

circuit breaker VL1250H high breaking capacity  $I_{cu}=70\text{kA}$ , 415V AC 4-pole, line protection trip unit ETU20, LSI  $I_n=1250\text{A}$ , rated current  $I_R=500\dots1250\text{A}$ , overload protection,  $ISD=1.5$  to  $9\times I_R$ ,  $I_t=10\times I_N$  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	3VL7
mechanical service life (switching cycles) / typical	3 000
electrical endurance (switching cycles) / typical	1 500
utilization category	A
performance class for circuit breaker	N
reference code / acc. to DIN 40719 extended according to IEC 204-2 / acc. 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
• 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
Current	
operational current	
• at 40 °C / rated value	1 250 A
• at 45 °C / rated value	1 250 A
• at 50 °C / rated value	1 250 A
• at 55 °C / rated value	1 187.5 A
• at 60 °C / rated value	1 187.5 A
• at 65 °C / rated value	1 000 A
• at 70 °C / rated value	1 000 A
continuous current / rated value	1 250 A
derating temperature / for the rated value of the continuous current	50 °C
adjustable current response value current	
• of the current-dependent overload release / full-scale value	1 250 A
• of instantaneous short-circuit trip unit / initial value	12 500 A
• of instantaneous short-circuit trip unit / full-scale value	12 500 A
Main circuit	
operating frequency	

<ul style="list-style-type: none"> <li>• 1 / rated value</li> </ul>	50 Hz
<ul style="list-style-type: none"> <li>• 2 / rated value</li> </ul>	60 Hz
<b>Auxiliary circuit</b>	
number of CO contacts / for auxiliary contacts	0
number of NC contacts / for auxiliary contacts	0
number of NO contacts / for auxiliary contacts	0
<b>Suitability</b>	
suitability for use	system/generator protection
<b>Adjustable parameters</b>	
adjustable current response value current / of the short-time delayed short-circuit release / full-scale value	11 250 A
adjustable current response value current / of the current-dependent overload release / initial value	500 A
<b>Product details</b>	
product component	
<ul style="list-style-type: none"> <li>• trip indicator</li> </ul>	No
<ul style="list-style-type: none"> <li>• auxiliary switch</li> </ul>	No
<ul style="list-style-type: none"> <li>• voltage trigger</li> </ul>	No
<ul style="list-style-type: none"> <li>• undervoltage release</li> </ul>	No
<ul style="list-style-type: none"> <li>• undervoltage release with leading contact</li> </ul>	No
product extension / optional / motor drive	Yes
<b>Product function</b>	
product function	
<ul style="list-style-type: none"> <li>• of thermal overload trip unit</li> </ul>	adjustable
<ul style="list-style-type: none"> <li>• grounding protection</li> </ul>	No
<ul style="list-style-type: none"> <li>• for neutral conductors / short-circuit and overload proof</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• overload protection</li> </ul>	Yes
<b>Short circuit</b>	
breaking capacity operating short-circuit current (Ics)	
<ul style="list-style-type: none"> <li>• at 240 V / rated value</li> </ul>	50 kA
<ul style="list-style-type: none"> <li>• at 415 V / rated value</li> </ul>	35 kA
<ul style="list-style-type: none"> <li>• at 500 V / rated value</li> </ul>	30 kA
<ul style="list-style-type: none"> <li>• at 690 V / rated value</li> </ul>	15 kA
breaking capacity maximum short-circuit current (Icu)	
<ul style="list-style-type: none"> <li>• at 240 V / rated value</li> </ul>	100 kA
<ul style="list-style-type: none"> <li>• at 415 V / rated value</li> </ul>	70 kA
<ul style="list-style-type: none"> <li>• at 440 V / rated value</li> </ul>	50 kA
<ul style="list-style-type: none"> <li>• at 480 V / acc. to NEMA / rated value</li> </ul>	50 kA
<ul style="list-style-type: none"> <li>• at 500 V / rated value</li> </ul>	40 kA
<ul style="list-style-type: none"> <li>• at 600 V / acc. to NEMA / rated value</li> </ul>	30 kA
<ul style="list-style-type: none"> <li>• at 690 V / rated value</li> </ul>	30 kA
<b>Connections</b>	
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"> <li>• solid</li> </ul>	0.75 ... 1.5 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• finely stranded / with core end processing</li> </ul>	0,75 ... 1.0 mm <sup>2</sup>
type of electrical connection / for main current circuit	screw-type terminals
<b>Mechanical Design</b>	
height	406.5 mm
width	305 mm
depth	333.5 mm
fastening method	fixed mounting
<b>Environmental conditions</b>	
ambient temperature / during operation	
<ul style="list-style-type: none"> <li>• minimum</li> </ul>	-25 °C

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

Certificates	
certificate of suitability	IEC, high switching capacity (H)
reference code	
<ul style="list-style-type: none"> <li>• acc. to DIN EN 61346-2</li> </ul>	Q

General Product Approval	EMC	Declaration of Conformity
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[Miscellaneous](#)

[TSE](#)



Test Certificates	Marine / Shipping	other
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[Special Test Certificate](#)



[Environmental Confirmations](#)

[Confirmation](#)

other
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[Manufacturer Declaration](#)

[Miscellaneous](#)

[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=3VL7712-2TF46-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VL7712-2TF46-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VL7712-2TF46-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL7712-2TF46-0AA0)

CAx-Online-Generator

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

Tender specifications

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

