SIEMENS

Data sheet 3VA6440-6KQ31-0AA0

Siemens EcoTech



circuit breaker 3VA6 UL frame 600 breaking capacity class H 65kA @ 480V 3-pole, line protection ETU860, LSIG, In=400A overload protection Ir=160A...400A short-circuit protection Isd=0.6..10x In, Ii=1.5..12x In N conductor protection optionally with external current transformer, 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	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	ETU860
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	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/retrofittable / short-circuit and overload proof	Yes
ground-fault monitoring version	Summation current formation L-conductor
product function	
● communication function	Yes
● other measurement function	Yes
Net Weight	5.3 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
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

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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	6 kA
operating short-circuit current breaking capacity (Ics)	
● at 240 V	110 kA
● at 415 V	85 kA
● at 690 V	6 kA
short-circuit current making capacity (Icm)	
● at 240 V	242 kA
● at 415 V	187 kA
● at 690 V	9 kA
Switching capacity according to UL 489	
current breaking capacity	
● at 240 V	100 kA
● at 480 V	65 kA
● at 600 V	22 kA
Adjustable parameters	
adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic	
● minimum	150 A
● maximum	400 A
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic	
● minimum	0.5 s
● maximum	25 s
adjustable response value setting current (Isd) / of S-trip / with I0t characteristic	
● minimum	240 A
● maximum	4 000 A
adjustable response value setting current (Isd) / of S-trip / with I2t characteristic	
● minimum	240 A
● maximum	4 000 A
adjustable response value delay time (tsd) / for S-tripping / with I0t characteristic	
● minimum	0.05 s
● maximum	0.5 s
adjustable response value delay time (tsd) / for S-tripping / with I2t characteristic	
● minimum	0.05 s
● maximum	0.5 s
adjustable response value setting current (Ii) / for I-tripping	
● minimum	600 A
● maximum	4 800 A
adjustable current response value current / for G-tripping / with standard characteristic	
● initial value	80 A
● full-scale value	400 A
adjustable response value delay time (tg) / for G-tripping / with I0t characteristic	
● minimum	0.05 s
● maximum	0.8 s
adjustable response value setting current (Ig) / for G-tripping / with I2t characteristic	
● minimum	80 A
● maximum	400 A
adjustable response value delay time (tg) / for G-tripping / with I2t characteristic	
● minimum	0.05 s
● maximum	0.8 s
adjustable setting current (InN) / for N-tripping	

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● minimum	0 A
● maximum	0 A
adjustable delay time / of S-trip / with I2t characteristic / full-scale value	0.5 s
adjustable current response value current / of instantaneous short-circuit trip unit	
● minimum	600 A
● maximum	4 800 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]	9.76 in
height	248 mm
width [in]	5.43 in
width	138 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
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
Environmental footprint	
Siemens Eco Profile (SEP)	Siemens EcoTech
reference code / according to IEC 81346-2	Q
Approvals / Certificates	
General Product Approval	

Confirmation











General Product Approval	EMV	Marine / Shipping

Miscellaneous











Marine / Shipping	other	Dangerous Good

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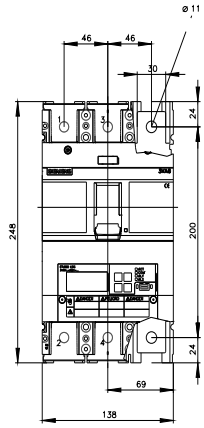
Confirmation | Miscellaneous | Miscellaneous | Transport Information

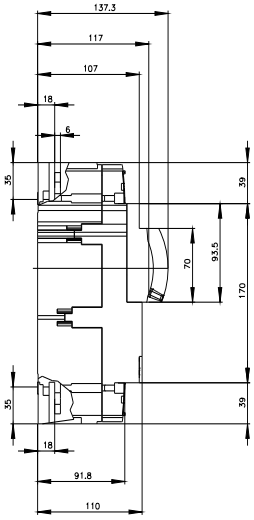
Environment

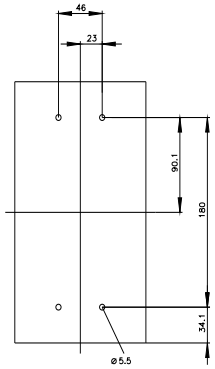
Environmental Confirmations

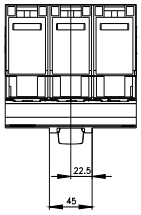
Further information

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=3VA6440-6KQ31-0AA0
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3VA6440-6KQ31-0AA0
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6440-6KQ31-0AA0
CAx-Online-Generator
http://www.siemens.com/cax
Tender specifications
http://www.siemens.com/specifications

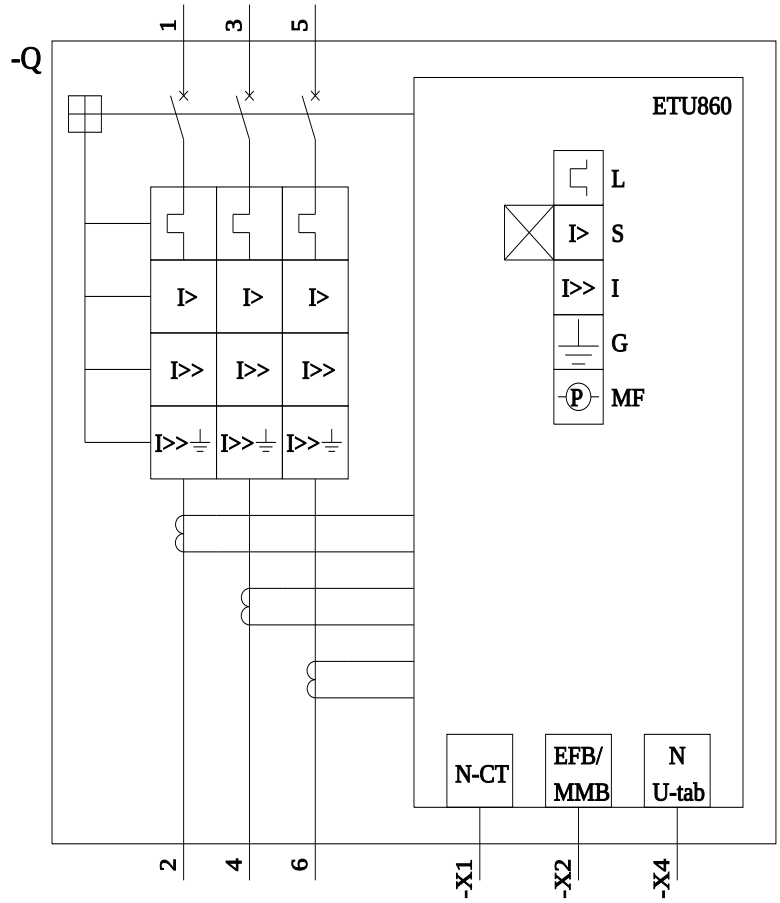


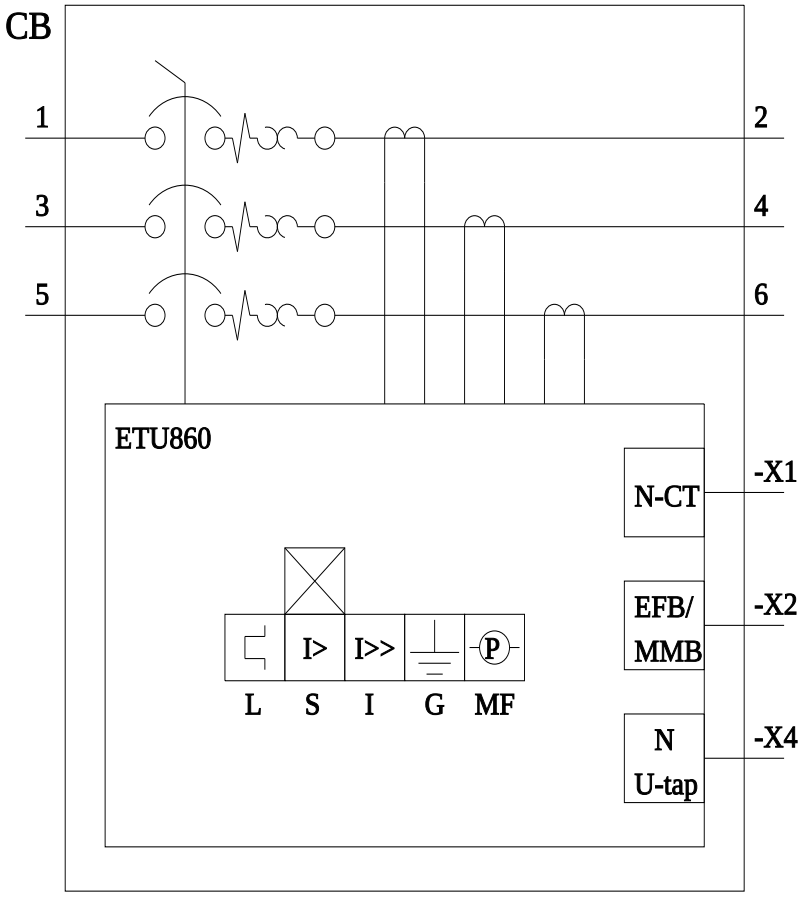






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