Data sheet 3VL1708-1DA33-0AA0

circuit breaker VL160X N standard breaking capacity Icu=55kA, 415V AC 3-pole, line protection Electronic Trip Unit TM, LI In=80A, rated current Ir=80A, overload protection II=1000A, short-circuit prot. 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	3	
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	
 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	LI	
Current		
operational current		
 at 40 °C rated value 	80 A	
 at 45 °C rated value 	80 A	
 at 50 °C rated value 	80 A	
• at 55 °C rated value	74.4 A	
• at 60 °C rated value	74.4 A	
• at 65 °C rated value	68.8 A	
at 70 °C rated value	68.8 A	
continuous current rated value	80 A	
derating temperature for the rated value of the continuous current	50 °C	
adjustable current response value current		
 of the current-dependent overload release full-scale value 	80 A	
of instantaneous short-circuit trip unit minimum	1 000 A	
of instantaneous short-circuit trip unit maximum	1 000 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	System protestion
adjustable current response value current of the current-	80 A
dependent overload release initial value	60 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	No
proof	
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 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	front side
circuit	
type of connectable conductor cross-sections for main contacts	
with flexible busbar	12 x 10 mm
• solid	2.5 95 mm ²
 finely stranded with core end processing 	2.5 50 mm ²
• stranded	2.5 95 mm²
type of connectable conductor cross-sections for auxiliary	
contacts	
• solid	0.75 1.5 mm ²
finely stranded with core end processing	0,75 1.0 mm ²
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	

Confirmation



Miscellaneous

TSE

<u>KC</u>



EMC

Declaration of Conformity

Test Certificates

Marine / Shipping







Special Test Certificate





Marine / Shipping











Miscellaneous

other

other

Confirmation

Environmental Confirmations

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=3VL1708-1DA33-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VL1708-1DA33-0AA0

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

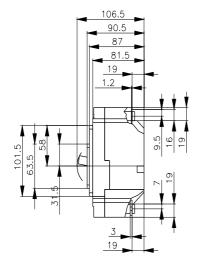
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL1708-1DA33-0AA0

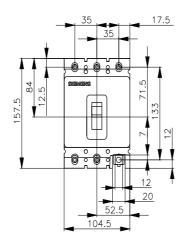
CAx-Online-Generator

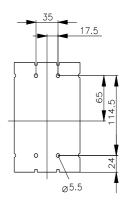
http://www.siemens.com/cax

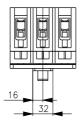
Tender specifications

http://www.siemens.com/specifications









7