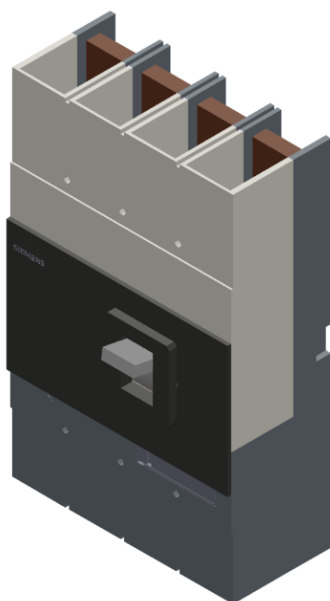


circuit breaker VL800N standard breaking capacity $I_{cu}=55\text{kA}$, 415V AC 4-pole, line protection trip unit ETU10, LIN $I_n=800\text{A}$, rated current $I_R=320\dots800\text{A}$, overload protection, $I_l=1.25$ to $8 \times I_N$, short-circuit protection N protected Shunt release 220...250 V DC without auxiliary/alarm switch



Model

Type of the driving mechanism / motor drive	No
Design of the overcurrent release	ETU10

General technical data

Number of poles	4
Size of the circuit-breaker	3VL6
Electrical endurance (switching cycles) / typical	3 000

Usage category	A
Performance class for circuit breaker	N
Mechanical service life (switching cycles) / typical	10 000
Reference code / acc. to DIN 40719 extended according to IEC 204-2 / acc. to IEC 750	Q
Operating frequency / maximum	60 1/s

Voltage

Rated operational voltage U _e / 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	LIN

Electricity

Operating current / at 45 °C / rated value	800 A
Continuous current / rated value	800 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	800 A
• of instantaneous short-circuit trip unit / initial value	1 000 A
• of instantaneous short-circuit trip unit / Full-scale value	6 400 A

Main circuit

Operating frequency	
• 1 / rated value	50 Hz
• 2 / rated value	60 Hz
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
Operating current	
• at 40 °C / rated value	800 A
• at 50 °C / rated value	800 A
• at 55 °C / rated value	760 A
• at 60 °C / rated value	760 A

- at 65 °C / rated value 640 A
- at 70 °C / rated value 640 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
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Adjustable parameters

Adjustable pick-up value current / of the current-dependent overload release / initial value	320 A
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Product details

Product component	
• Trip indicator	No
• Auxiliary switch	No
• Voltage trigger	Yes
• 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	Yes
• Overload protection	Yes

Short circuit

Operational short-circuit current breaking capacity (Ics)	
• at 240 V / rated value	65 kA
• at 415 V / rated value	55 kA
• at 500 V / rated value	20 kA
• at 690 V / rated value	10 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	35 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	20 kA

- at 690 V / rated value

20 kA

Connections

Arrangement of electrical connectors / for main current circuit	front side
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for auxiliary contacts / solid 	0.75 ... 1.5 mm ²
<ul style="list-style-type: none"> • for auxiliary contacts / finely stranded / with core end processing 	0,75 ... 1.0 mm ²
Type of electrical connection / for main current circuit	screw-type terminals


Mechanical Design





Height	406.5 mm
Width	253.5 mm
Depth	176.5 mm
Mounting type	fixed mounting



Environmental conditions

Ambient temperature	
<ul style="list-style-type: none"> • during operation / minimum 	-25 °C
<ul style="list-style-type: none"> • during operation / maximum 	70 °C
<ul style="list-style-type: none"> • during storage / minimum 	-40 °C
<ul style="list-style-type: none"> • during storage / maximum 	80 °C

Certificates

Certificate of suitability	IEC, standard switching capacity (N)
Reference code	
<ul style="list-style-type: none"> • acc. to DIN EN 61346-2 	Q
Waste electronic equipment must not be disposed as unsorted municipal waste, e.g. household waste. For disposing the waste electronic equipment it is necessary to observe the current local national/international regulations.	
	

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

Test Certificates	Shipping Approval		other		
Special Test Certificate	 RINA	 RMRS	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=3VL6780-1TA46-8QA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VL6780-1TA46-8QA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL6780-1TA46-8QA0

CAX-Online-Generator

<http://www.siemens.com/cax>

Tender specifications

<http://www.siemens.com/specifications>