## **SIEMENS**

## **Data sheet**

circuit breaker VL1250N standard breaking capacity lcu=55kA, 415V AC 3-pole, line protection trip unit ETU10, LI In=1000A, rated current IR=400...1000A, overload protection, II=1.25 to 11xIN, short-circuit protection Undervoltage release 440...480 V AC Auxiliary switch mounting kit 4 AUX (2 NO + 2 NC) Motorized operating mechanism set up 220-250 V AC/DC

Model	
design of the actuating element	toggle handle
type of the driving mechanism motor drive	Yes
design of the overcurrent release	ETU10
General technical data	
number of poles	3
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 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 Ue max.	690 V
<ul> <li>insulation voltage rated value</li> </ul>	800 V
<ul> <li>insulation voltage (Ui) at AC rated value</li> </ul>	800 V
surge voltage resistance rated value	8 kV
operating voltage	
<ul> <li>rated value maximum</li> </ul>	690 V
<ul> <li>for main current circuit at AC at 50 Hz maximum</li> </ul>	690 V
<ul> <li>for main current circuit at AC at 60 Hz maximum</li> </ul>	690 V
Protection class	
protection class IP	IP20
protection function of the overcurrent release	LI
Current	
operational current	
<ul> <li>at 40 °C rated value</li> </ul>	1 000 A
<ul> <li>at 45 °C rated value</li> </ul>	1 000 A
<ul> <li>at 50 °C rated value</li> </ul>	1 000 A
<ul> <li>at 55 °C rated value</li> </ul>	950 A
10000 111	
<ul> <li>at 60 °C rated value</li> </ul>	950 A
• at 65 °C rated value	800 A
<ul> <li>at 65 °C rated value</li> <li>at 70 °C rated value</li> </ul>	800 A 800 A
<ul> <li>at 65 °C rated value</li> <li>at 70 °C rated value</li> <li>continuous current rated value</li> </ul>	800 A 800 A 1 000 A
<ul> <li>at 65 °C rated value</li> <li>at 70 °C rated value</li> <li>continuous current rated value</li> <li>derating temperature for the rated value of the continuous current</li> </ul>	800 A 800 A
<ul> <li>at 65 °C rated value</li> <li>at 70 °C rated value</li> <li>continuous current rated value</li> <li>derating temperature for the rated value of the continuous current</li> <li>adjustable current response value current</li> </ul>	800 A 800 A 1 000 A
<ul> <li>at 65 °C rated value</li> <li>at 70 °C rated value</li> <li>continuous current rated value</li> <li>derating temperature for the rated value of the continuous current</li> </ul>	800 A 800 A 1 000 A
<ul> <li>at 65 °C rated value</li> <li>at 70 °C rated value</li> <li>continuous current rated value</li> <li>derating temperature for the rated value of the continuous current</li> <li>adjustable current response value current</li> <li>of the current-dependent overload release full-scale</li> </ul>	800 A 800 A 1 000 A 50 °C
<ul> <li>at 65 °C rated value</li> <li>at 70 °C rated value</li> <li>continuous current rated value</li> <li>derating temperature for the rated value of the continuous current</li> <li>adjustable current response value current</li> <li>of the current-dependent overload release full-scale value</li> </ul>	800 A 800 A 1 000 A 50 °C
<ul> <li>at 65 °C rated value</li> <li>at 70 °C rated value</li> <li>continuous current rated value</li> <li>derating temperature for the rated value of the continuous current</li> <li>adjustable current response value current</li> <li>of the current-dependent overload release full-scale value</li> <li>of instantaneous short-circuit trip unit minimum</li> </ul>	800 A 800 A 1 000 A 50 °C 1 000 A 1 250 A
at 65 °C rated value  at 70 °C rated value continuous current rated value derating temperature for the rated value of the continuous current adjustable current response value current  of the current-dependent overload release full-scale value of instantaneous short-circuit trip unit minimum of instantaneous short-circuit trip unit maximum  Main circuit  operating frequency	800 A 800 A 1 000 A 50 °C 1 000 A 1 250 A 11 000 A
at 65 °C rated value  at 70 °C rated value continuous current rated value derating temperature for the rated value of the continuous current adjustable current response value current  of the current-dependent overload release full-scale value  of instantaneous short-circuit trip unit minimum of instantaneous short-circuit trip unit maximum  Main circuit	800 A 800 A 1 000 A 50 °C 1 000 A 1 250 A 11 000 A
at 65 °C rated value  at 70 °C rated value continuous current rated value derating temperature for the rated value of the continuous current adjustable current response value current  of the current-dependent overload release full-scale value  of instantaneous short-circuit trip unit minimum of instantaneous short-circuit trip unit maximum  Main circuit  operating frequency 1 rated value 2 rated value	800 A 800 A 1 000 A 50 °C 1 000 A 1 250 A 11 000 A
at 65 °C rated value at 70 °C rated value continuous current rated value derating temperature for the rated value of the continuous current adjustable current response value current of the current-dependent overload release full-scale value of instantaneous short-circuit trip unit minimum of instantaneous short-circuit trip unit maximum  Main circuit  operating frequency 1 rated value	800 A 800 A 1 000 A 50 °C 1 000 A 1 250 A 11 000 A

number of NC contacts for auxiliary contacts	2
number of NO contacts for auxiliary contacts	2
Suitability	
suitability for use	system protection
Adjustable parameters	
adjustable current response value current of the current-	40 A
dependent overload release initial value	
Product details	
product component	
trip indicator	No
auxiliary switch	Yes
<ul> <li>voltage trigger</li> </ul>	No
<ul> <li>undervoltage release</li> </ul>	Yes
<ul> <li>undervoltage release with leading contact</li> </ul>	No
product extension optional motor drive	No
Product function	
product function	
of thermal overload trip unit	adjustable
grounding protection	No
for neutral conductors short-circuit and overload	No
proof	
<ul> <li>overload protection</li> </ul>	Yes
Short circuit	
breaking capacity operating short-circuit current (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
breaking capacity maximum short-circuit current (Icu)	
at 240 V rated value	65 kA
at 415 V rated value	55 kA
at 440 V rated value	35 kA
<ul> <li>at 480 V according to NEMA rated value</li> </ul>	25 kA
<ul> <li>at 500 V rated value</li> </ul>	25 kA
<ul> <li>at 600 V according to NEMA rated value</li> </ul>	20 kA
<ul> <li>at 690 V rated value</li> </ul>	20 kA
Connections	
arrangement of electrical connectors for main current	front side
circuit	
type of connectable conductor cross-sections for auxiliary	
contacts  • solid	0.75 1.5 mm²
	0.75 1.5 mm² 0.75 1.0 mm²
<ul> <li>finely stranded with core end processing type of electrical connection for main current circuit</li> </ul>	
	screw-type terminals
Mechanical Design	
height	406.5 mm
width	228.5 mm
depth	333.5 mm
fastening method	fixed mounting
Environmental conditions	
ambient temperature during operation	
• minimum	-25 °C
<ul><li>maximum</li></ul>	70 °C
ambient temperature during storage	
• minimum	-40 °C
• maximum	80 °C
Further information	
Information- and Downloadcenter (Catalogs, Brochures,	

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/lowvoltage/catalogs

Industry Mall (Online ordering system)
<a href="https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VL7710-1SB36-2KC1-Z M22">https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VL7710-1SB36-2KC1-Z M22</a>

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

https://support.industry.siemens.com/cs/ww/en/ps/3VL7710-1SB36-2KC1-Z M22

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VL7710-1SB36-2KC1-Z M22">http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VL7710-1SB36-2KC1-Z M22</a> CAx-Online-Generator

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

http://www.siemens.com/specifications

**7**