

CIRCUIT BREAKER 3VA6 UL FRAME 150 BREAKING CAPACITY CLASS M 35KA @ 480V 3-POLE, LINE PROTECTION ETU820, LI, IN=40A OVERLOAD PROTECTION IR=16A ...40A SHORT CIRCUIT PROTECTION II=1,5...12 X IN W/O CONNECTION



Model	
Product brand name	SENTRON
Product designation	Molded-case circuit breaker
Design of the product	System protection
Design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
Design of the overcurrent release	ETU820
Protective function of the overcurrent release	LI
Number of poles	3
General technical data	
Tension assignée d'isolement $U_i$	600 V
Max. rated operational voltage $U_e$ with AC 50/60Hz	600 V
Active power loss / for rated value of the current / at AC / in hot operating state / per device	2.4 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	0.8 W
Mechanical service life (switching cycles) / typical	20 000

Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	9 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	5 000
Electrical endurance (switching cycles) / at 480 V / at 50/60 Hz	9 000
Electrical endurance (switching cycles) / at 600 V / at 50/60 Hz	9 000
Neutral conductors / upgradeable/retrofittable	No
Ground fault monitoring version	Without
Product function	
• communication function	Yes
• other measurement function	Yes

### Electricity

Marking / acc. to UL 489 / 100%-rated breaker	Yes
Max. rated operational voltage of the size of the circuit-breaker	150 A
Courant permanent assigné lu	40 A
Operating current	
• at 40 °C	40 A
• at 45 °C	40 A
• at 50 °C	40 A
• at 55 °C	40 A
• at 60 °C	40 A
• at 65 °C	40 A
• at 70 °C	40 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	2.5 kA
Operational short-circuit current breaking capacity (I <sub>cs</sub> )	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	2.5 kA
Short-circuit current making capacity (I <sub>cm</sub> )	
• at 240 V	187 kA
• at 415 V	121 kA
• at 690 V	3.8 kA

### Switching capacity according to UL 489

Breaking capacity current	
<ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 480 Y/277 V</li> <li>• at 480 V</li> <li>• at 600 Y/347 V</li> <li>• at 600 V</li> </ul>	<ul style="list-style-type: none"> <li>100 kA</li> <li>35 kA</li> <li>35 kA</li> <li>18 kA</li> <li>18 kA</li> </ul>

### Adjustable parameters

Adjustable response value current / I <sub>g</sub> min.	15 A
Adjustable response value current / I <sub>g</sub> min.	40 A
Adjustable response value current / I <sub>g</sub> min.	0.5
Adjustable response value current / I <sub>g</sub> min.	25
Adjustable response value current / I <sub>i</sub> min.	60 A
Adjustable response value current / I <sub>i</sub> max.	480 A
Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF	No

### Mechanical Design

Height [in]	7.8 in
Height	198 mm
Width [in]	4.1 in
Width	105 mm
Depth [in]	3.4 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	
<ul style="list-style-type: none"> <li>• during operation / minimum</li> <li>• during operation / maximum</li> <li>• during storage / minimum</li> <li>• during storage / maximum</li> </ul>	<ul style="list-style-type: none"> <li>-25 °C</li> <li>70 °C</li> <li>-40 °C</li> <li>80 °C</li> </ul>

### Certificates

Equipment marking / acc. to DIN EN 81346-2	Q
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Certificate of suitability / as approval for NAVAL (no combat vessels) / Supplement SB

No

**General Product Approval**

**EMC**

**Declaration of  
Conformity**



CSA



UL



UL



RCM



EG-Konf.

**Shipping  
Approval**

**other**



ABS

[Miscellaneous](#)

**Further information**

**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?mfb=3VA6140-5KL31-2AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6140-5KL31-2AA0>

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

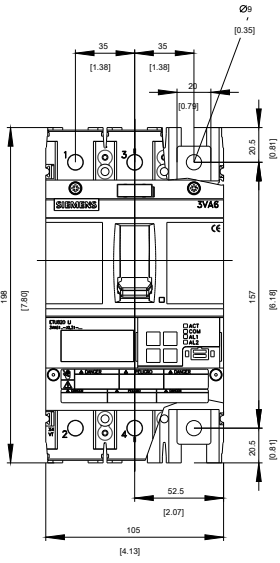
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA6140-5KL31-2AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA6140-5KL31-2AA0)

**CAX-Online-Generator**

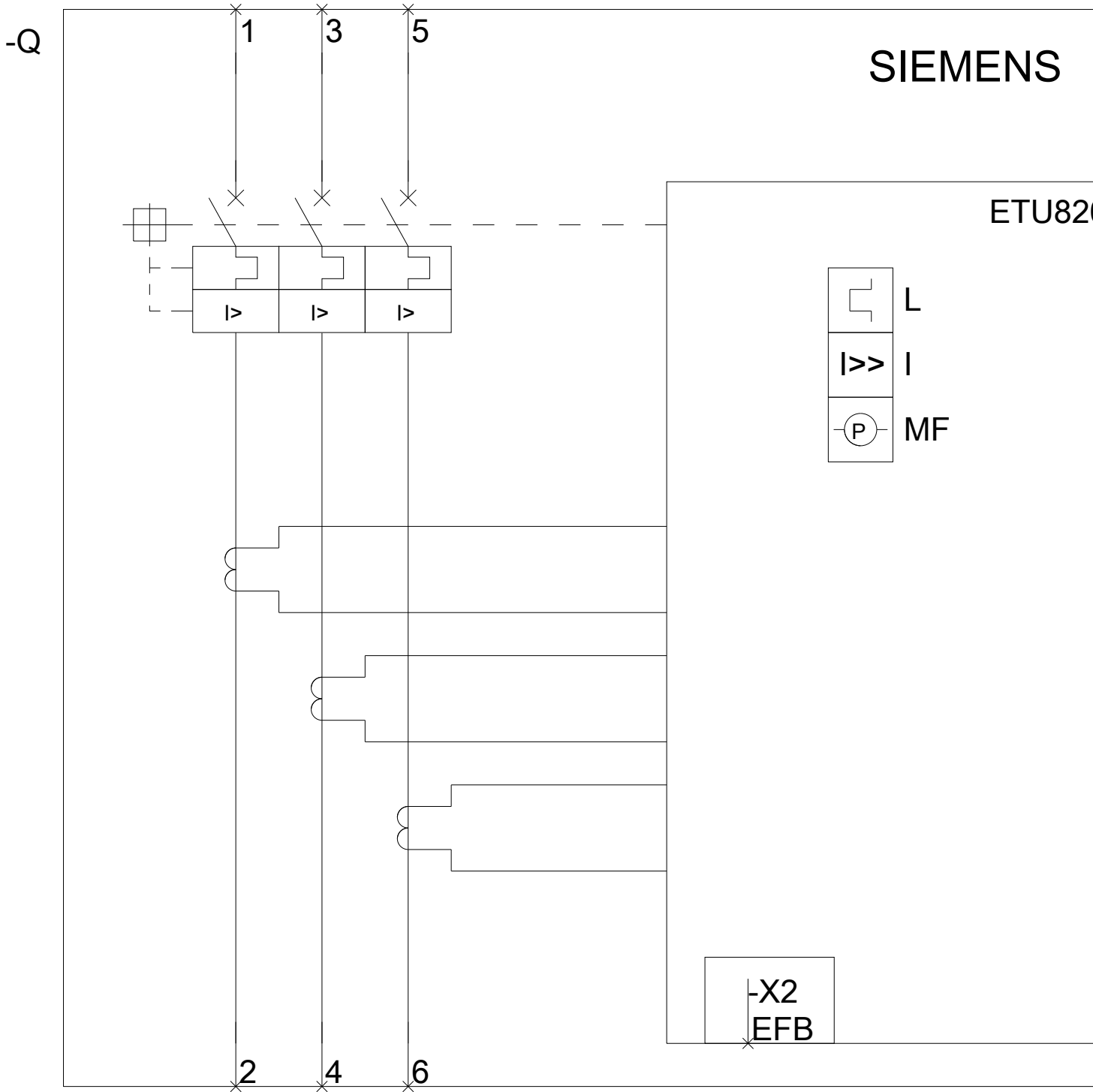
<http://www.siemens.com/cax>

**Tender specifications**

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



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