

Siemens  
EcoTech



circuit breaker 3VA6 UL Frame 600 breaking capacity class H 65 kA @ 480 V 4-pole, line protection ETU350, LSI, In=600 A overload protection Ir=240 A...600 A short-circuit protection I<sub>sd</sub>=1.5...9 x I<sub>r</sub>, I<sub>i</sub>=9x I<sub>n</sub> 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	ETU350
protection function of the overcurrent release	LSI
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	151 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	50.33 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	600 A
• at 45 °C	600 A
• at 50 °C	593 A
• at 55 °C	575 A
• at 60 °C	557 A
• at 65 °C	538 A

● at 70 °C	520 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	250 A
● maximum	600 A
adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic	
● minimum	0.5 s
● maximum	15 s
adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I <sub>0t</sub> characteristic	
● minimum	900 A
● maximum	5 400 A
adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I <sub>2t</sub> characteristic	
● minimum	900 A
● maximum	5 400 A
adjustable response value delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>2t</sub> characteristic	
● minimum	0.0001 s
● maximum	0.4 s
adjustable response value setting current (I <sub>l</sub> ) / for I-tripping	
● minimum	5 400 A
● maximum	5 400 A
adjustable setting current (I <sub>nN</sub> ) / for N-tripping	
● minimum	300 A
● maximum	600 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

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
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



EG-Konf.



UL



UL



VDE

##### General Product Approval

##### EMV

##### Test Certificates

##### Maritime application

##### Miscellaneous



RCM

##### Type Test Certificates/Test Report



ABS

##### Maritime application

##### other



DNV



LRS



RMRS

##### Confirmation

##### Miscellaneous

##### Dangerous goods

##### Environment

##### Transport Information



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?mifb=3VA6460-6HN41-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6460-6HN41-0AA0>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6460-6HN41-0AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6460-6HN41-0AA0)

CAX-Online-Generator

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

Tender specifications

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





