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Data sheet 3VA5212-5EF31-0AA0

circuit breaker 3VA5 UL frame 250 breaking capacity class M 35kA @ 480 V 3-pole, line protection TM240, ATAM, In=125A overload protection Ir=100A...125A short-circuit protection Ii=5...10 x In without connection

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MFAS
Product version	System protection
design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
design of the overcurrent release	TM240
protection function of the overcurrent release	LI
number of poles	3
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	750 V
power loss [W] / maximum	22.6 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	7.53 W
mechanical service life (switching cycles) / typical	20 000
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	4 000
electrical endurance (switching cycles) / at 480 V	8 000
electrical endurance (switching cycles) / at 600 V	4 000
Neutral conductors / upgradeable/retrofittable	No
ground-fault monitoring version	Without
product function	
● communication function	No
● other measurement function	No
Current	
marking / acc. to UL 489 / 100%-rated breaker	No
Max. rated operational current of the frame size	250 A
Courant permanent assigné Iu	125 A
operational current	
● at 40 °C	125 A
● at 45 °C	125 A
● at 50 °C	125 A
● at 55 °C	121.25 A

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● at 60 °C	118.75 A
● at 65 °C	115 A
● at 70 °C	110 A
Switching capacity according to IEC 60947	
switching capacity class of the circuit breaker	M
breaking capacity maximum short-circuit current (Icu)	
● at 240 V	85 kA
● at 415 V	55 kA
● at 690 V	7 kA
breaking capacity operating short-circuit current (Ics)	
● at 240 V	85 kA
● at 415 V	55 kA
● at 690 V	7 kA
short-circuit current making capacity (Icm)	
● at 240 V	187 kA
● at 415 V	121 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
Switching capacity according to UL 489	
breaking capacity current	
● at 240 V	85 kA
● at 480 V	35 kA
● at 600 Y/347 V	18 kA
Adjustable parameters	
Adjustable response value current / Ig min.	88 A
Adjustable response value current / Ig min.	125 A
Adjustable response value current / Ii min.	625 A
Adjustable response value current / Ii max.	1 250 A
Ground fault protection / tripping switchable / I2t=ON/OFF	No
Mechanical Design	
height [in]	7.3 in
Height	185 mm
width [in]	4.1 in
Width	105 mm
depth [in]	3.3 in
depth	83 mm
Connections	
arrangement of electrical connectors / for main current circuit	Without connection
type of electrical connection / for main current circuit	Without
Auxiliary circuit	
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 / acc. to IEC 81346-2	Q
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	No

General Product Approval	**EMC**

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Miscellaneous

Declaration of Conformity	Shipping Approval	other
		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=3VA5212-5EF31-0AA0
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3VA5212-5EF31-0AA0
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5212-5EF31-0AA0
Tender specifications
http://www.siemens.com/specifications

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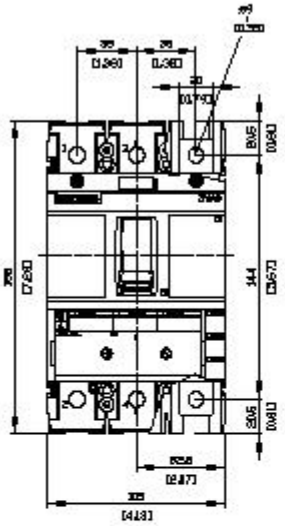

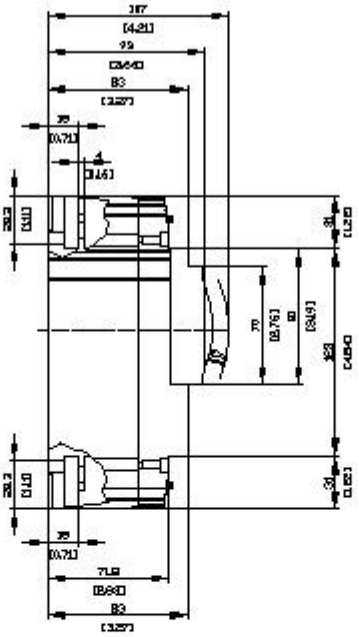

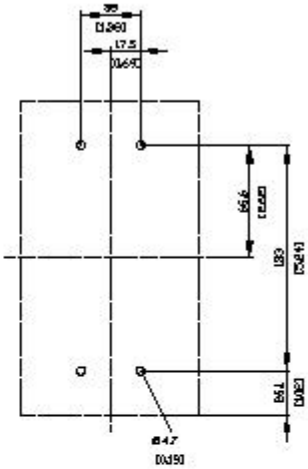

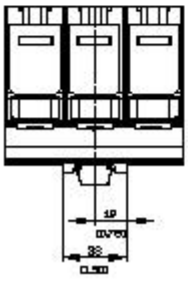

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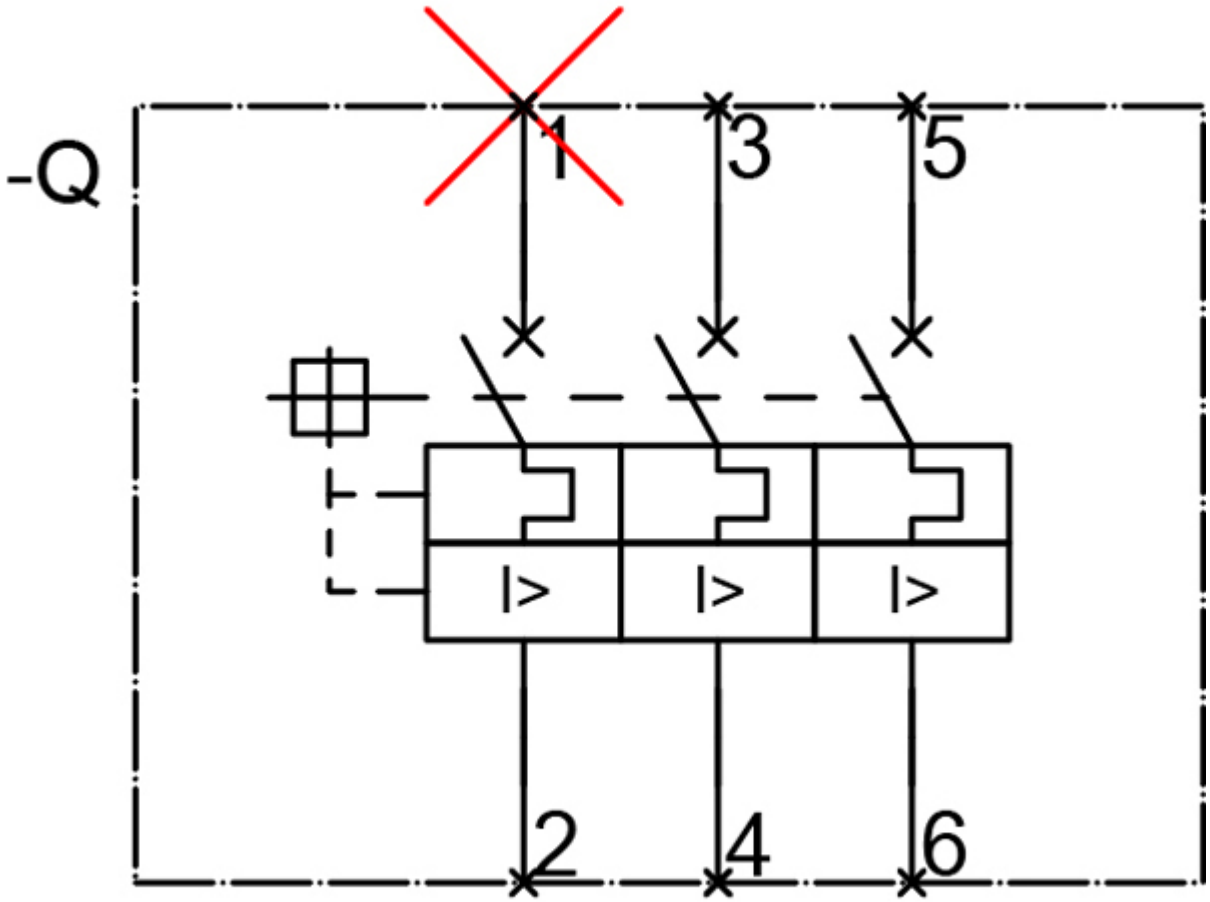

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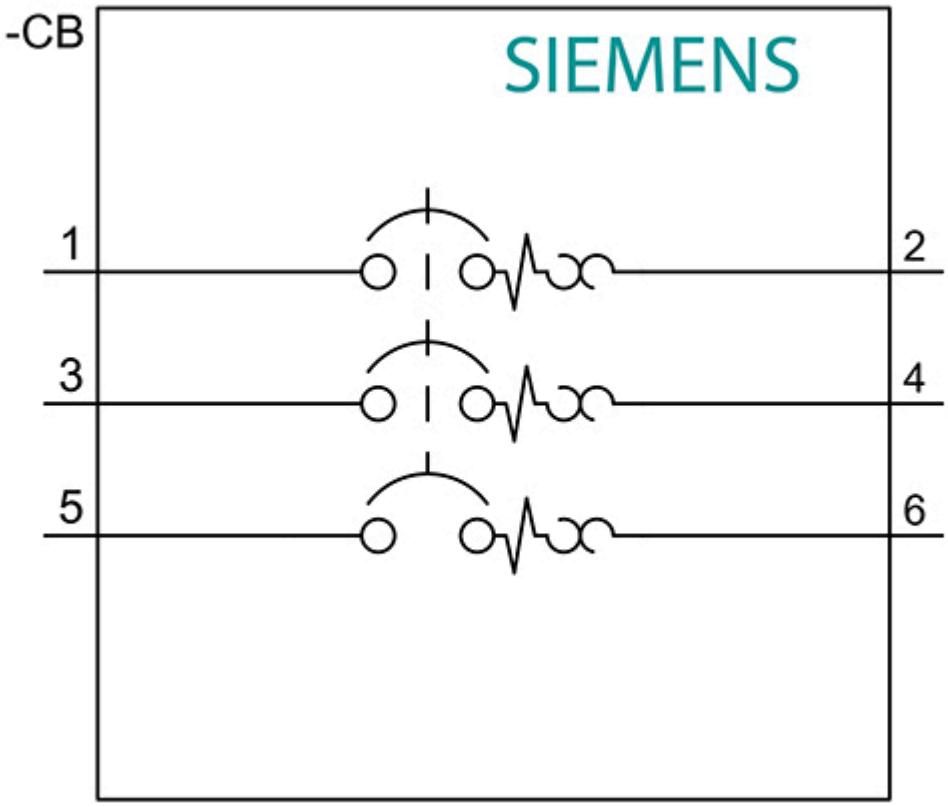

last modified: 12/20/2020

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