



circuit breaker 3VA1 IEC frame 160 breaking capacity class S Icu=36kA @ 415V 3-pole, line protection TM220, ATFM, In=25A overload protection Ir=18A...25A short-circuit protection Ii=12.8 x In nut keeper kit

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
Product version	Line protection
design of the overcurrent release	TM220
protection function of the overcurrent release	LI
number of poles	3
General technical data	
insulation voltage / rated value	800 V
Max. rated operational voltage Ue with DC	500 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	8.5 W
mechanical service life (switching cycles) / typical	20 000
Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	9 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	6 300
Neutral conductors / upgradeable/retrofitable	No
ground-fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
Net Weight	968 g
Current	
operational current	
• at 40 °C	25 A
• at 45 °C	25 A
• at 50 °C	25 A
• at 55 °C	24 A
• at 60 °C	24 A
• at 65 °C	23 A
• at 70 °C	23 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	S
breaking capacity maximum short-circuit current (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

breaking capacity operating short-circuit current (Ics) • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	55 kA 36 kA 25 kA 5 kA 5 kA
short-circuit current making capacity (Icm) • at 240 V • at 415 V • at 440 V • at 500 V • at 690 V	121 kA 75.6 kA 52.5 kA 11.9 kA 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

Adjustable parameters

reference value setting current (Ir) / for L-tripping / with I2t characteristic	x In
set values setting current (Ir) / for L-tripping / with I2t characteristic	0.7;0.8;0.9;1
adjustable response factor setting current (Ir) / for L-tripping / with I2t characteristic / minimum	0.7
adjustable response factor setting current (Ir) / for L-tripping / with I2t characteristic / maximum	1
adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic / minimum	18 A
adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic / maximum	25 A
type of value list delay time (tr) / for L-tripping / with I2t characteristic	Fest
reference value delay time (tr) / for L-tripping / with I2t characteristic	s
set values delay time (tr) / for L-tripping / with I2t characteristic	1
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic / minimum	1 s
adjustable response value delay time (tr) / for L-tripping / with I2t characteristic / maximum	1 s
adjustable response value setting current (Ii) / for I-tripping / maximum	320 A
adjustable response value setting current (Ii) / for I-tripping / minimum	320 A
reference value setting current (Ii) / for I-tripping	x In
type of value list setting current (Ii) / for I-tripping	Fest
adjustable absolute value setting current (InN) / for N-tripping / maximum	0 A
adjustable absolute value setting current (InN) / for N-tripping / minimum	0 A
Ground fault protection / tripping switchable / I2t=ON/OFF	No

Mechanical Design

height [in]	5.12 in
Height	130 mm
width [in]	3 in
Width	76.2 mm
depth [in]	2.76 in
depth	70 mm

Connections

arrangement of electrical connectors / for main current circuit	Front terminal
type of electrical connection / for main current circuit	nut keeper kit on both ends
Type of connectable conductor cross-section, connection screw, width x thickness , min.	12 x 1 mm
Type of connectable conductor cross-section, connection screw, width x thickness , max.	17 x 6,5 mm

design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)	silver,
design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6)	Tin
Auxiliary circuit	
product component	
• undervoltage release	No
• voltage trigger	No
• trip indicator	No
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
Certificates	
reference code / according to IEC 81346-2	Q
General Product Approval	



[Confirmation](#)



[Miscellaneous](#)

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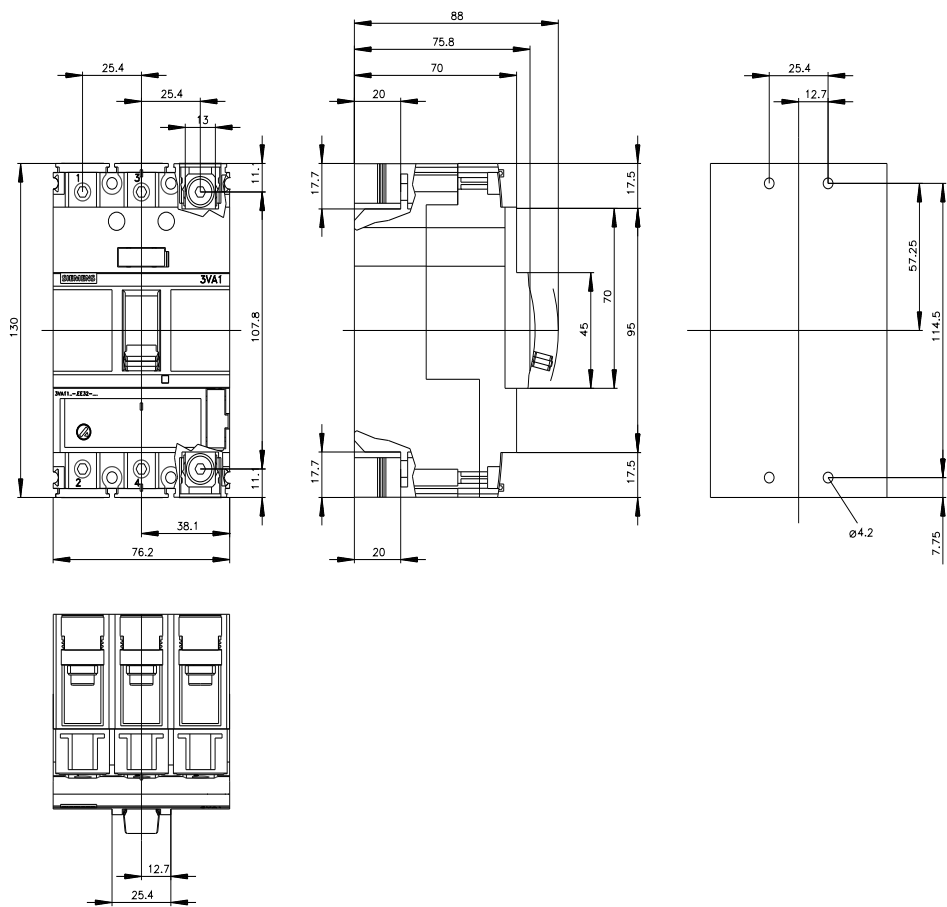


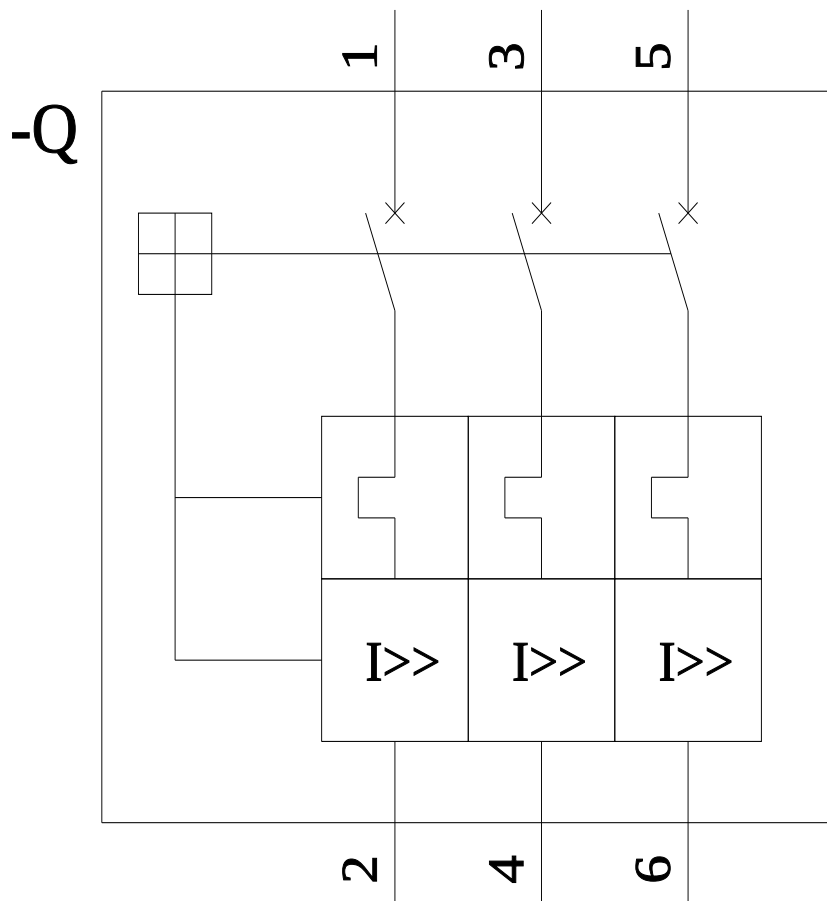
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			Miscellaneous	Type Test Certificates/Test Report
				Special Test Certificate

Marine / Shipping	other			
				CCS / China Classification Society
				Environmental Confirmations

other
Miscellaneous
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=3VA1125-4EE32-0AA0 Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3VA1125-4EE32-0AA0 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1125-4EE32-0AA0





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