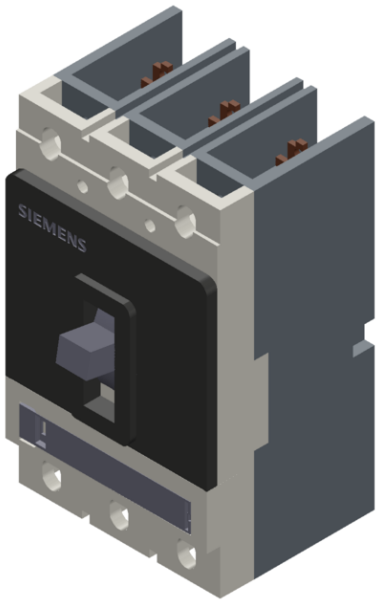
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Data sheet 3VL2505-1KN30-0AA0

Circuit breaker VL150 UL Type DG (CAT NO. NDK3B050) non-interchangeable frame, with approval circuit breaker according to UL 489 Standard switching capacity 3-pole; NEMA rating 35 kA @ 480 V and 18 kA @ 600/347 V (molded case circuit breaker) Overcurrent release TM, LI TU=40 °C In=50 A, Rated current II=450...700 A Short-circuit protection Ir=50A overcurrent release for system protection without connection accessories 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	3VL2 UL
Electrical endurance (switching cycles) / typical	10 000

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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
Operating voltage	
• rated value / maximum	690 V
• for main current circuit / at AC / at 50 Hz / acc. to UL 489 / maximum	600 V
• for main current circuit / at AC / at 50 Hz / maximum	690 V
• for main current circuit / at AC / at 60 Hz / acc. to UL 489 / maximum	600 V
• for main current circuit / at AC / at 60 Hz / maximum	690 V

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

Current	
Continuous current / rated value	50 A
Derating temperature / for the rated value of the continuous current	50 °C
• acc. to UL 489	40 °C
adjustable pick-up value current	
• of the current-dependent overload release / Full-scale value	50 A
• of instantaneous short-circuit trip unit / initial value	450 A
• of instantaneous short-circuit trip unit / Full-scale value	700 A

Main circuit	
Operating frequency	
• 1 / rated value	50 Hz
• 2 / rated value	60 Hz
Operating current	

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• at 40 °C / rated value	50 A
• at 50 °C / rated value	46.5 A
• at 55 °C / rated value	43 A
• at 60 °C / rated value	43 A

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 pick-up 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
• 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
Maximum short-circuit current breaking capacity (Icu)	
• at 240 V / rated value	65 kA
• at 480 V / acc. to NEMA / rated value	35 kA

Connections

Arrangement of electrical connectors / for main current circuit	front side
Type of electrical connection / for main current circuit	without connection accessoires

Mechanical Design

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

Certificates

certificate of suitability	UL standard switching capacity (N), non-interchangeable
• reference code / acc. to DIN EN 61346-2	Q

General Product Approval				EMC	Declaration of Conformity
CCC	CSA	Miscellaneous	UL	C-Tick	EG-Konf.

Test Certificates	Shipping Approval	other			
Special Test Certificate	RMRS	Miscellaneous	Environmental Confirmations	Confirmation	Manufacturer Declaration

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=3VL2505-1KN30-0AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3VL2505-1KN30-0AA0

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL2505-1KN30-0AA0

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

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

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