



circuit breaker 3VA2 IEC frame 160 breaking capacity class L
 $I_{cu}=150\text{kA}$ @ 415V 4-pole, line protection ETU330, LIG, $I_n=160\text{A}$
 overload protection $I_r=63\text{A}\dots160\text{A}$ short-circuit protection $I_i=1.5\dots10 \times I_n$
 I_n N conductor protection adjustable (OFF, 50%, 100%) ground-fault protection $I_g=0.2\dots1 \times I_n$ $t_g=0.1/0.3\text{s}$ 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 U_i	800 V
Max. rated operational voltage U_e with AC 50/60Hz	690 V
power loss [W] / maximum	19.7 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	6.57 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	
<ul style="list-style-type: none"> • communication function 	No
<ul style="list-style-type: none"> • other measurement function 	No
net weight	3.13 kg

Current

Max. rated operational current of the frame size	160 A
Courant permanent assigné lu	160 A
operating current	
<ul style="list-style-type: none"> • at 40 °C 	160 A
<ul style="list-style-type: none"> • at 45 °C 	160 A
<ul style="list-style-type: none"> • at 50 °C 	160 A
<ul style="list-style-type: none"> • at 55 °C 	160 A
<ul style="list-style-type: none"> • at 60 °C 	160 A
<ul style="list-style-type: none"> • at 65 °C 	160 A
<ul style="list-style-type: none"> • at 70 °C 	160 A

Switching capacity according to IEC 60947

switching capacity class of the circuit breaker	L
maximum short-circuit current breaking capacity (I _{cu})	
<ul style="list-style-type: none"> • at 240 V 	200 kA
<ul style="list-style-type: none"> • at 415 V 	150 kA
<ul style="list-style-type: none"> • at 440 V 	150 kA
<ul style="list-style-type: none"> • at 500 V 	100 kA
<ul style="list-style-type: none"> • at 690 V 	25 kA
operational short-circuit current breaking capacity (I _{cs})	
<ul style="list-style-type: none"> • at 240 V 	200 kA
<ul style="list-style-type: none"> • at 415 V 	150 kA
<ul style="list-style-type: none"> • at 440 V 	150 kA
<ul style="list-style-type: none"> • at 500 V 	100 kA
<ul style="list-style-type: none"> • at 690 V 	18 kA
short-circuit current making capacity (I _{cm})	
<ul style="list-style-type: none"> • at 240 V 	440 kA
<ul style="list-style-type: none"> • at 415 V 	330 kA
<ul style="list-style-type: none"> • at 440 V 	330 kA
<ul style="list-style-type: none"> • at 500 V 	220 kA
<ul style="list-style-type: none"> • at 690 V 	53 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 I _{2t} 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 mm ²)

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"> • during operation / minimum • during operation / maximum • during storage / minimum • during storage / maximum 	<ul style="list-style-type: none"> -25 °C 70 °C -40 °C 80 °C

Certificates

reference code / acc. to DIN EN 81346-2

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General Product Approval				EMC	
 CCC	 VDE	CB CB	Miscellaneous	EAC	 RCM
Declaration of Conformity	Test Certificates			Shipping Approval	
 EG-Konf.	Type Test Certificates/Test Report	Miscellaneous	Special Test Certificate	 ABS	 LRS
Shipping Approval	other				
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=3VA2116-8HM46-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2116-8HM46-0AA0>

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

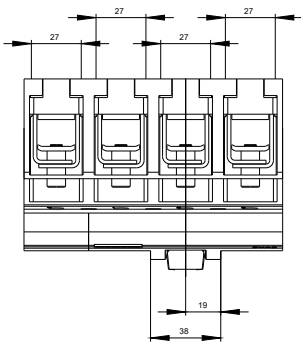
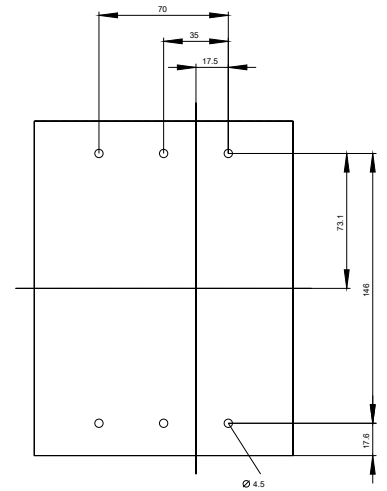
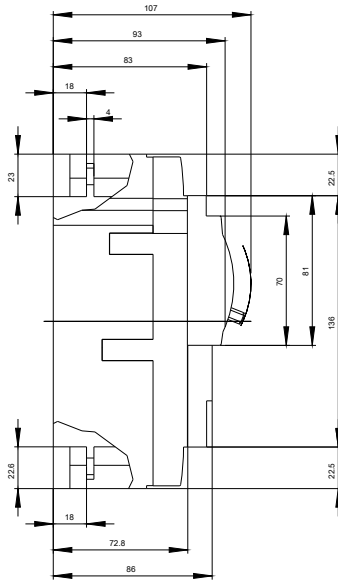
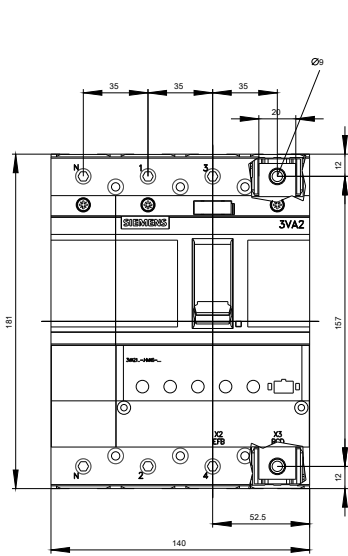
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2116-8HM46-0AA0

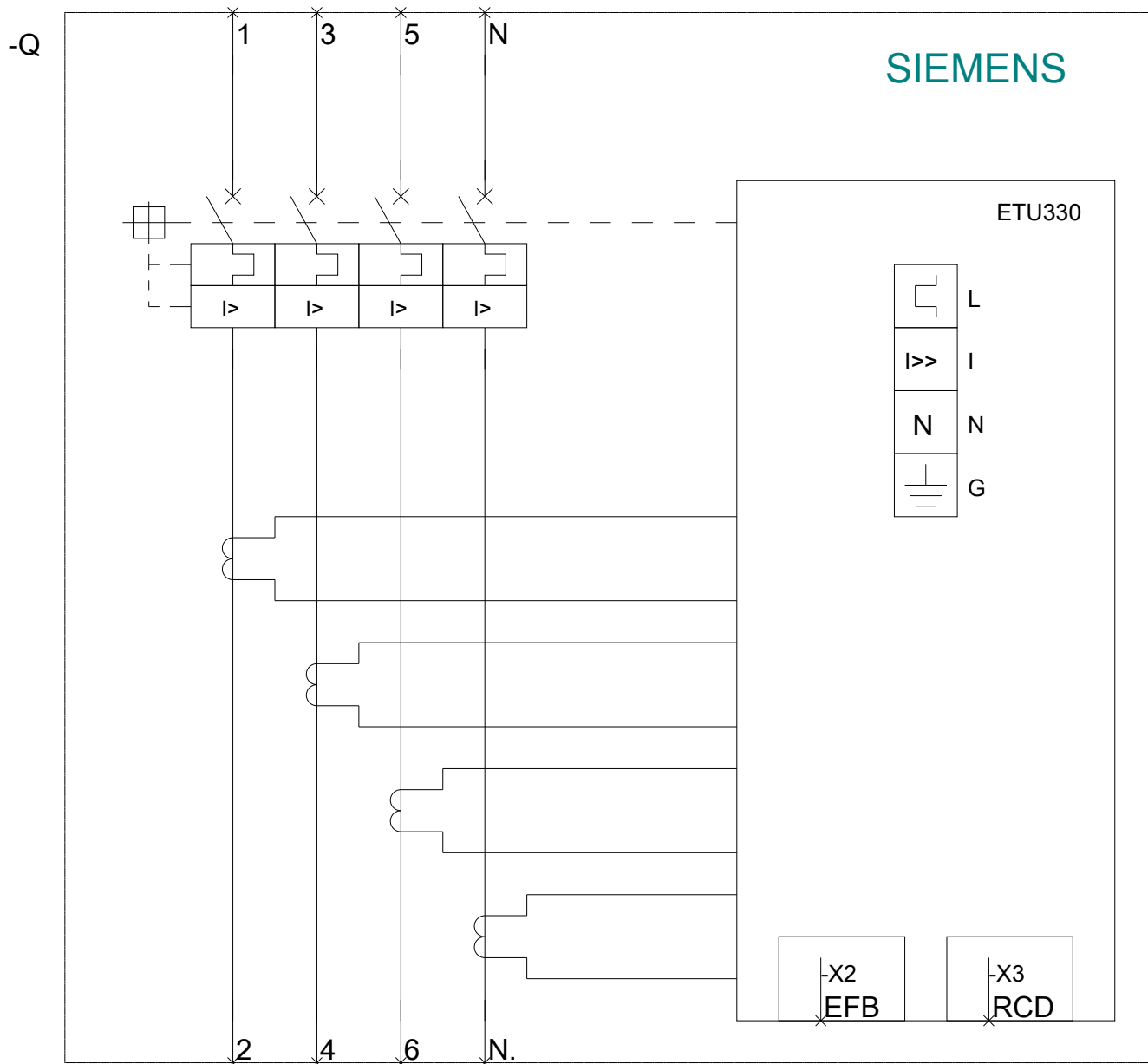
CAX-Online-Generator

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

Tender specifications

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





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