

circuit breaker VL1600N standard breaking capacity I<sub>cu</sub>=55kA, 415V AC 3-pole, non-auto. air circ. br. trip unit magnetic I<sub>n</sub>=1600A, rated current I<sub>I</sub>=14400A, short-circuit protection Undervoltage release 220...250 V AC Auxiliary switch mounting kit 4 AUX (2 NO + 2 NC)

Model	
type of the driving mechanism / motor drive	No
design of the overcurrent release	M
General technical data	
number of poles	3
size of the circuit-breaker	3VL8
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 U <sub>e</sub> / max.	690 V
<ul style="list-style-type: none"> <li>insulation voltage / rated value</li> <li>insulation voltage (U<sub>i</sub>) / at AC / rated value</li> </ul>	800 V
surge voltage resistance / rated value	8 kV
operating voltage <ul style="list-style-type: none"> <li>rated value / maximum</li> <li>for main current circuit / at AC / at 50 Hz / maximum</li> <li>for main current circuit / at AC / at 60 Hz / maximum</li> <li>for main current circuit / at DC / maximum</li> </ul>	690 V
Protection class	
protection class IP	IP20
protection function of the overcurrent release	I
Current	
operational current <ul style="list-style-type: none"> <li>at 40 °C / rated value</li> <li>at 45 °C / rated value</li> <li>at 50 °C / rated value</li> <li>at 55 °C / rated value</li> <li>at 60 °C / rated value</li> <li>at 65 °C / rated value</li> <li>at 70 °C / rated value</li> </ul>	1 600 A
continuous current / rated value	1 600 A
derating temperature / for the rated value of the continuous current	50 °C
adjustable current response value current <ul style="list-style-type: none"> <li>of instantaneous short-circuit trip unit / minimum</li> <li>of instantaneous short-circuit trip unit / maximum</li> </ul>	14 400 A
Main circuit	
operating frequency <ul style="list-style-type: none"> <li>1 / rated value</li> <li>2 / rated value</li> </ul>	50 Hz
Auxiliary circuit	
number of CO contacts / for auxiliary contacts	0
number of NC contacts / for auxiliary contacts	2

number of NO contacts / for auxiliary contacts	2
<b>Suitability</b>	
suitability for use	non-automatic circuit-breakers
<b>Product details</b>	
product component	
• trip indicator	No
• auxiliary switch	Yes
• voltage trigger	No
• undervoltage release	Yes
• undervoltage release with leading contact	No
product extension / optional / motor drive	Yes
<b>Product function</b>	
product function	
• of thermal overload trip unit	without
• grounding protection	No
• for neutral conductors / short-circuit and overload proof	No
• overload protection	No
<b>Short circuit</b>	
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
• 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
<b>Connections</b>	
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 <sup>2</sup>
• finely stranded / with core end processing	0,75 ... 1.0 mm <sup>2</sup>
type of electrical connection / for main current circuit	without connection accessoires
<b>Mechanical Design</b>	
height	406.5 mm
width	228.5 mm
depth	333.5 mm
fastening method	fixed mounting
<b>Environmental conditions</b>	
ambient temperature / during operation	
• minimum	0 °C
• maximum	70 °C
ambient temperature / during storage	
• minimum	-40 °C
• maximum	80 °C
<b>General Product Approval</b>	
	EMC

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