

Siemens  
EcoTech



circuit breaker 3VA6 UL Frame 250 breaking capacity class H 65 kA @ 480 V 3-pole, line protection ETU350, LSI, In=250 A overload protection Ir=100 A...250 A short-circuit protection I<sub>sd</sub>=1.5...10 x I<sub>r</sub>, I<sub>i</sub>=10 x I<sub>n</sub> without connection



Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	HFAE
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	3
General technical data	
insulation voltage / rated value	800 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	42 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	14 W
mechanical service life (operating cycles) / typical	25 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	12 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	8 400
electrical endurance (operating cycles) / at 480 V	12 000
electrical endurance (operating cycles) / at 600 V	8 400
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	2.206 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	250 A
• at 45 °C	250 A
• at 50 °C	250 A
• at 55 °C	241 A
• at 60 °C	232 A
• at 65 °C	222 A
• at 70 °C	213 A

**Switching capacity according to IEC 60947**

switching capacity class of the circuit breaker	H
maximum short-circuit current breaking capacity (I <sub>cu</sub> ) <ul style="list-style-type: none"><li>• at 240 V</li><li>• at 415 V</li><li>• at 690 V</li></ul>	110 kA 85 kA 3 kA
operating short-circuit current breaking capacity (I <sub>cs</sub> ) <ul style="list-style-type: none"><li>• at 240 V</li><li>• at 415 V</li><li>• at 690 V</li></ul>	110 kA 85 kA 3 kA
short-circuit current making capacity (I <sub>cm</sub> ) <ul style="list-style-type: none"><li>• at 240 V</li><li>• at 415 V</li><li>• at 690 V</li></ul>	242 kA 187 kA 4.5 kA

**Switching capacity according to UL 489**

current breaking capacity <ul style="list-style-type: none"><li>• at 240 V</li><li>• at 480 V</li><li>• at 600 V</li></ul>	100 kA 65 kA 22 kA
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**Adjustable parameters**

adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul>	100 A 250 A
adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul>	0.5 s 13 s
adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I <sub>0t</sub> characteristic <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul>	375 A 2 500 A
adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul>	375 A 2 500 A
adjustable response value delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul>	0.0001 s 0.4 s
adjustable response value setting current (I <sub>i</sub> ) / for I-tripping <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul>	2 500 A 2 500 A
adjustable setting current (I <sub>nN</sub> ) / for N-tripping <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul>	0 A 0 A
product function / grounding protection	No

**Mechanical Design**

product component <ul style="list-style-type: none"><li>• undervoltage release</li><li>• voltage trigger</li><li>• trip indicator</li></ul>	No No No
height [in]	7.8 in
height	198 mm
width [in]	4.13 in
width	105 mm
depth [in]	3.39 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
<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
<b>Environmental footprint</b>	
Siemens Eco Profile (SEP)	Siemens EcoTech
reference code / according to IEC 81346-2	Q
<b>Approvals / Certificates</b>	
<b>General Product Approval</b>	



<b>General Product Approval</b>	<b>EMV</b>	<b>Test Certificates</b>
 <a href="#">VDE</a>	<a href="#">KC</a>	<a href="#">Miscellaneous</a>
		
		<a href="#">Type Test Certificates/Test Report</a>

<b>Marine / Shipping</b>	<b>other</b>
 <b>ABS</b>	 <b>BUREAU VERITAS</b>
 <b>DNV</b>	 <b>LRS</b>
	 <b>RMRS</b>
	<a href="#">Miscellaneous</a>

<b>other</b>	<b>Dangerous goods</b>	<b>Environment</b>
<a href="#">Confirmation</a>	<a href="#">Miscellaneous</a>	<a href="#">Transport Information</a>
		
		<a href="#">Environmental Confirmations</a>

**Further information**

Information on the packaging  
<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information- and Downloadcenter (Catalogs, Brochures,...)  
<http://www.siemens.com/lowvoltage/catalogs>

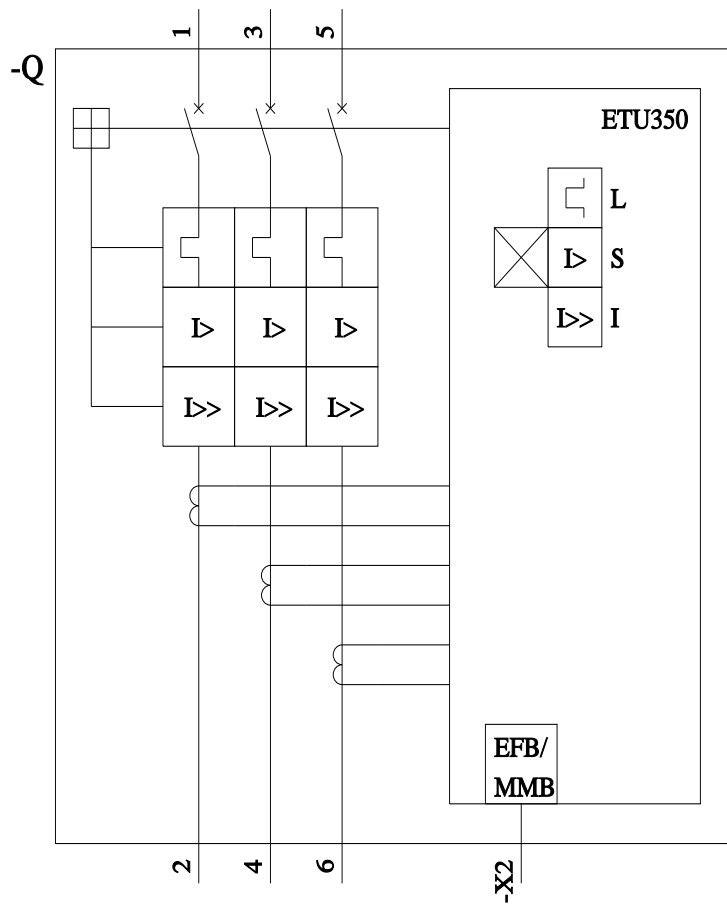
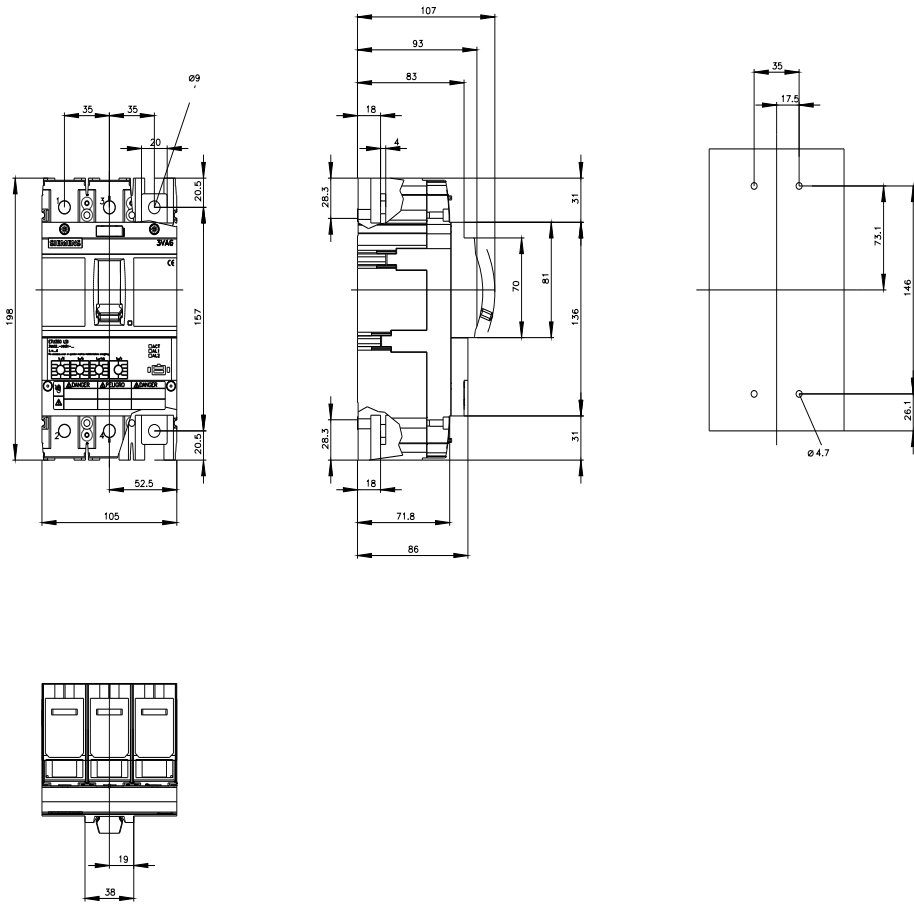
Industry Mall (Online ordering system)  
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA6225-6HN31-0AA0>

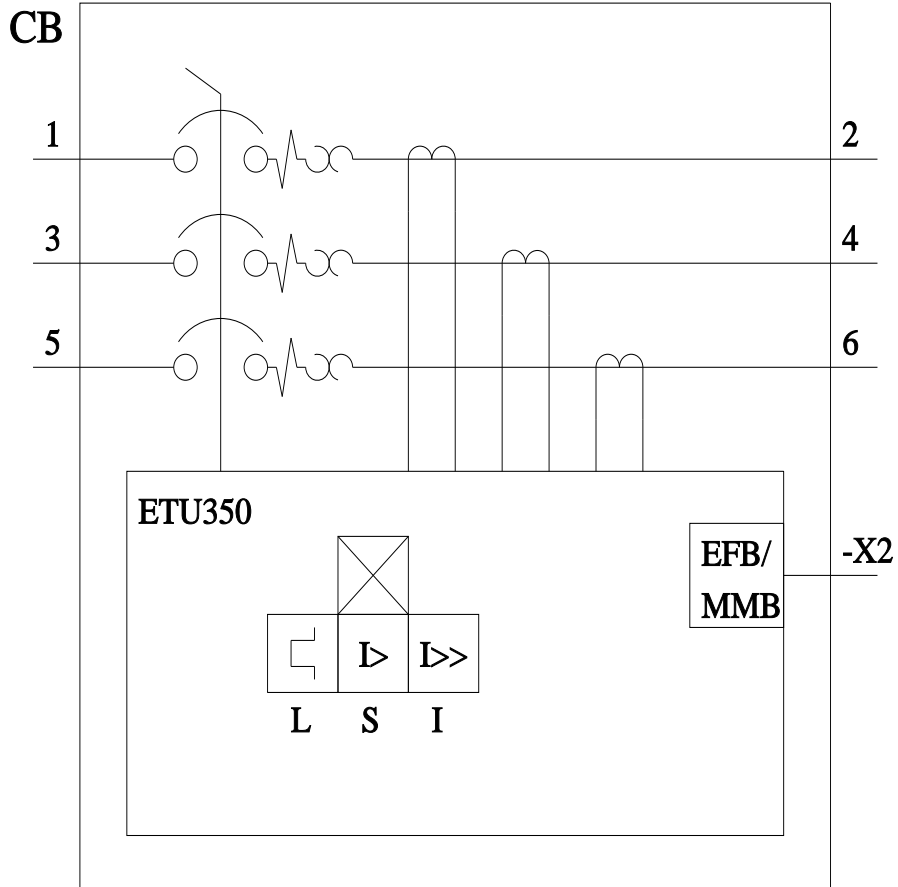
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)  
<https://support.industry.siemens.com/cs/ww/en/ps/3VA6225-6HN31-0AA0>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)  
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6225-6HN31-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6225-6HN31-0AA0)

CAX-Online-Generator  
<http://www.siemens.com/cax>

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





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