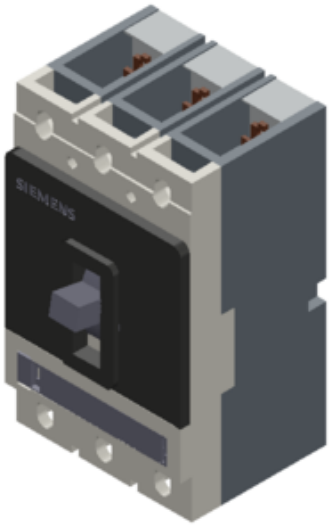
SIEMENS

Data sheet 3VL2712-1DC36-0AD1



CIRCUIT-BREAKER VL 160N STANDARD BREAKING CAPACITY ICU=55KA / 415 V AC 3 POLE, LINE PROTECTION OVERCURRENT RELEASE TM, LI IN=125A, RATED CURRENT IR=100-125A, OVERLOAD II=625-1250A, SHORT CIRCUIT WITH SCREW CONNECTION

Model		
Type of the driving mechanism / motor drive		No
Design of the overcurrent release		TM

General technical data		
Number of poles		3
Tripping characteristics / Upper tolerance band		AK_VL250_TM_I_u.txt
Tripping characteristics / Lower tolerance band		AK_VL160x_TM_I_o.txt
Size of the circuit-breaker		3VL2
Electrical endurance (switching cycles)		
• typical		10 000
Usage category		A
Performance class for circuit breaker		N
Mechanical service life (switching cycles) / typical		20 000
Equipment marking / acc. to DIN 40719 extended according to IEC 204-2 / acc. to IEC 750		Q
Operating frequency / maximum	1/s	120

Voltage		
Rated operational voltage Ue / max.	V	690
Insulation voltage		
• Rated value	V	800
• with AC / Rated value	V	800
Surge voltage resistance		
• Rated value	kV	8

Protection class

Protection class IP		IP20
Protective function of the overcurrent release		LI
Dissipation		
Active power loss		
• maximum	W	48
Electricity		
Continuous current		
• Rated value	A	125
Derating temperature / for the rated value of the continuous current	°C	50
Adjustable response value current		
• of the current-dependent overload release / Full-scale value	A	125
• of the instantaneous short-circuit release / initial value	A	625
• of the instantaneous short-circuit release / Full-scale value	A	1 250
Main circuit		
Operating frequency		
• 1 / Rated value	Hz	50
• 2 / Rated value	Hz	60
Operating voltage		
• for main current circuit / with AC / at 50 Hz / maximum	V	690
• for main current circuit / with AC / at 60 Hz / maximum	V	690
• for main current circuit / for DC / maximum	V	500
Operating current		
• at 40 °C / Rated value	A	125
• at 50 °C / Rated value	A	125
• at 55 °C / Rated value	A	116.3
• at 60 °C / Rated value	A	116.3
• at 65 °C / Rated value	A	107.5
• at 70 °C / Rated value	A	107.5
Auxiliary circuit		
Number of CO contacts		
• for auxiliary contacts		0
Number of NC contacts		
• **for auxiliary contacts**		1
Number of NO contacts		
• **for auxiliary contacts**		2

Suitability		
• **Suitability for use**		system protection
Adjustable parameters		
Adjustable response value current / of the current-dependent overload release / initial value	A	100
Product details		
Product component		
• Trip indicator		Yes
• Auxiliary switch		Yes
• Voltage trigger		No
• undervoltage release		No
• undervoltage release with leading contact		No
Product expansion		
• optional		
— motor drive		Yes
Product function		
Product function		
• of the thermal overload release		adjustable
• Ground fault protection		No
• for neutral conductors / Short-circuit and overload proof		No
• overload protection		Yes
Short circuit		
Operational short-circuit current breaking capacity (Ics)		
• at 240 V / Rated value	kA	65
• at 415 V / Rated value	kA	55
• at 500 V / Rated value	kA	20
• at 690 V / Rated value	kA	6
Maximum short-circuit current breaking capacity (Icu)		
• at 240 V / Rated value	kA	65
• at 415 V / Rated value	kA	55
• at 440 V / Rated value	kA	25
• at 480 V / acc. to NEMA / Rated value	kA	25
• at 500 V / Rated value	kA	25
• at 600 V / acc. to NEMA / Rated value	kA	12
• at 690 V / Rated value	kA	12
Connections		
Arrangement of electrical connectors		
• for main current circuit		front side

Type of connectable conductor cross-section		
• 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		2.5 ... 95 mm²
• 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		screw-type terminals

Mechanical Design

Height	mm	174.5
Width	mm	104.5
Depth	mm	106.5
Mounting type		fixed mounting

Environmental conditions

Ambient temperature		
• during operation / minimum	°C	0
• during operation / maximum	°C	70
• during storage / minimum	°C	-40
• during storage / maximum	°C	80

Certificates

Certificate of suitability		IEC, standard switching capacity (N)
Equipment marking		
• acc. to DIN EN 61346-2		Q

General Product Approval				EMC	Declaration of Conformity
CCC	other	EAC	TSE	C-TICK	EG-Konf.

Test Certificates	Shipping Approval				
Special Test Certificate	ABS	BUREAU VERITAS	DNV	GL	PRS

Shipping Approval		other		
RINA	RMRS	Confirmation	other	Environmental Confirmations

Further information

Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/lowvoltage/catalogs

Industry Mall (Online ordering system)
https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VL27121DC360AD1

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/3VL27121DC360AD1/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL27121DC360AD1

CAx-Online-Generator
http://www.siemens.com/cax

Tender specifications
http://ausschreibungstexte.siemens.com/tiplv

last modified: 23.02.2015