



Circuit breaker 3VA6 UL Frame 150 breaking capacity class M 35kA @ 480V 3-pole, Line protection ETU560, LSIG, $I_n=100A$ overload protection, 100% rated $I_r=40A...100A$ Short-circuit protection $I_{sd}=0.6...10 \times I_n$, $I_i=1.5...12 \times I_n$ N conductor protection optionally with external CT, up to 160% Ground-fault protection $I_g=0.2...1 \times I_n$, $t_g=0.05-0.8s$ without connection

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MDAE
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	13 W
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	4.33 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
electrical endurance (operating cycles) / at 480 V	14 000
electrical endurance (operating cycles) / at 600 V	9 800
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	2.3 kg
Current	
marking / according to UL 489 / 100%-rated breaker	Yes
operational current	
• at 40 °C	100 A
• at 45 °C	100 A
• at 50 °C	100 A
• at 55 °C	100 A
• at 60 °C	100 A
• at 65 °C	100 A
• at 70 °C	100 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
maximum short-circuit current breaking capacity (Icu)	

<ul style="list-style-type: none"> • at 240 V • at 415 V • at 690 V 	85 kA 55 kA 2.5 kA
operating short-circuit current breaking capacity (Ics) <ul style="list-style-type: none"> • at 240 V • at 415 V • at 690 V 	85 kA 55 kA 2.5 kA
short-circuit current making capacity (Icm) <ul style="list-style-type: none"> • at 240 V • at 415 V • at 690 V 	187 kA 121 kA 3.8 kA

Switching capacity according to UL 489

current breaking capacity <ul style="list-style-type: none"> • at 240 V • at 480 V • at 600 V 	100 kA 35 kA 18 kA
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Adjustable parameters

adjustable response value setting current (I _r) / of the L-trip / with I ₂ t characteristic <ul style="list-style-type: none"> • minimum • maximum 	40 A 100 A
adjustable response value delay time (t _r) / for L-tripping / with I ₂ t characteristic <ul style="list-style-type: none"> • minimum • maximum 	0.5 s 25 s
adjustable response value setting current (I _{sd}) / of S-trip / with I ₀ t characteristic <ul style="list-style-type: none"> • minimum • maximum 	60 A 1 000 A
adjustable response value setting current (I _{sd}) / of S-trip / with I ₂ t characteristic <ul style="list-style-type: none"> • minimum • maximum 	60 A 1 000 A
adjustable response value delay time (t _{sd}) / for S-tripping / with I ₀ t characteristic <ul style="list-style-type: none"> • minimum • maximum 	0.05 s 0.5 s
adjustable response value delay time (t _{sd}) / for S-tripping / with I ₂ t characteristic <ul style="list-style-type: none"> • minimum • maximum 	0.05 s 0.5 s
adjustable response value setting current (I _i) / for I-tripping <ul style="list-style-type: none"> • minimum • maximum 	150 A 1 200 A
adjustable current response value current / for G-tripping / with standard characteristic <ul style="list-style-type: none"> • initial value • full-scale value 	20 A 100 A
adjustable response value delay time (t _g) / for G-tripping / with I ₀ t characteristic <ul style="list-style-type: none"> • minimum • maximum 	0.05 s 0.8 s
adjustable response value setting current (I _g) / for G-tripping / with I ₂ t characteristic <ul style="list-style-type: none"> • minimum • maximum 	20 A 100 A
adjustable response value delay time (t _g) / for G-tripping / with I ₂ t characteristic <ul style="list-style-type: none"> • minimum • maximum 	0.05 s 0.8 s
adjustable setting current (I _n) / for N-tripping <ul style="list-style-type: none"> • minimum • maximum 	0 A 0 A
adjustable delay time / of S-trip / with I ₂ t characteristic	0.5 s

adjustable current response value current / of instantaneous short-circuit trip unit	
• minimum	150 A
• maximum	1 200 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
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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

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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[Miscellaneous](#)

other	Dangerous Good
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[Confirmation](#)

[Miscellaneous](#)

[Transport Information](#)

Further information

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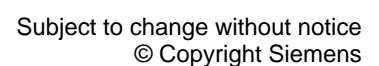
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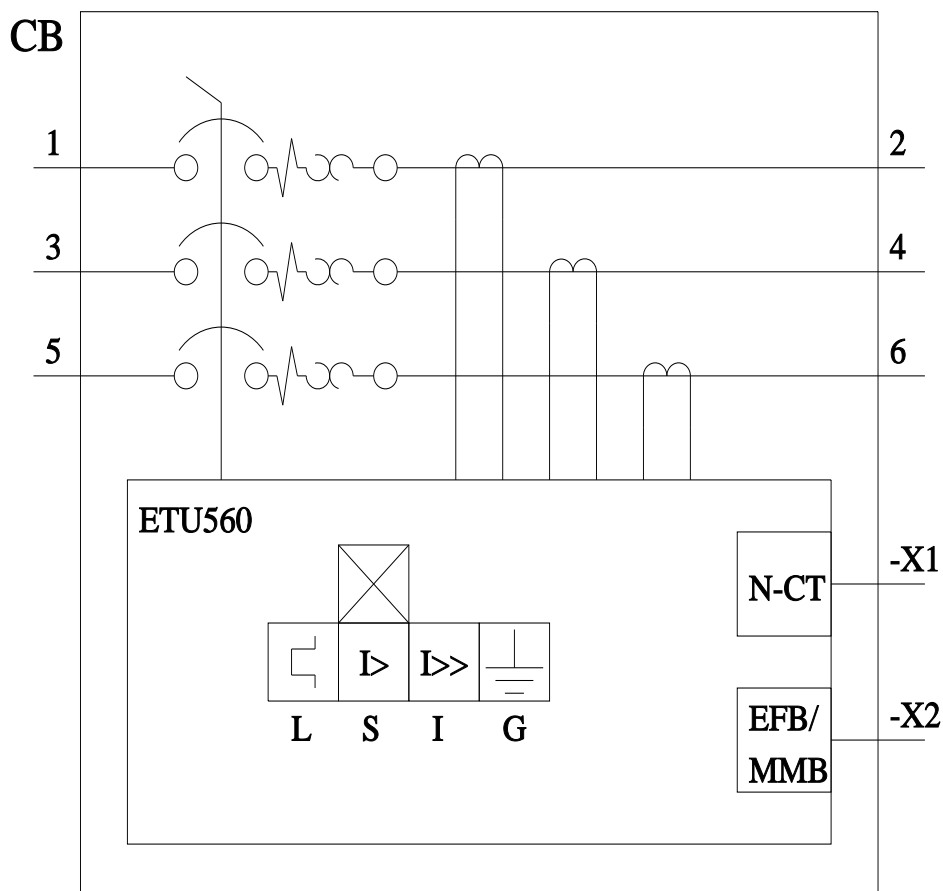
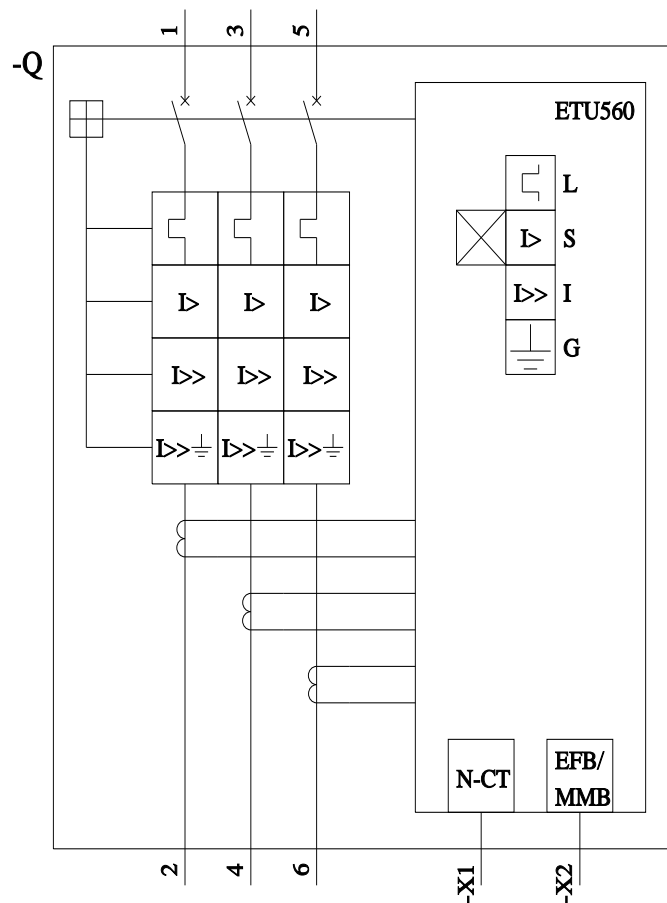
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