

**Siemens
EcoTech**



circuit breaker 3VA2 IEC Frame 100 breaking capacity class M Icu=55 kA @ 415 V 4-pole, line protection ETU560, LSIG, 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%) ground-fault protection, can be switched off Ig=0.2...1 x In= 0.05-0.8s 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	ETU560
protection function of the overcurrent release	LSIG
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	13.5 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	4.5 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	Summation current formation L + N conductor
product function	
• communication function	Yes
• other measurement function	No
Net Weight	2.714 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	M
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	85 kA
• at 415 V	55 kA
• at 440 V	55 kA

• at 500 V • at 690 V	36 kA 2 kA
operating short-circuit current breaking capacity (Ics) • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	85 kA 55 kA 55 kA 36 kA 2 kA
short-circuit current making capacity (Icm) • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	187 kA 121 kA 121 kA 75.6 kA 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 • maximum	40 A 100 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic • minimum • maximum	0.5 s 25 s
adjustable response value setting current (Isd) / of S-trip / with I0t characteristic • minimum • maximum	60 A 1 000 A
adjustable response value setting current (Isd) / of S-trip / with I2t characteristic • minimum • maximum	60 A 1 000 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	150 A 1 200 A
adjustable current response value current / for G-tripping / with standard characteristic • initial value • full-scale value	20 A 100 A
adjustable response value delay time (tg) / for G-tripping / with I0t characteristic • minimum • maximum	0.05 s 0.8 s
adjustable response value setting current (Ig) / for G-tripping / with I2t characteristic • minimum • maximum	20 A 100 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	20 A 100 A
design of the N-conductor protection	adjustable OFF; 20% to 100%
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]	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		Marine / Shipping	
		Type Test Certificates/Test Report	Miscellaneous	Special Test Certificate	
Marine / Shipping					other



[CCS \(China Classification Society\)](#)

[Confirmation](#)

other

Dangerous goods

Environment

[Miscellaneous](#)

[Miscellaneous](#)

[Transport Information](#)



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Environment

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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=3VA2010-5JQ42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2010-5JQ42-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2010-5JQ42-0AA0

CAX-Online-Generator

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

Tender specifications

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



