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Data sheet 3VA1010-4ED42-0AA0

circuit breaker 3VA1 IEC frame 100 breaking capacity class S Icu=36kA @ 415V 4-pole, line protection TM210, FTFM, In=100A overload protection Ir=100A fixed short-circuit protection Ii=10 x In N conductor unprotected nut keeper kit

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
Product version	Line protection
design of the overcurrent release	TM210
protection function of the overcurrent release	LI
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
Max. rated operational voltage Ue with DC	600 V
power loss [W] / maximum	25 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	8.33 W
mechanical service life (switching cycles) / typical	15 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	8 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	8 000

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Neutral conductors / upgradeable/retrofittable	No
ground fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
net weight	1.2 kg

Current	
Max. rated operational current of the frame size	100 A
Courant permanent assigné Iu	100 A
operating current	
• at 40 °C	100 A
• at 45 °C	100 A
• at 50 °C	100 A
• at 55 °C	98 A
• at 60 °C	96 A
• at 65 °C	94 A
• at 70 °C	91 A

Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	S
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	55 kA
• at 415 V	36 kA
• at 440 V	25 kA
• at 500 V	7 kA
• at 690 V	7 kA
operational short-circuit current breaking capacity (Ics)	
• at 240 V	55 kA
• at 415 V	36 kA
• at 440 V	25 kA
• at 500 V	5 kA
• at 690 V	5 kA
short-circuit current making capacity (Icm)	
• at 240 V	121 kA
• at 415 V	76 kA
• at 440 V	53 kA
• at 500 V	11.9 kA
• at 690 V	11.9 kA
design of short-circuit protection	For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter

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Adjustable parameters	
Adjustable response value current / Ig min.	100 A
Adjustable response value current / Ig min.	100 A
Short-term delayed / tripping switchable / I2t=ON/OFF	No
Adjustable response value current / Ii min.	1 000 A
Adjustable response value current / Ii max.	1 000 A
design of the N-conductor protection	Without
Ground fault protection / tripping switchable / I2t=ON/OFF	No

Mechanical Design	
height [in]	5.1 in
Height	130 mm
width [in]	4 in
Width	101.6 mm
depth [in]	2.8 in
depth	70 mm

Connections	
arrangement of electrical connectors / for main current circuit	Front terminal
Type of connectable conductor cross-section, connection screw, width x thickness , min.	12 x 0 mm
Type of connectable conductor cross-section, connection screw, width x thickness , max.	17 x 6.5 mm

Auxiliary circuit	
number of CO contacts / for auxiliary contacts	0

Accessories	
product extension / optional / motor drive	No

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	Miscellaneous	KC	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=3VA1010-4ED42-0AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3VA1010-4ED42-0AA0

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1010-4ED42-0AA0

CAx-Online-Generator
http://www.siemens.com/cax

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

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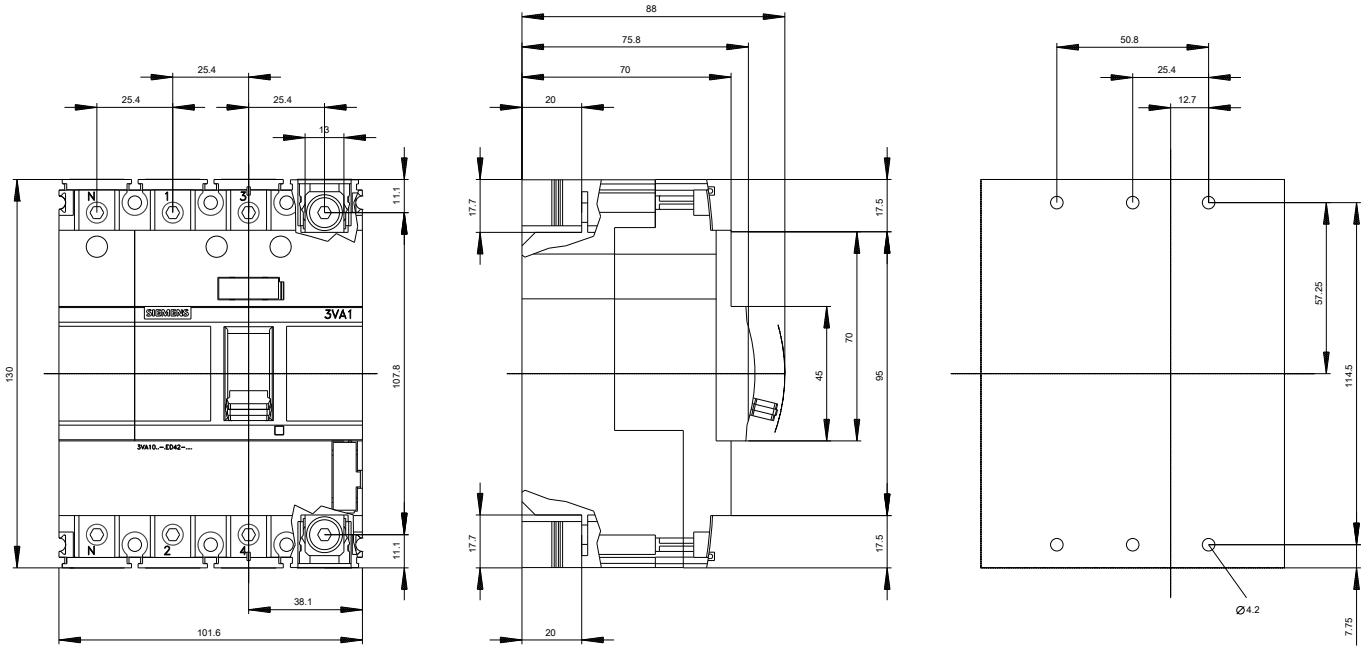

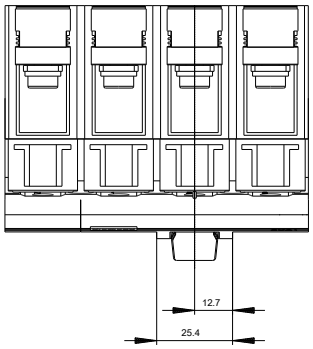

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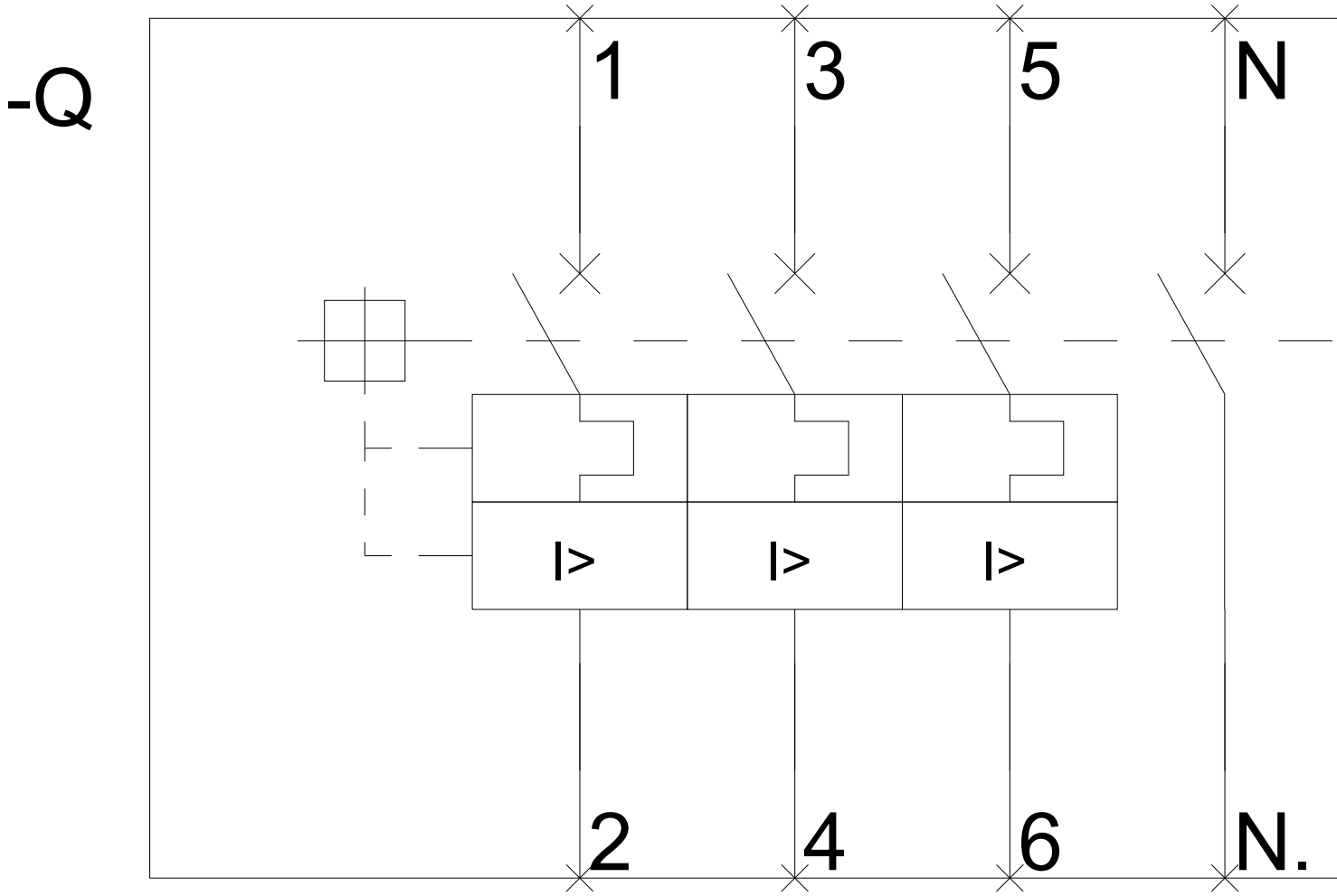

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