

**Siemens
EcoTech**



circuit breaker 3VA2 IEC Frame 160 breaking capacity class C $I_{cu}=110\text{ kA @ }415\text{ V}$ 3-pole, line protection ETU560, LSIG, $I_n=160\text{ A}$ overload protection $I_r=63\text{ A...160 A}$ short-circuit protection $I_{sd}=0.6..10 \times I_n$, $I_i=1.5..10 \times I_n$ neutral conductor protection optionally with external current transformer, up to 160% ground-fault protection, can be switched off $I_g=0.2...1 \times I_n$, $t_g=0.05-0.8\text{ s}$ terminal connection



Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
design of the product	Line protection
design of the overcurrent release	ETU560
protection function of the overcurrent release	LSIG
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	25.5 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	8.5 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	Yes
ground-fault monitoring version	Summation current formation L-conductor
product function	
• communication function	Yes
• other measurement function	No
Net Weight	2.5 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	C
maximum short-circuit current breaking capacity (I_{cu})	
• at 240 V	150 kA
• at 415 V	110 kA
• at 440 V	110 kA

• at 500 V • at 690 V	85 kA 2.5 kA
operating short-circuit current breaking capacity (Ics) • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	150 kA 110 kA 110 kA 85 kA 2.5 kA
short-circuit current making capacity (Icm) • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	330 kA 242 kA 242 kA 187 kA 3.7 kA

Adjustable parameters

product feature / for L-tripping / can be switched on/off	No
adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic • minimum • maximum	63 A 160 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic • minimum • maximum	0.5 s 20 s
adjustable response value setting current (Isd) / of S-trip / with I0t characteristic • minimum • maximum	96 A 1 600 A
adjustable response value setting current (Isd) / of S-trip / with I2t characteristic • minimum • maximum	96 A 1 600 A
adjustable response value delay time (tsd) / for S-tripping / with I0t characteristic • minimum • maximum	0.05 s 0.5 s
adjustable response value delay time (tsd) / for S-tripping / with I2t characteristic • minimum • maximum	0.05 s 0.5 s
adjustable response value setting current (Ii) / for I-tripping • minimum • maximum	240 A 1 600 A
adjustable current response value current / for G-tripping / with standard characteristic • initial value • full-scale value	32 A 160 A
adjustable response value delay time (tg) / for G-tripping / with I0t characteristic • maximum	0.8 s
adjustable response value setting current (Ig) / for G-tripping / with I2t characteristic • minimum • maximum	32 A 160 A
adjustable response value delay time (tg) / for G-tripping / with I2t characteristic • minimum • maximum	0.05 s 0.8 s
adjustable setting current (InN) / for N-tripping • minimum • maximum	32 A 256 A
design of the N-conductor protection	adjustable OFF; 20% to 160%
product function / grounding protection	Yes

Mechanical Design

product component		
• undervoltage release	No	
• voltage trigger	No	
• trip indicator	No	
height [in]	7.13 in	
height	181 mm	
width [in]	4.13 in	
type of connectable conductor cross-sections / of the round conductor terminal / stranded	1 x (25 - 185 mm ²)	
width	105 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	
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		
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		EMV
 Confirmation  Miscellaneous  		
Test Certificates		Marine / Shipping
Type Test Certificates/Test Report Special Test Certificate Miscellaneous   		
Marine / Shipping		other
  CCS (China Classification Society) Confirmation Miscellaneous Miscellaneous		
Dangerous goods	Environment	

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=3VA2116-7JQ36-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2116-7JQ36-0AA0>

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

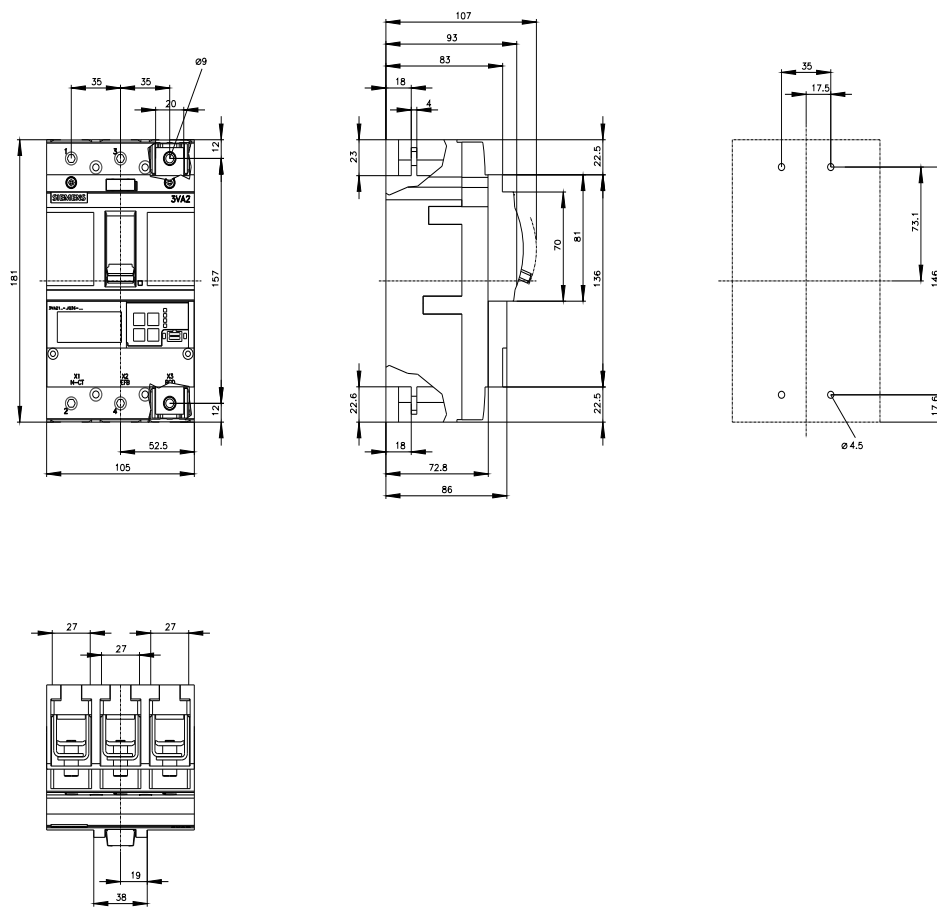
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2116-7JQ36-0AA0

CAX-Online-Generator

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

Tender specifications

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





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