## SIEMENS

## Data sheet

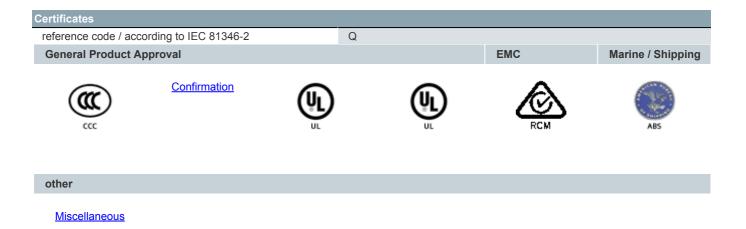
## 3VA5160-4EF32-0AA0



circuit breaker 3VA5 UL frame 125 breaking capacity class S 25kA @ 480 V 3-pole, line protection TM240, ATAM, In=60A overload protection Ir=48A ...60A short-circuit protection Ii=5...10 x In nut keeper kit on both sides

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	SEAS
Product version	System protection
design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
design of the load switch / according to UL 489 / High- Intensity-Discharge circuit breaker (HID Type)	No
design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)	No
design of the overcurrent release	TM240
protection function of the overcurrent release	LI
number of poles	3
General technical data	
rated insulation voltage Ui	800 V
Max. rated operational voltage Ue with DC	500 V
operating voltage / at AC / rated value	690 V
power loss [W] / maximum	15.4 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	5.13 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	
<ul> <li>communication function</li> </ul>	No
<ul> <li>other measurement function</li> </ul>	No
Net Weight	0.811 kg
Current	
marking / according to UL 489 / 100%-rated breaker	No
operational current	
• at 40 °C	60 A
● at 45 °C	59 A
● at 50 °C	58 A

● at 55 °C	57 A
• at 60 °C	57 A 56 A
• at 65 °C	55 A
• at 70 °C	53 A 54 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 240 V	36 kA
• at 690 V	5 kA
breaking capacity operating short-circuit current (lcs)	
• at 240 V	55 kA
• at 415 V	36 kA
• at 690 V	5 kA
short-circuit current making capacity (Icm)	
• at 240 V	121 kA
• at 415 V	75.6 kA
• at 690 V	7.5 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	65 kA
• at 480 V	25 kA
• at 600 Y/347 V	14 kA
Adjustable parameters	
Adjustable response value current / Ig min.	42 A
Adjustable response value current / Ig min.	60 A
Ground fault protection / tripping switchable / I2t=ON/OFF	No
Mechanical Design	
Mechanical Design	
height [in]	5.51 in
	5.51 in 140 mm
height [in]	
height [in] Height	140 mm
height [in] Height width [in]	140 mm 3 in
height [in] Height width [in] Width	140 mm 3 in 76.2 mm
height [in] Height width [in] Width depth [in]	140 mm 3 in 76.2 mm 3.01 in
height [in] Height width [in] Width depth [in] depth	140 mm 3 in 76.2 mm 3.01 in
height [in] Height width [in] Width depth [in] depth Connections arrangement of electrical connectors / for main current	140 mm 3 in 76.2 mm 3.01 in 76.5 mm
height [in]         Height         width [in]         Width         depth [in]         depth         Connections         arrangement of electrical connectors / for main current circuit         type of electrical connection / for main current circuit         Type of connectable conductor cross-section, connection screw, width x thickness , min.	140 mm         3 in         76.2 mm         3.01 in         76.5 mm         Front connection         nut keeper kit on both ends         12 x 1 mm
height [in]         Height         width [in]         Width         depth [in]         depth         Connections         arrangement of electrical connectors / for main current circuit         type of electrical connection / for main current circuit         Type of connectable conductor cross-section, connection screw, width x thickness , min.         Type of connectable conductor cross-section, connection screw, width x thickness , max.	140 mm 3 in 76.2 mm 3.01 in 76.5 mm Front connection nut keeper kit on both ends
height [in]         Height         width [in]         Width         depth [in]         depth         Connections         arrangement of electrical connectors / for main current circuit         type of electrical connection / for main current circuit         Type of connectable conductor cross-section, connection screw, width x thickness , min.         Type of connectable conductor cross-section, connection	140 mm         3 in         76.2 mm         3.01 in         76.5 mm         Front connection         nut keeper kit on both ends         12 x 1 mm
height [in]         Height         width [in]         Width         depth [in]         depth         Connections         arrangement of electrical connectors / for main current circuit         type of electrical connection / for main current circuit         Type of connectable conductor cross-section, connection screw, width x thickness , min.         Type of connectable conductor cross-section, connection screw, width x thickness , max.	140 mm         3 in         76.2 mm         3.01 in         76.5 mm         Front connection         nut keeper kit on both ends         12 x 1 mm
height [in]         Height         width [in]         Width         depth [in]         depth         Connections         arrangement of electrical connectors / for main current circuit         type of electrical connection / for main current circuit         Type of connectable conductor cross-section, connection screw, width x thickness , min.         Type of connectable conductor cross-section, connection screw, width x thickness , max.         Auxiliary circuit	140 mm         3 in         76.2 mm         3.01 in         76.5 mm         Front connection         nut keeper kit on both ends         12 x 1 mm
height [in]         Height         width [in]         Width         depth [in]         depth         Connections         arrangement of electrical connectors / for main current circuit         type of electrical connection / for main current circuit         Type of connectable conductor cross-section, connection screw, width x thickness , min.         Type of connectable conductor cross-section, connection screw, width x thickness , max.         Auxiliary circuit         product component         • undervoltage release         • voltage trigger	140 mm         3 in         76.2 mm         3.01 in         76.5 mm         Front connection         nut keeper kit on both ends         12 x 1 mm         17 x 6.5 mm
height [in]         Height         width [in]         Width         depth [in]         depth         Connections         arrangement of electrical connectors / for main current circuit         type of electrical connection / for main current circuit         Type of connectable conductor cross-section, connection screw, width x thickness , min.         Type of connectable conductor cross-section, connection screw, width x thickness , max.         Auxiliary circuit         product component         • undervoltage release         • voltage trigger         • trip indicator	140 mm         3 in         76.2 mm         3.01 in         76.5 mm         Front connection         nut keeper kit on both ends         12 x 1 mm         17 x 6.5 mm         No         No
height [in]         Height         width [in]         Width         depth [in]         depth         Connections         arrangement of electrical connectors / for main current circuit         type of electrical connection / for main current circuit         Type of connectable conductor cross-section, connection screw, width x thickness , min.         Type of connectable conductor cross-section, connection screw, width x thickness , max.         Auxiliary circuit         product component         • undervoltage release         • voltage trigger         • trip indicator         number of CO contacts / for auxiliary contacts	140 mm         3 in         76.2 mm         3.01 in         76.5 mm         Front connection         nut keeper kit on both ends         12 x 1 mm         17 x 6.5 mm
height [in]         Height         width [in]         Width         depth [in]         depth         Connections         arrangement of electrical connectors / for main current circuit         type of electrical connection / for main current circuit         Type of connectable conductor cross-section, connection screw, width x thickness , min.         Type of connectable conductor cross-section, connection screw, width x thickness , max.         Auxiliary circuit         product component         • undervoltage release         • voltage trigger         • trip indicator         number of CO contacts / for auxiliary contacts         Accessories	140 mm         3 in         76.2 mm         3.01 in         76.5 mm         Front connection         nut keeper kit on both ends         12 x 1 mm         17 x 6.5 mm         No         No         No         No         0
height [in]         Height         width [in]         Width         depth [in]         depth         Connections         arrangement of electrical connectors / for main current circuit         type of electrical connection / for main current circuit         Type of connectable conductor cross-section, connection screw, width x thickness , min.         Type of connectable conductor cross-section, connection screw, width x thickness , max.         Auxiliary circuit         product component         • undervoltage release         • voltage trigger         • trip indicator         number of CO contacts / for auxiliary contacts         Accessories         product extension / optional / motor drive	140 mm         3 in         76.2 mm         3.01 in         76.5 mm         Front connection         nut keeper kit on both ends         12 x 1 mm         17 x 6.5 mm         No         No
height [in]         Height         width [in]         Width         depth [in]         depth         Connections         arrangement of electrical connectors / for main current circuit         type of electrical connection / for main current circuit         Type of connectable conductor cross-section, connection screw, width x thickness , min.         Type of connectable conductor cross-section, connection screw, width x thickness , max.         Auxiliary circuit         product component         • undervoltage release         • voltage trigger         • trip indicator         number of CO contacts / for auxiliary contacts         Accessories	140 mm         3 in         76.2 mm         3.01 in         76.5 mm         Front connection         nut keeper kit on both ends         12 x 1 mm         17 x 6.5 mm         No         No         No         No         0
height [in]         Height         width [in]         Width         depth [in]         depth         Connections         arrangement of electrical connectors / for main current circuit         type of electrical connection / for main current circuit         Type of connectable conductor cross-section, connection screw, width x thickness , min.         Type of connectable conductor cross-section, connection screw, width x thickness , max.         Auxiliary circuit         product component         • undervoltage release         • voltage trigger         • trip indicator         number of CO contacts / for auxiliary contacts         Accessories         product extension / optional / motor drive         Environmental conditions         protection class IP / on the front	140 mm         3 in         76.2 mm         3.01 in         76.5 mm         Front connection         nut keeper kit on both ends         12 x 1 mm         17 x 6.5 mm         No         No         No         No         0
height [in]         Height         width [in]         Width         depth [in]         depth         Connections         arrangement of electrical connectors / for main current circuit         type of electrical connection / for main current circuit         Type of connectable conductor cross-section, connection screw, width x thickness , min.         Type of connectable conductor cross-section, connection screw, width x thickness , max.         Auxiliary circuit         product component         • undervoltage release         • voltage trigger         • trip indicator         number of CO contacts / for auxiliary contacts         Accessories         product extension / optional / motor drive         Environmental conditions	140 mm         3 in         76.2 mm         3.01 in         76.5 mm         Front connection         nut keeper kit on both ends         12 x 1 mm         17 x 6.5 mm         No         No         No         Yes         IP40
height [in]         Height         width [in]         Width         depth [in]         depth         Connections         arrangement of electrical connectors / for main current circuit         type of electrical connection / for main current circuit         Type of connectable conductor cross-section, connection screw, width x thickness , min.         Type of connectable conductor cross-section, connection screw, width x thickness , max.         Auxiliary circuit         product component         • undervoltage release         • voltage trigger         • trip indicator         number of CO contacts / for auxiliary contacts         Accessories         product extension / optional / motor drive         Environmental conditions         protection class IP / on the front         ambient temperature         • during operation / minimum	140 mm         3 in         76.2 mm         3.01 in         76.5 mm         Front connection         nut keeper kit on both ends         12 x 1 mm         17 x 6.5 mm         No         No         No         Yes         IP40         -25 °C
height [in]         Height         width [in]         Width         depth [in]         depth         Connections         arrangement of electrical connectors / for main current circuit         type of electrical connection / for main current circuit         Type of connectable conductor cross-section, connection screw, width x thickness , min.         Type of connectable conductor cross-section, connection screw, width x thickness , max.         Auxiliary circuit         product component         • undervoltage release         • voltage trigger         • trip indicator         number of CO contacts / for auxiliary contacts         Accessories         product extension / optional / motor drive         Environmental conditions         protection class IP / on the front         ambient temperature         • during operation / minimum         • during operation / maximum	140 mm         3 in         76.2 mm         3.01 in         76.5 mm         Front connection         nut keeper kit on both ends         12 x 1 mm         17 x 6.5 mm         No         No         No         No         Yes         IP40         -25 °C         70 °C
height [in]         Height         width [in]         Width         depth [in]         depth         Connections         arrangement of electrical connectors / for main current circuit         type of electrical connection / for main current circuit         Type of connectable conductor cross-section, connection screw, width x thickness , min.         Type of connectable conductor cross-section, connection screw, width x thickness , max.         Auxiliary circuit         product component         • undervoltage release         • voltage trigger         • trip indicator         number of CO contacts / for auxiliary contacts         Accessories         product extension / optional / motor drive         Environmental conditions         protection class IP / on the front         ambient temperature         • during operation / minimum	140 mm         3 in         76.2 mm         3.01 in         76.5 mm         Front connection         nut keeper kit on both ends         12 x 1 mm         17 x 6.5 mm         No         No         No         Yes         IP40         -25 °C



## 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=3VA5160-4EF32-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA5160-4EF32-0AA0

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

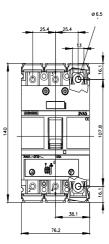
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA5160-4EF32-0AA0

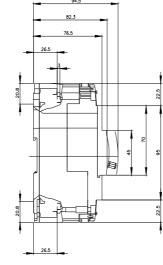
**CAx-Online-Generator** 

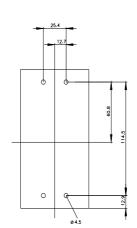
http://www.siemens.com/cax

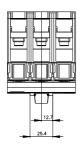
**Tender specifications** 

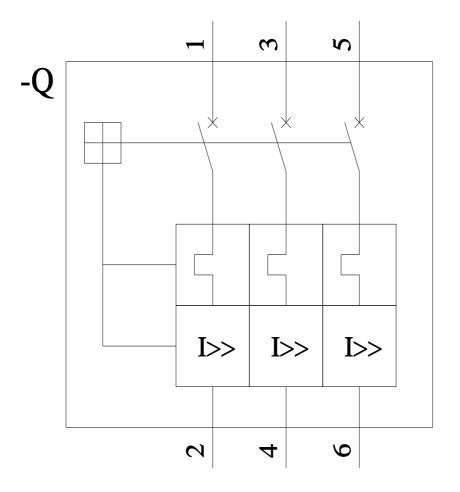
http://www.siemens.com/specifications

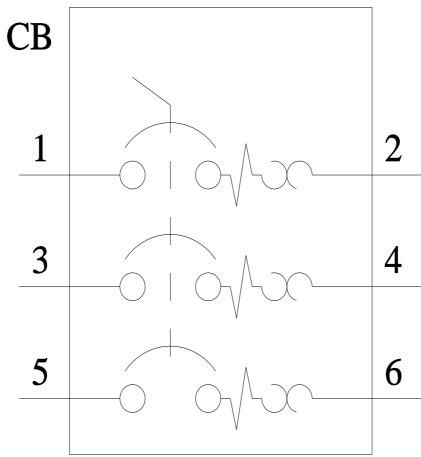












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