## SIEMENS

## Data sheet

## 3VL1706-1EH43-0AA0

circuit breaker VL160X N standard breaking capacity Icu=55kA, 415V AC 4-pole, line protection Trip Unit TM, LI In=63A, rated current Ir=63A, overload protection II=600A, short-circuit prot. N unprotected without auxiliary release without auxiliary/alarm switch

	auxiliary release without auxiliary/alarm switch
Model	
type of the driving mechanism motor drive	No
design of the overcurrent release	ТМ
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	Ν
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	
rated value maximum	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
<ul> <li>for main current circuit at DC maximum</li> </ul>	500 V
Protection class	
protection class IP	IP20
protection function of the overcurrent release	LI
Current	
operational current	
• at 40 °C rated value	63 A
<ul> <li>at 45 °C rated value</li> </ul>	63 A
<ul> <li>at 50 °C rated value</li> </ul>	63 A
<ul> <li>at 55 °C rated value</li> </ul>	58.6 A
<ul> <li>at 60 °C rated value</li> </ul>	58.6 A
• at 65 °C rated value	54.2 A
• at 70 °C rated value	54.2 A
continuous current rated value	63 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>	63 A
<ul> <li>of instantaneous short-circuit trip unit minimum</li> </ul>	600 A
<ul> <li>of instantaneous short-circuit trip unit maximum</li> </ul>	600 A
Main circuit	
operating frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
Auxiliary circuit	
number of CO contacts for auxiliary contacts	0
number of NC contacts for auxiliary contacts	0

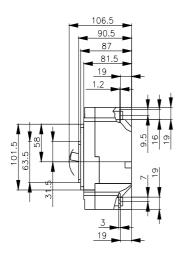
number of NO contacts for auxiliary contacts	0
Suitability	
suitability for use	system protection
Adjustable parameters	
adjustable current response value current of the current- dependent overload release initial value	63 A
Product details	
product component	
• trip indicator	No
• auxiliary switch	No
voltage trigger	No
undervoltage release	No
<ul> <li>undervoltage release with leading contact</li> </ul>	No
product extension optional motor drive	Yes
Product function	
product function	
<ul> <li>of thermal overload trip unit</li> </ul>	fixed
<ul> <li>grounding protection</li> </ul>	No
<ul> <li>for neutral conductors short-circuit and overload</li> </ul>	No
proof	
overload protection	Yes
Short circuit	
operating short-circuit current breaking capacity (lcs)	
<ul> <li>at 240 V rated value</li> </ul>	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	25 kA
at 480 V according to NEMA rated value	25 kA
at 500 V rated value	18 kA
at 600 V according to NEMA rated value	8 kA
at 690 V rated value	8 kA
Connections	
arrangement of electrical connectors for main current circuit	front side
type of connectable conductor cross-sections for main contacts	
with flexible busbar	12 x 10 mm
• solid	2.5 95 mm <sup>2</sup>
<ul> <li>finely stranded with core end processing</li> <li>stranded</li> </ul>	2.5 50 mm <sup>2</sup>
<ul> <li>stranded type of connectable conductor cross-sections for auxiliary contacts</li> </ul>	2.5 95 mm²
• solid	0.75 1.5 mm²
<ul> <li>finely stranded with core end processing</li> </ul>	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

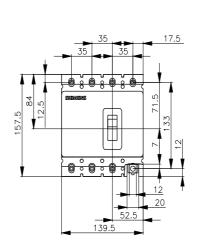
**General Product Approval** 

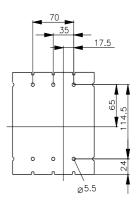
<u>Miscellaneous</u>		<u>Confirmation</u>	<u>TSE</u>	<u>KC</u>	EHC
EMC	Declaration of Confo	rmity	Test Certificates	Marine / Shipping	
C-Tick	UK CA	CE EG-Konf.	Special Test Certific- ate	ABS	BUREAU VERITAS
Marine / Shipping					other
Hoyds Kegister us	PRS	RINA	RMRS	DNV-GL DNV-GL	<u>Confirmation</u>
other					
<u>Miscellaneous</u>	Environmental Con- firmations	<u>Miscellaneous</u>			
Further information					
http://www.siemens. Industry Mall (Onlin https://mall.industry. Service&Support (I	ownloadcenter (Catalogs com/lowvoltage/catalogs ne ordering system) siemens.com/mall/en/en/C Manuals, Certificates, Ch try siemens.com/cs/ww/c	Catalog/product?mlfb naracteristics, FAQ	s,)		

ServicesSupport (manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3VL1706-1EH43-0AA0 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VL1706-1EH43-0AA0 CAx-Online-Generator http://www.siemens.com/cax

Tender specifications http://www.siemens.com/specifications







32	 16		_

C