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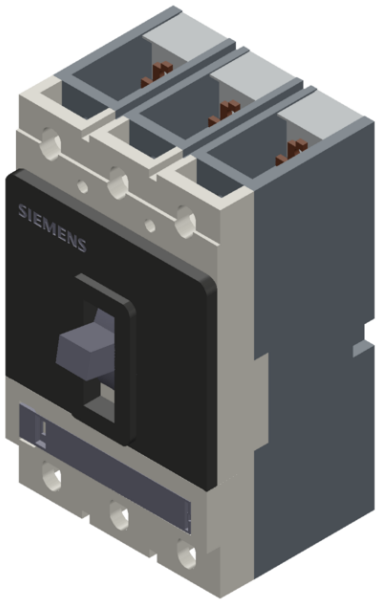
Data sheet 3VL2710-1DC36-0AD1

Circuit breaker VL160N Standard switching capacity Icu=55 kA, 415V AC 3-pole, system protection Overcurrent release TM, LI In=100 A, Rated current IR=80...100A, Overload protection, II=500...1000 A, Short-circuit protection with screw terminal



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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	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
Reference code / acc. to DIN 40719 extended according to IEC 204-2 / acc. to IEC 750	Q
Operating frequency / maximum	120 1/s

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

Protection class	
Protection class IP	IP20
Protective function of the overcurrent release	LI

Electricity	
Operating current / at 45 °C / rated value	100 A
Continuous current / rated value	100 A
Derating temperature / for the rated value of the continuous current	50 °C
Adjustable pick-up value current	
• of the current-dependent overload release / Full-scale value	100 A
• of instantaneous short-circuit trip unit / initial value	500 A
• of instantaneous short-circuit trip unit / Full-scale value	1 000 A

Main circuit	
Operating frequency	
• 1 / rated value	50 Hz
• 2 / rated value	60 Hz
Operating voltage	
• rated value / maximum	690 V

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• 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
Operating current	
• at 40 °C / rated value	100 A
• at 50 °C / rated value	100 A
• at 55 °C / rated value	95 A
• at 60 °C / rated value	95 A
• at 65 °C / rated value	80 A
• at 70 °C / rated value	80 A

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 pick-up value current / of the current-dependent overload release / initial value	80 A

Product details

Product component	
• Trip indicator	Yes
• Auxiliary switch	Yes
• 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	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	65 kA

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• at 415 V / rated value	55 kA
• at 500 V / rated value	20 kA
• at 690 V / rated value	6 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 / acc. to NEMA / rated value	25 kA
• at 500 V / rated value	25 kA
• at 600 V / acc. to NEMA / rated value	12 kA
• at 690 V / rated value	12 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
• for main contacts / solid	2.5 ... 95 mm²
• for main contacts / finely stranded / with core end processing	2.5 ... 50 mm²
• for main contacts / stranded	2.5 ... 95 mm²
• for auxiliary contacts / solid	0.75 ... 1.5 mm²
• for auxiliary contacts / 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	174.5 mm
Width	104.5 mm
Depth	106.5 mm
Mounting type	fixed mounting

Environmental conditions

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

Certificates

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

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General Product Approval			EMC	Declaration of Conformity	Test Certificates
CCC	Miscellaneous	TSE	C-Tick	EG-Konf.	Special Test Certificate

Shipping Approval					
ABS	BUREAU VERITAS	LRS	PRS	RINA	RMRS

other		
Miscellaneous	Confirmation	Environmental Confirmations

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=3VL2710-1DC36-0AD1

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3VL2710-1DC36-0AD1

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL2710-1DC36-0AD1

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

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

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