

**Siemens
EcoTech**



circuit breaker 3VA6 UL Frame 600 breaking capacity class H 65 kA @ 480 V 4-pole, line protection ETU556, LSI, In=400 A overload protection, 100% rated Ir=160 A...400 A short-circuit protection Isd=0.6..10x In, li=1.5..12x In neutral conductor protection adjustable (OFF, up to 160%) ground fault alarm signaled via EFB300 or COM without connection



Model	
product brand name	SETRON
product designation	Molded-case circuit breaker
product designation / according to UL file	HLAE
design of the product	System protection
design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
design of the overcurrent release	ETU556
protection function of the overcurrent release	LSI-G-alarm only
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	70 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	23.33 W
mechanical service life (operating cycles) / typical	20 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	4 000
electrical endurance (operating cycles) / at AC-1 / at 690 V	3 500
electrical endurance (operating cycles) / at 480 V	4 000
electrical endurance (operating cycles) / at 600 V	3 500
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	Yes
• other measurement function	No
Net Weight	6.9 kg
Current	
marking / according to UL 489 / 100%-rated breaker	Yes
operational current	
• at 40 °C	400 A
• at 45 °C	400 A
• at 50 °C	400 A
• at 55 °C	400 A
• at 60 °C	400 A
• at 65 °C	400 A
• at 70 °C	400 A

Switching capacity according to IEC 60947

switching capacity class of the circuit breaker	H
maximum short-circuit current breaking capacity (I _{cu}) • at 240 V • at 415 V • at 690 V	110 kA 85 kA 6 kA
operating short-circuit current breaking capacity (I _{cs}) • at 240 V • at 415 V • at 690 V	110 kA 85 kA 6 kA
short-circuit current making capacity (I _{cm}) • at 240 V • at 415 V • at 690 V	242 kA 187 kA 9 kA

Switching capacity according to UL 489

current breaking capacity • at 240 V • at 480 V • at 600 V	100 kA 65 kA 22 kA
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Adjustable parameters

adjustable response value setting current (I _r) / of the L-trip / with I _{2t} characteristic • minimum • maximum	150 A 400 A
adjustable response value delay time (t _r) / for L-tripping / with I _{2t} characteristic • minimum • maximum	0.5 s 25 s
adjustable response value setting current (I _{sd}) / of S-trip / with I _{0t} characteristic • minimum • maximum	240 A 4 000 A
adjustable response value setting current (I _{sd}) / of S-trip / with I _{2t} characteristic • minimum • maximum	240 A 4 000 A
adjustable response value delay time (t _{sd}) / for S-tripping / with I _{0t} characteristic • minimum • maximum	0.05 s 0.5 s
adjustable response value delay time (t _{sd}) / for S-tripping / with I _{2t} characteristic • minimum • maximum	0.05 s 0.5 s
adjustable response value setting current (I _i) / for I-tripping • minimum • maximum	600 A 4 800 A
adjustable current response value current / for G-tripping / with standard characteristic • initial value • full-scale value	80 A 400 A
adjustable response value delay time (t _g) / for G-tripping / with I _{0t} characteristic • minimum • maximum	0.05 s 0.8 s
adjustable response value setting current (I _g) / for G-tripping / with I _{2t} characteristic • minimum • maximum	80 A 400 A
adjustable response value delay time (t _g) / for G-tripping / with I _{2t} characteristic • minimum • maximum	0.05 s 0.8 s
adjustable setting current (I _{nN}) / for N-tripping	

• minimum	80 A
• maximum	600 A
design of the N-conductor protection	adjustable OFF; 20% to 150%
product function / grounding protection	Yes

Mechanical Design

product component	
• undervoltage release	No
• voltage trigger	No
• trip indicator	No
height [in]	9.76 in
height	248 mm
width [in]	7.24 in
width	184 mm
depth [in]	4.33 in
depth	110 mm

Connections

arrangement of electrical connectors / for main current circuit	Without connection
type of electrical connection / for main current circuit	Without

Auxiliary circuit

number of CO contacts / for auxiliary contacts	0
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Accessories

product extension / optional / motor drive	Yes
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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

Environmental Product Declaration (EPD)	Yes
global warming potential [CO2 eq] / total	495 kg
global warming potential [CO2 eq] / during manufacturing	28.7 kg
global warming potential [CO2 eq] / during operation	470 kg
global warming potential [CO2 eq] / after end of life	-4.07 kg
Siemens Eco Profile (SEP)	Siemens EcoTech
reference code / according to IEC 81346-2	Q

Approvals / Certificates

General Product Approval



[Miscellaneous](#)

General Product Approval	EMV	Test Certificates	Maritime application	other
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[Type Test Certificates/Test Report](#)



[Confirmation](#)

other	Dangerous goods	Environment
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[Miscellaneous](#)

[Transport Information](#)



Siemens EcoTech



[Environmental Confirmations](#)

Further information

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





