



circuit breaker 3VA6 UL Frame 1000 breaking capacity class M 35 kA @ 480 V 3-pole, line protection ETU560, LSIG, $I_n=1000$ A overload protection $I_r=400$ A ...1000 A short-circuit protection $I_{sd}=0.6..10 \times I_n$, $I_i=1.5..10 \times I_n$ neutral conductor protection optionally with ext. CT up to 160% ground-fault protection $I_G=0.2...1 \times I_n$, $t_g=0.05-0.8$ s

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MMNAE
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	ETU560
protection function of the overcurrent release	LSIG
number of poles	3
General technical data	
insulation voltage / rated value	800 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	330 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	110 W
mechanical service life (operating cycles) / typical	10 000
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	4 900
electrical endurance (operating cycles) / at AC-1 / at 690 V	3 400
electrical endurance (operating cycles) / at 480 V	4 900
electrical endurance (operating cycles) / at 600 V	3 400
product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof	Yes
ground-fault monitoring version	Summation current formation L-conductor
product function	
• communication function	Yes
• other measurement function	No
Net Weight	14 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	1 000 A
• at 45 °C	940 A
• at 50 °C	880 A
• at 55 °C	840 A
• at 60 °C	800 A
• at 65 °C	750 A
• at 70 °C	700 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
maximum short-circuit current breaking capacity (I_{cu})	

• at 240 V • at 415 V • at 690 V	85 kA 55 kA 25 kA
operating short-circuit current breaking capacity (Ics) • at 240 V • at 415 V • at 690 V	85 kA 55 kA 19 kA
short-circuit current making capacity (Icm) • at 240 V • at 415 V • at 690 V	187 kA 121 kA 53 kA

Switching capacity according to UL 489

current breaking capacity • at 240 V • at 480 V • at 600 V	100 kA 35 kA 25 kA
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Adjustable parameters

adjustable response value setting current (I _r) / of the L-trip / with I ₂ t characteristic • minimum • maximum	400 A 1 000 A
adjustable response value delay time (t _r) / for L-tripping / with I ₂ t characteristic • minimum • maximum	0.5 s 25 s
adjustable response value setting current (I _{sd}) / of S-trip / with I ₀ t characteristic • minimum • maximum	600 A 10 000 A
adjustable response value setting current (I _{sd}) / of S-trip / with I ₂ t characteristic • minimum • maximum	600 A 10 000 A
adjustable response value delay time (t _{sd}) / for S-tripping / with I ₀ t characteristic • minimum • maximum	0.05 s 0.5 s
adjustable response value delay time (t _{sd}) / for S-tripping / with I ₂ t characteristic • minimum • maximum	0.05 s 0.5 s
adjustable response value setting current (I _i) / for I-tripping • minimum • maximum	1 500 A 10 000 A
adjustable current response value current / for G-tripping / with standard characteristic • initial value • full-scale value	200 A 1 000 A
adjustable response value delay time (t _g) / for G-tripping / with I ₀ t characteristic • minimum • maximum	0.05 s 0.8 s
adjustable response value setting current (I _g) / for G-tripping / with I ₂ t characteristic • minimum • maximum	200 A 1 000 A
adjustable response value delay time (t _g) / for G-tripping / with I ₂ t characteristic • minimum • maximum	0.05 s 0.8 s
adjustable setting current (I _N) / for N-tripping • minimum • maximum	0 A 0 A
design of the N-conductor protection	adjustable OFF: 20% to 160%

product function / grounding protection	Yes
Mechanical Design	
product component	
• undervoltage release	No
• voltage trigger	No
• trip indicator	No
height [in]	12.91 in
height	328 mm
width [in]	8.27 in
width	210 mm
depth [in]	4.72 in
depth	120 mm
Connections	
arrangement of electrical connectors / for main current circuit	Front connection
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	20 x 4 mm
type of connectable conductor cross-sections / for flat-bar terminal connection / maximum	50 x 28 mm
Auxiliary circuit	
number of CO contacts / for auxiliary contacts	0
Accessories	
product extension / optional / motor drive	No
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
reference code / according to IEC 81346-2	Q
Approvals / Certificates	
General Product Approval	
   Confirmation  	
General Product Approval	
  Miscellaneous   Type Test Certificates/Test Report	
Marine / Shipping	
     Confirmation	
other	
Miscellaneous Miscellaneous Transport Information Environmental Conformations	

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA6610-5JQ32-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6610-5JQ32-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6610-5JQ32-0AA0

CAX-Online-Generator

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

Tender specifications

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





