



circuit breaker 3VA2 IEC frame 160 breaking capacity class M
 $I_{cu}=55kA @ 415V$ 4-pole, line protection ETU860, LSIG, $I_n=40A$
 overload protection $I_r=16A...40A$ short-circuit protection $I_{sd}=0.6..10x$
 I_n , $I_i=1.5..12x I_n$ N conductor protection adjustable (OFF, up to
 160%) gr.-fault prot., can be sw. off $I_g=0.4...1 x I_n=$ $t_g=0.05-0.8s$
 clamp connection

Model	
Product brand name	SENTRON
Product designation	Molded case circuit breaker
Product version	Line protection
Design of the overcurrent release	ETU860
Protective function of the overcurrent release	LSIG
Number of poles	4

General technical data	
Rated insulation voltage U_i	800 V
Max. rated operational voltage U_e with AC 50/60Hz	690 V
Power loss [W] / maximum	1.6 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	0.53 W
Mechanical service life (switching cycles) / typical	20 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	12 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	8 000
Neutral conductors / upgradeable/retrofittable	No

Ground fault monitoring version	Summation current formation L + N conductor
Product function	
• communication function	Yes
• other measurement function	Yes
Net weight	3.15 kg

Current

Max. rated operational current of the frame size	160 A
Rated continuous current I _u	40 A
Operating current	
• at 40 °C	40 A
• at 45 °C	40 A
• at 50 °C	40 A
• at 55 °C	40 A
• at 60 °C	40 A
• at 65 °C	40 A
• at 70 °C	40 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	85 kA
• at 415 V	55 kA
• at 440 V	55 kA
• at 500 V	36 kA
• at 690 V	2.5 kA
Operational short-circuit current breaking capacity (I _{cs})	
• at 240 V	85 kA
• at 415 V	55 kA
• at 440 V	55 kA
• at 500 V	36 kA
• at 690 V	2.5 kA
Short-circuit current making capacity (I _{cm})	
• at 240 V	187 kA
• at 415 V	121 kA
• at 440 V	121 kA
• at 500 V	76 kA
• at 690 V	3.8 kA

Adjustable parameters

Adjustable response value current / I _r min.	16 A
Adjustable response value current / I _r max.	40 A
Adjustable response value time / t _r min.	0.5

Adjustable response value time / tr max.	25
Adjustable response value current / Isd min.	24 A
Adjustable response value current / Isd max.	400 A
Short-term delayed / tripping switchable / I2t=ON/OFF	Yes
Adjustable response value time / tsd min.	0.05 s
Adjustable response value time / tsd max.	0.5 s
Adjustable response value time / tsd min.	0.05 s
Adjustable response value time / tsd max.	0.5 s
Adjustable response value current / li min.	60 A
Adjustable response value current / li max.	480 A
Ground fault protection can be switched ON/OFF	Yes
Ground fault protection / tripping switchable / I2t=ON/OFF	Yes
Adjustable response value current / Ig min.	16 A
Adjustable response value current / Ig max.	40 A
Adjustable response value current / tg min.	0.05 s
Adjustable response value current / tg max.	0.8 s
Adjustable response value current / for G-tripping / with I2t characteristic / min.	0.4 A
Adjustable response value current / for G-tripping / with I2t characteristic / max.	1 A

Mechanical Design

Height [in]	7.1 in
Height	181 mm
Width [in]	5.5 in
Width	140 mm
Depth [in]	3.4 in
Depth	86 mm

Connections

Arrangement of electrical connectors / for main current circuit	Front terminal
Type of electrical connection / for main current circuit	double-sided box terminal
Type of connectable conductor cross-section, round conductor terminal, stranded	1 x (6-120 mm ²)

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 / acc. to DIN EN 81346-2

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General Product Approval

EMC



CCC



VDE

CB

CB

[Miscellaneous](#)



RCM

Declaration of Conformity

Test Certificates

Shipping Approval



EG-Konf.

[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Special Test Certificate](#)



ABS



BUREAU VERITAS

Shipping Approval

other



LRS



RMRS

[CCS / China Classification Society](#)

[Manufacturer Declaration](#)

[Miscellaneous](#)

Further information

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=3VA2140-5KQ46-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2140-5KQ46-0AA0>

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

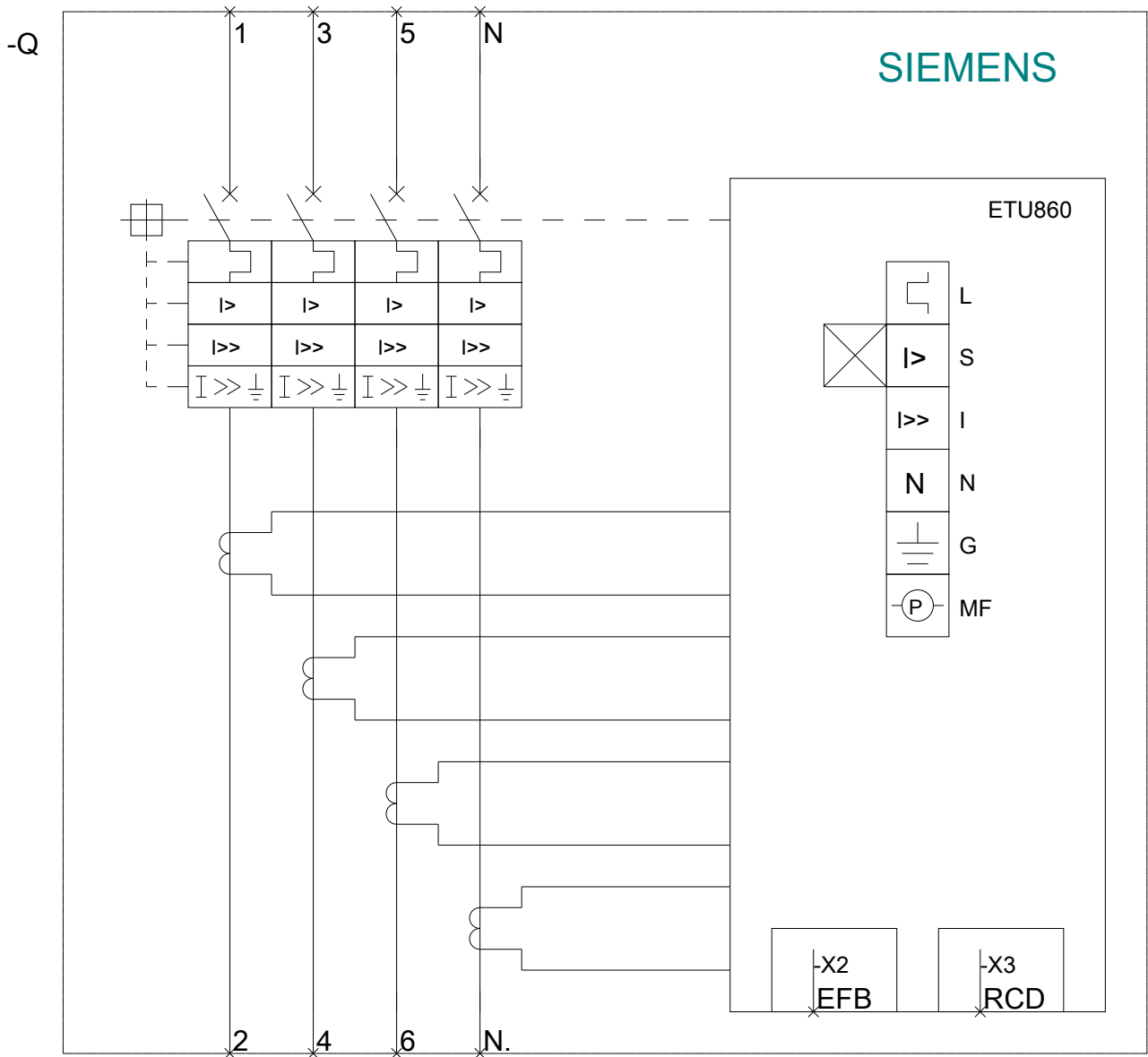
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2140-5KQ46-0AA0

CAX-Online-Generator

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

Tender specifications

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



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