

Siemens  
EcoTech



circuit breaker 3VA6 UL Frame 250 breaking capacity class M 35 kA @ 480 V 4-pole, line protection ETU556, LSI, In=100 A overload protection Ir=40 A...100 A short-circuit protection I<sub>sd</sub>=0.6..10x I<sub>n</sub>, I<sub>i</sub>=1.5..12x I<sub>n</sub> neutral conductor protection adjustable (OFF, up to 160%) ground fault alarm signaled via EFB300 or COM without connection

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MFAE
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	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	Summation current formation L + N-conductor
product function	
• communication function	Yes
• other measurement function	No
Net Weight	3.2 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
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	M
maximum short-circuit current breaking capacity (I <sub>cu</sub> )	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	3 kA
operating short-circuit current breaking capacity (I <sub>cs</sub> )	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	3 kA
short-circuit current making capacity (I <sub>cm</sub> )	
• at 240 V	187 kA

- at 415 V 121 kA
- at 690 V 4.5 kA

#### Switching capacity according to UL 489

- current breaking capacity
- at 240 V 100 kA
  - at 480 V 35 kA
  - at 600 V 18 kA

#### Adjustable parameters

- adjustable response value setting current ( $I_r$ ) / of the L-trip / with I2t characteristic
- minimum 40 A
  - maximum 100 A
- adjustable response value delay time ( $t_r$ ) / for L-tripping / with I2t characteristic
- minimum 0.5 s
  - maximum 25 s
- adjustable response value setting current ( $I_{sd}$ ) / of S-trip / with I0t characteristic
- minimum 60 A
  - maximum 1 000 A
- adjustable response value setting current ( $I_{sd}$ ) / of S-trip / with I2t characteristic
- minimum 60 A
  - maximum 1 000 A
- adjustable response value delay time ( $t_{sd}$ ) / for S-tripping / with I0t characteristic
- minimum 0.05 s
  - maximum 0.5 s
- adjustable response value delay time ( $t_{sd}$ ) / for S-tripping / with I2t characteristic
- minimum 0.05 s
  - maximum 0.5 s
- adjustable response value setting current ( $I_i$ ) / for I-tripping
- minimum 150 A
  - maximum 1 200 A
- adjustable current response value current / for G-tripping / with standard characteristic
- initial value 20 A
  - full-scale value 100 A
- adjustable response value delay time ( $t_g$ ) / for G-tripping / with I0t characteristic
- minimum 0.05 s
  - maximum 0.8 s
- adjustable response value setting current ( $I_g$ ) / for G-tripping / with I2t characteristic
- minimum 20 A
  - maximum 100 A
- adjustable response value delay time ( $t_g$ ) / for G-tripping / with I2t characteristic
- minimum 0.05 s
  - maximum 0.8 s
- adjustable setting current ( $I_{nN}$ ) / 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] 7.8 in
- height 198 mm
- width [in] 5.51 in

width	140 mm
depth [in]	3.39 in
depth	86 mm

### Connections

arrangement of electrical connectors / for main current circuit	Without connection
type of electrical connection / for main current circuit	Without

### Auxiliary circuit

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

product extension / optional / motor drive	Yes
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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

### Environmental footprint

Environmental Product Declaration (EPD)	Yes
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



General Product Approval	EMV	Maritime application
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[Miscellaneous](#)



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

[Miscellaneous](#)

[Transport Information](#)



Siemens EcoTech



### Environment

[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,...)  
<http://www.siemens.com/lowvoltage/catalogs>

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA6210-5JT41-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6210-5JT41-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6210-5JT41-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6210-5JT41-0AA0)

**CAX-Online-Generator**

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

**Tender specifications**

<http://www.siemens.com/specifications>

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