



Circuit breaker 3VA6 UL frame 250 breaking capacity class H 65kA @ 480V 4-pole, Line protection ETU550, LSI, In=100A overload protection, 100% rated Ir=40A...100A Short-circuit protection Isd=0.6..10x In, li=1.5..12x In N conductor protection adjustable (OFF, up to 160%) without connection

| Model | |
|--|-----------------------------|
| product brand name | SENTRON |
| product designation | Molded-case circuit breaker |
| product designation / according to UL file | HFAE |
| design of the product | System protection |
| design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) | Yes |
| design of the overcurrent release | ETU550 |
| protection function of the overcurrent release | LSI |
| number of poles | 4 |
| General technical data | |
| insulation voltage / rated value | 800 V |
| operating voltage / at AC / rated value | 690 V |
| power loss [W] / maximum | 6.7 W |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole | 2.23 W |
| mechanical service life (operating cycles) / typical | 25 000 |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V | 12 000 |
| electrical endurance (operating cycles) / at AC-1 / at 690 V | 8 400 |
| electrical endurance (operating cycles) / at 480 V | 12 000 |
| electrical endurance (operating cycles) / at 600 V | 8 400 |
| product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof | No |
| ground-fault monitoring version | without |
| product function | |
| • communication function | Yes |
| • other measurement function | No |
| Net Weight | 2.9 kg |
| Current | |
| marking / according to UL 489 / 100%-rated breaker | Yes |
| operational current | |
| • at 40 °C | 100 A |
| • at 45 °C | 100 A |
| • at 50 °C | 100 A |
| • at 55 °C | 100 A |
| • at 60 °C | 100 A |
| • at 65 °C | 100 A |
| • at 70 °C | 100 A |
| Switching capacity according to IEC 60947 | |
| switching capacity class of the circuit breaker | H |
| maximum short-circuit current breaking capacity (Icu) | |

| | |
|--|----------------------------|
| <ul style="list-style-type: none"> • at 240 V • at 415 V • at 690 V | 110 kA 85 kA 3 kA |
| operating short-circuit current breaking capacity (Ics) <ul style="list-style-type: none"> • at 240 V • at 415 V • at 690 V | 110 kA 85 kA 3 kA |
| short-circuit current making capacity (Icm) <ul style="list-style-type: none"> • at 240 V • at 415 V • at 690 V | 242 kA 187 kA 4.5 kA |

Switching capacity according to UL 489

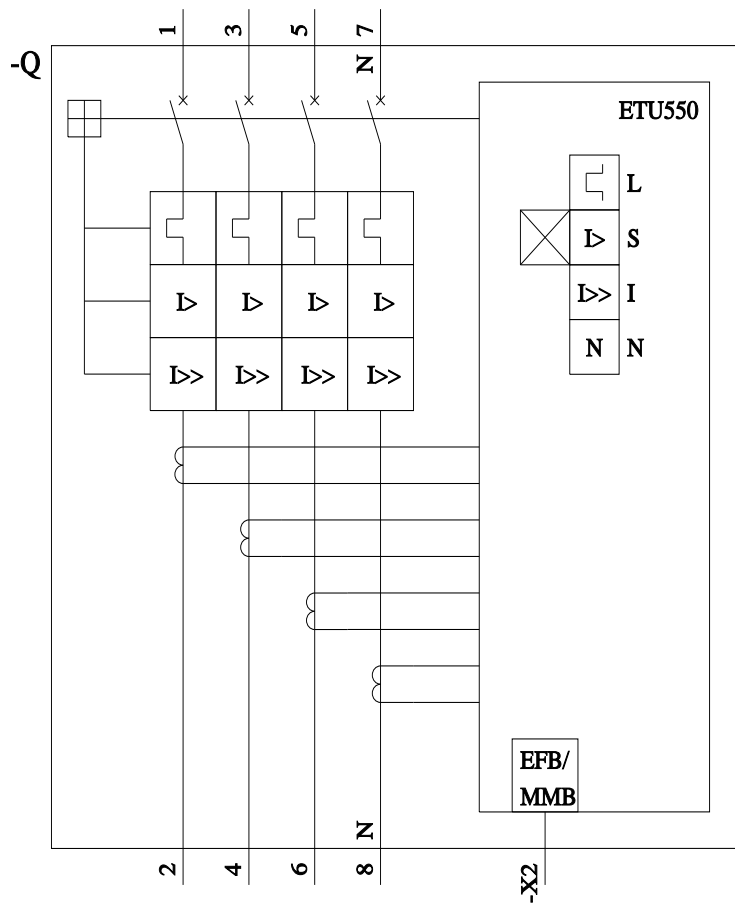
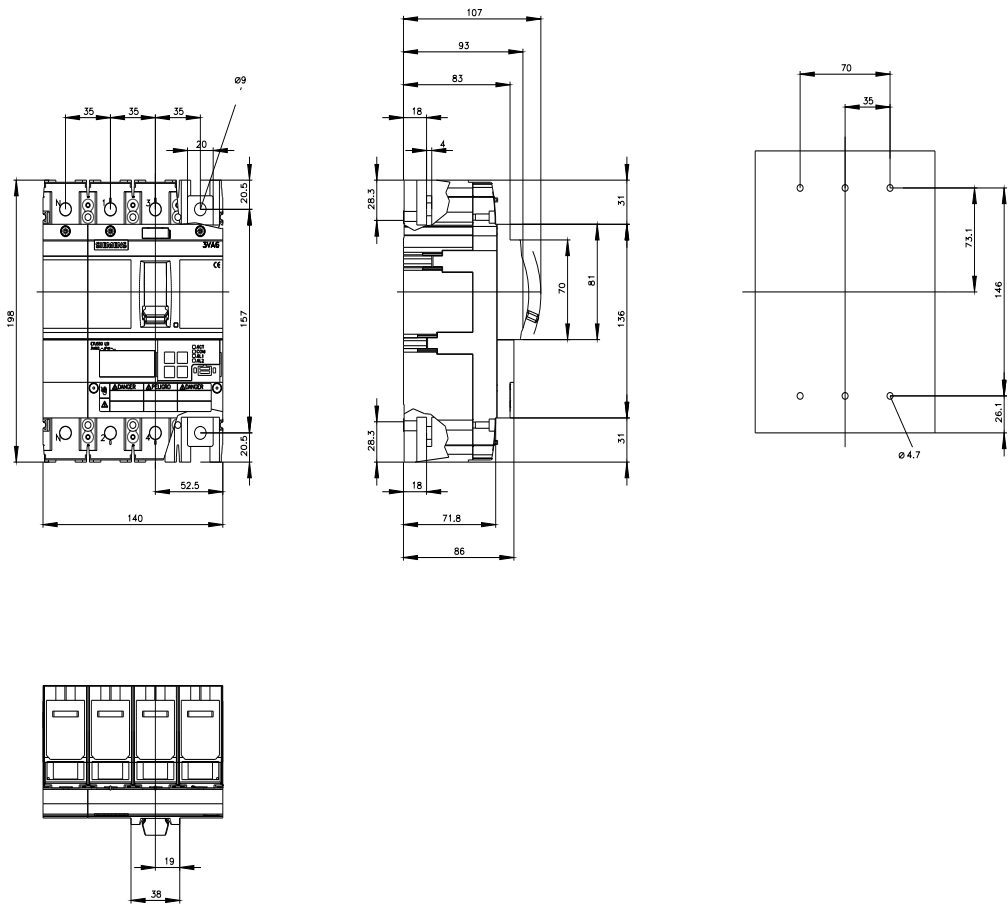
| | |
|--|-----------------------------------|
| current breaking capacity <ul style="list-style-type: none"> • at 240 V • at 480 V • at 600 Y/347 V • at 600 V | 100 kA 65 kA 22 kA 22 kA |
|--|-----------------------------------|

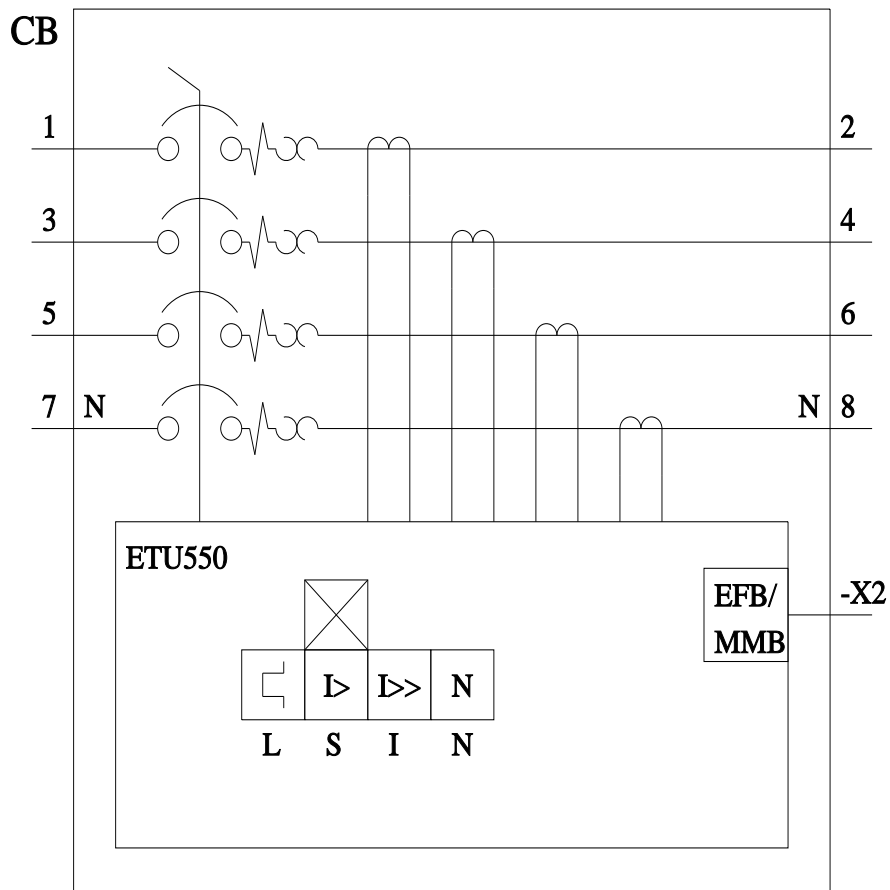
Adjustable parameters

| | |
|---|-----------------------------|
| adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic <ul style="list-style-type: none"> • minimum • maximum | 40 A 100 A |
| adjustable response value delay time (tr) / for L-tripping / with I2t characteristic <ul style="list-style-type: none"> • minimum • maximum | 0.5 s 25 s |
| adjustable response value setting current (Isd) / of S-trip / with I0t characteristic <ul style="list-style-type: none"> • minimum • maximum | 60 A 1 000 A |
| adjustable response value setting current (Isd) / of S-trip / with I2t characteristic <ul style="list-style-type: none"> • minimum • maximum | 60 A 1 000 A |
| adjustable response value delay time (tsd) / for S-tripping / with I0t characteristic <ul style="list-style-type: none"> • minimum • maximum | 0.05 s 0.5 s |
| adjustable response value delay time (tsd) / for S-tripping / with I2t characteristic <ul style="list-style-type: none"> • minimum • maximum | 0.05 s 0.5 s |
| adjustable response value setting current (Ii) / for I-tripping <ul style="list-style-type: none"> • minimum • maximum | 150 A 1 200 A |
| adjustable setting current (InN) / for N-tripping <ul style="list-style-type: none"> • minimum • maximum | 20 A 160 A |
| adjustable delay time / of S-trip / with I2t characteristic | 0.5 s |
| adjustable current response value current / of instantaneous short-circuit trip unit <ul style="list-style-type: none"> • minimum • maximum | 150 A 1 200 A |
| design of the N-conductor protection | adjustable OFF; 20% to 160% |
| product function / grounding protection | No |

Mechanical Design

| | |
|---|----------------|
| product component <ul style="list-style-type: none"> • undervoltage release • voltage trigger • trip indicator | No No No |
| height [in] | 7.8 in |
| height | 198 mm |
| width [in] | 5.51 in |





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