



circuit breaker 3VA2 IEC frame 630 breaking capacity class C
Icu=110kA @ 415V 4-pole, line protection ETU860, LSIG, In=500A
overload protection Ir=200A...500A short-circuit protection
Isd=0.6..10x In, li=1.5..14x In N conductor protection adjustable
(OFF, up to 100%) gr.-fault prot., can be sw. off Ig=0.2...1 x In=
tg=0.05-0.8s nut keeper kit

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
Product version	Line protection
design of the overcurrent release	ETU860
protection function of the overcurrent release	LSIG
number of poles	4

General technical data	
Tension assignée d'isolement Ui	800 V
Max. rated operational voltage Ue with AC 50/60Hz	690 V
power loss [W] / maximum	99 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	33 W
mechanical service life (switching cycles) / typical	15 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	4 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	4 000
Neutral conductors / upgradeable/retrofitable	No

ground fault monitoring version	Summation current formation L + N conductor
product function	
• communication function	Yes
• other measurement function	Yes
net weight	5.7 kg

Current

Max. rated operational current of the frame size	630 A
Courant permanent assigné lu	500 A
short-time withstand current (I _{cw})	
• at AC / limited to 0.5 s / rated value	6 kA
• limited to 1 s	6 kA
operating current	
• at 40 °C	500 A
• at 45 °C	500 A
• at 50 °C	500 A
• at 55 °C	477 A
• at 60 °C	455 A
• at 65 °C	432 A
• at 70 °C	410 A

Switching capacity according to IEC 60947

switching capacity class of the circuit breaker	C
maximum short-circuit current breaking capacity (I _{cu})	
• at 240 V	150 kA
• at 415 V	110 kA
• at 440 V	110 kA
• at 500 V	85 kA
• at 690 V	6 kA
operational short-circuit current breaking capacity (I _{cs})	
• at 240 V	150 kA
• at 415 V	110 kA
• at 440 V	110 kA
• at 500 V	85 kA
• at 690 V	6 kA
short-circuit current making capacity (I _{cm})	
• at 240 V	330 kA
• at 415 V	242 kA
• at 440 V	242 kA
• at 500 V	187 kA
• at 690 V	9 kA

Adjustable parameters

Adjustable response value current / Ig min.	200 A
Adjustable response value current / Ig min.	500 A
Adjustable response value current / Ig min.	0.5
Adjustable response value current / Ig min.	20
Adjustable response value current / Ig min.	300 A
Adjustable response value current / Ig min.	5 000 A
Short-term delayed / tripping switchable / I2t=ON/OFF	Yes
Adjustable response value current / Ig min.	0.05 s
Adjustable response value current / Ig min.	0.5 s
Adjustable response value current / Ig min.	0.05 s
Adjustable response value current / Ig min.	0.5 s
Adjustable response value current / li min.	750 A
Adjustable response value current / li max.	7 000 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.	100 A
Adjustable response value current / Ig max.	500 A
Adjustable response value current / tg min.	0.05 s
Adjustable response value current / Ig min.	0.8 s
Adjustable response value current / for G-tripping / with I2t characteristic / min.	0.2 A
Adjustable response value current / for G-tripping / with I2t characteristic / max.	1 A

Mechanical Design

height [in]	9.8 in
Height	248 mm
width [in]	7.2 in
Width	184 mm
depth [in]	4.3 in
depth	110 mm

Connections

arrangement of electrical connectors / for main current circuit	Front terminal
type of electrical connection / for main current circuit	on both sides nut keeper kit
Type of connectable conductor cross-section, connection screw, width x thickness , min.	20 x 1 mm
Type of connectable conductor cross-section, connection screw, width x thickness , max.	35 x 10 mm

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	Q
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General Product Approval	EMC	Declaration of Conformity
 CCC	 EAC	 EG-Konf.
 VDE	 RCM	
Miscellaneous		

Test Certificates	Shipping Approval
Miscellaneous	 ABS
Special Test Certificate	 BUREAU VERITAS
Type Test Certificates/Test Report	 LRS

Shipping Approval	other
 RMRS	CCS / China Classification Society
	Manufacturer Declaration
	Miscellaneous

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)
<http://www.siemens.com/lowvoltage/catalogs>

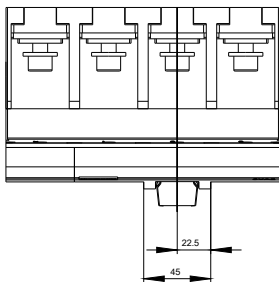
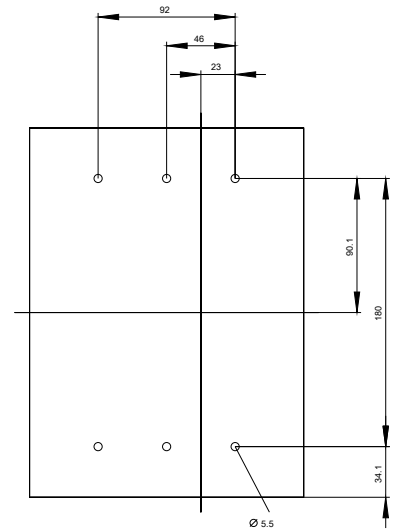
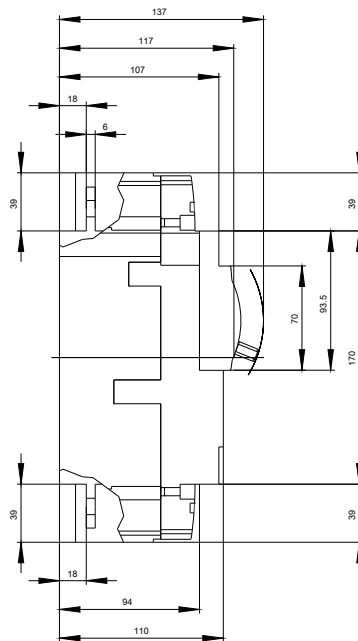
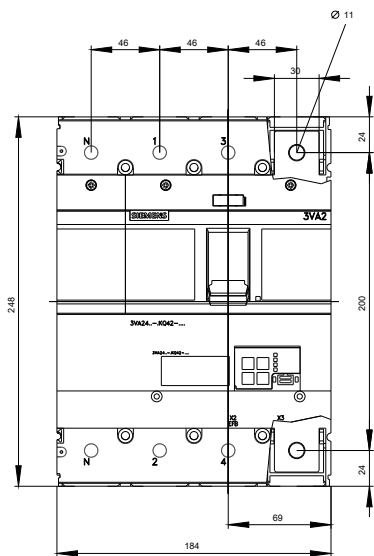
Industry Mall (Online ordering system)
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA2450-7KQ42-0AA0>

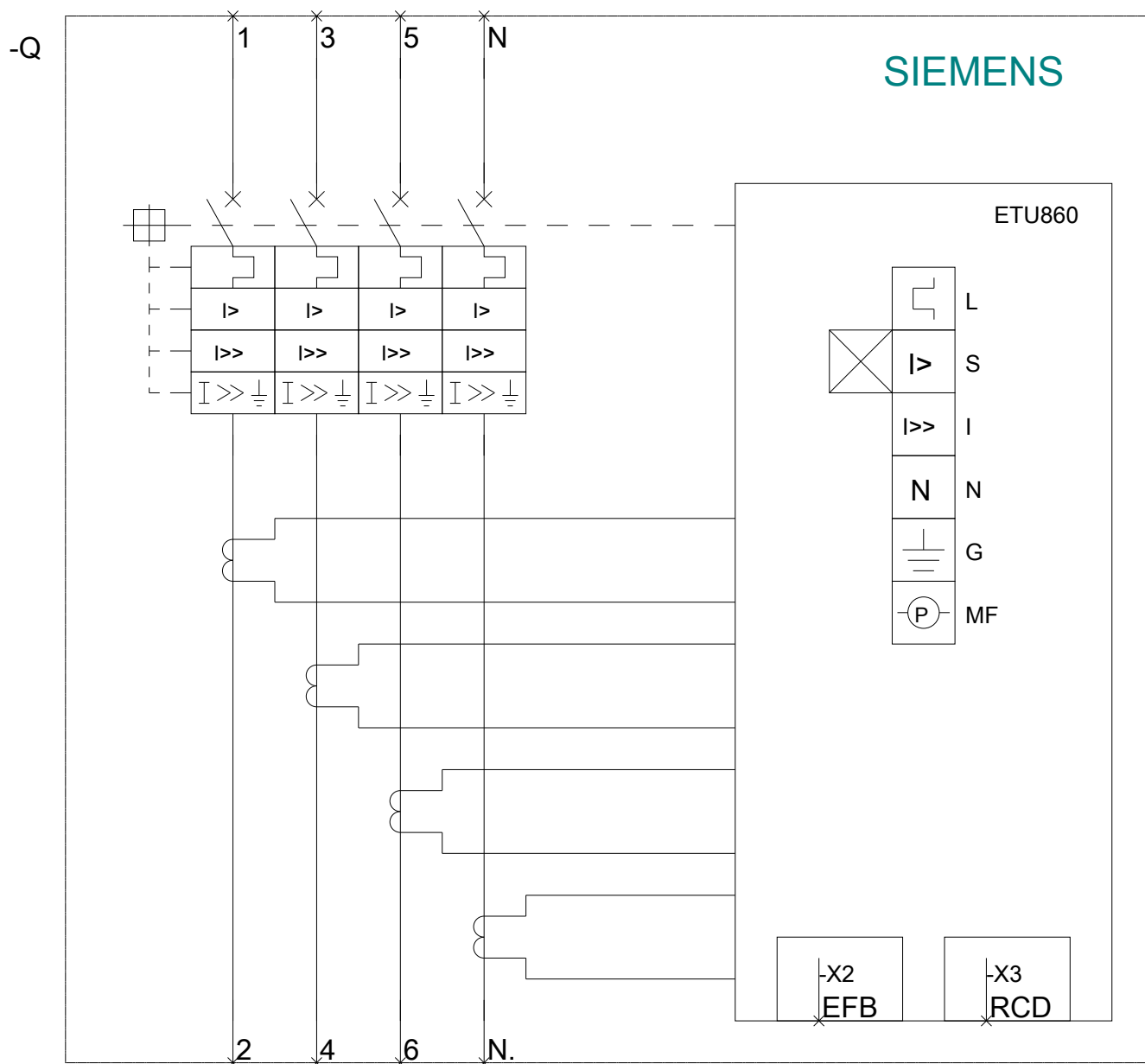
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3VA2450-7KQ42-0AA0>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2450-7KQ42-0AA0

CAX-Online-Generator
<http://www.siemens.com/cax>

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





last modified:

10/30/2020