

Siemens
EcoTech



circuit breaker 3VA2 IEC Frame 100 breaking capacity class C Icu=110 kA @ 415 V 4-pole, line protection ETU850, LSI, In=100 A overload protection Ir=40 A...100 A short-circuit protection Isd=0.6..10x In, li=1.5..12x In neutral conductor protection adjustable (OFF, up to 100%) nut keeper kit



Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
design of the product	Line protection
design of the overcurrent release	ETU850
protection function of the overcurrent release	LSI
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	7.7 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	2.57 W
mechanical service life (operating cycles) / typical	25 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	15 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	10 500
product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof	No
ground-fault monitoring version	Without
product function	
• communication function	Yes
• other measurement function	Yes
Net Weight	3.2 kg
Current	
operational current	
• at 40 °C	100 A
• at 45 °C	100 A
• at 50 °C	100 A
• at 55 °C	100 A
• at 60 °C	100 A
• at 65 °C	100 A
• at 70 °C	100 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 kA
operating 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 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 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	40 A
• maximum	100 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
• minimum	0.5 s
• maximum	25 s
adjustable response value setting current (Isd) / of S-trip / with I0t characteristic	
• minimum	60 A
• maximum	1 000 A
adjustable response value setting current (Isd) / of S-trip / with I2t characteristic	
• minimum	60 A
• maximum	1 000 A
adjustable response value delay time (tsd) / for S-tripping / with I0t characteristic	
• minimum	0.05 s
• maximum	0.5 s
adjustable response value delay time (tsd) / for S-tripping / with I2t characteristic	
• minimum	0.05 s
• maximum	0.5 s
adjustable response value setting current (Ii) / for I-tripping	
• minimum	150 A
• maximum	1 200 A
adjustable setting current (InN) / for N-tripping	
• minimum	20 A
• maximum	100 A
design of the N-conductor protection	adjustable OFF; 20% to 100%
product function / grounding protection	No

Mechanical Design

product component	
• undervoltage release	No
• voltage trigger	No
• trip indicator	No
height [in]	7.13 in
height	181 mm
width [in]	5.51 in
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	on both sides nut keeper kit					
type of connectable conductor cross-sections / for flat-bar terminal connection / minimum	13 x 1 mm					
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	25 x 8 mm					
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						
		Confirmation		Miscellaneous		
General Product Approval	EMV	Test Certificates			Maritime application	
		Special Test Certificate	Miscellaneous	Type Test Certificates/Test Report		
Maritime application					other	
				CCS (China Classification Society)		
other	Dangerous goods		Environment			
Confirmation	Miscellaneous	Transport Information				Environmental Confirmations
Environment						

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=3VA2010-7KP42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2010-7KP42-0AA0>

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

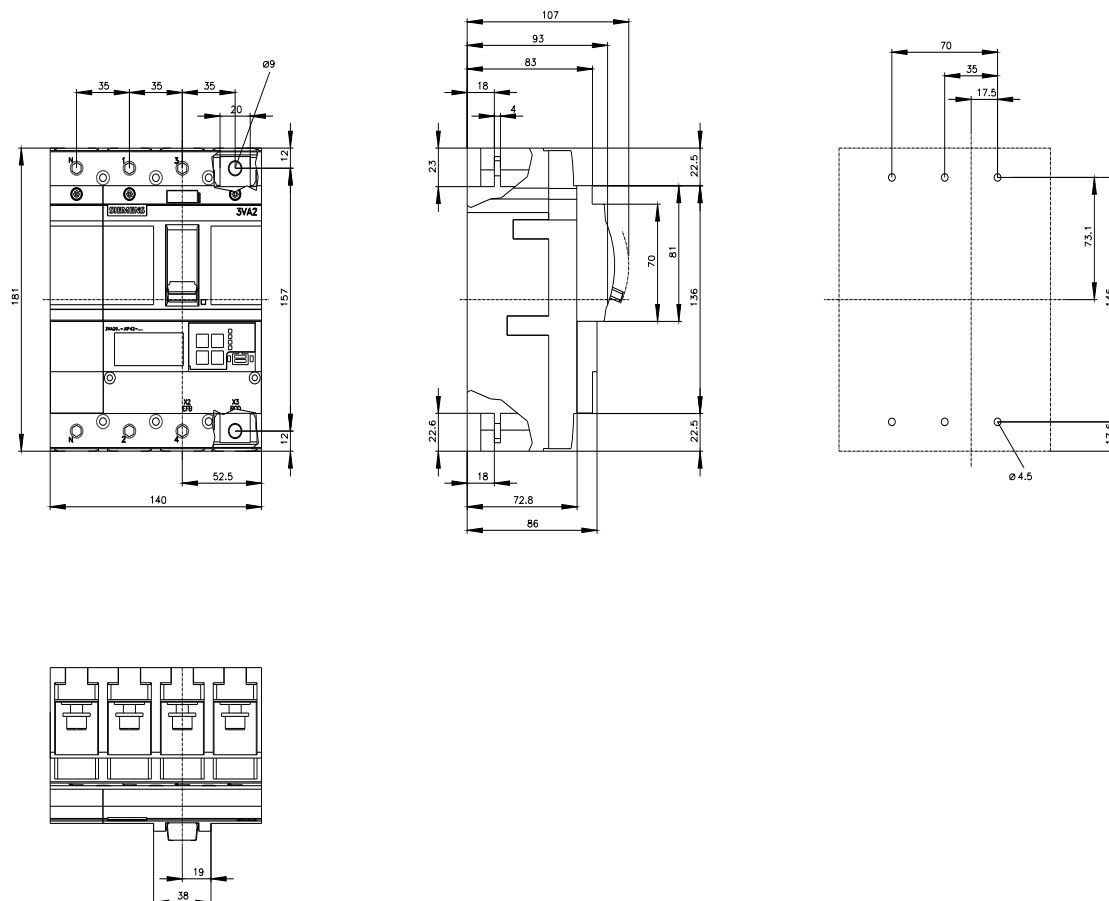
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2010-7KP42-0AA0

CAX-Online-Generator

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

Tender specifications

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





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