

Siemens  
EcoTech



circuit breaker 3VA6 UL Frame 600 breaking capacity class H 65 kA @ 480 V 4-pole, line protection ETU320, LI, In=400 A overload protection Ir=160 A...400 A short-circuit protection Ii=1.5...12 x In neutral conductor protection adjustable (OFF, 50%, 100%) without connection



Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	HLAE
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	ETU320
protection function of the overcurrent release	LI
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	70 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	23.33 W
mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	4 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	3 500
electrical endurance (operating cycles) / at 480 V	4 000
electrical endurance (operating cycles) / at 600 V	3 500
product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof	No
ground-fault monitoring version	without
product function	
• communication function	No
• other measurement function	No
Net Weight	6.9 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational 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
<b>Switching capacity according to IEC 60947</b>	
switching capacity class of the circuit breaker	H
maximum short-circuit current breaking capacity (I <sub>cu</sub> )	
• at 240 V	110 kA
• at 415 V	85 kA
• at 690 V	6 kA
operating short-circuit current breaking capacity (I <sub>cs</sub> )	
• at 240 V	110 kA
• at 415 V	85 kA
• at 690 V	6 kA
short-circuit current making capacity (I <sub>cm</sub> )	
• at 240 V	242 kA
• at 415 V	187 kA
• at 690 V	9 kA
<b>Switching capacity according to UL 489</b>	
current breaking capacity	
• at 240 V	100 kA
• at 480 V	65 kA
• at 600 V	22 kA
<b>Adjustable parameters</b>	
adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2t</sub> characteristic	
• minimum	150 A
• maximum	400 A
adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic	
• minimum	0.5 s
• maximum	17 s
adjustable response value setting current (I <sub>i</sub> ) / for I-tripping	
• minimum	600 A
• maximum	4 800 A
adjustable setting current (I <sub>nN</sub> ) / for N-tripping	
• minimum	200 A
• maximum	400 A
design of the N-conductor protection	adjustable OFF; 50%; 100%
product function / grounding protection	No
<b>Mechanical Design</b>	
product component	
• undervoltage release	No
• voltage trigger	No
• trip indicator	No
height [in]	9.76 in
height	248 mm
width [in]	7.24 in
width	184 mm
depth [in]	4.33 in
depth	110 mm
<b>Connections</b>	
arrangement of electrical connectors / for main current circuit	Without connection
type of electrical connection / for main current circuit	Without
<b>Auxiliary circuit</b>	
number of CO contacts / for auxiliary contacts	0
<b>Accessories</b>	
product extension / optional / motor drive	Yes
<b>Environmental conditions</b>	
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	495 kg
global warming potential [CO2 eq] / during manufacturing	28.7 kg
global warming potential [CO2 eq] / during operation	470 kg
global warming potential [CO2 eq] / after end of life	-4.07 kg
Siemens Eco Profile (SEP)	Siemens EcoTech
reference code / according to IEC 81346-2	Q

#### Approvals / Certificates

##### General Product Approval



[Confirmation](#)



##### General Product Approval

EMV

Test Certificates



[Miscellaneous](#)



[Type Test Certificates/Test Report](#)

##### Maritime application

other

Dangerous goods



[Confirmation](#)

[Miscellaneous](#)

[Transport Information](#)

#### Environment



Siemens EcoTech



[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=3VA6440-6HL41-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6440-6HL41-0AA0>

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

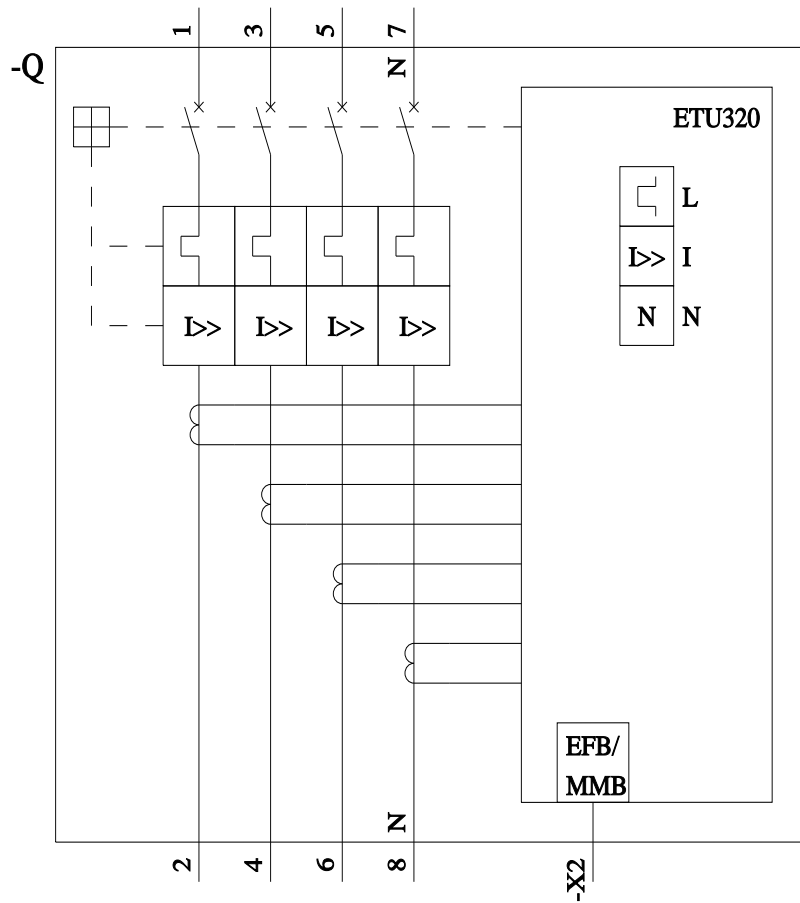
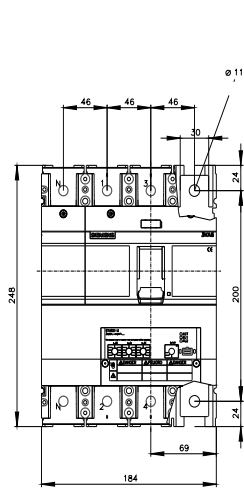
[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6440-6HL41-0AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6440-6HL41-0AA0)

##### CAx-Online-Generator

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

##### Tender specifications

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





last modified:

5/2/2025

