SIEMENS

Data sheet

3VL1705-1DA33-0AA0

circuit breaker VL160X N standard breaking capacity lcu=55kA, 415V AC 3-pole, line protection Trip Unit TM, LI In=50A, rated current Ir=50A, overload protection II=600A, short-circuit prot. without auxiliary release without auxiliary/alarm switch

type of the driving mechanism motor drive design of the overcurrent release TM General technical data number of poles 3			
General technical data			
number of notes	General technical data		
number of poles			
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 Q according to IEC 204-2 according to IEC 750			
operating frequency maximum 120 1/s			
Voltage			
Rated operational voltage Ue max. 690 V			
• insulation voltage rated value 800 V			
• insulation voltage (Ui) at AC rated value 800 V			
surge voltage resistance rated value 8 kV			
operating voltage			
• rated value maximum 690 V			
• for main current circuit at AC at 50 Hz maximum 690 V			
 for main current circuit at AC at 60 Hz maximum 690 V 			
• for main current circuit at DC maximum 500 V			
Protection class			
protection class IP IP20			
protection function of the overcurrent release			
Current			
operational current			
• at 40 °C rated value 50 A			
• at 45 °C rated value 50 A			
• at 50 °C rated value 50 A			
• at 55 °C rated value 46.5 A			
• at 60 °C rated value 46.5 A			
• at 65 °C rated value 43 A			
• at 70 °C rated value 43 A			
continuous current rated value 50 A			
derating temperature for the rated value of the continuous 50 °C current			
adjustable current response value current			
 of the current-dependent overload release full-scale 50 A 			
• of instantaneous short-circuit trip unit minimum 600 A			
of instantaneous short-circuit trip unit maximum 600 A			
Main circuit			
operating frequency			
• 1 rated value 50 Hz			
 1 rated value 2 rated value 60 Hz 			
• 1 rated value 50 Hz			
 1 rated value 2 rated value 60 Hz 			

number of NO contacts for auxiliary contacts	0	
Suitability		
suitability for use	system protection	
Adjustable parameters	System protection	
	EO A	
adjustable current response value current of the current- dependent overload release initial value	50 A	
Product details		
product component		
• trip indicator	No	
auxiliary switch	No	
voltage trigger	No	
undervoltage release	No	
undervoltage release with leading contact	No	
product extension optional motor drive	Yes	
Product function		
product function		
of thermal overload trip unit	fixed	
grounding protection	No	
for neutral conductors short-circuit and overload		
proof	No	
overload protection	Yes	
Short circuit		
operating short-circuit current breaking capacity (lcs)		
at 240 V rated value	65 kA	
at 415 V rated value	55 kA	
at 500 V rated value	14 kA	
at 690 V rated value	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 rated value at 480 V according to NEMA rated value	25 kA	
at 400 V according to NEWA rated value at 500 V rated value	18 kA	
at 600 V rated value at 600 V according to NEMA rated value	8 kA	
at 600 V according to NEWA fated value at 690 V rated value	8 kA	
	6 MA	
Connections		
arrangement of electrical connectors for main current	front side	
circuit		
type of connectable conductor cross-sections for main contacts		
with flexible busbar	12 x 10 mm	
• solid	2.5 95 mm²	
finely stranded with core end processing	2.5 50 mm²	
stranded stranded	2.5 95 mm²	
type of connectable conductor cross-sections for auxiliary		
contacts		
• solid	0.75 1.5 mm²	
 finely stranded with core end processing 	0,75 1.0 mm²	
type of electrical connection for main current circuit	box terminal	
Mechanical Design		
height	157.5 mm	
width	104.5 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		
Soliotal Frouder Approval		



Confirmation

Miscellaneous

TSE

<u>KC</u>



EMC

Declaration of Conformity

Test Certificates

Marine / Shipping







Special Test Certificate





Marine / Shipping

other











Miscellaneous

other

Environmental Confirmations Confirmation

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=3VL1705-1DA33-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VL1705-1DA33-0AA0

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

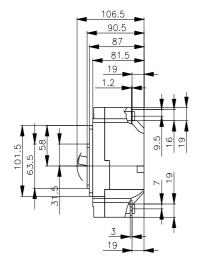
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL1705-1DA33-0AA0

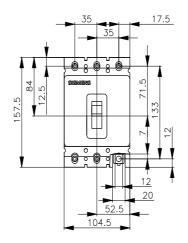
CAx-Online-Generator

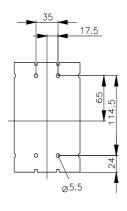
http://www.siemens.com/cax

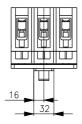
Tender specifications

http://www.siemens.com/specifications









7