## **SIEMENS**

## Data sheet 3VL1710-1EH43-0AA0

circuit breaker VL160X N standard breaking capacity Icu=55kA, 415V AC 4-pole, line protection Electronic Trip Unit TM, LI In=100A, rated current Ir=100A, overload protection II=1000A, short-circuit prot. N unprotected without auxiliary release without auxiliary/alarm switch

Model	
type of the driving mechanism motor drive	No
design of the overcurrent release	TM
General technical data	
number of poles	4
size of the circuit-breaker	3VL1
mechanical service life (operating cycles) typical	20 000
electrical endurance (operating cycles) typical	10 000
utilization category	A
performance class for circuit breaker	N
reference code according to DIN 40719 extended according to IEC 204-2 according to IEC 750	Q
operating frequency maximum	120 1/s
Voltage	
Rated operational voltage Ue max.	690 V
<ul> <li>insulation voltage rated value</li> </ul>	800 V
<ul> <li>insulation voltage (Ui) at AC rated value</li> </ul>	800 V
surge voltage resistance rated value	8 kV
operating voltage	
<ul> <li>rated value maximum</li> </ul>	690 V
<ul> <li>for main current circuit at AC at 50 Hz maximum</li> </ul>	690 V
<ul> <li>for main current circuit at AC at 60 Hz maximum</li> </ul>	690 V
for main current circuit at DC maximum	500 V
Protection class	
protection class IP	IP20
protection function of the overcurrent release	LI
Current	
operational current	
<ul> <li>at 40 °C rated value</li> </ul>	100 A
<ul> <li>at 45 °C rated value</li> </ul>	100 A
<ul> <li>at 50 °C rated value</li> </ul>	100 A
<ul> <li>at 55 °C rated value</li> </ul>	93 A
<ul> <li>at 60 °C rated value</li> </ul>	93 A
<ul> <li>at 65 °C rated value</li> </ul>	86 A
<ul> <li>at 70 °C rated value</li> </ul>	86 A
continuous current rated value	100 A
derating temperature for the rated value of the continuous current	50 °C
adjustable current response value current	
<ul> <li>of the current-dependent overload release full-scale value</li> </ul>	100 A
<ul> <li>of instantaneous short-circuit trip unit minimum</li> </ul>	1 000 A
of instantaneous short-circuit trip unit maximum	1 000 A
Main circuit	
operating frequency	
1 rated value	50 Hz
<ul> <li>2 rated value</li> </ul>	00.11-
	60 Hz
Auxiliary circuit	60 HZ
Auxiliary circuit number of CO contacts for auxiliary contacts number of NC contacts for auxiliary contacts	0 0

number of NO contacts for auxiliary contacts	0
Suitability	
suitability for use	system protection
Adjustable parameters	ojacim protestion
adjustable current response value current of the current- dependent overload release initial value	100 A
Product details	
product component	
trip indicator	No
auxiliary switch	No
<ul> <li>voltage trigger</li> </ul>	No
undervoltage release	No
<ul> <li>undervoltage release with leading contact</li> </ul>	No
product extension optional motor drive	Yes
Product function	
product function	
of thermal overload trip unit	fixed
grounding protection	No
<ul> <li>for neutral conductors short-circuit and overload proof</li> </ul>	No
overload protection	Yes
Short circuit	
operating short-circuit current breaking capacity (lcs)	
• at 240 V rated value	65 kA
<ul> <li>at 415 V rated value</li> </ul>	55 kA
<ul> <li>at 500 V rated value</li> </ul>	14 kA
<ul><li>at 690 V rated value</li></ul>	4 kA
maximum short-circuit current breaking capacity (Icu)	
at 240 V rated value	65 kA
at 415 V rated value	55 kA
at 440 V rated value     at 480 V according to NEMA rated value	25 kA 25 kA
<ul> <li>at 480 V according to NEMA rated value</li> <li>at 500 V rated value</li> </ul>	18 kA
at 600 V rated value     at 600 V according to NEMA rated value	8 kA
at 690 V rated value     at 690 V rated value	8 kA
Connections	
arrangement of electrical connectors for main current	front side
circuit type of connectable conductor cross-sections for main	TOTAL SINCE
contacts	
<ul> <li>with flexible busbar</li> </ul>	12 x 10 mm
• solid	2.5 95 mm²
finely stranded with core end processing	2.5 50 mm²
<ul> <li>stranded</li> <li>type of connectable conductor cross-sections for auxiliary contacts</li> </ul>	2.5 95 mm²
solid	0.75 1.5 mm²
finely stranded with core end processing	0.75 1.0 mm <sup>2</sup>
type of electrical connection for main current circuit	box terminal
Mechanical Design	
height	157.5 mm
width	139.5 mm
depth	106.5 mm
fastening method	fixed mounting
Environmental conditions	
ambient temperature during operation	
• minimum	0 °C
• maximum	70 °C
ambient temperature during storage	
• minimum	-40 °C
• maximum	80 °C
General Product Approval	

**Miscellaneous** 



Confirmation

<u>TSE</u>

<u>KC</u>



**EMC** 

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping







Special Test Certificate





Marine / Shipping

other











Environmental Confirmations

other

Confirmation

**Miscellaneous** 

**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=3VL1710-1EH43-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VL1710-1EH43-0AA0

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

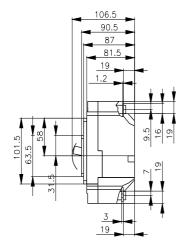
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VL1710-1EH43-0AA0

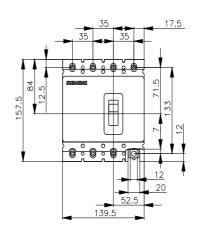
**CAx-Online-Generator** 

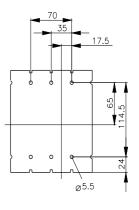
http://www.siemens.com/cax

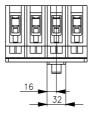
**Tender specifications** 

http://www.siemens.com/specifications









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