



CIRCUIT BREAKER 3VA6 UL FRAME 600 BREAKING CAPACITY CLASS M 35KA @ 480V 3-POLE, LINE PROTECTION ETU830, LIG, IN=400A OVERLOAD PROTECTION IR=160A ...400A SHORT CIRCUIT PROTECTION II=1,5...12 X IN GROUND-FAULT-PROTECTION IG=0,2... 1 X IN, TG=0,05-0,8S 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	ETU830
Protective function of the overcurrent release	LIG
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	70 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	23.33 W
Mechanical service life (switching cycles) / typical	15 000

Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	4 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	2 500
Electrical endurance (switching cycles) / at 480 V / at 50/60 Hz	4 000
Electrical endurance (switching cycles) / at 600 V / at 50/60 Hz	3 000
Neutral conductors / upgradeable/retrofitable	No
Ground fault monitoring version	Summation current formation L-conductor
Product function	
• communication function	Yes
• other measurement function	Yes

### Electricity

Marking / acc. to UL 489 / 100%-rated breaker	No
Max. rated operational voltage of the size of the circuit-breaker	600 A
Courant permanent assigné lu	400 A
Operating current	
• at 40 °C	400 A
• at 45 °C	400 A
• at 50 °C	400 A
• at 55 °C	400 A
• at 60 °C	400 A
• at 65 °C	400 A
• at 70 °C	400 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	6 kA
Operational short-circuit current breaking capacity (I <sub>cs</sub> )	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	6 kA
Short-circuit current making capacity (I <sub>cm</sub> )	
• at 240 V	187 kA
• at 415 V	121 kA
• at 690 V	9 kA

### Switching capacity according to UL 489

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

### Adjustable parameters

Adjustable response value current / I <sub>g</sub> min.	150 A
Adjustable response value current / I <sub>g</sub> min.	400 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.	600 A
Adjustable response value current / I <sub>i</sub> max.	4 800 A
Ground fault protection can be switched ON/OFF	Yes
Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF	Yes
Adjustable response value current / I <sub>g</sub> min.	80 A
Adjustable response value current / I <sub>g</sub> max.	400 A
Adjustable response value current / t <sub>g</sub> min.	0.05 s
Adjustable response value current / I <sub>g</sub> min.	0.8 s

### Mechanical Design

Height [in]	9.8 in
Height	248 mm
Width [in]	5.4 in
Width	138 mm
Depth [in]	4.3 in
Depth	110 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> </ul>	-25 °C
<ul style="list-style-type: none"> <li>• during operation / maximum</li> </ul>	70 °C
<ul style="list-style-type: none"> <li>• during storage / minimum</li> </ul>	-40 °C

• during storage / maximum

80 °C

## Certificates

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

## General Product Approval

## EMC



CSA



UL



UL



VDE



RCM

## Declaration of Conformity

## Shipping Approval

## other



EG-Konf.



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?mlfb=3VA6440-5KM31-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6440-5KM31-0AA0>

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

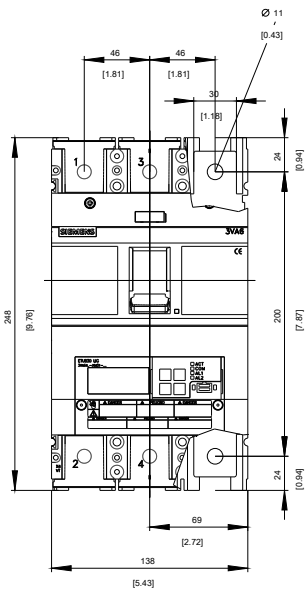
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6440-5KM31-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6440-5KM31-0AA0)

### CAX-Online-Generator

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

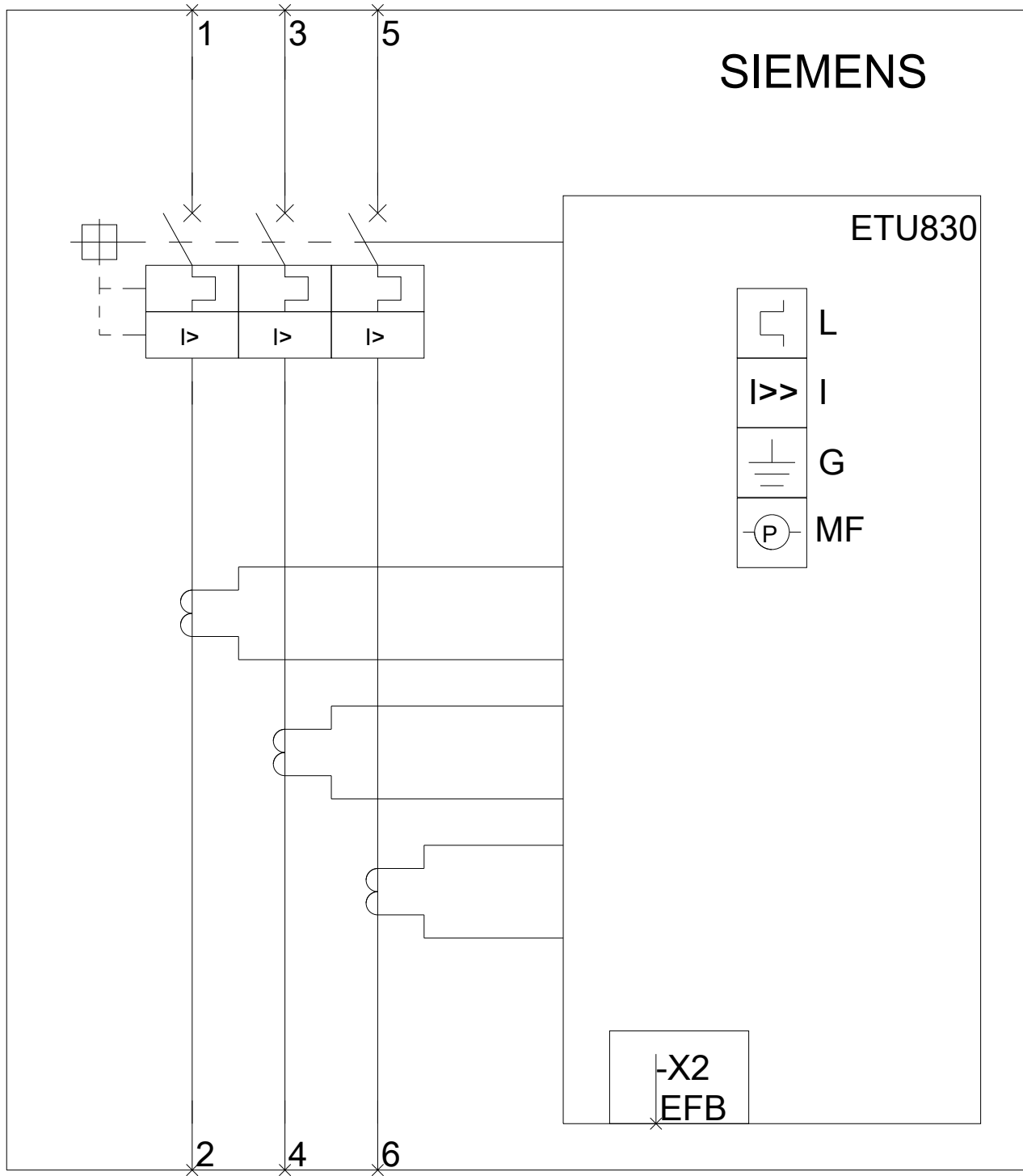
### Tender specifications

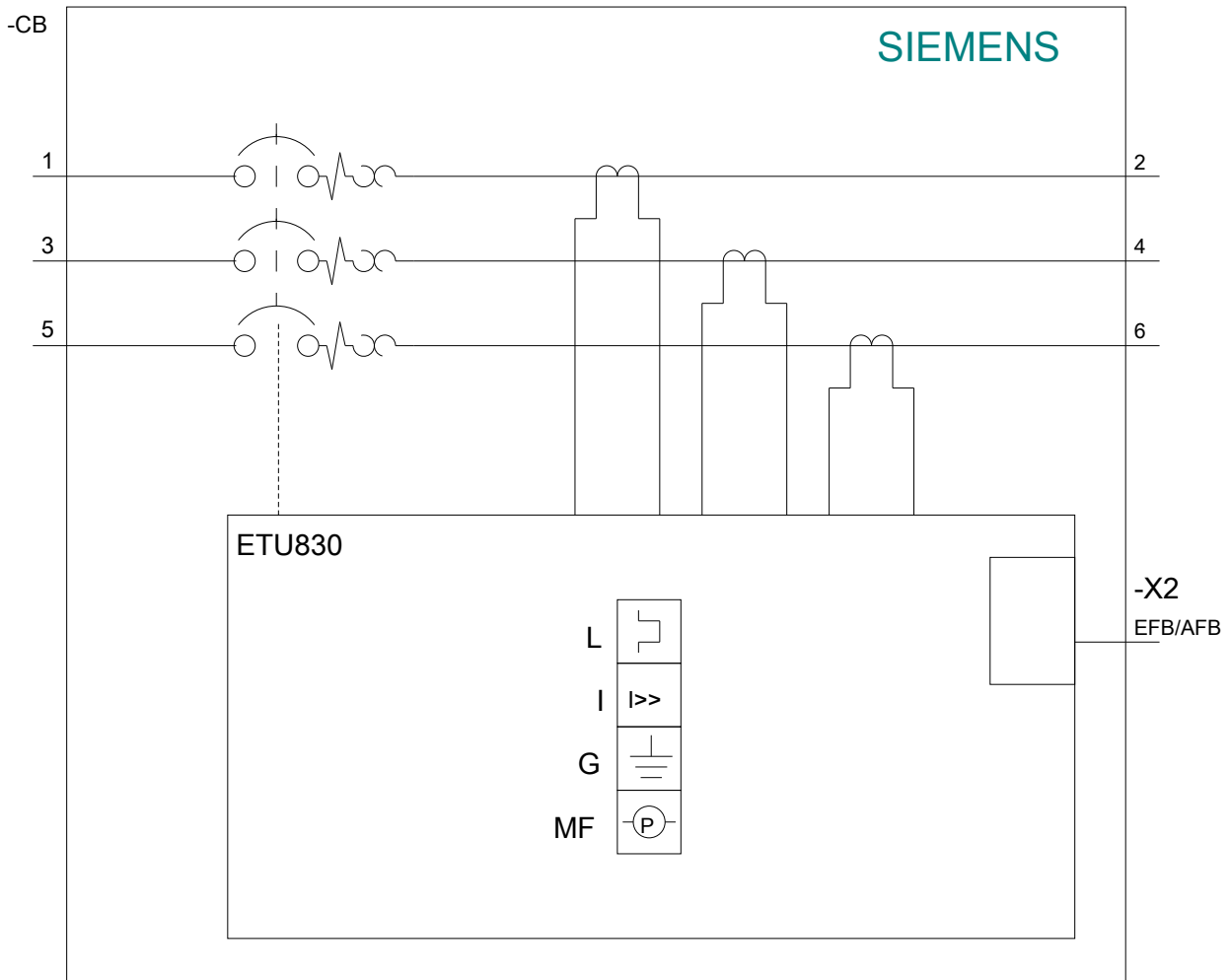
<http://www.siemens.com/specifications>



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