

circuit breaker 3VA1 IEC frame 100 breaking capacity class B  
 $I_{cu}=16kA @ 415V$  4-pole, line protection TM210, FTFM,  $I_n=25A$   
 overload protection  $I_r=25A$  fixed short-circuit protection  $I_i=12.8 \times I_n$  N  
 conductor unprotected nut keeper kit

Model	
product brand name	SENTRON
product designation	Molded case circuit breaker
Product version	Line protection
design of the overcurrent release	TM210
protection function of the overcurrent release	LI
number of poles	4

General technical data	
Tension assignée d'isolement $U_i$	800 V
Max. rated operational voltage $U_e$ with AC 50/60Hz	690 V
Max. rated operational voltage $U_e$ with DC	600 V
power loss [W] / maximum	8.5 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	2.83 W
mechanical service life (switching cycles) / typical	15 000
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	8 000
Neutral conductors / upgradeable/retrofitable	No
ground fault monitoring version	Without
product function	
• communication function	No
• other measurement function	No
net weight	1.2 kg

Current	
Max. rated operational current of the frame size	100 A
Courant permanent assigné $I_u$	25 A
operating 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
- at 70 °C

23 A

23 A

### Switching capacity according to IEC 60947

switching capacity class of the circuit breaker	B
maximum short-circuit current breaking capacity (I <sub>cu</sub> )	
• at 240 V	25 kA
• at 415 V	16 kA
• at 440 V	8 kA
• at 500 V	5 kA
• at 690 V	5 kA
operational short-circuit current breaking capacity (I <sub>cs</sub> )	
• at 240 V	25 kA
• at 415 V	16 kA
• at 440 V	8 kA
• at 500 V	5 kA
• at 690 V	5 kA
short-circuit current making capacity (I <sub>cm</sub> )	
• at 240 V	53 kA
• at 415 V	32 kA
• at 440 V	13.6 kA
• at 500 V	7.5 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

### Adjustable parameters

Adjustable response value current / I <sub>g</sub> min.	25 A
Adjustable response value current / I <sub>g</sub> min.	25 A
Short-term delayed / tripping switchable / I <sub>2t</sub> =ON/OFF	No
Adjustable response value current / I <sub>i</sub> min.	320 A
Adjustable response value current / I <sub>i</sub> max.	320 A
design of the N-conductor protection	Without
Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF	No

### Mechanical Design

height [in]	5.1 in
Height	130 mm
width [in]	4 in
Width	101.6 mm
depth [in]	2.8 in

depth	70 mm
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### Connections

arrangement of electrical connectors / for main current circuit	Front terminal
Type of connectable conductor cross-section, connection screw, width x thickness , min.	12 x 0 mm
Type of connectable conductor cross-section, connection screw, width x thickness , max.	17 x 6.5 mm

### Auxiliary circuit

number of CO contacts / for auxiliary contacts	0
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### Accessories

product extension / optional / motor drive	No
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### Environmental conditions

protection class IP / on the front	IP40
ambient temperature	
<ul style="list-style-type: none"> <li>during operation / minimum</li> <li>during operation / maximum</li> <li>during storage / minimum</li> <li>during storage / maximum</li> </ul>	<ul style="list-style-type: none"> <li>-25 °C</li> <li>70 °C</li> <li>-40 °C</li> <li>80 °C</li> </ul>

### Certificates

reference code / acc. to DIN EN 81346-2	Q
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<b>General Product Approval</b>	<b>EMC</b>	<b>Declaration of Conformity</b>
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[Miscellaneous](#)



<b>Test Certificates</b>	<b>Shipping Approval</b>
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[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Special Test Certificate](#)



<b>Shipping Approval</b>	<b>other</b>
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[CCS / China Classification Society](#)

[Manufacturer Declaration](#)

[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=3VA1025-2ED42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1025-2ED42-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA1025-2ED42-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1025-2ED42-0AA0)

### **CAX-Online-Generator**

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

### **Tender specifications**

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

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