

**Siemens
EcoTech**



circuit breaker 3VA2 IEC Frame 160 breaking capacity class C $I_{cu}=110\text{ kA @ }415\text{ V}$ 4-pole, line protection ETU550, LSI, $I_n=160\text{ A}$ overload protection $I_r=63\text{ A}...160\text{ A}$ short-circuit protection $I_{sd}=0.6..10\times I_n$, $I_i=1.5..10\times I_n$ neutral conductor protection adjustable (OFF, up to 100%) nut keeper kit



Model	
product brand name	SETRON
product designation	Molded case circuit breaker
design of the product	Line protection
design of the overcurrent release	ETU550
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	25.5 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	8.5 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	Yes
• other measurement function	No
Net Weight	2.94 kg
Current	
operational current	
• at 40 °C	160 A
• at 45 °C	160 A
• at 50 °C	160 A
• at 55 °C	160 A
• at 60 °C	160 A
• at 65 °C	160 A
• at 70 °C	160 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	C
maximum short-circuit current breaking capacity (I_{cu})	
• at 240 V	150 kA

• at 415 V • at 440 V • at 500 V • at 690 V	110 kA 110 kA 85 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	150 kA 110 kA 110 kA 85 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	330 kA 242 kA 242 kA 187 kA 3.7 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	64 A 160 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
• minimum • maximum	0.5 s 20 s
adjustable response value setting current (Isd) / of S-trip / with I0t characteristic	
• minimum • maximum	96 A 1 600 A
adjustable response value setting current (Isd) / of S-trip / with I2t characteristic	
• minimum • maximum	96 A 1 600 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	240 A 1 600 A
adjustable setting current (InN) / for N-tripping	
• minimum • maximum	32 A 160 A
design of the N-conductor protection	adjustable OFF; 20% to 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
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	 EG-Konf.	 VDE	Miscellaneous			
EMV	Test Certificates			Maritime application		
 RCM	Type Test Certificates/Test Report	Special Test Certificate	Miscellaneous	 ABS	 BUREAU VERITAS	
Maritime application				other		
 DNV	 LRS	 RMRS	CCS (China Classification Society)	Confirmation	 产品合格 QC PASS	
other	Dangerous goods	Environment				
Miscellaneous	Transport Information	 EPD	 Siemens EcoTech		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=3VA2116-7JP42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2116-7JP42-0AA0>

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

https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2116-7JP42-0AA0

CAX-Online-Generator

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

Tender specifications

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



