

circuit breaker 3VA2 IEC frame 100 breaking capacity class C
 $I_{cu}=110\text{kA}$ @ 415V 4-pole, line protection ETU860, LSIG, $I_n=100\text{A}$
 overload protection $I_r=40\text{A}\dots100\text{A}$ short-circuit protection
 $I_{sd}=0.6\dots10 \times I_n$, $I_i=1.5\dots12 \times I_n$ N conductor protection adjustable
 (OFF, up to 100%) gr.-fault prot., can be sw. off $I_g=0.2\dots1 \times I_n$
 $t_g=0.05\text{--}0.8\text{s}$ nut keeper kit

Model	
product brand name	SETRON
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 U_i	800 V
Max. rated operational voltage U_e with AC 50/60Hz	690 V
power loss [W] / maximum	13.5 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	4.5 W
mechanical service life (switching cycles) / typical	20 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	14 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	8 000
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	2.95 kg

Current	
Max. rated operational current of the frame size	100 A
Courant permanent assigné I_u	100 A
operating 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	C
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	150 kA
• at 415 V	110 kA
• at 440 V	110 kA
• at 500 V	85 kA
• at 690 V	2 kA
operational short-circuit current breaking capacity (Ics)	
• at 240 V	150 kA
• at 415 V	110 kA
• at 440 V	110 kA
• at 500 V	85 kA
• at 690 V	2 kA
short-circuit current making capacity (Icm)	
• at 240 V	330 kA
• at 415 V	242 kA
• at 440 V	242 kA
• at 500 V	187 kA
• at 690 V	3 kA

Adjustable parameters

Adjustable response value current / I _g min.	40 A
Adjustable response value current / I _g min.	100 A
Adjustable response value current / I _g min.	0.5
Adjustable response value current / I _g min.	25
Adjustable response value current / I _g min.	60 A
Adjustable response value current / I _g min.	1 000 A
Short-term delayed / tripping switchable / I _{2t} =ON/OFF	Yes
Adjustable response value current / I _g min.	0.05 s
Adjustable response value current / I _g min.	0.5 s
Adjustable response value current / I _g min.	0.05 s
Adjustable response value current / I _g min.	0.5 s
Adjustable response value current / I _i min.	150 A
Adjustable response value current / I _i max.	1 200 A
Ground fault protection can be switched ON/OFF	Yes
Ground fault protection / tripping switchable / I _{2t} =ON/OFF	Yes

Adjustable response value current / I _g min.	20 A
Adjustable response value current / I _g max.	100 A
Adjustable response value current / t _g min.	0.05 s
Adjustable response value current / I _g min.	0.8 s
Adjustable response value current / for G-tripping / with I _{2t} characteristic / min.	0.2 A
Adjustable response value current / for G-tripping / with I _{2t} 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	on both sides nut keeper kit
Type of connectable conductor cross-section, connection screw, width x thickness , min.	13 x 1 mm
Type of connectable conductor cross-section, connection screw, width x thickness , max.	25 x 8.5 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
 CCC	 VDE	 CB	Miscellaneous	 EAC	 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=3VA2010-7KQ42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2010-7KQ42-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2010-7KQ42-0AA0

CAX-Online-Generator

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

Tender specifications

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

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