

Siemens
EcoTech



circuit breaker 3VA2 IEC Frame 250 breaking capacity class S Icu=36 kA @ 415 V
4-pole, line protection ETU330, LIG, In=250 A overload protection Ir=100 A...250 A
short-circuit protection Ii=1.5...12 x In neutral conductor protection adjustable (OFF,
50%, 100%) ground-fault protection Ig=0.2...1 x In= tg=0.1/0.3s 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	ETU330
protection function of the overcurrent release	LIG
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	48 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	16 W
mechanical service life (operating cycles) / typical	25 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	12 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	8 400
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	No
• other measurement function	No
Net Weight	2.867 kg
Current	
operational current	
• at 40 °C	250 A
• at 45 °C	250 A
• at 50 °C	250 A
• at 55 °C	241 A
• at 60 °C	232 A
• at 65 °C	222 A
• at 70 °C	213 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	S
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	55 kA
• at 415 V	36 kA
• at 440 V	36 kA

<ul style="list-style-type: none"> • at 500 V • at 690 V 	25 kA
operating short-circuit current breaking capacity (Ics)	3 kA
<ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V 	55 kA
	36 kA
	36 kA
	25 kA
	3 kA
short-circuit current making capacity (Icm)	
<ul style="list-style-type: none"> • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V 	121 kA
	75.6 kA
	75.6 kA
	52.5 kA
	4.5 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	
<ul style="list-style-type: none"> • minimum • maximum 	100 A
	250 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
<ul style="list-style-type: none"> • minimum • maximum 	0.5 s
	15 s
adjustable response value setting current (Ii) / for I-tripping	
<ul style="list-style-type: none"> • minimum • maximum 	375 A
	2 500 A
adjustable current response value current / for G-tripping / with standard characteristic	
<ul style="list-style-type: none"> • initial value • full-scale value 	50 A
	250 A
adjustable response value delay time (tg) / for G-tripping / with I0t characteristic	
<ul style="list-style-type: none"> • maximum 	0.3 s
adjustable setting current (InN) / for N-tripping	
<ul style="list-style-type: none"> • minimum • maximum 	125 A
	250 A
design of the N-conductor protection	adjustable OFF; 50%; 100%
product function / grounding protection	Yes

Mechanical Design

product component	
<ul style="list-style-type: none"> • undervoltage release • voltage trigger • trip indicator 	No
	No
	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)	silver
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
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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](#)



EMV	Test Certificates			Marine / Shipping	other
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

[Miscellaneous](#)

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

[Confirmation](#)

other	Dangerous goods	Environment
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[Miscellaneous](#)

[Miscellaneous](#)

[Transport Information](#)



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[Environmental Confirmations](#)

Environment

[Environmental Confirmations](#)

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=3VA2225-4HM42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2225-4HM42-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2225-4HM42-0AA0

CAX-Online-Generator

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

Tender specifications

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



