

circuit breaker VL1600N standard breaking capacity $I_{cu}=55\text{kA}$, 415V AC 4-pole, line protection trip unit ETU20, LSI $I_n=1600\text{A}$, rated current $I_R=640\ldots1600\text{A}$, overload protection, $ISD=1.5$ to $8 \times I_R$, $II=9 \times I_N$ short-circuit protection N protected without auxiliary release without auxiliary/alarm switch

Model	
type of the driving mechanism motor drive	No
design of the overcurrent release	ETU20
General technical data	
number of poles	4
size of the circuit-breaker	3VL8
mechanical service life (operating cycles) typical	3 000
electrical endurance (operating cycles) typical	1 500
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	30 1/s
Voltage	
Rated operational voltage U_e max.	690 V
insulation voltage rated value	800 V
insulation voltage (U_i) 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 maximum	690 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	LSIN
Main circuit	
operating frequency	
• 1 rated value	50 Hz
• 2 rated value	60 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/generator protection
Adjustable parameters	
adjustable current response value current of the short-time delayed short-circuit release full-scale value	12 800 A
adjustable current response value current of the current-dependent overload release initial value	640 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
- grounding protection
- for neutral conductors short-circuit and overload proof
- overload protection

adjustable
No
Yes
Yes

Short circuit

operating short-circuit current breaking capacity (Ics)

• at 240 V rated value	35 kA
• at 415 V rated value	28 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 according to NEMA rated value	25 kA
• at 500 V rated value	25 kA
• at 600 V according 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 for auxiliary contacts	
• solid	0.75 ... 1.5 mm ²
• finely stranded with core end processing	0,75 ... 1.0 mm ²
type of electrical connection for main current circuit	without connection accessoires

Mechanical Design

height	406.5 mm
width	305 mm
depth	333.5 mm
fastening method	fixed mounting

Environmental conditions

ambient temperature during operation	
• minimum	-25 °C
• maximum	70 °C
ambient temperature during storage	
• minimum	-40 °C
• maximum	80 °C

Approvals Certificates

General Product Approval

Test Certificates

Marine / Shipping



[Confirmation](#)



[Miscellaneous](#)



Marine / Shipping

other

Environment



[Confirmation](#)

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[Environmental Con-
firmations](#)

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Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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=3VL8716-1TF40-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VL8716-1TF40-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL8716-1TF40-0AA0

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