

circuit breaker 3VA1 IEC Frame 160 breaking capacity class M Icu=55 kA @ 415 V
4-pole, line protection TM240, ATAM, In=125 A overload protection Ir=88 A...125 A
short-circuit protection Ii=5...10 x In neutral conductor protection 50% 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	TM240
protection function of the overcurrent release	LI
number of poles	4
General technical data	
insulation voltage / rated value	800 V
operating voltage / at DC / rated value	600 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	28.1 W
mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	9 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	6 300
product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof	No
ground-fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
Net Weight	1.2 kg
Current	
operational current	
• at 40 °C	125 A
• at 45 °C	125 A
• at 50 °C	125 A
• at 55 °C	122 A
• at 60 °C	120 A
• at 65 °C	117 A
• at 70 °C	114 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	36 kA
• at 500 V	10 kA
• at 690 V	10 kA
operating short-circuit current breaking capacity (Ics)	
• at 240 V	85 kA
• at 415 V	55 kA
• at 440 V	36 kA
• at 500 V	5 kA
• at 690 V	5 kA
short-circuit current making capacity (Icm)	
• at 240 V	187 kA
• at 415 V	121 kA
• at 440 V	75.5 kA

• at 500 V • at 690 V	17 kA 17 kA
design of short-circuit protection	For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter
Adjustable parameters	
product feature / for L-tripping / can be switched on/off	No
adjustable response value setting current (I _r) / of the L-trip / with I _{2t} characteristic • minimum • maximum	87 A 125 A
adjustable response value delay time (t _r) / for L-tripping / with I _{2t} characteristic • minimum • maximum	1 s 1 s
adjustable response value setting current (I _i) / for I-tripping • minimum • maximum	625 A 1 250 A
adjustable setting current (I _{nN}) / for N-tripping • minimum • maximum	62 A 62 A
design of the N-conductor protection	50%
product function / grounding protection	No
Mechanical Design	
product component • undervoltage release • voltage trigger • trip indicator	No No No
height [in]	5.12 in
height	130 mm
width [in]	4 in
width	101.5 mm
depth [in]	2.76 in
depth	70 mm
Connections	
arrangement of electrical connectors / for main current circuit	Front terminal
type of electrical connection / for main current circuit	nut keeper kit on both ends
type of connectable conductor cross-sections / for flat-bar terminal connection / minimum	12 x 1 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	17 x 6,5 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
Accessories	
product extension / optional / motor drive	Yes
Environmental conditions	
protection class IP / on the front	IP40
ambient temperature • during operation / minimum • during operation / maximum • during storage / minimum • during storage / maximum	-25 °C 70 °C -40 °C 80 °C
Environmental footprint	
Environmental Product Declaration (EPD)	Yes
global warming potential [CO ₂ eq] / total	190 kg
global warming potential [CO ₂ eq] / during manufacturing	4.67 kg
global warming potential [CO ₂ eq] / during operation	186 kg

global warming potential [CO2 eq] / after end of life	-0.826 kg
reference code / according to IEC 81346-2	Q
Approvals / Certificates	
General Product Approval	
 CCC	 VDE
Miscellaneous   	
General Product Approval	EMV
Confirmation   EG-Konf.	 RCM
Miscellaneous Special Test Certificate	
Test Certificates	Maritime application
Type Test Certificates/Test Report  ABS	 BUREAU VERITAS
	 DNV
	 LRS
	 RMRS
Maritime application	other
CCS (China Classification Society)	Miscellaneous
	Confirmation 
	Environmental Confirmations
	Environmental Confirmations
Environment	
 EPD	 EPD
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=3VA1112-5FF42-0AA0	
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3VA1112-5FF42-0AA0	
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1112-5FF42-0AA0	
CAx-Online-Generator https://www.siemens.com/cax	
Tender specifications https://www.siemens.com/specifications	
Characteristic curves <a href='https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>'>https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>	

