



Siemens
EcoTech

● circuit breaker 3VA2 IEC Frame 160 breaking capacity class H Icu=85 kA @ 415 V
4-pole, line protection ETU320, LI, In=100 A overload protection Ir=40 A...100 A
short-circuit protection Ii=1.5...12 x In neutral conductor protection adjustable (OFF,
50%, 100%) terminal connection

Model	
product brand name	SETRON
product designation	Molded case circuit breaker
design of the product	Line protection
design of the overcurrent release	ETU320
protection function of the overcurrent release	LI
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	10 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	3.33 W
mechanical service life (operating cycles) / typical	25 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	14 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	9 800
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	2.898 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	H
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	110 kA

• at 415 V • at 440 V • at 500 V • at 690 V	85 kA 85 kA 55 kA 3 kA
operating short-circuit current breaking capacity (Ics) • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	110 kA 85 kA 85 kA 55 kA 2.5 kA
short-circuit current making capacity (Icm) • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	242 kA 187 kA 187 kA 121 kA 3.7 kA
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	40 A 100 A
adjustable response value delay time (t _r) / for L-tripping / with I _{2t} characteristic • minimum • maximum	0.5 s 17 s
adjustable response value setting current (I _l) / for I-tripping • minimum • maximum	150 A 1 200 A
adjustable setting current (I _{nN}) / for N-tripping • minimum • maximum	20 A 100 A
design of the N-conductor protection	adjustable OFF; 50%; 100%
product function / grounding protection	No
Mechanical Design	
product component • undervoltage release • voltage trigger • trip indicator	No No No
height [in]	7.13 in
height	181 mm
width [in]	5.51 in
type of connectable conductor cross-sections / of the round conductor terminal / stranded	1 x (6 - 120 mm²)
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	double-sided box terminal
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	



[Miscellaneous](#)



EMV	Test Certificates	Maritime application			
	Special Test Certificate	Miscellaneous	Type Test Certificates/Test Report		

Maritime application	other				
			CCS (China Classification Society)		Confirmation

other	Dangerous goods	Environment			
Miscellaneous	Transport Information	Environmental Confirmations			Environmental Confirmations

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=3VA2110-6HL46-0AA0
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)	https://support.industry.siemens.com/cs/ww/en/ps/3VA2110-6HL46-0AA0
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)	https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2110-6HL46-0AA0
CAX-Online-Generator	https://www.siemens.com/cax
Tender specifications	https://www.siemens.com/specifications

