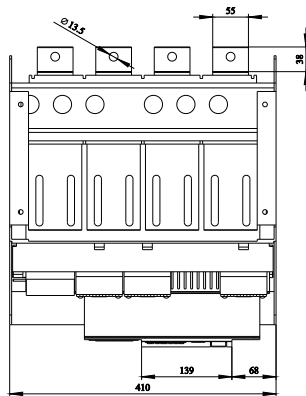
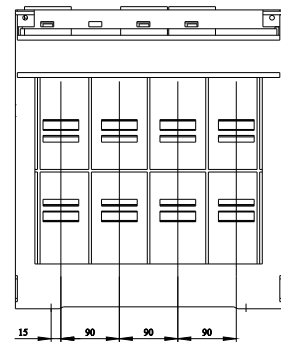
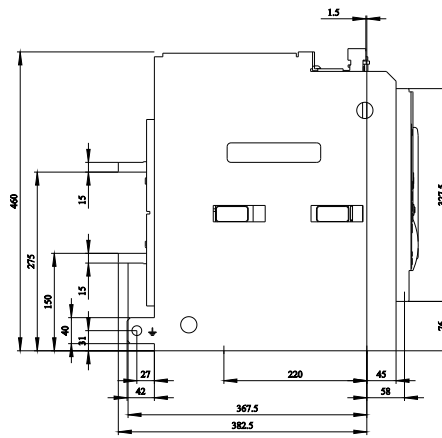
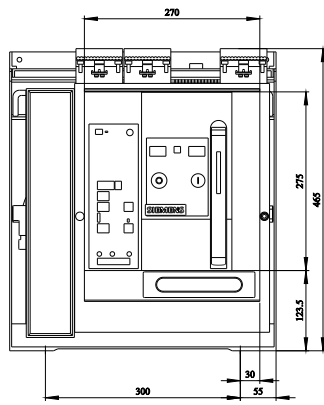
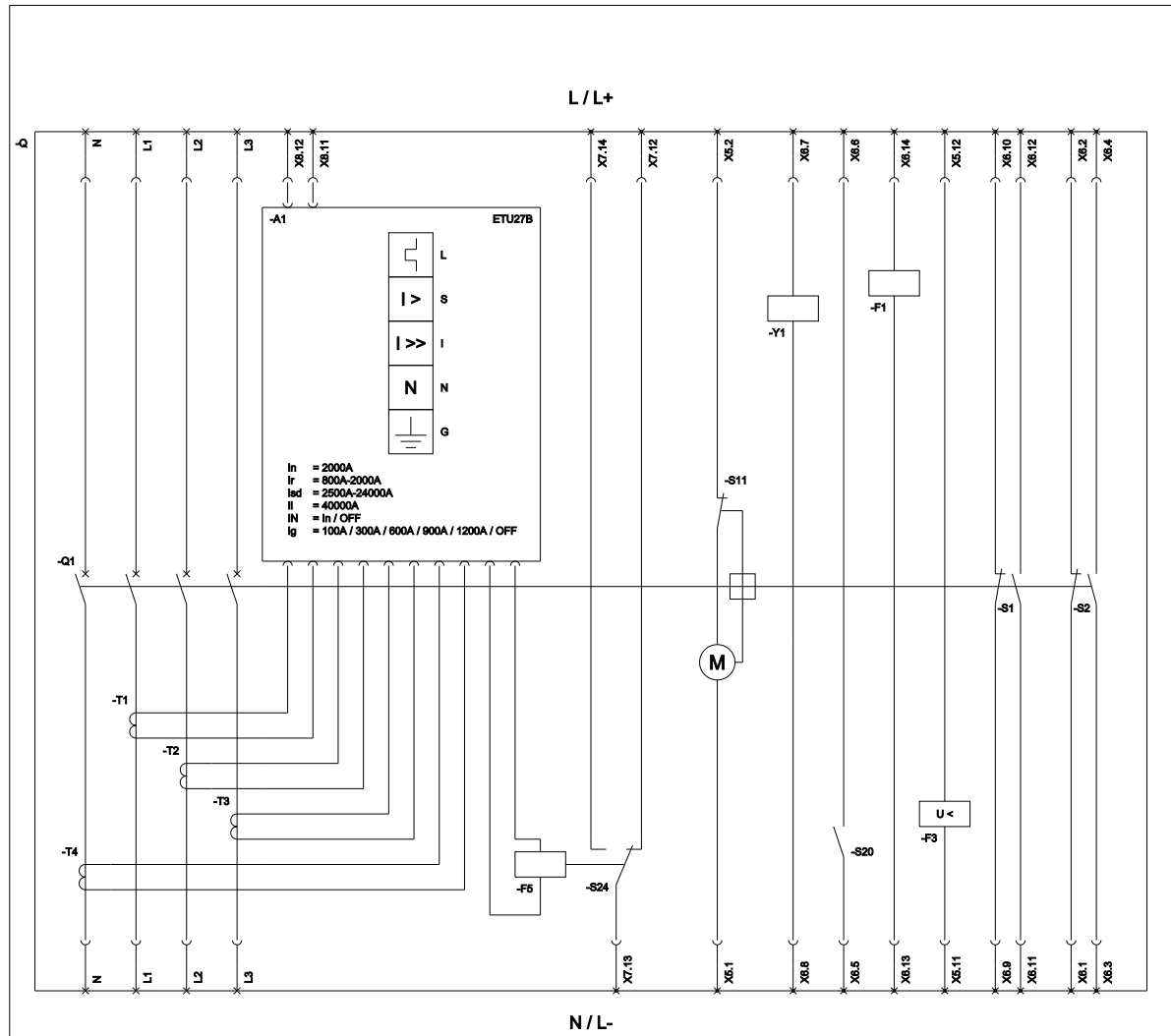


withdrawable circuit breaker with guide frame 4-pole, size I, IEC In=2000A to 690V, AC50/60Hz Icu=55kA at 500V rear connection horizontal Overcurrent release ETU 27 LSING protection adjustable 0.4-1 in Ground fault/N protection integrated Motorized/manual operating mechanism with spring charging motor AC 50/60 Hz 208-240 V or 220-250 V DC Activation AC 50/60 Hz 230 V, 220 V DC With 1st auxiliary release Shunt release "F", F1 50/60 Hz 230 V AC/220 V DC, 100% on-load factor With 2nd auxiliary release "R", F3 Undervoltage, instant. 208-240 V AC, 220-250 V DC 2NO+2NC C22= Ready-to-close signaling F23= Internal current transformers 4-pole switch BGI K07= Tripped signaling contact, 1 CO not possible with option F02 R21= Shutter 2-part can be locked with bracket lock T40= Door sealing frame

| Model                                                                        |                                                                             |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| product brand name                                                           | SENTRON                                                                     |
| product designation                                                          | ACB                                                                         |
| design of the product                                                        | IEC 60947-2                                                                 |
| design of the actuating element                                              | Pushbutton                                                                  |
| type of the driving mechanism                                                | Manual/motorized operating mechanism with mechanical and electrical closing |
| type of the driving mechanism / motor drive                                  | Yes                                                                         |
| design of the overcurrent release                                            | ETU27B                                                                      |
| General technical data                                                       |                                                                             |
| number of poles                                                              | 4                                                                           |
| size of the circuit-breaker                                                  | 1                                                                           |
| utilization category                                                         | B                                                                           |
| circuit-breaker / Design                                                     | 3WL1                                                                        |
| Voltage                                                                      |                                                                             |
| Rated insulation voltage Ui                                                  | 1 000 V                                                                     |
| insulation voltage / rated value                                             | 1 000 V                                                                     |
| operating voltage                                                            |                                                                             |
| • at AC / at 50/60 Hz / rated value                                          | 690 V                                                                       |
| Protection class                                                             |                                                                             |
| protection class IP                                                          | IP20                                                                        |
| protection function of the overcurrent release                               | LSING                                                                       |
| Dissipation                                                                  |                                                                             |
| power loss [W]                                                               |                                                                             |
| • for rated value of the current / at AC / in hot operating state / per pole | 146.7 W                                                                     |
| • maximum                                                                    | 440 W                                                                       |
| Current                                                                      |                                                                             |
| operational current                                                          |                                                                             |
| • at 40 °C / rated value                                                     | 2 000 A                                                                     |
| • at 45 °C / rated value                                                     | 2 000 A                                                                     |
| • at 50 °C / rated value                                                     | 2 000 A                                                                     |
| • at 55 °C / rated value                                                     | 2 000 A                                                                     |
| • at 60 °C / rated value                                                     | 1 930 A                                                                     |
| • at 65 °C / rated value                                                     | 1 930 A                                                                     |
| • at 70 °C / rated value                                                     | 1 780 A                                                                     |
| continuous current / rated value / maximum                                   | 2 000 A                                                                     |
| continuous current / rated value                                             | 2 000 A                                                                     |
| adjustable current response value current                                    |                                                                             |
| • of the current-dependent overload release / full-scale value               | 2 000 A                                                                     |
| • of instantaneous short-circuit trip unit / minimum                         | 40 000 A                                                                    |
| • of instantaneous short-circuit trip unit / maximum                         | 40 000 A                                                                    |
| Main circuit                                                                 |                                                                             |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| operating frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                      |
| • 1 / rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 50 Hz                                |
| • 2 / rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 60 Hz                                |
| <b>Auxiliary circuit</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                      |
| number of NC contacts / for auxiliary contacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2                                    |
| number of NO contacts / for auxiliary contacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2                                    |
| <b>Suitability</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                      |
| suitability for use                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Plant / motor protection             |
| <b>Adjustable parameters</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                      |
| adjustable current response value current / of the current-dependent overload release / initial value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 800 A                                |
| <b>Product details</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                      |
| product component                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                      |
| • trip indicator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Yes                                  |
| • voltage trigger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Yes                                  |
| • undervoltage release                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Yes                                  |
| design of the auxiliary switch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2 NO + 2 NC                          |
| product extension / optional / motor drive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | No                                   |
| <b>Product function</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                      |
| product function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                      |
| • grounding protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Yes                                  |
| • phase failure detection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Yes                                  |
| <b>Display and operation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                      |
| display version                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | without display                      |
| <b>Short circuit</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                      |
| breaking capacity operating short-circuit current (Ics)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                      |
| • at 415 V / rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 55 kA                                |
| • at 500 V / rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 55 kA                                |
| • at 690 V / rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 42 kA                                |
| breaking capacity maximum short-circuit current (Icu)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                      |
| • at 415 V / rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 55 kA                                |
| • at 500 V / rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 55 kA                                |
| • at 690 V / rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 42 kA                                |
| <b>Connections</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                      |
| arrangement of electrical connectors / for main current circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Main connection rear side horizontal |
| type of electrical connection / for main current circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | busbar connection                    |
| <b>Mechanical Design</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                      |
| height                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 460 mm                               |
| width                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 410 mm                               |
| depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 456 mm                               |
| fastening method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | drawer unit                          |
| <b>Environmental conditions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |
| ambient temperature / during operation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                      |
| • minimum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -20 °C                               |
| • maximum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 70 °C                                |
| ambient temperature / during storage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                      |
| • minimum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -40 °C                               |
| • maximum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 70 °C                                |
| <b>Further information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                      |
| <b>Industry Mall (Online ordering system)</b><br><a href="https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3WL1120-2DG46-4GN2-Z C22+F23+K07+R21+T40">https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3WL1120-2DG46-4GN2-Z C22+F23+K07+R21+T40</a><br><b>Service&amp;Support (Manuals, Certificates, Characteristics, FAQs,...)</b><br><a href="https://support.industry.siemens.com/cs/ww/en/ps/3WL1120-2DG46-4GN2-Z C22+F23+K07+R21+T40">https://support.industry.siemens.com/cs/ww/en/ps/3WL1120-2DG46-4GN2-Z C22+F23+K07+R21+T40</a><br><b>Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)</b><br><a href="http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WL1120-2DG46-4GN2-Z C22+F23+K07+R21+T40">http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3WL1120-2DG46-4GN2-Z C22+F23+K07+R21+T40</a><br><b>CAX-Online-Generator</b><br><a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a><br><b>Tender specifications</b><br><a href="http://www.siemens.com/specifications">http://www.siemens.com/specifications</a> |                                      |





L (Long Time Delay / Überlastschutz); S (Short Time Delay / Kurzschlussschutz, kurzzeitverszögert); I (Instantaneous / Kurzschlussschutz, unverzögert); N (Neutral Protection / Neutrallebensschutz);  
G (Ground Fault Protection / Erdschussschutz); S11 (Internal motor shutdown switch, if spring is tensioned / Interner Motorschalterschalter, wenn Feder gespannt); F1 (1st auxiliary release / Erster Hilfsauslöser);  
F3 (Undervoltage release / Unterspannungsauslöser); F5 (Maglatch for trip unit / Auslöse magnet); S1 - S8 (Auxiliary switch / Hilfschalter); S20 (Ready to close signalling switch / Einschaltfortschaltendeschalter);  
S24 (1st trip signalling switch K07 (Reset position) / Erster Ausgeloetmagnet K07 (Reset Position)); Y1 (Closing coil / Einschaltmagnet);

last modified:

3/30/2020

