



circuit breaker 3VA6 UL Frame 800 breaking capacity class M 35 kA @ 480 V 3-pole, line protection ETU856, LSI,  $I_n=800$  A overload protection, 100% rated  $I_r=315$  A ...800 A short-circuit protection  $I_{sd}=0.6..10 \times I_n$ ,  $I_i=1.5..10 \times I_n$  neutral conductor protection optionally with ext. CT up to 160% ground fault alarm signaled via EFB300 or COM

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MMAE
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	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	Yes
Net Weight	13.3 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	M

maximum short-circuit current breaking capacity (I <sub>cu</sub> )	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	25 kA
operating short-circuit current breaking capacity (I <sub>cs</sub> )	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	19 kA
short-circuit current making capacity (I <sub>cm</sub> )	
• at 240 V	187 kA
• at 415 V	121 kA
• at 690 V	53 kA

#### Switching capacity according to UL 489

current breaking capacity	
• at 240 V	100 kA
• at 480 V	35 kA
• at 600 V	25 kA

#### Adjustable parameters

adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2t</sub> characteristic	
• minimum	315 A
• maximum	800 A
adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic	
• minimum	0.5 s
• maximum	25 s
adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I <sub>0t</sub> characteristic	
• minimum	480 A
• maximum	8 000 A
adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I <sub>2t</sub> characteristic	
• minimum	480 A
• maximum	8 000 A
adjustable response value delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>0t</sub> characteristic	
• minimum	0.05 s
• maximum	0.5 s
adjustable response value delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>2t</sub> characteristic	
• minimum	0.05 s
• maximum	0.5 s
adjustable response value setting current (I <sub>i</sub> ) / 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 <sub>g</sub> ) / for G-tripping / with I <sub>0t</sub> characteristic	
• minimum	0.05 s
• maximum	0.8 s
adjustable response value setting current (I <sub>g</sub> ) / for G-tripping / with I <sub>2t</sub> characteristic	
• minimum	160 A
• maximum	800 A
adjustable response value delay time (t <sub>g</sub> ) / for G-tripping / with I <sub>2t</sub> characteristic	
• minimum	0.05 s
• maximum	0.8 s
adjustable setting current (I <sub>nN</sub> ) / 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

### Mechanical Design

product component	
• undervoltage release	No
• voltage trigger	No
• trip indicator	No
height [in]	12.91 in
height	328 mm
width [in]	8.27 in
width	210 mm
depth [in]	4.72 in
depth	120 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	20 x 4 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	50 x 28 mm

### Auxiliary circuit

number of CO contacts / for auxiliary contacts	0
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### Accessories

product extension / optional / motor drive	No
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### 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
reference code / according to IEC 81346-2	Q

### Approvals / Certificates

#### General Product Approval



Miscellaneous



EMV	Maritime application	other	Dangerous goods	Environment
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[Confirmation](#)

[Miscellaneous](#)

[Transport Information](#)

[Environmental Confirmations](#)

### 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)

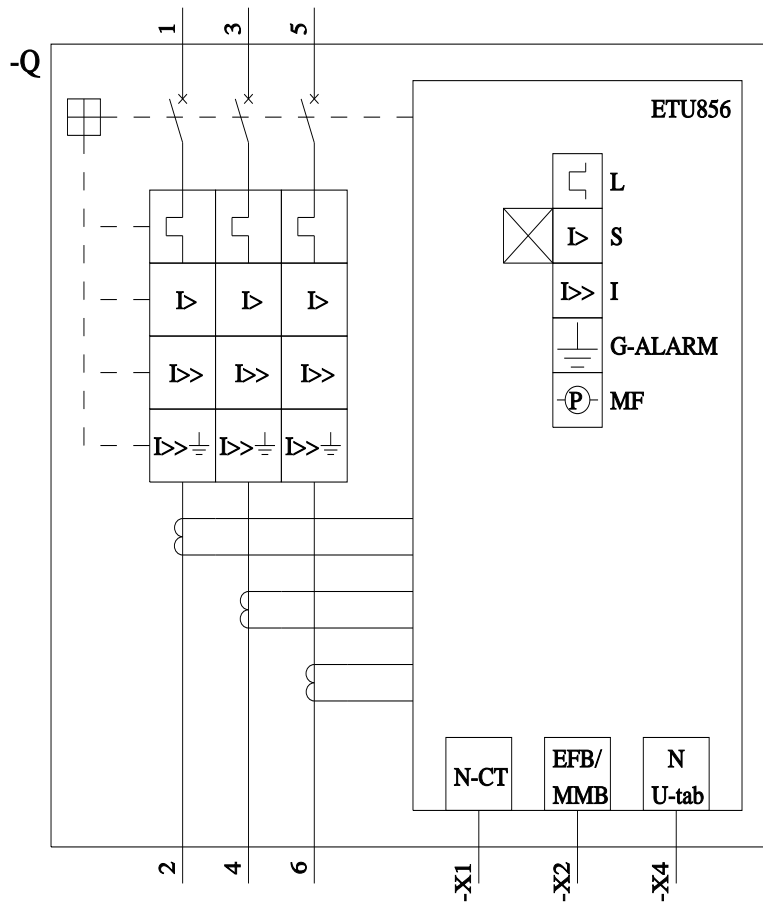
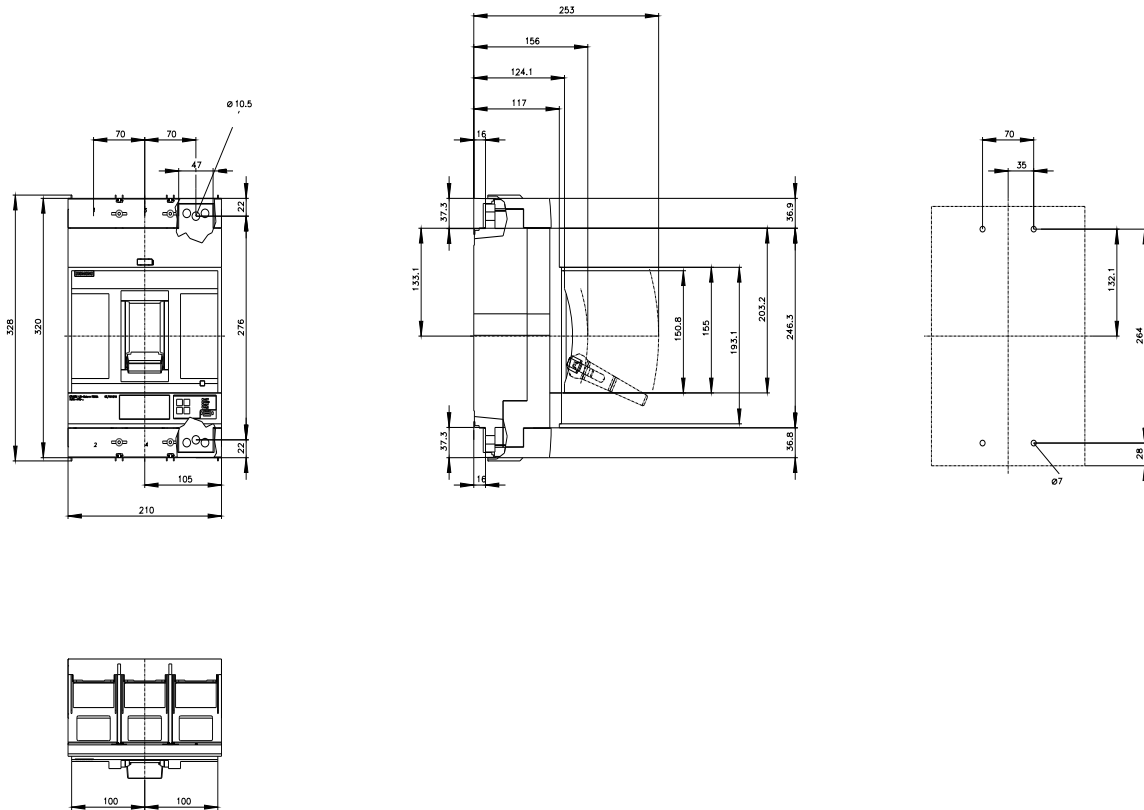
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA6580-5KT32-2AA0>

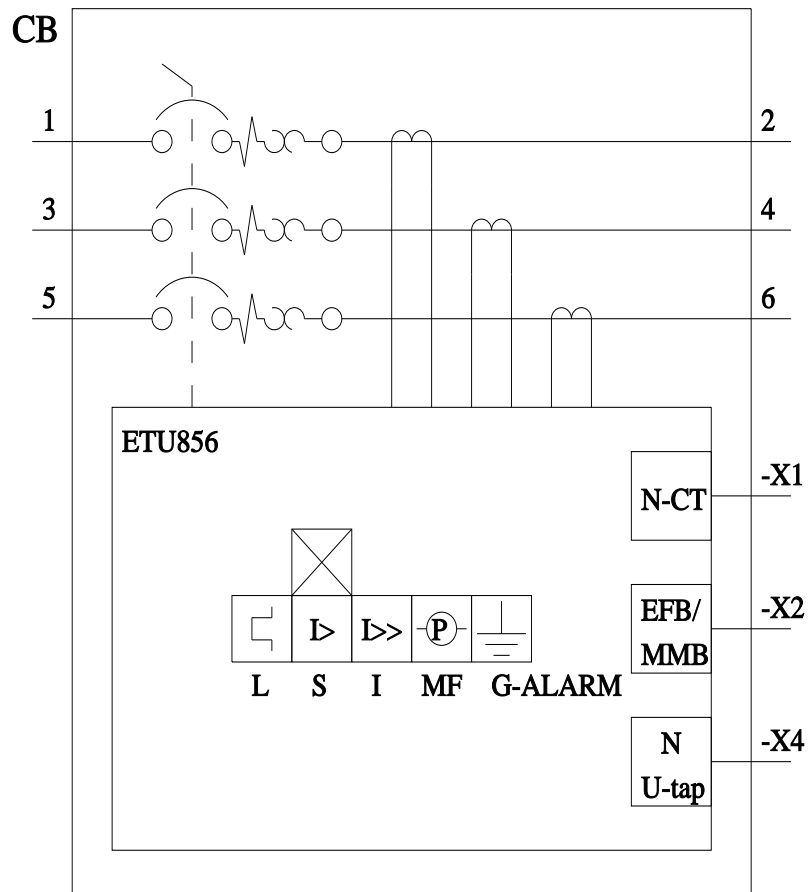
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6580-5KT32-2AA0>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6580-5KT32-2AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6580-5KT32-2AA0)





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