



circuit breaker 3VA6 UL Frame 800 breaking capacity class C 100 kA @ 480 V 3-pole, line protection ETU556, LSI, In=800 A overload protection, 100% rated Ir=315 A ...800 A short-circuit protection Isd=0.6..10x In, li=1.5..10x In neutral conductor protection optionally with ext. CT up to 160% ground fault alarm signaled via EFB300 or COM cable connection on two sides

| Model                                                                                                                      |                                         |
|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| product brand name                                                                                                         | SETRON                                  |
| product designation                                                                                                        | Molded-case circuit breaker             |
| product designation / according to UL file                                                                                 | CMAE                                    |
| 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                                                                                          | ETU556                                  |
| 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                                                                                                   | 231 W                                   |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 77 W                                    |
| mechanical service life (operating cycles) / typical                                                                       | 10 000                                  |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V                                                           | 5 800                                   |
| electrical endurance (operating cycles) / at AC-1 / at 690 V                                                               | 4 000                                   |
| electrical endurance (operating cycles) / at 480 V                                                                         | 5 800                                   |
| electrical endurance (operating cycles) / at 600 V                                                                         | 4 000                                   |
| 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                                                                                                                 | 17.755 kg                               |
| Current                                                                                                                    |                                         |
| marking / according to UL 489 / 100%-rated breaker                                                                         | Yes                                     |
| operational current                                                                                                        |                                         |
| • at 40 °C                                                                                                                 | 800 A                                   |
| • at 45 °C                                                                                                                 | 800 A                                   |
| • at 50 °C                                                                                                                 | 800 A                                   |
| • at 55 °C                                                                                                                 | 776 A                                   |
| • at 60 °C                                                                                                                 | 752 A                                   |
| • at 65 °C                                                                                                                 | 708 A                                   |
| • at 70 °C                                                                                                                 | 664 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                                                     | 200 kA |
| • at 415 V                                                     | 110 kA |
| • at 690 V                                                     | 35 kA  |
| operating short-circuit current breaking capacity ( $I_{cs}$ ) |        |
| • at 240 V                                                     | 150 kA |
| • at 415 V                                                     | 85 kA  |
| • at 690 V                                                     | 19 kA  |
| short-circuit current making capacity ( $I_{cm}$ )             |        |
| • at 240 V                                                     | 440 kA |
| • at 415 V                                                     | 242 kA |
| • at 690 V                                                     | 74 kA  |

#### Switching capacity according to UL 489

|                           |        |
|---------------------------|--------|
| current breaking capacity |        |
| • at 240 V                | 200 kA |
| • at 480 V                | 100 kA |
| • at 600 V                | 50 kA  |

#### Adjustable parameters

|                                                                                                     |         |
|-----------------------------------------------------------------------------------------------------|---------|
| adjustable response value setting current ( $I_r$ ) / of the L-trip / with $I_{2t}$ characteristic  |         |
| • minimum                                                                                           | 315 A   |
| • maximum                                                                                           | 800 A   |
| adjustable response value delay time ( $t_r$ ) / for L-tripping / with $I_{2t}$ characteristic      |         |
| • minimum                                                                                           | 0.5 s   |
| • maximum                                                                                           | 25 s    |
| adjustable response value setting current ( $I_{sd}$ ) / of S-trip / with $I_{0t}$ characteristic   |         |
| • minimum                                                                                           | 480 A   |
| • maximum                                                                                           | 8 000 A |
| adjustable response value setting current ( $I_{sd}$ ) / of S-trip / with $I_{2t}$ characteristic   |         |
| • minimum                                                                                           | 480 A   |
| • maximum                                                                                           | 8 000 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                                                                                           | 1 200 A |
| • maximum                                                                                           | 8 000 A |
| adjustable current response value current / for G-tripping / with standard characteristic           |         |
| • initial value                                                                                     | 160 A   |
| • full-scale value                                                                                  | 800 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                                                                                           | 160 A   |
| • maximum                                                                                           | 800 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 ( $I_{nN}$ ) / for N-tripping                                            |         |

|                                                                                           |                                           |
|-------------------------------------------------------------------------------------------|-------------------------------------------|
| • minimum                                                                                 | 0 A                                       |
| • maximum                                                                                 | 0 A                                       |
| design of the N-conductor protection                                                      | adjustable OFF; 20% to 160%               |
| product function / grounding protection                                                   | Yes                                       |
| <b>Mechanical Design</b>                                                                  |                                           |
| product component                                                                         |                                           |
| • undervoltage release                                                                    | No                                        |
| • voltage trigger                                                                         | No                                        |
| • trip indicator                                                                          | No                                        |
| height [in]                                                                               | 12.91 in                                  |
| height                                                                                    | 328 mm                                    |
| width [in]                                                                                | 8.27 in                                   |
| type of connectable conductor cross-sections / of the round conductor terminal / stranded | 4 x (4/0 - 500 kcmil)                     |
| width                                                                                     | 210 mm                                    |
| depth [in]                                                                                | 4.72 in                                   |
| depth                                                                                     | 120 mm                                    |
| <b>Connections</b>                                                                        |                                           |
| arrangement of electrical connectors / for main current circuit                           | Front connection                          |
| type of electrical connection / for main current circuit                                  | circular conductor terminal on both sides |
| <b>Auxiliary circuit</b>                                                                  |                                           |
| number of CO contacts / for auxiliary contacts                                            | 0                                         |
| <b>Accessories</b>                                                                        |                                           |
| product extension / optional / motor drive                                                | No                                        |
| <b>Environmental conditions</b>                                                           |                                           |
| 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                                     |
| reference code / according to IEC 81346-2                                                 | Q                                         |
| <b>Approvals / Certificates</b>                                                           |                                           |
| <b>General Product Approval</b>                                                           |                                           |



[Confirmation](#)



[Miscellaneous](#)



| EMV | Maritime application | other                        | Dangerous goods                       | Environment                                 |
|-----|----------------------|------------------------------|---------------------------------------|---------------------------------------------|
|     |                      | <a href="#">Confirmation</a> | <a href="#">Miscellaneous</a>         | <a href="#">Transport Information</a>       |
|     |                      |                              | <a href="#">Transport Information</a> | <a href="#">Environmental Confirmations</a> |

#### Further information

##### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

##### Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

##### Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/lowvoltage/catalogs>

##### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA6580-7JT36-2AA0>

##### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

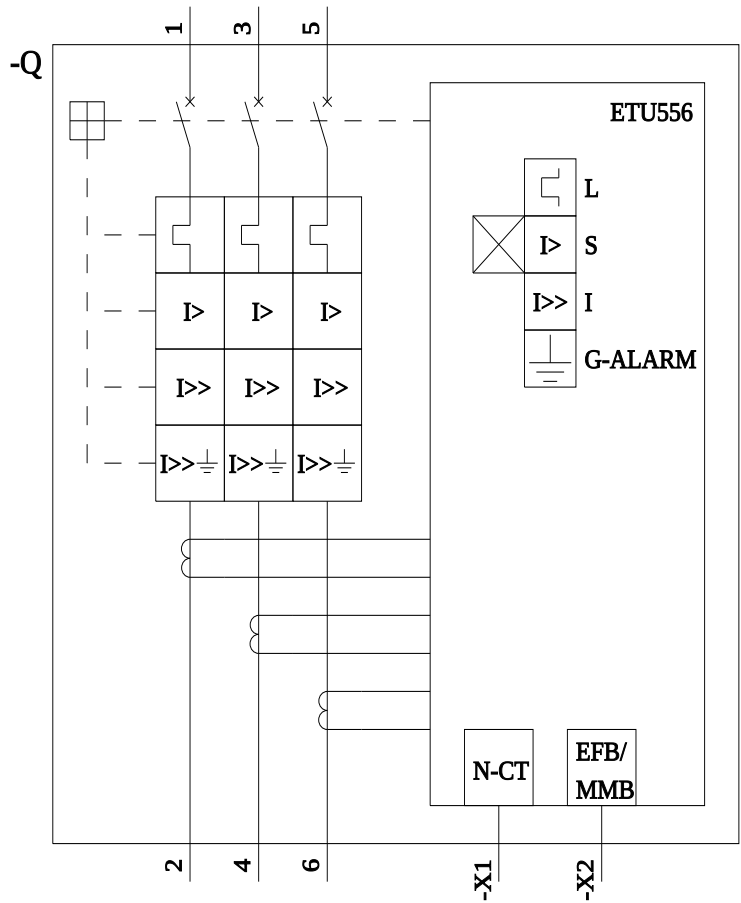
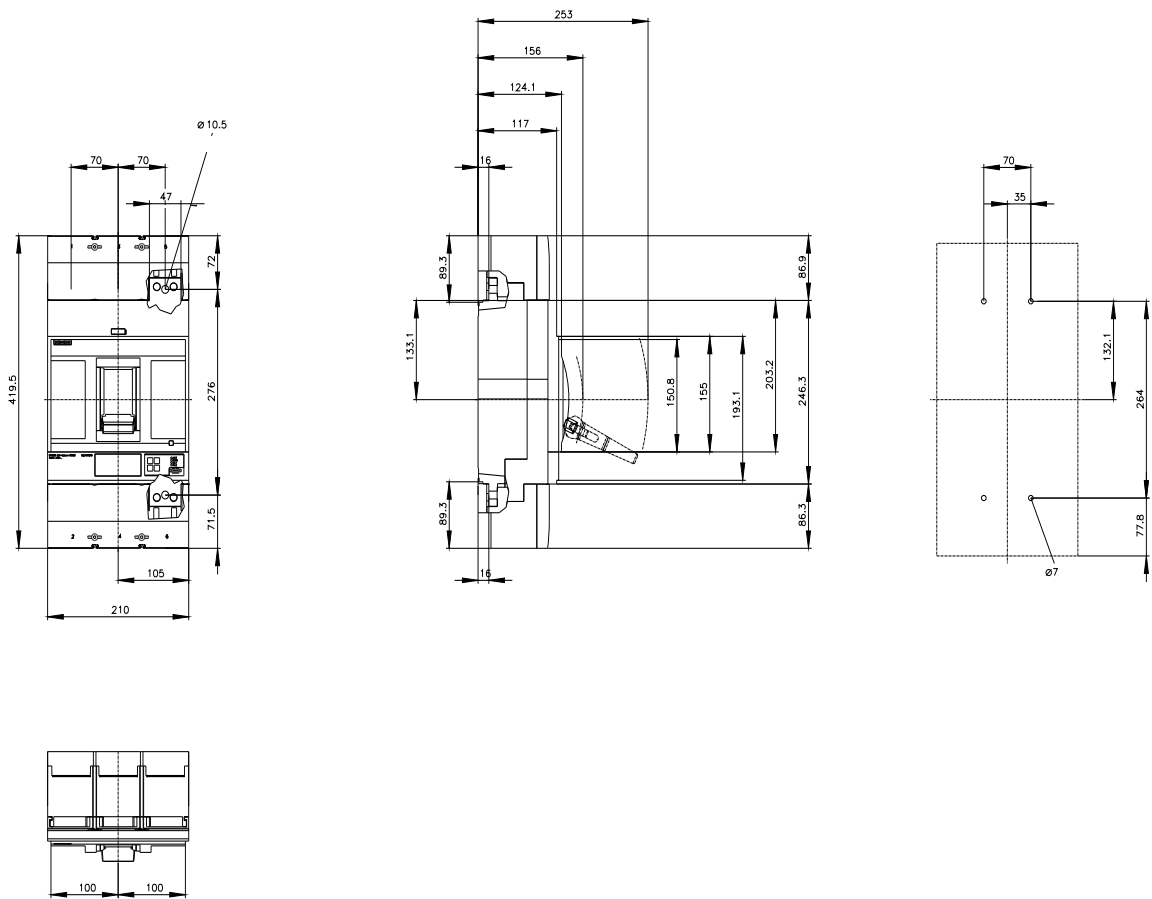
<https://support.industry.siemens.com/cs/ww/en/ps/3VA6580-7JT36-2AA0>

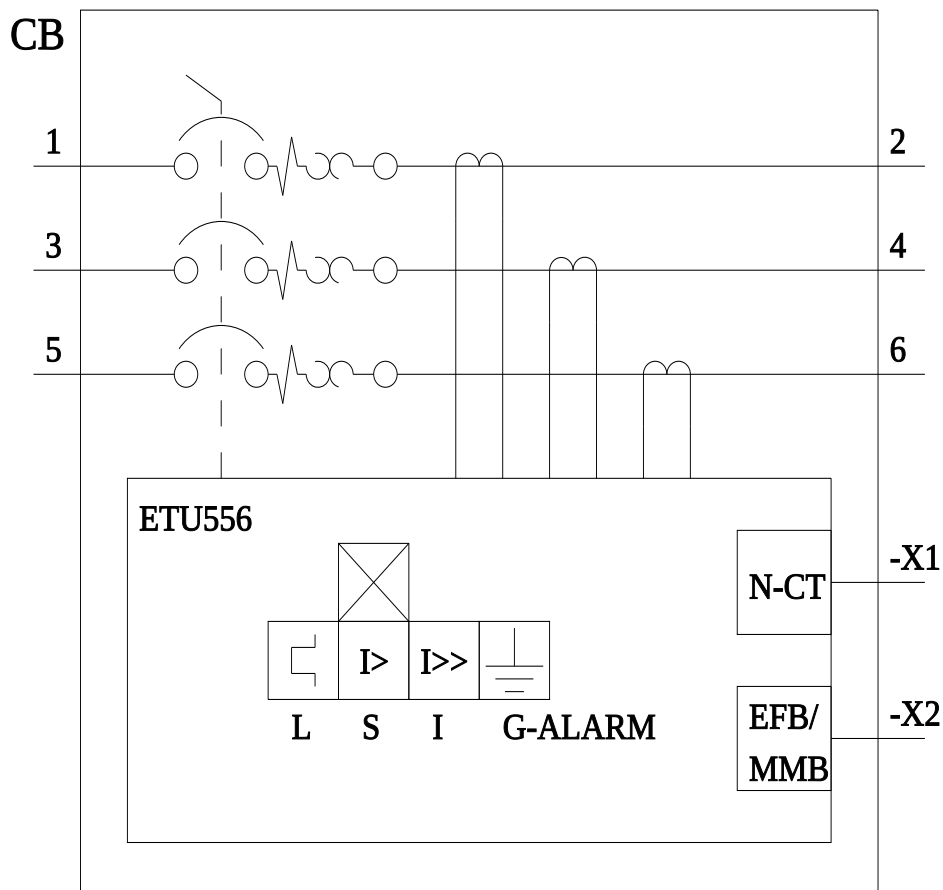
##### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6580-7JT36-2AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6580-7JT36-2AA0)

##### CAX-Online-Generator

<https://www.siemens.com/cax>





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