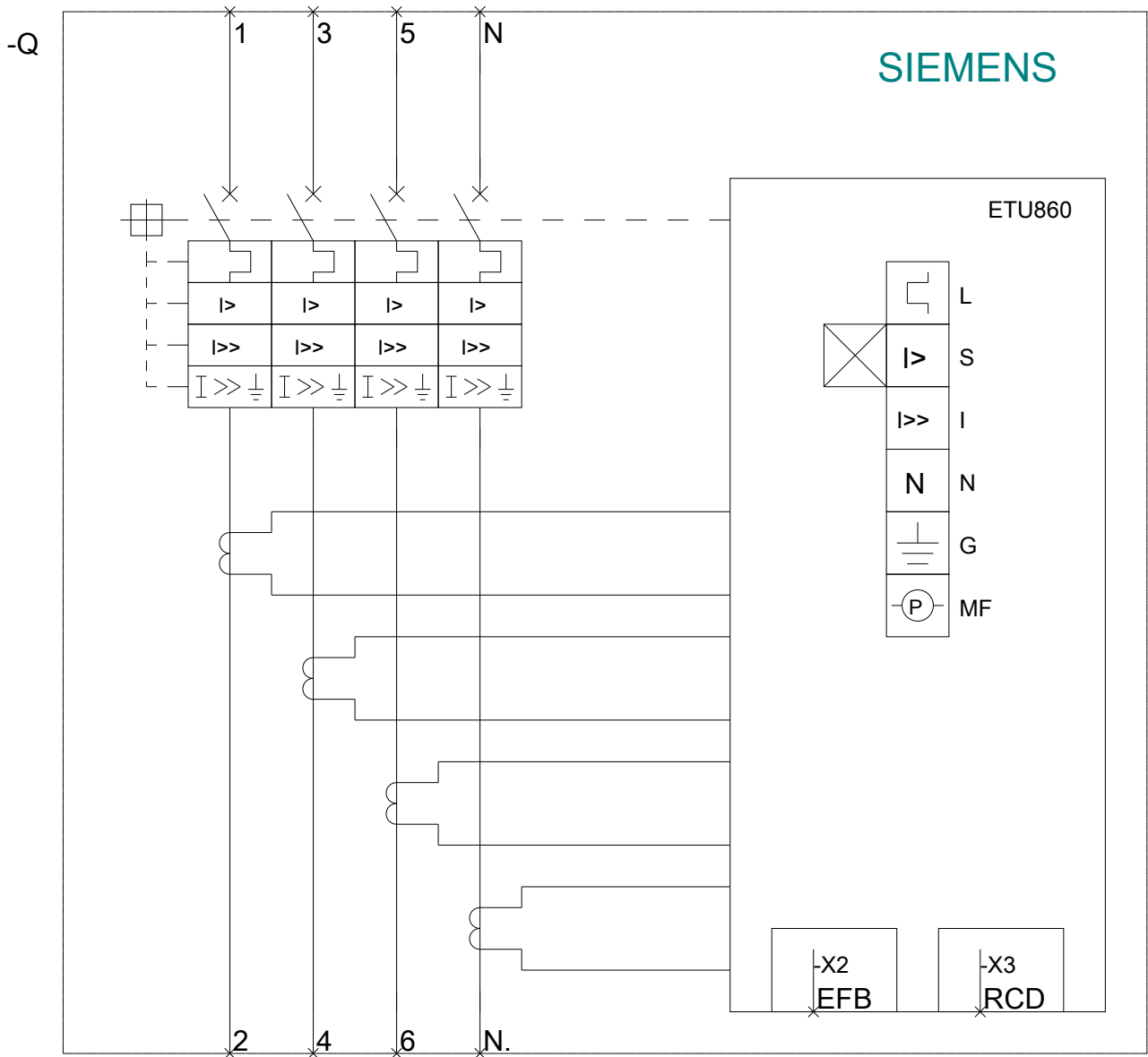
| Test Certificates | Shipping Approval |
|--|--|
| Miscellaneous |  ABS |
| Special Test Certificate |  BUREAU VERITAS |
| Type Test Certificates/Test Report |  LRS |

| Shipping Approval | other |
|---|--|
|  RMRS | CCS / China Classification Society |
| | Manufacturer Declaration |
| | 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=3VA2450-5KQ42-0AA0>
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
<https://support.industry.siemens.com/cs/ww/en/ps/3VA2450-5KQ42-0AA0>
- Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2450-5KQ42-0AA0
- CAX-Online-Generator**
<http://www.siemens.com/cax>
- Tender specifications**
<http://www.siemens.com/specifications>





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