

Siemens  
EcoTech



circuit breaker 3VA2 IEC Frame 160 breaking capacity class E Icu=200 kA @ 415 V 4-pole, line protection ETU330, LIG, In=160 A overload protection Ir=63 A ... 160 A short-circuit protection Ii=1.5... 10 x In neutral conductor protection adjustable (OFF, 50%, 100%) ground-fault protection Ig=0.2... 1 x In, tg=0.1/0.3s terminal connection



Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
design of the product	Line protection
design of the overcurrent release	ETU330
protection function of the overcurrent release	LIG
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	19.7 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	6.57 W
mechanical service life (operating cycles) / typical	25 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	14 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	9 800
product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof	No
ground-fault monitoring version	Summation current formation L + N conductor
product function	
• communication function	No
• other measurement function	No
Net Weight	3.3 kg
Current	
operational current	
• at 40 °C	160 A
• at 45 °C	160 A
• at 50 °C	160 A
• at 55 °C	160 A
• at 60 °C	160 A
• at 65 °C	160 A
• at 70 °C	160 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	E
maximum short-circuit current breaking capacity (Icu)	
• at 415 V	200 kA

<ul style="list-style-type: none"> <li>at 690 V</li> </ul>	85 kA
operating short-circuit current breaking capacity (Ics)	
<ul style="list-style-type: none"> <li>at 415 V</li> <li>at 690 V</li> </ul>	200 kA 65 kA
short-circuit current making capacity (Icm)	
<ul style="list-style-type: none"> <li>at 415 V</li> <li>at 690 V</li> </ul>	440 kA 187 kA

#### Adjustable parameters

product feature / for L-tripping / can be switched on/off	No
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>	63 A 160 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 17 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>	240 A 1 920 A
adjustable current response value current / for G-tripping / with standard characteristic	
<ul style="list-style-type: none"> <li>initial value</li> <li>full-scale value</li> </ul>	32 A 160 A
adjustable response value delay time (t <sub>g</sub> ) / for G-tripping / with I <sub>0t</sub> characteristic	
<ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	0.1 s 0.3 s
adjustable setting current (I <sub>nN</sub> ) / for N-tripping	
<ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	31 A 160 A
design of the N-conductor protection	adjustable OFF; 50%; 100%
product function / grounding protection	Yes

#### 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]	7.13 in
height	181 mm
width [in]	5.51 in
type of connectable conductor cross-sections / of the round conductor terminal / stranded	1 x (25 - 185 mm <sup>2</sup> )
width	140 mm
depth [in]	3.39 in
depth	86 mm

#### Connections

arrangement of electrical connectors / for main current circuit	Front terminal
type of electrical connection / for main current circuit	double-sided box terminal
design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)	tin
design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)	tin

#### 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

- during operation / maximum 70 °C
- during storage / minimum -40 °C
- during storage / maximum 80 °C

#### Environmental footprint

global warming potential [CO2 eq] / total	61.814 kg
global warming potential [CO2 eq] / during manufacturing	14.6 kg
global warming potential [CO2 eq] / during operation	48.9 kg
global warming potential [CO2 eq] / after end of life	-2.2 kg
Siemens Eco Profile (SEP)	Siemens EcoTech
reference code / according to IEC 81346-2	Q

#### Approvals / Certificates

##### General Product Approval



[Miscellaneous](#)



General Product Approval	EMV	Test Certificates	Maritime application		
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

[Miscellaneous](#)



Maritime application	other	Dangerous goods			
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[CCS \(China Classification Society\)](#)



[Confirmation](#)

[Miscellaneous](#)

[Transport Information](#)

#### Environment



[Environmental Confirmations](#)

[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=3VA2116-0HM46-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2116-0HM46-0AA0>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2116-0HM46-0AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2116-0HM46-0AA0)

##### CAX-Online-Generator

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

##### Tender specifications

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





