SIEMENS

Data sheet



Circuit breaker 3VA6 UL frame 250 breaking capacity class M 35kA @ 480V 3-pole, Line protection ETU560, LSIG, In=250A overload protection, 100% rated Ir=100A...250A Short-circuit protection Isd=0.6..10x In, Ii=1.5..10x In N conductor protection optionally with external CT, up to 160% Ground-fault protection Ig=0.2...1 x In, tg=0.05-0.8s without connection

Model		
product brand name	SENTRON	
product designation	Molded-case circuit breaker	
product designation / according to UL file	MFAE	
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	42 W	
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	14 W	
mechanical service life (operating cycles) / typical	25 000	
electrical endurance (operating cycles) / at AC-1 / at 380/415 V	12 000	
electrical endurance (operating cycles) / at AC-1 / at 690 V	8 400	
electrical endurance (operating cycles) / at 480 V	12 000	
electrical endurance (operating cycles) / at 600 V	8 400	
product feature / for neutral conductors / upgradable/retrofittable / 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	2.3 kg	
Current		
marking / according to UL 489 / 100%-rated breaker	Yes	
operational current		
• at 40 °C	250 A	
• at 45 °C	250 A	
• at 50 °C	250 A	
• at 55 °C	238 A	
• at 60 °C	225 A	
• at 65 °C	213 A	
• at 70 °C	200 A	
Switching capacity according to IEC 60947		
switching capacity class of the circuit breaker	M	
maximum short-circuit current breaking capacity (Icu)		

a at 240 V	05 LA
• at 240 V	85 kA
• at 415 V	55 kA
at 690 V operating short circuit current breaking capacity (Ice)	3 kA
operating short-circuit current breaking capacity (lcs) • at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	3 kA
short-circuit current making capacity (Icm)	V IVA
• at 240 V	187 kA
• at 415 V	121 kA
• at 690 V	4.5 kA
Switching capacity according to UL 489	
current breaking capacity	
• at 240 V	100 kA
• at 480 V	35 kA
• at 600 Y/347 V	18 kA
• at 600 V	18 kA
Adjustable parameters	
adjustable response value setting current (Ir) / of the L-trip / with 12t characteristic	
minimum	100 A
• maximum	250 A
adjustable response value delay time (tr) / for L-tripping / with I2t	
characteristic	0.50
• minimum	0.5 s
maximum adjustable represe value setting current (lad) / of S trip / with	13 s
adjustable response value setting current (Isd) / of S-trip / with I0t characteristic	
• minimum	150 A
maximum	2 500 A
adjustable response value setting current (Isd) / of S-trip / with I2t characteristic	
• minimum	150 A
• maximum	2 500 A
adjustable response value delay time (tsd) / for S-tripping / with l0t characteristic	
• minimum	0.05 s
• maximum	0.5 s
adjustable response value delay time (tsd) / for S-tripping / with l2t characteristic	
• minimum	0.05 s
• maximum	0.5 s
adjustable response value setting current (li) / for I-tripping	
• minimum	375 A
• maximum	2 500 A
adjustable current response value current / for G-tripping / with standard characteristic	
• initial value	50 A
• full-scale value	250 A
adjustable response value delay time (tg) / for G-tripping / with l0t characteristic	
• minimum	0.05 s
• maximum	0.8 s
adjustable response value setting current (Ig) / for G-tripping / with I2t characteristic	
• minimum	50 A
• maximum	250 A
adjustable response value delay time (tg) / for G-tripping / with 12t characteristic	
• minimum	0.05 s
• maximum	0.8 s
adjustable setting current (InN) / for N-tripping	
• minimum	0 A
 maximum 	0 A

adjustable delay time / of S-trip / with I2t characteristic	0.5 s
adjustable current response value current / of instantaneous short-circuit trip unit	
• minimum	375 A
maximum	2 500 A
design of the N-conductor protection	adjustable OFF; 20% to 160%
product function / grounding protection	Yes
total break time / for G-tripping / with standard characteristic	
• initial value	0.05 s
• full-scale value	0.8 s
Mechanical Design	
product component	
undervoltage release	No
 voltage trigger 	No
trip indicator	No
height [in]	7.8 in
height	198 mm
width [in]	4.13 in
width	105 mm
depth [in]	3.39 in
depth	86 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
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
reference code / according to IEC 81346-2	Q
Approvals / Certificates	

General Product Approval

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Confirmation







General Product Approval

EMV

Marine / Shipping

Miscellaneous











other

Dangerous Good

Confirmation

Miscellaneous

Miscellaneous

Transport Information

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3VA6225-5JQ31-2AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA6225-5JQ31-2AA0

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

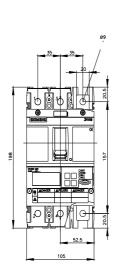
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6225-5JQ31-2AA0

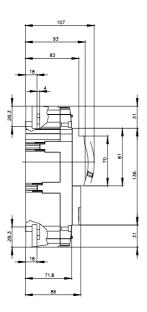
CAx-Online-Generator

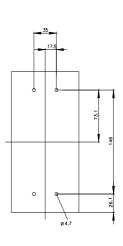
http://www.siemens.com/cax

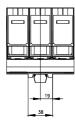
Tender specifications

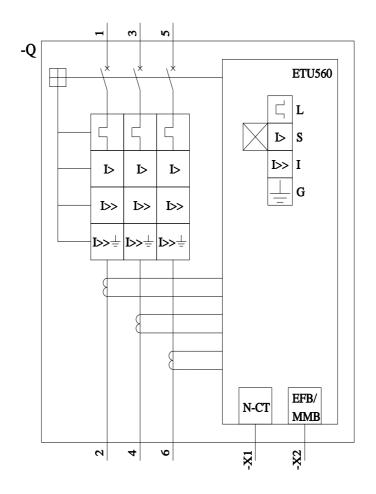
http://www.siemens.com/specifications

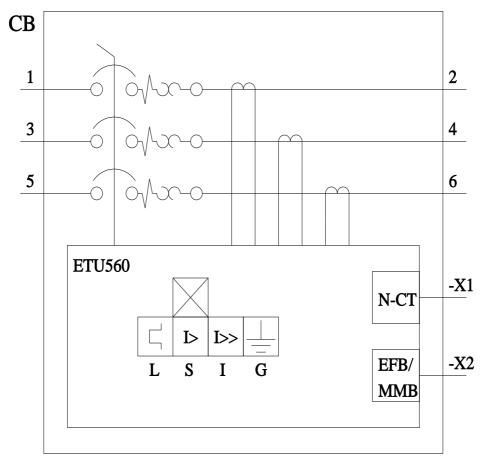












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