



circuit breaker 3VA6 UL frame 1000 breaking capacity class H 65kA @ 480 V 4-pole, line protection ETU856, LSI, In=1000A overload protection Ir=400A ...1000A short circuit protection Isd=0,6..10x In, li=1,5..10x In

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	HMNAE
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	ETU856
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	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	No
ground-fault monitoring version	Summation current formation L + N-conductor
product function	
• communication function	Yes
• other measurement function	Yes
Net Weight	16.3 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	0 A
• at 45 °C	0 A
• at 50 °C	0 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	85 kA
• at 690 V	35 kA
operating short-circuit current breaking capacity (Ics)	

<ul style="list-style-type: none"> • at 240 V • at 415 V • at 690 V 	<p>110 kA</p> <p>85 kA</p> <p>19 kA</p>
short-circuit current making capacity (I _{cm})	
<ul style="list-style-type: none"> • at 240 V • at 415 V • at 690 V 	<p>242 kA</p> <p>187 kA</p> <p>74 kA</p>

Switching capacity according to UL 489

current breaking capacity	
<ul style="list-style-type: none"> • at 240 V • at 480 V • at 600 V 	<p>150 kA</p> <p>65 kA</p> <p>35 kA</p>

Adjustable parameters

adjustable response value setting current (I _r) / of the L-trip / with I _{2t} characteristic	
<ul style="list-style-type: none"> • minimum • maximum 	<p>400 A</p> <p>1 000 A</p>
adjustable response value delay time (t _r) / for L-tripping / with I _{2t} characteristic	
<ul style="list-style-type: none"> • minimum • maximum 	<p>0.5 s</p> <p>25 s</p>
adjustable response value setting current (I _{sd}) / of S-trip / with I _{0t} characteristic	
<ul style="list-style-type: none"> • minimum • maximum 	<p>600 A</p> <p>10 000 A</p>
adjustable response value setting current (I _{sd}) / of S-trip / with I _{2t} characteristic	
<ul style="list-style-type: none"> • minimum • maximum 	<p>600 A</p> <p>10 000 A</p>
adjustable response value delay time (t _{sd}) / for S-tripping / with I _{0t} characteristic	
<ul style="list-style-type: none"> • minimum • maximum 	<p>0.05 s</p> <p>0.5 s</p>
adjustable response value delay time (t _{sd}) / for S-tripping / with I _{2t} characteristic	
<ul style="list-style-type: none"> • minimum • maximum 	<p>0.05 s</p> <p>0.5 s</p>
adjustable response value setting current (I _i) / for I-tripping	
<ul style="list-style-type: none"> • minimum • maximum 	<p>1 500 A</p> <p>10 000 A</p>
adjustable current response value current / for G-tripping / with standard characteristic	
<ul style="list-style-type: none"> • initial value • full-scale value 	<p>200 A</p> <p>1 000 A</p>
adjustable response value delay time (t _g) / for G-tripping / with I _{0t} characteristic	
<ul style="list-style-type: none"> • minimum • maximum 	<p>0.05 s</p> <p>0.8 s</p>
adjustable response value setting current (I _g) / for G-tripping / with I _{2t} characteristic	
<ul style="list-style-type: none"> • minimum • maximum 	<p>200 A</p> <p>1 000 A</p>
adjustable response value delay time (t _g) / for G-tripping / with I _{2t} characteristic	
<ul style="list-style-type: none"> • minimum • maximum 	<p>0.05 s</p> <p>0.8 s</p>
adjustable absolute value setting current (I _{nN}) / for N-tripping	
<ul style="list-style-type: none"> • minimum • maximum 	<p>200 A</p> <p>1 000 A</p>
adjustable delay time / of S-trip / with I _{2t} characteristic	0.5 s
adjustable current response value current / of instantaneous short-circuit trip unit	
<ul style="list-style-type: none"> • minimum • maximum 	<p>1 500 A</p> <p>10 000 A</p>

design of the N-conductor protection	adjustable OFF; 20% to 100%
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]	12.91 in
height	328 mm
width [in]	11.02 in
width	280 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
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Accessories

product extension / optional / motor drive	No
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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

Certificates

reference code / according to IEC 81346-2	Q
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	Yes

General Product Approval



[Confirmation](#)



[Miscellaneous](#)



EMC	Declaration of Conformity	Marine / Shipping	other
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[Confirmation](#)

other	Dangerous Good
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[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=3VA6610-6KT42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6610-6KT42-0AA0>

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

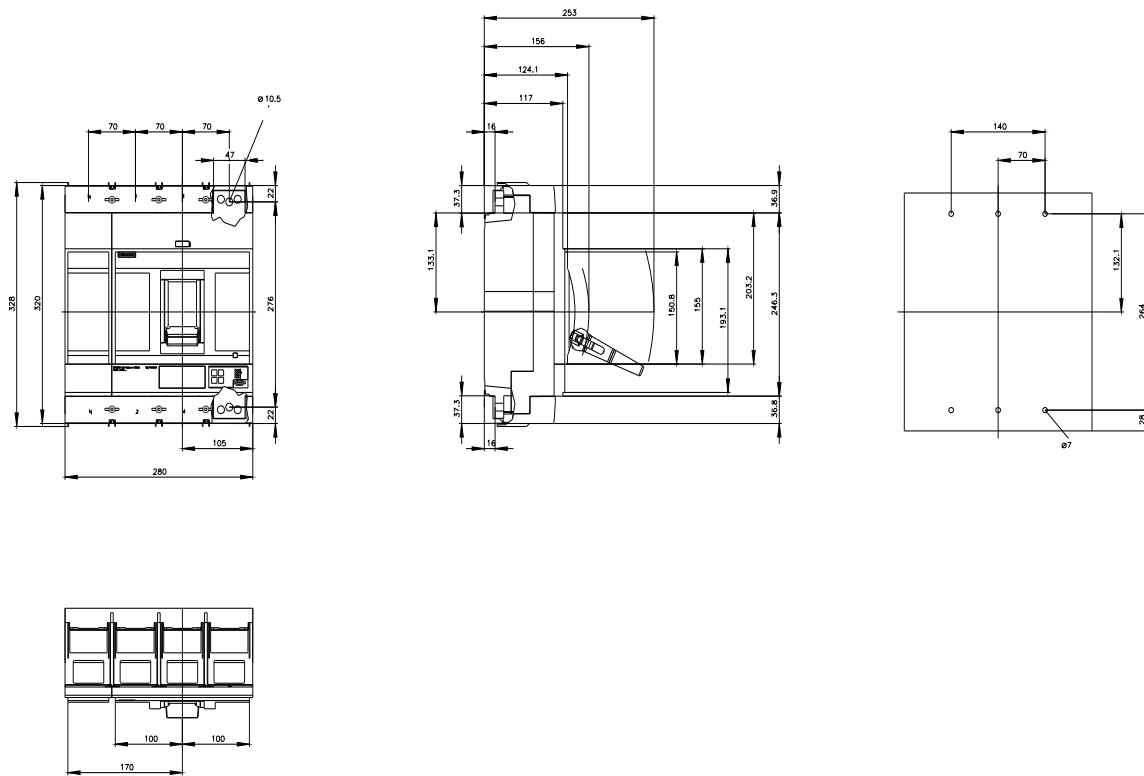
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6610-6KT42-0AA0

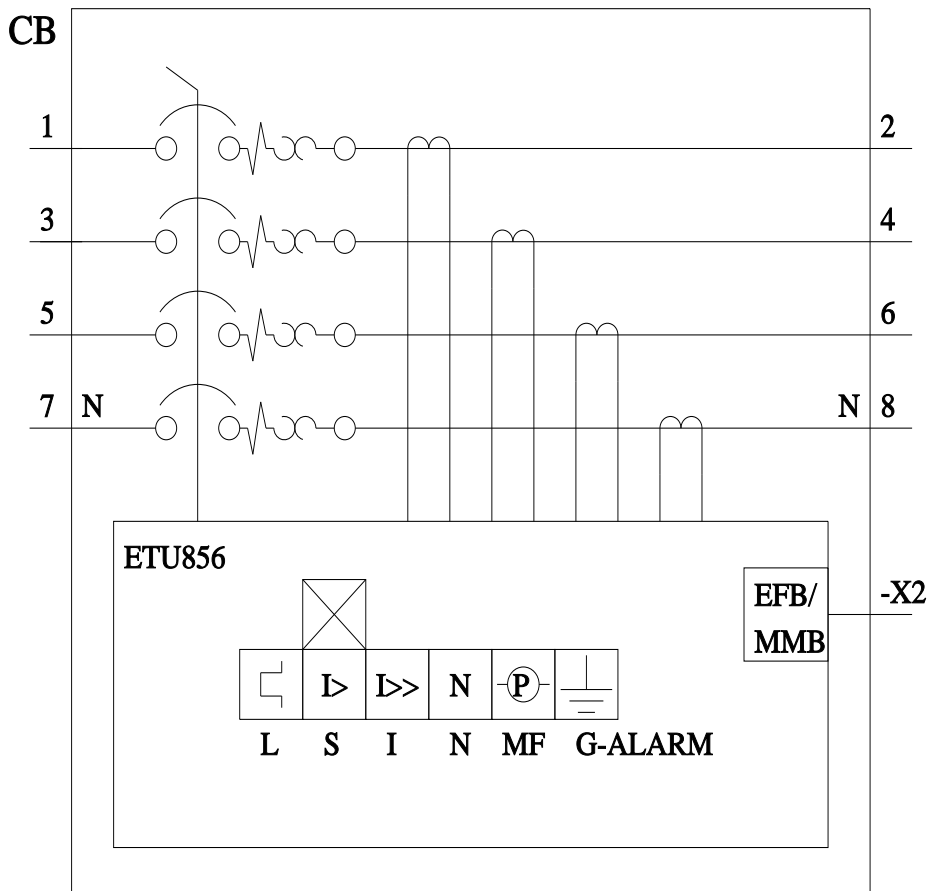
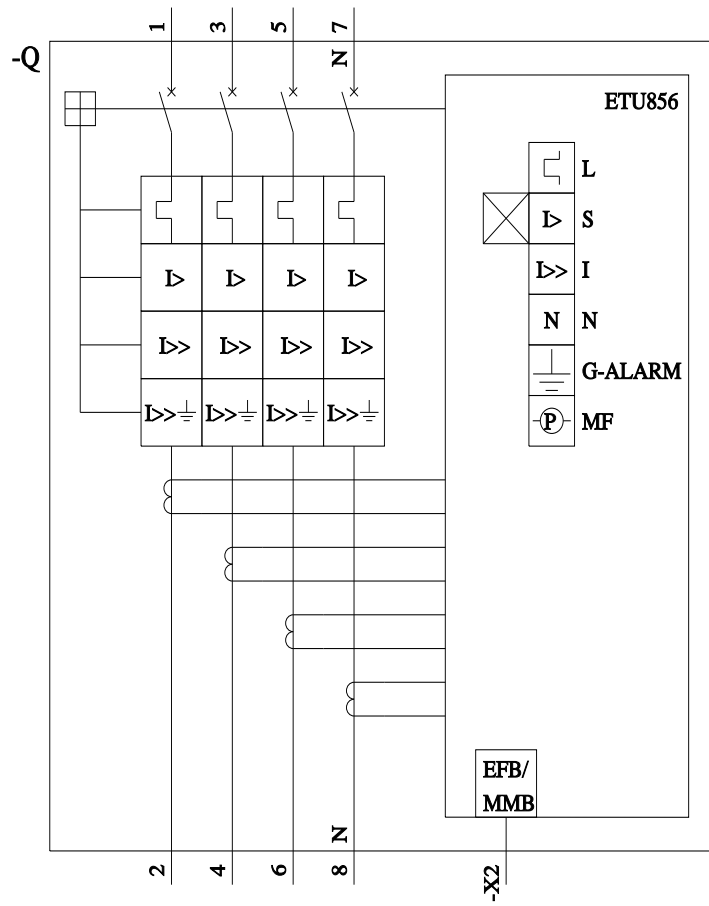
CAX-Online-Generator

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

Tender specifications

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





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