

circuit breaker 3VA2 IEC frame 160 breaking capacity class C
Icu=110kA @ 415V 4-pole, line protection ETU330, LIG, In=160A
overload protection Ir=63A...160A short-circuit protection li=1.5...10 x
In N conductor protection adjustable (OFF, 50%, 100%) ground-fault
protection Ig=0.2...1 x In= tg=0.1/0.3s clamp connection

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
Product version	Line protection
design of the overcurrent release	ETU330
protection function of the overcurrent release	LIG
number of poles	4

General technical data	
Tension assignée d'isolement Ui	800 V
Max. rated operational voltage Ue with AC 50/60Hz	690 V
power loss [W] / maximum	25.5 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	8.5 W
mechanical service life (switching cycles) / typical	20 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	12 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	8 000
Neutral conductors / upgradeable/retrofitable	No
ground fault monitoring version	Summation current formation L + N conductor
product function	
• communication function	No
• other measurement function	No
net weight	3.13 kg

Current	
Max. rated operational current of the frame size	160 A
Courant permanent assigné Iu	160 A
operating 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
- at 70 °C

160 A

160 A

Switching capacity according to IEC 60947

switching capacity class of the circuit breaker	C
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	150 kA
• at 415 V	110 kA
• at 440 V	110 kA
• at 500 V	85 kA
• at 690 V	2.5 kA
operational short-circuit current breaking capacity (Ics)	
• at 240 V	150 kA
• at 415 V	110 kA
• at 440 V	110 kA
• at 500 V	85 kA
• at 690 V	2.5 kA
short-circuit current making capacity (Icm)	
• at 240 V	330 kA
• at 415 V	242 kA
• at 440 V	242 kA
• at 500 V	187 kA
• at 690 V	3.8 kA

Adjustable parameters

Adjustable response value current / I _g min.	63 A
Adjustable response value current / I _g min.	160 A
Adjustable response value current / I _g min.	0.5
Adjustable response value current / I _g min.	17
Short-term delayed / tripping switchable / I _{2t} =ON/OFF	No
Adjustable response value current / I _i min.	240 A
Adjustable response value current / I _i max.	1 600 A
design of the N-conductor protection	adjustable OFF; 50%; 100%
Ground fault protection can be switched ON/OFF	No
Ground fault protection / tripping switchable / I _{2t} =ON/OFF	Yes
Adjustable response value current / I _g min.	32 A
Adjustable response value current / I _g max.	160 A
Adjustable response value current / t _g min.	0.1 s
Adjustable response value current / I _g min.	0.3 s
Adjustable response value current / for G-tripping / with I _{2t} characteristic / min.	0 A

Adjustable response value current / for G-tripping / with I2t characteristic / max.	0 A
Mechanical Design	
height [in]	7.1 in
Height	181 mm
width [in]	5.5 in
Width	140 mm
depth [in]	3.4 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
Type of connectable conductor cross-section, round conductor terminal, stranded	1 x (6-120 mm²)
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

General Product Approval	EMC
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CCC



VDE

CB

CB

[Miscellaneous](#)



RCM

Declaration of Conformity	Test Certificates	Shipping Approval
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EG-Konf.

[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Special Test Certificate](#)



ABS



LRS

Shipping Approval	other
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[CCS / China Classification Society](#)

[Manufacturer Declaration](#)

[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=3VA2116-7HM46-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2116-7HM46-0AA0>

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

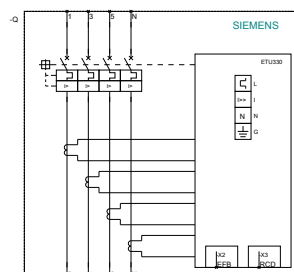
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2116-7HM46-0AA0

CAX-Online-Generator

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

Tender specifications

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



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