

circuit breaker VL800N standard breaking capacity $I_{cu}=55\text{kA}$, 415V AC 4-pole, line protection trip unit ETU10, LI $I_n=800\text{A}$, rated current $I_R=320\dots800\text{A}$, overload protection, $I_l=1.25$ to 8 xIN, short-circuit protection without auxiliary release 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
mechanical service life (operating cycles) typical	10 000
electrical endurance (operating cycles) typical	3 000
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	60 1/s
Voltage	
Rated operational voltage U_e max.	690 V
<ul style="list-style-type: none"> insulation voltage rated value insulation voltage (U_i) at AC rated value 	800 V
surge voltage resistance rated value	8 kV
operating voltage	
<ul style="list-style-type: none"> rated value maximum for main current circuit at AC at 50 Hz maximum 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	
operational current	
<ul style="list-style-type: none"> at 40 °C rated value at 45 °C rated value at 50 °C rated value at 55 °C rated value at 60 °C rated value at 65 °C rated value at 70 °C rated value 	800 A
continuous current rated value	800 A
derating temperature for the rated value of the continuous current	50 °C
adjustable current response value current	
<ul style="list-style-type: none"> of the current-dependent overload release full-scale value of instantaneous short-circuit trip unit minimum of instantaneous short-circuit trip unit maximum 	800 A
Main circuit	
operating frequency	
<ul style="list-style-type: none"> 1 rated value 2 rated value 	50 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	
adjustable current response value current of the current-dependent overload release initial value	320 A
Product details	
product component	
<ul style="list-style-type: none"> • trip indicator 	No
<ul style="list-style-type: none"> • auxiliary switch 	No
<ul style="list-style-type: none"> • voltage trigger 	No
<ul style="list-style-type: none"> • undervoltage release 	No
<ul style="list-style-type: none"> • undervoltage release with leading contact 	No
product extension optional motor drive	Yes
Product function	
product function	
<ul style="list-style-type: none"> • of thermal overload trip unit 	adjustable
<ul style="list-style-type: none"> • grounding protection 	No
<ul style="list-style-type: none"> • for neutral conductors short-circuit and overload proof 	No
<ul style="list-style-type: none"> • overload protection 	Yes
Short circuit	
operating short-circuit current breaking capacity (Ics)	
<ul style="list-style-type: none"> • at 240 V rated value 	65 kA
<ul style="list-style-type: none"> • at 415 V rated value 	55 kA
<ul style="list-style-type: none"> • at 500 V rated value 	20 kA
<ul style="list-style-type: none"> • at 690 V rated value 	10 kA
maximum short-circuit current breaking capacity (Icu)	
<ul style="list-style-type: none"> • at 240 V rated value 	65 kA
<ul style="list-style-type: none"> • at 415 V rated value 	55 kA
<ul style="list-style-type: none"> • at 440 V rated value 	35 kA
<ul style="list-style-type: none"> • at 480 V according to NEMA rated value 	25 kA
<ul style="list-style-type: none"> • at 500 V rated value 	25 kA
<ul style="list-style-type: none"> • at 600 V according to NEMA rated value 	20 kA
<ul style="list-style-type: none"> • at 690 V rated value 	20 kA
Connections	
arrangement of electrical connectors for main current circuit	front side
type of connectable conductor cross-sections for auxiliary contacts	
<ul style="list-style-type: none"> • solid 	0.75 ... 1.5 mm ²
<ul style="list-style-type: none"> • 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
fastening method	fixed mounting
Environmental conditions	
ambient temperature during operation	
<ul style="list-style-type: none"> • minimum 	-25 °C
<ul style="list-style-type: none"> • maximum 	70 °C
ambient temperature during storage	
<ul style="list-style-type: none"> • minimum 	-40 °C
<ul style="list-style-type: none"> • maximum 	80 °C
General Product Approval	



[Miscellaneous](#)

[Confirmation](#)



[TSE](#)



EMC	Declaration of Conformity	Test Certificates	Marine / Shipping
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[Special Test Certificate](#)



Marine / Shipping	other
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[Confirmation](#)

[Environmental Confirmations](#)

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[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=3VL6780-1TB46-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VL6780-1TB46-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL6780-1TB46-0AA0

CAX-Online-Generator

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

Tender specifications

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



