



CIRCUIT BREAKER 3VA5 UL Frame 600 BREAKING CAPACITY CLASS M 35kA @ 480 V 3POLE, LINE PROTECTION TM240, ATAM, $I_n=600A$ WITHOUT OVERLOAD PROTECTION $I_R=420A$...600A SHORT CIRCUIT PROTECTION $I_i=4...8 \times I_n$ W/O CONNECTION

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	MLAS
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 U_i	800 V
Max. rated operational voltage U_e with AC 50/60Hz	600 V
Max. rated operational voltage U_e with DC	500 V
power loss [W] / maximum	175 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	58.33 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	2 700
electrical endurance (switching cycles) / at 480 V	3 000
electrical endurance (switching cycles) / at 600 V	2 700
Neutral conductors / upgradeable/retrofitable	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	600 A
Courant permanent assigné Iu	600 A
operating current	
• at 40 °C	600 A
• at 45 °C	587 A
• at 50 °C	574 A
• at 55 °C	560 A
• at 60 °C	547 A
• at 65 °C	534 A
• at 70 °C	521 A

Switching capacity according to IEC 60947

switching capacity class of the circuit breaker	M
maximum short-circuit current breaking capacity (Icu)	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	7 kA
operational short-circuit current breaking capacity (Ics)	
• at 240 V	85 kA
• at 415 V	55 kA
• at 690 V	6 kA
short-circuit current making capacity (Icm)	
• at 240 V	187 kA
• at 415 V	116 kA
• at 690 V	13 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 V	18 kA

Adjustable parameters

Adjustable response value current / Ig min.	420 A
Adjustable response value current / Ig min.	600 A
Adjustable response value current / li min.	2 400 A
Adjustable response value current / li max.	4 800 A
Ground fault protection / tripping switchable / I2t=ON/OFF	No

Mechanical Design

height [in]	9.8 in
Height	248 mm
width [in]	5.4 in
Width	138 mm
depth [in]	4.3 in
depth	110 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 DIN EN 81346-2	Q
certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB	No

General Product Approval



CCC



CSA



UL



UL



VDE



EMC

Declaration of
Conformity

other



RCM



EG-Konf.

[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=3VA5460-5EF31-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5460-5EF31-0AA0>

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

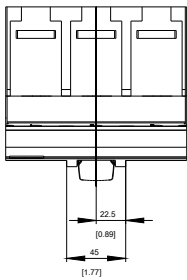
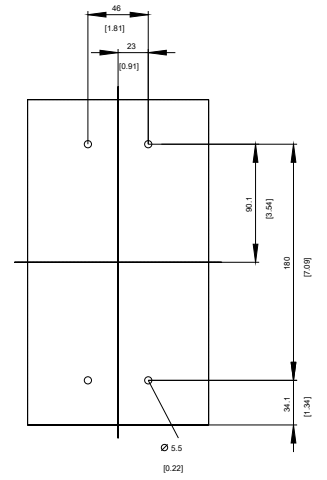
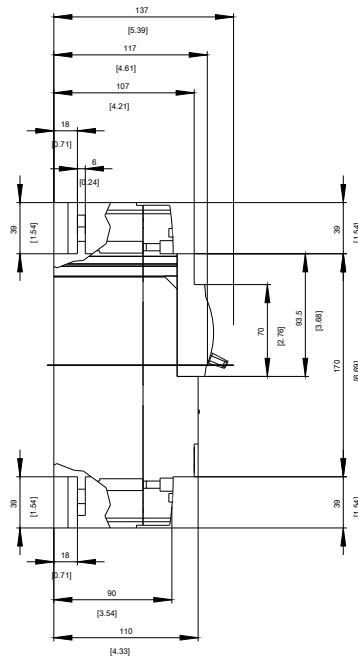
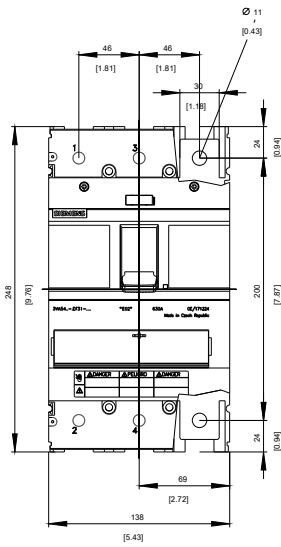
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5460-5EF31-0AA0

CAX-Online-Generator

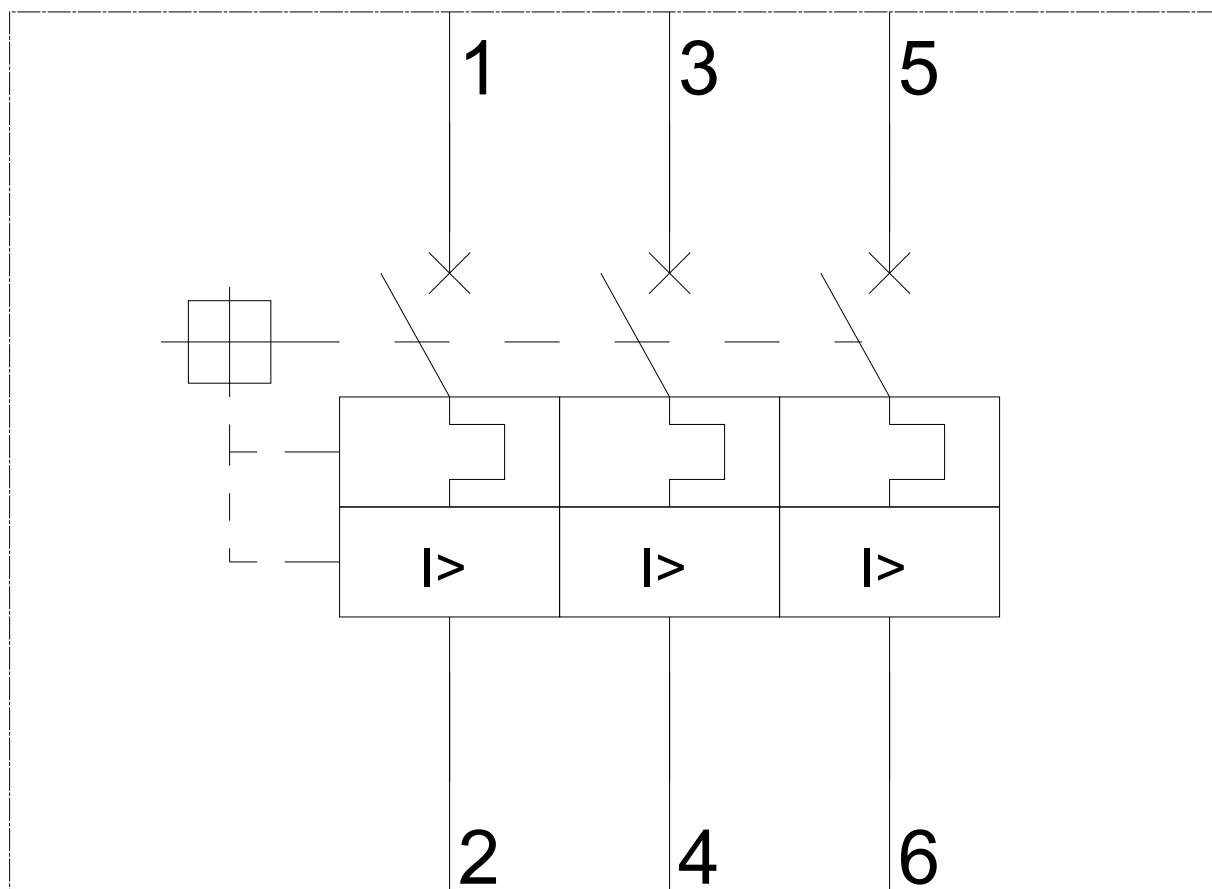
<http://www.siemens.com/cax>

Tender specifications

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

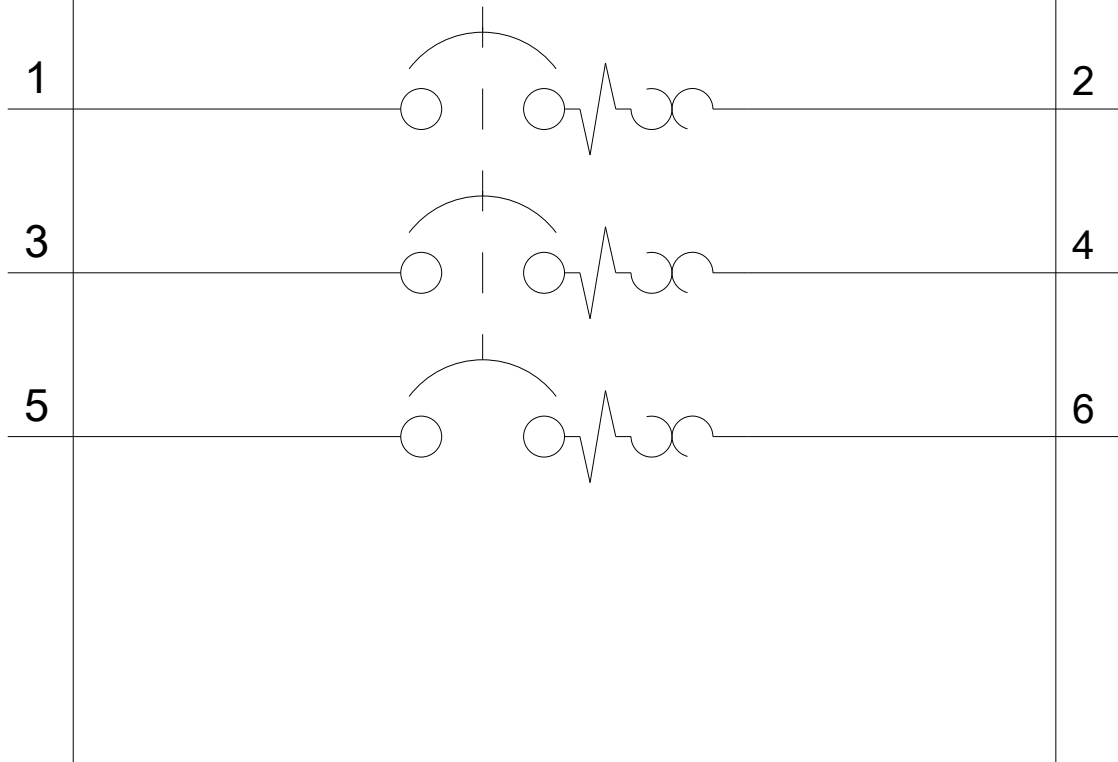


-Q



-CB

SIEMENS



last modified:

10/30/2020