

circuit breaker 3VA6 UL frame 150 breaking capacity class M 35kA @ 480V 3-pole, line protection ETU320, LI, In=100A overload protection Ir=40A...100A short-circuit protection li=1.5...12 x In without connection



Model	
Product brand name	SENTRON
Product designation	Molded-case circuit breaker
Product designation / according to UL file	MDAE
Product version	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	ETU320
Protective function of the overcurrent release	LI
Number of poles	3
General technical data	
Rated insulation voltage Ui	600 V
Max. rated operational voltage Ue with AC 50/60Hz	600 V
Power loss [W] / maximum	13 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	4.33 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/retrofitable	No
Ground fault monitoring version	Without
Product function	
• communication function	No
• other measurement function	No

Current

Marking / acc. to UL 489 / 100%-rated breaker	No
Max. rated operational current of the frame size	150 A
Rated continuous current I _u	100 A
Operating 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 _{cu})	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	2.5 kA
Operational short-circuit current breaking capacity (I _{cs})	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	2.5 kA
Short-circuit current making capacity (I _{cm})	
• 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	
---------------------------	--

• at 240 V	100 kA
• at 480 V	35 kA
• at 600 V	18 kA

Adjustable parameters

Adjustable response value current / I _r min.	40 A
Adjustable response value current / I _r max.	100 A
Adjustable response value time / t _r min.	0.5
Adjustable response value time / t _r max.	17
Adjustable response value current / I _i min.	150 A
Adjustable response value current / I _i max.	1 200 A
Ground fault protection / tripping switchable / I _{2t} =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
--	---

Accessories

Product extension / optional / motor drive	Yes
--	-----

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

Certificates

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

General Product Approval



CCC



CSA



UL



UL



VDE

CB

CB

General Product Approval	EMC	Declaration of Conformity	Shipping Approval	other
--------------------------	-----	---------------------------	-------------------	-------



RCM



EG-Konf.



ABS



LRS

[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=3VA6110-5HL31-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6110-5HL31-0AA0>

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

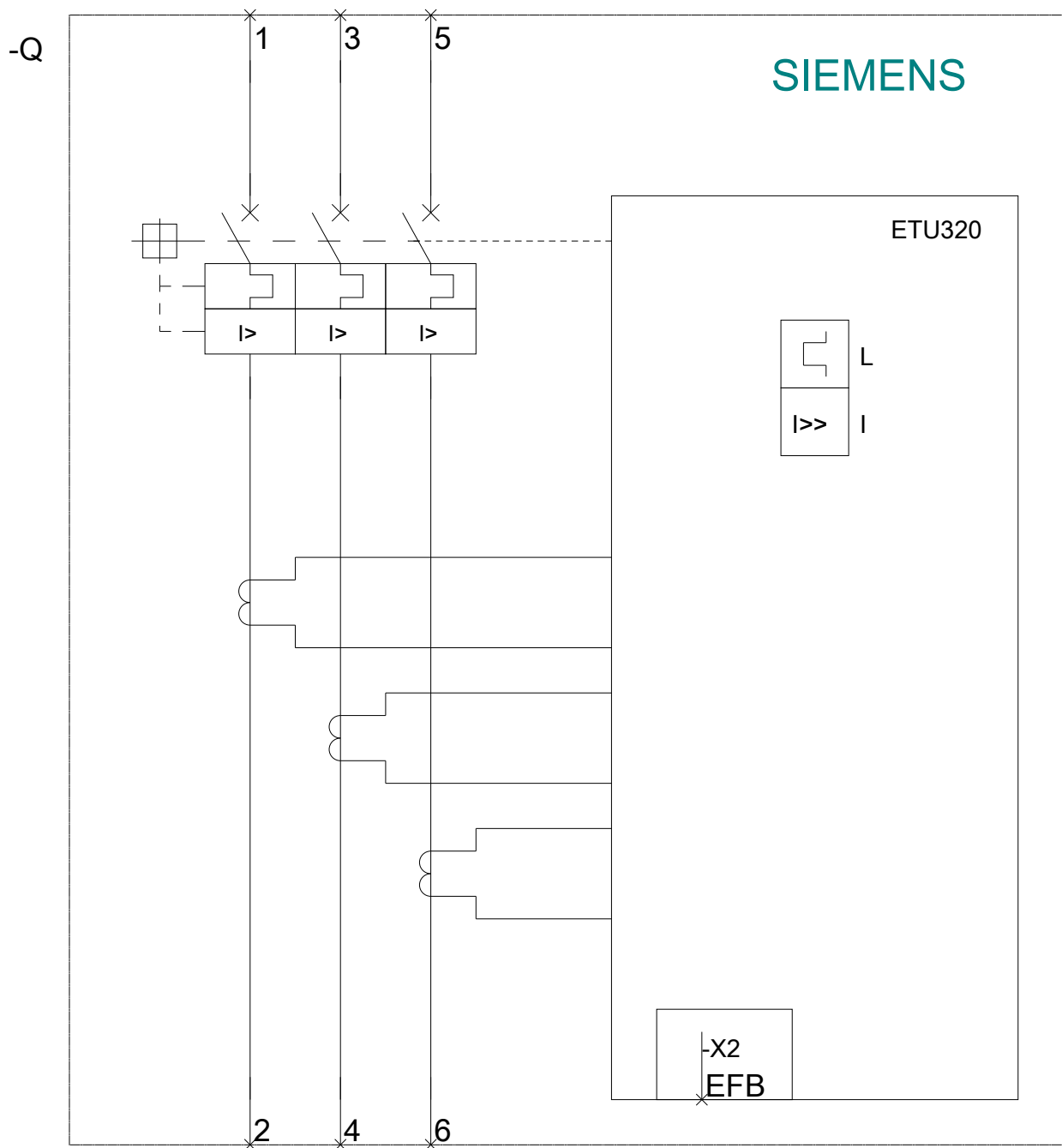
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6110-5HL31-0AA0

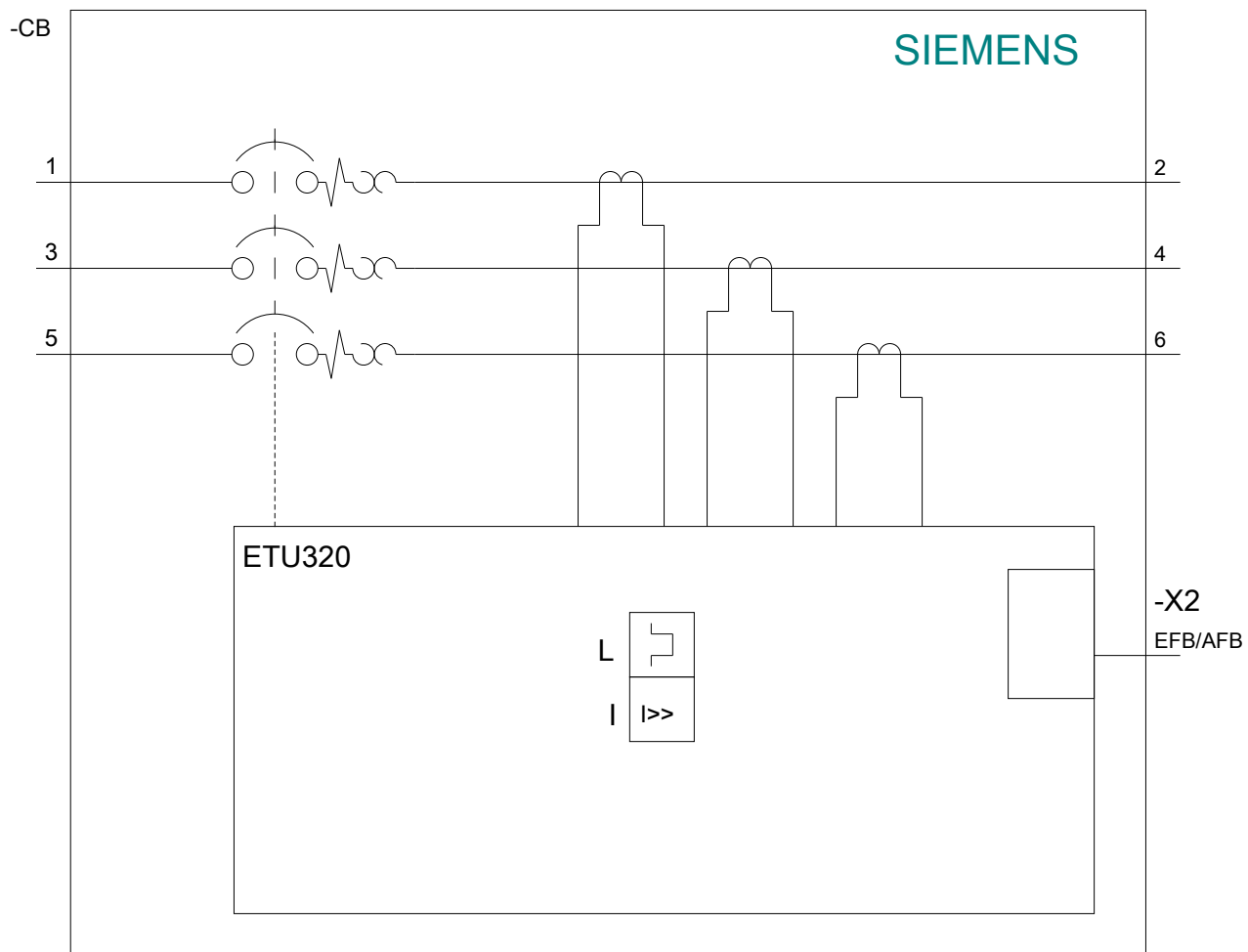
CAX-Online-Generator

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

Tender specifications

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





last modified:

04/02/2020