

Siemens
EcoTech



circuit breaker 3VA6 UL Frame 150 breaking capacity class C 100 kA @ 480 V 3-pole, line protection ETU856, LSI, In=150 A overload protection Ir=60 A ...150 A short-circuit protection I_{sd}=0.6..10x I_n, I_i=1.5..10x I_n neutral conductor protection optionally with ext. CT; up to 160% ground fault alarm signaled via EFB300 or COM nut keeper kit on two sides



| Model | |
|--|---|
| product brand name | SENTRON |
| product designation | Molded-case circuit breaker |
| product designation / according to UL file | CDAE |
| 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 | ETU856 |
| protection function of the overcurrent release | LSI-G-alarm only |
| 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 | 29 W |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole | 9.67 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 |
| electrical endurance (operating cycles) / at 480 V | 14 000 |
| electrical endurance (operating cycles) / at 600 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 | Yes |
| Net Weight | 2.645 kg |
| Current | |
| marking / according to UL 489 / 100%-rated breaker | No |
| operational current | |
| • at 40 °C | 150 A |
| • at 45 °C | 150 A |
| • at 50 °C | 150 A |
| • at 55 °C | 143 A |
| • at 60 °C | 135 A |
| • at 65 °C | 128 A |
| • at 70 °C | 120 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 |
| • at 415 V | 110 kA |
| • at 690 V | 2.5 kA |
| operating short-circuit current breaking capacity (I _{cs}) | |
| • at 240 V | 150 kA |
| • at 415 V | 110 kA |
| • at 690 V | 2.5 kA |
| short-circuit current making capacity (I _{cm}) | |
| • at 240 V | 330 kA |
| • at 415 V | 242 kA |
| • at 690 V | 3.8 kA |

Switching capacity according to UL 489

| | |
|---------------------------|--------|
| current breaking capacity | |
| • at 240 V | 200 kA |
| • at 480 V | 100 kA |
| • at 600 V | 35 kA |

Adjustable parameters

| | |
|--|---------|
| adjustable response value setting current (I _r) / of the L-trip / with I _{2t} characteristic | |
| • minimum | 60 A |
| • maximum | 150 A |
| adjustable response value delay time (t _r) / for L-tripping / with I _{2t} characteristic | |
| • minimum | 0.5 s |
| • maximum | 20 s |
| adjustable response value setting current (I _{sd}) / of S-trip / with I _{0t} characteristic | |
| • minimum | 90 A |
| • maximum | 1 500 A |
| adjustable response value setting current (I _{sd}) / of S-trip / with I _{2t} characteristic | |
| • minimum | 90 A |
| • maximum | 1 500 A |
| adjustable response value delay time (t _{sd}) / for S-tripping / with I _{0t} characteristic | |
| • minimum | 0.05 s |
| • maximum | 0.5 s |
| adjustable response value delay time (t _{sd}) / for S-tripping / with I _{2t} characteristic | |
| • minimum | 0.05 s |
| • maximum | 0.5 s |
| adjustable response value setting current (I _i) / for I-tripping | |
| • minimum | 225 A |
| • maximum | 1 500 A |
| adjustable current response value current / for G-tripping / with standard characteristic | |
| • initial value | 30 A |
| • full-scale value | 150 A |
| adjustable response value delay time (t _g) / for G-tripping / with I _{0t} characteristic | |
| • minimum | 0.05 s |
| • maximum | 0.8 s |
| adjustable response value setting current (I _g) / for G-tripping / with I _{2t} characteristic | |
| • minimum | 30 A |
| • maximum | 150 A |
| adjustable response value delay time (t _g) / for G-tripping / with I _{2t} characteristic | |
| • minimum | 0.05 s |
| • maximum | 0.8 s |
| adjustable setting current (I _n) / for N-tripping | |

| | |
|---|-----------------------------|
| • minimum | 0.2 A |
| • maximum | 1.6 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] | 7.8 in |
| height | 198 mm |
| width [in] | 4.13 in |
| width | 105 mm |
| depth [in] | 3.39 in |
| depth | 86 mm |

Connections

| | |
|---|-----------------------------|
| arrangement of electrical connectors / for main current circuit | Front connection |
| type of electrical connection / for main current circuit | nut keeper kit on both ends |
| type of connectable conductor cross-sections / for flat-bar terminal connection / minimum | 13 x 1 mm |
| type of connectable conductor cross-sections / for flat-bar terminal connection / maximum | 25 x 8.5 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 |

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



[Confirmation](#)



| | | | |
|--------------------------|-----|-------------------|-------|
| General Product Approval | EMV | Marine / Shipping | other |
|--------------------------|-----|-------------------|-------|

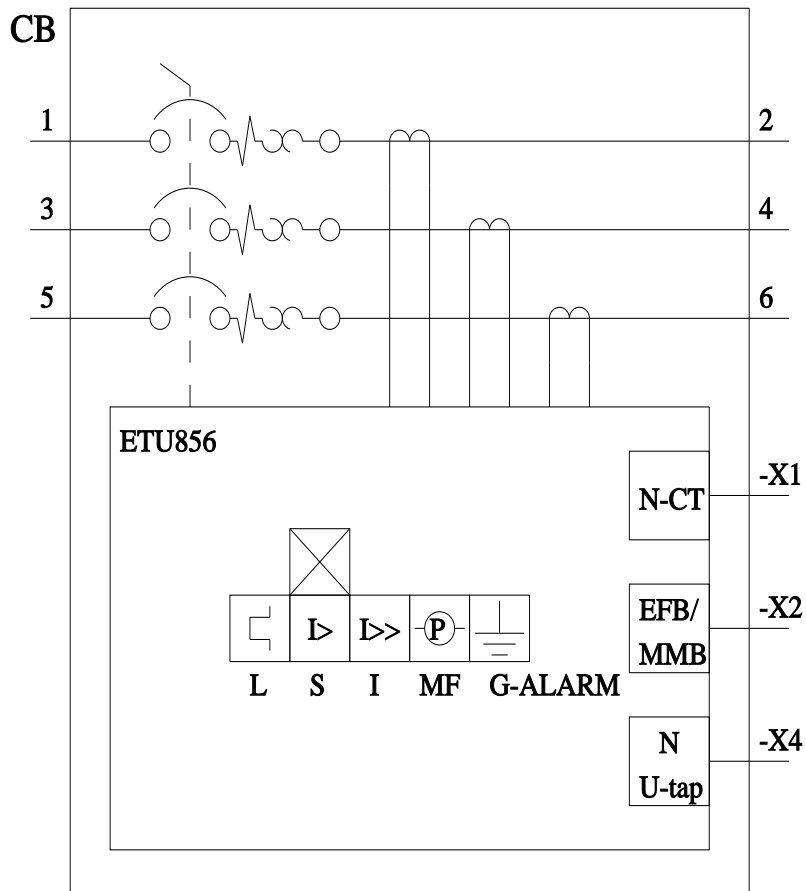
[Miscellaneous](#)



[Confirmation](#)

[Miscellaneous](#)

| | | |
|-------|-----------------|-------------|
| other | Dangerous goods | Environment |
|-------|-----------------|-------------|



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