# **SIEMENS**

### **Data sheet**

Model

## 3VA5160-4ED16-1AA0



circuit breaker 3VA5 UL frame 125 breaking capacity class S 25kA @ 277 V 1-pole, line protection TM210, FTFM, In=60A overload protection Ir=60A fixed short-circuit protection Ii=10 x In UL489 SB (naval), 50 deg. cel. cable connection on both sides

Model	
product brand name	SENTRON
product designation	Molded-case circuit breaker
product designation / according to UL file	SEAM
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	TM210
protection function of the overcurrent release	LI
number of poles	1
General technical data	
operating voltage / at AC / rated value	415 V
power loss [W] / maximum	5.13 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	0.404 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	56 A
● at 65 °C	55 A
● at 70 °C	54 A

witching capacity according to IEC 60947 switching capacity class of the circuit breaker	S
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
witching capacity according to UL 489	
breaking capacity current	
• at 120 V	65 kA
• at 277 V	25 kA
• at 347 V	14 kA
djustable parameters	
product feature / for L-tripping / selectable characteristic	No
function type of value list setting current (Ir) / for L-tripping / with I2t	Fest
characteristic reference value setting current (Ir) / for L-tripping / with I2t	x ln
characteristic set values setting current (Ir) / for L-tripping / with I2t	1
characteristic adjustable response factor setting current (Ir) / for L- tripping / with I2t characteristic / minimum	1
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	60 A
adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic / maximum	60 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 product feature / for S-tripping / independent of direction /	1 s
selectable characteristic function  product feature / for I-tripping / can be switched on/off	No
design of I-trip / adjustable	No
. ,	
reference value setting current (li) / for I-tripping	x In
set values setting current (Ii) / for I-tripping adjustable response factor setting current (Ii) / for I- tripping / minimum	10 10
adjustable response factor setting current (li) / for l- tripping / maximum	10
adjustable response value setting current (li) / for l-tripping / minimum	600 A
adjustable response value setting current (li) / for I-tripping / maximum	600 A
product feature / for G-tripping / selectable characteristic function	No
product feature / with neutral conductor protection / can be switched on/off	No
product feature / with neutral conductor protection / adjustable	Yes
type of value list setting current (InN) / for N-tripping	St
reference value setting current (InN) / for N-tripping adjustable absolute value setting current (InN) / for N-tripping / minimum	x In 0 A
adjustable absolute value setting current (InN) / for N- tripping / maximum	0 A
tripping / maximum tripping characteristic / of the lower tolerance band tripping characteristic / of the upper tolerance band	AK_3VA5_1_60A_TM2_SuMuH_uT AK_3VA5_1_60A_TM2_SuMuH_oT
let-through energy characteristic / at 240 V	DE_3VA5_1_60A_TM2_line_1p_240V
0 0,	DE_3VA5_1_60A_TM2_line_1p_240V DE_3VA5_1_60A_TM2_line_1p_415V
let-through energy characteristic / at 415 V	DE 3VA5 1 60A 1M2 line in 415V

tripping characteristic / of the let-through current DS\_3VA5\_1\_60A\_TM210\_line\_1p\_240V characteristic / at 240 V tripping characteristic / of the let-through current DS\_3VA5\_1\_60A\_TM210\_line\_1p\_415V characteristic / at 415 V Adjustable response value current / lg min. 42 A adjustable current response value current / of the current-60 A dependent overload release / full-scale value Ground fault protection / tripping switchable / I2t=ON/OFF No **Mechanical Design** product component • undervoltage release No voltage trigger No trip indicator Nο height [in] 5.51 in Height 140 mm width [in] Type of connectable conductor cross-section, round 1 x (8 AWG - 3/0) conductor terminal, stranded Width 25.4 mm depth [in] 3.01 in depth 76.5 mm arrangement of electrical connectors / for main current Front connection type of electrical connection / for main current circuit circular conductor terminal on both sides **Auxiliary circuit** 0 number of CO contacts / for auxiliary contacts Accessories product extension / optional / motor drive No **Environmental conditions** protection class IP / on the front IP40 ambient temperature -25 °C • during operation / minimum • during operation / maximum 70 °C -40 °C • during storage / minimum • during storage / maximum 80 °C

certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB

Yes

### **General Product Approval**

Confirmation









**Miscellaneous** 

**EMC** 

**Declaration of Conformity** 

Marine / Shipping













Marine / Shipping

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=3VA5160-4ED16-1AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA5160-4ED16-1AA0

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

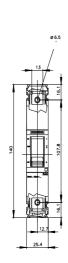
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA5160-4ED16-1AA0

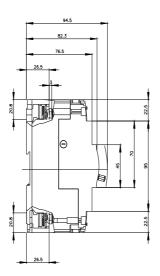
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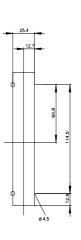
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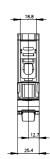
Tender specifications

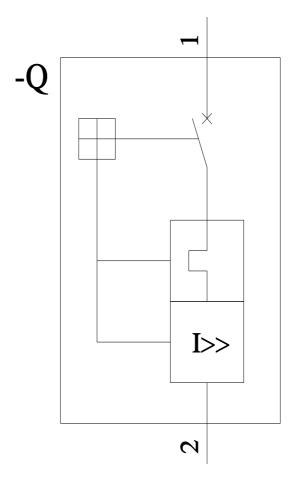
http://www.siemens.com/specifications

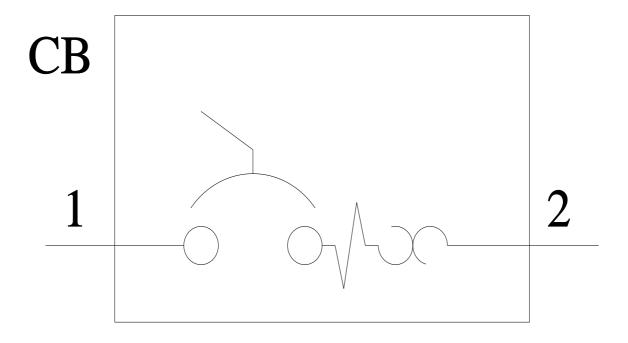












last modified: 7/15/2022 🖸