



circuit breaker 3VA2 IEC Frame 160 breaking capacity class C Icu=110 kA @ 415 V 3-pole, line protection ETU560, LSIG, In=100 A overload protection Ir=40 A...100 A short-circuit protection I_{sd}=0.6..10x I_n, I_i=1.5..12x I_n neutral conductor protection optionally with external current transformer, up to 160% ground-fault protection, can be switched off I_g=0.2...1 x I_n, t_g=0.05-0.8s terminal connection

| Model | |
|---|---|
| product brand name | SENTRON |
| product designation | Molded case circuit breaker |
| design of the product | Line protection |
| design of the overcurrent release | ETU560 |
| protection function of the overcurrent release | LSIG |
| number of poles | 3 |
| General technical data | |
| insulation voltage / rated value | 800 V |
| operating voltage / at AC / rated value | 690 V |
| power loss [W] / maximum | 10 W |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole | 3.33 W |
| mechanical service life (operating cycles) / typical | 25 000 |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V | 14 000 |
| electrical endurance (operating cycles) / at AC-1 / at 690 V | 9 800 |
| product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof | Yes |
| ground-fault monitoring version | Summation current formation L-conductor |
| product function | |
| • communication function | Yes |
| • other measurement function | No |
| Net Weight | 2.5 kg |
| Current | |
| 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 | C |
| maximum short-circuit current breaking capacity (I _{cu}) | |
| • at 240 V | 150 kA |

| | |
|--|---|
| <ul style="list-style-type: none"> • at 415 V • at 440 V • at 500 V • at 690 V | <p>110 kA</p> <p>110 kA</p> <p>85 kA</p> <p>3 kA</p> |
| operating short-circuit current breaking capacity (Ics) | |
| <ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V | <p>150 kA</p> <p>110 kA</p> <p>110 kA</p> <p>85 kA</p> <p>2.5 kA</p> |
| short-circuit current making capacity (Icm) | |
| <ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V | <p>330 kA</p> <p>242 kA</p> <p>242 kA</p> <p>187 kA</p> <p>3.7 kA</p> |

Adjustable parameters

| | |
|--|-----------------------------|
| product feature / for L-tripping / can be switched on/off | No |
| adjustable response value setting current (I _r) / of the L-trip / with I _{2t} characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | <p>40 A</p> <p>100 A</p> |
| adjustable response value delay time (t _r) / for L-tripping / with I _{2t} characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | <p>0.5 s</p> <p>25 s</p> |
| adjustable response value setting current (I _{sd}) / of S-trip / with I _{0t} characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | <p>60 A</p> <p>1 000 A</p> |
| adjustable response value setting current (I _{sd}) / of S-trip / with I _{2t} characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | <p>60 A</p> <p>1 000 A</p> |
| adjustable response value delay time (t _{sd}) / for S-tripping / with I _{0t} characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | <p>0.05 s</p> <p>0.5 s</p> |
| adjustable response value delay time (t _{sd}) / for S-tripping / with I _{2t} characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | <p>0.05 s</p> <p>0.5 s</p> |
| adjustable response value setting current (I _i) / for I-tripping | |
| <ul style="list-style-type: none"> • minimum • maximum | <p>150 A</p> <p>1 200 A</p> |
| adjustable current response value current / for G-tripping / with standard characteristic | |
| <ul style="list-style-type: none"> • initial value • full-scale value | <p>20 A</p> <p>100 A</p> |
| adjustable response value delay time (t _g) / for G-tripping / with I _{0t} characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | <p>0.05 s</p> <p>0.8 s</p> |
| adjustable response value setting current (I _g) / for G-tripping / with I _{2t} characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | <p>20 A</p> <p>100 A</p> |
| adjustable response value delay time (t _g) / for G-tripping / with I _{2t} characteristic | |
| <ul style="list-style-type: none"> • minimum • maximum | <p>0.05 s</p> <p>0.8 s</p> |
| adjustable setting current (I _n) / for N-tripping | |

| | |
|---|-----------------------------|
| • minimum | 20 A |
| • maximum | 160 A |
| design of the N-conductor protection | adjustable OFF; 20% to 160% |
| product function / grounding protection | Yes |

Mechanical Design

| | |
|---|--------------------------------|
| product component | |
| • undervoltage release | No |
| • voltage trigger | No |
| • trip indicator | No |
| height [in] | 7.13 in |
| height | 181 mm |
| width [in] | 4.13 in |
| type of connectable conductor cross-sections / of the round conductor terminal / stranded | 1 x (6 - 120 mm ²) |
| width | 105 mm |
| depth [in] | 3.39 in |
| depth | 86 mm |

Connections

| | |
|---|---------------------------|
| arrangement of electrical connectors / for main current circuit | Front terminal |
| type of electrical connection / for main current circuit | double-sided box terminal |
| design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) | tin |
| design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) | tin |

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 |

Environmental footprint

| | |
|--|-----------------|
| global warming potential [CO2 eq] / total | 61.814 kg |
| global warming potential [CO2 eq] / during manufacturing | 14.6 kg |
| global warming potential [CO2 eq] / during operation | 48.9 kg |
| global warming potential [CO2 eq] / after end of life | -2.2 kg |
| Siemens Eco Profile (SEP) | Siemens EcoTech |
| reference code / according to IEC 81346-2 | Q |

Approvals / Certificates

General Product Approval



[Miscellaneous](#)



[Confirmation](#)

| | | | |
|--------------------------|-----|-------------------|----------------------|
| General Product Approval | EMV | Test Certificates | Maritime application |
|--------------------------|-----|-------------------|----------------------|



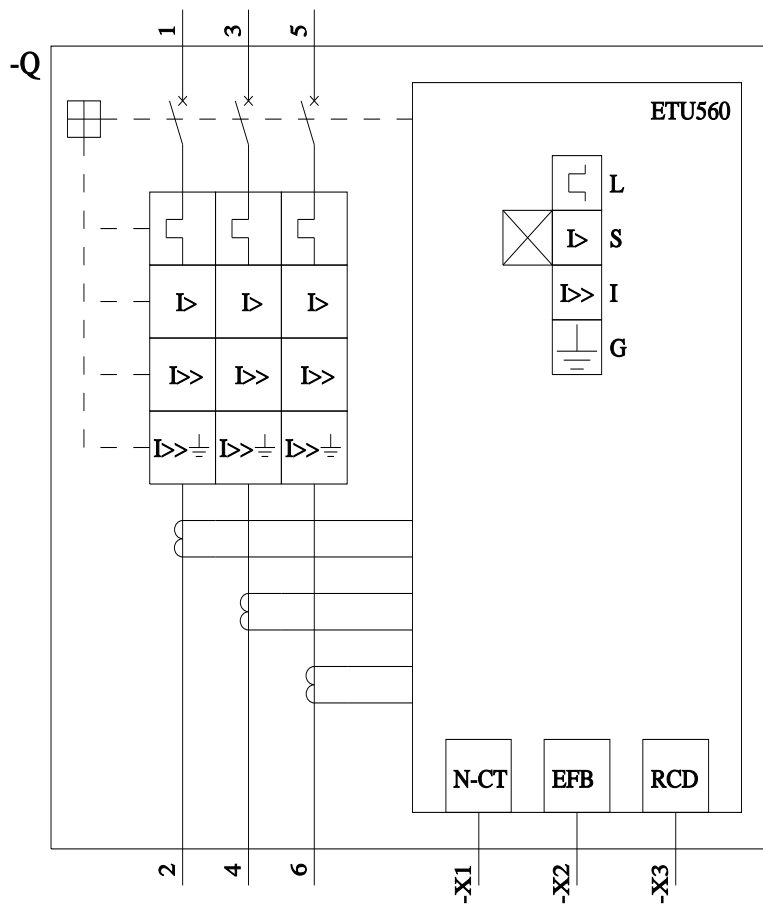
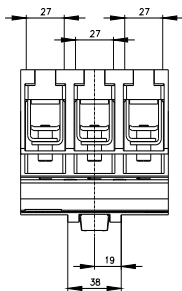
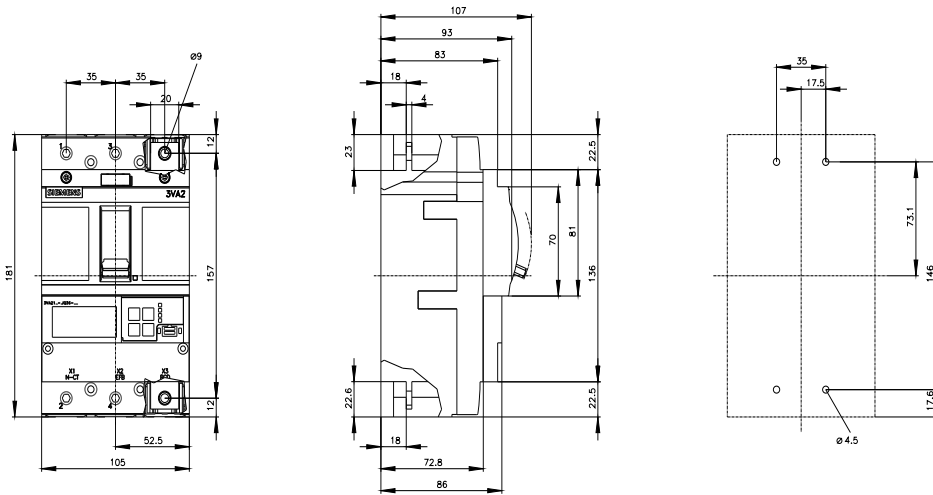
[Special Test Certificate](#)

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| | |
|----------------------|-------|
| Maritime application | other |
|----------------------|-------|



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