SIEMENS

Data sheet 3VA2010-5HN42-0AA0

circuit breaker 3VA2 IEC Frame 100 breaking capacity class M Icu=55 kA @ 415 V 4-pole, line protection ETU350, LSI, In=100 A overload protection Ir=40 A...100 A short-circuit protection Isd=1.5...10 x Ir, Ii=12 x In neutral conductor protection adjustable (OFF, 50%, 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	ETU350
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	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/retrofittable / short-circuit and overload proof	No
ground-fault monitoring version	Without
product function	
● communication function	No
● other measurement function	No
Net Weight	2.709 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	36 kA
● at 690 V	2 kA
operating short-circuit current breaking capacity (Ics)	
● at 240 V	85 kA
● at 415 V	55 kA
● at 440 V	55 kA
● at 500 V	36 kA
● at 690 V	2 kA
short-circuit current making capacity (Icm)	
● at 240 V	187 kA
● at 415 V	121 kA
● at 440 V	121 kA
● at 500 V	75.5 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	17 s
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 I2t characteristic	
● minimum	0.0001 s
● maximum	0.4 s
adjustable response value setting current (Ii) / for I-tripping	
● minimum	1 200 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; 50%; 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

CCC VDE Miscellaneous EAC EG-Konf.

General Product Approval		EMV	Test Certificates		
Confirmation	UKCA	RCM	Miscellaneous	Type Test Certificates/Test Report	Special Test Certificate

Maritime application

ABS BUREAU VERITAS DNV LRS RMRS CCS (China Classification Society)

other				Dangerous goods	Environment
Miscellaneous	Miscellaneous	Confirmation	产品合格 QC PASS	Transport Information	Environmental Confirmations

Environment

EPD Environmental Confirmations Siemens EcoTech

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=3VA2010-5HN42-0AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3VA2010-5HN42-0AA0

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2010-5HN42-0AA0

CAx-Online-Generator
https://www.siemens.com/cax

Tender specifications
https://www.siemens.com/specifications

Characteristic curves
https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod__no>

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