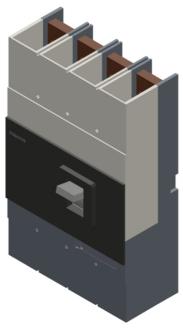
SIEMENS

Product data sheet 3VL6780-1EE46-0AE1



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CIRCUIT-BREAKER VL 800N STANDARD BREAKING CAPACITY ICU=55KA / 415 V AC 4 POLE, NON-AUTOMATIC OVERCURRENT RELEASE MAGNETIC IN=800A, RATED CURRENT II=6500A, SHORT CIRCUIT

General technical data:		
Number of poles		4
Design of the overcurrent release		М
Acceptability for application		non-automatic circuit-breakers
Electrical operating cycles as operating time / typical		3,000
Mechanical operating cycles as operating time / typical		10,000
Active power loss / maximum	W	250
Product component		
auxiliary switch		Yes
Voltage trigger		No
undervoltage release mechanism		No
undervoltage release with leading contact		No
Product function		
of the thermal overload release		Without
ground-fault protection		No
• for zero conductors / short-circuit and overload protection		No
overload protection		No
Operating cycles / maximum	1/s	60
Protection class IP		IP20

Impulse voltage resistance / rated value	Protective function of the overcurrent release		I
• during operating • minimum °C -25 • maximum °C 70 • during storage • minimum °C -40 • minimum °C 50 Main circuit: Insulation voltage / for AC / rated value V 800 Operating frequency •1 / rated value Hz 50 •2 / rated value Hz 60 Item designation •according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 Q •according to DIN EN 61346-2 Q Operating voltage •for main current circuit •at 50 Hz / for AC •as as in current circuit •at 60 Hz / for AC •maximum •for DC •maximum V 690 •for DC •maximum V 590 •for DC •maximum V 590 •for DC •maximum V 590 •for DC •maximum A 800 •for DC •for tated value A 800 •fo	Impulse voltage resistance / rated value	kV	8
• minimum °C -25 • during storage - violinum °C -40 • maximum °C 50 Main circuit: Insulation voltage / for AC / rated value V 900 Operating frequency • 1/ rated value Hz 50 • 2/ rated value Hz 60 Item designation • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 Q • according to DIN EN 61346-2 Q Operating voltage • for main current circuit • at 50 Hz / for AC • maximum V 690 • at 60 Hz / for AC • maximum • for DC • maximum V 500 Operating current A 800 • at 60 °C / rated value A 800 • at 60 °C / rated value A 800 • at 60 °C / rated value A 688 Continuous current / rated value of the continuous current / rated value of the continuous current / rated value of the continuous of C	Ambient temperature		
- maximum - during storage - minimum - maximum - maximu	during operating		
 during storage minimum maximum ***C 40 **C 40 **C 40 **C 40 **C 40 **C 50 Main circuit: Insulation voltage / for AC / rated value V 800 Operating frequency 1/ rated value Eta designation according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 according to DIN EN 61346-2 Q Operating voltage for main current circuit at 50 Hz / for AC maximum of DC maximum of DC maximum of C/ rated value at 40 °C / rated value at 60 °C / rated value at 60 °C / rated value A 800 at 60 °C / rated value A 800 Operating temperature / for the rated value of the continuous current / rated value A 688 Continuous current / rated value A 800 Continuous current / rated value A 688 Continuous current / rated value A 800 C 50 Auxiliary circuit: Number of NC contacts / for auxiliary contacts 1 Number of NC contacts / for auxiliary contacts 1 Number of NC contacts / for auxiliary contacts 1 	• minimum	°C	-25
• minimum °C 40 • maximum °C 50 Main circuit: Insulation voltage / for AC / rated value V 800 Operating frequency • 1 / rated value Hz 50 • 2 / rated value Hz 60 Item designation Q Colspan="2">Q • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 Q • according to DIN EN 61346-2 Q Q Operating voltage • Q Q • for main current circuit • at 50 Hz / for AC • as ximum V 690 • at 60 Hz / for AC • maximum V 690 • 690 <	• maximum	°C	70
• maximum °C 50 Main circuit: Insulation voltage / for AC / rated value V 800 Operating frequency -1 / rated value Hz 50 • 1 / rated value Hz 60 Item designation - according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 Q • according to DIN EN 61346-2 Q Operating voltage • for main current circuit - at 50 Hz / for AC • maximum V 690 • at 60 Hz / for AC V 690 • maximum V 500 Operating current - at 40 °C / rated value A 800 • at 50 °C / rated value A 800 • at 60 °C / rated value A 880 • at 70 °C / rated value A 688 Continuous current / rated value of the continuous °C 50 Current Soo 50	during storage		
Insulation voltage / for AC / rated value	• minimum	°C	-40
Insulation voltage / for AC / rated value	• maximum	°C	50
Operating frequency 1 / / rated value 2 / rated value 1 / rated value 2 / rated value 3 / rated value 4 / rated value 2 / rated value 3 / rated value 4 / rated value 2 / rated value 3 / rated value 4 / rated value 2 / rated value 3 / rated value 4 / rated value 5 / rated value 6 / rated value 7 / rated value 8 / rated value 9 / rated value 1 / rated value 2 / rated value 3 / rated value 4 / rated value 5 / rated value 6 / rated value 7 / rated value 8 / rated value 9 / rated value 1 / rated value 1 / rated value 1 / rated value 1 / rated value 2 / rated value 3 / rated value 4 / rated value 5 / rated value 6 / rated value 7 / rated value 8 / rated value 9 / rated value 1 / rated value	Main circuit:		
- 1 / rated value - 2 / rated value Hz 50 Hz 60 Q	Insulation voltage / for AC / rated value	V	800
* 1 / rated value * 2 / rated value * 2 / rated value * 2 / rated value * 3		_	
Item designation • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 • according to DIN EN 61346-2 Operating voltage • for main current circuit • at 50 Hz / for AC • maximum • at 60 Hz / for AC • maximum • for DC • maximum • at 40 °C / rated value • at 50 °C / rated value • at 70 °C / rated value A 800 Derating temperature / for the rated value of the continuous current Auxiliary circuit: Number of NC contacts / for auxiliary contacts 1 Number of NC contacts / for auxiliary contacts 1 Number of NO contacts / for auxiliary contacts		Hz	50
according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 according to DIN EN 61346-2 Operating voltage for main current circuit at 50 Hz / for AC maximum tor DC maximum for DC maximum for DC at 40 °C / rated value at 60 °C / rated value at 60 °C / rated value at 70 °C / rated value berating temperature / for the rated value of the continuous current Auxilliary circuit: Number of NC contacts / for auxiliary contacts 1 Q Q Q Q Q A 800 690 690 690 690 690 690 690	• 2 / rated value	Hz	60
to IEC 750 * according to DIN EN 61346-2 Operating voltage * for main current circuit * at 50 Hz / for AC * maximum * at 60 Hz / for AC * maximum * for DC * maximum * for DC * maximum * at 40 °C / rated value * at 50 °C / rated value * at 60 °C / rated value * at 70 °C / rated value * at 70 °C / rated value * at 70 °C / rated value * at 800 Continuous current / rated value * A 800 Derating temperature / for the rated value of the continuous current * A 800 * A 744 * B 800 * C 50	Item designation		
Operating voltage • for main current circuit • at 50 Hz / for AC • maximum • at 60 Hz / for AC • maximum • maximum • for DC • maximum • maximum • V 500 Operating current • at 40 °C / rated value • at 50 °C / rated value • at 50 °C / rated value • at 70 °C / rated value • at 70 °C / rated value • A 888 Continuous current / rated value • A 888 Continuous current / rated value • A 800 Derating temperature / for the rated value of the continuous current • C 50 Continuous current / rated value • A 800 Derating temperature / for the rated value of the continuous • C 50 Continuous current / rated value • A 800 Derating temperature / for the rated value of the continuous • C 50 Continuous current / rated value • A 800 Derating temperature / for the rated value of the continuous • C 50 Continuous current / rated value • A 800 Derating temperature / for the rated value of the continuous • C 50 Continuous current / rated value • A 800 Auxiliary circuit: Number of NC contacts / for auxiliary contacts 1 Number of NO contacts / for auxiliary contacts A A A A A A			Q
• for main current circuit • at 50 Hz / for AC • maximum • at 60 Hz / for AC • maximum • for DC • maximum • for DC • maximum • at 40 °C / rated value • at 50 °C / rated value • at 60 °C / rated value • at 70 °C / rated value	according to DIN EN 61346-2		Q
* at 50 Hz / for AC * maximum * at 60 Hz / for AC * maximum * for DC * maximum * of or DC * maximum * of or DC * maximum * of or DC * of or DC * of or	Operating voltage	_	
• maximum • at 60 Hz / for AC • maximum • for DC • maximum V 500 Operating current • at 40 °C / rated value • at 50 °C / rated value • at 70 °C / rated value • at 800 • at 744 • at 70 °C / rated value • at 70 °C / rated value • at 70 °C / rated value • at 800 • at 60 °C / rated value • at 70 °C / rated value • at 800 • at 70 °C / rated value •	• for main current circuit		
* at 60 Hz / for AC * maximum * for DC * maximum V 500 Operating current * at 40 °C / rated value * at 50 °C / rated value * at 60 °C / rated value * at 70 °C / rated value * A 588 Continuous current / rated value A 688 Continuous current / rated value A 800 A 688 Continuous current / rated value A 500 A 688 Continuous current / rated value A 800 A 744 * at 70 °C / rated value A 800 Derating temperature / for the rated value of the continuous current Auxiliary circuit: Number of NC contacts / for auxiliary contacts 1 Number of NO contacts / for auxiliary contacts	• at 50 Hz / for AC		
• maximum • for DC • maximum V 500 Operating current • at 40 °C / rated value • at 50 °C / rated value • at 60 °C / rated value • at 70 °C / rated value • at 70 °C / rated value A 688 Continuous current / rated value A 688 Continuous current / rothe rated value of the continuous current Auxiliary circuit: Number of NC contacts / for auxiliary contacts 1 Number of NO contacts / for auxiliary contacts 2	• maximum	V	690
• for DC • maximum Operating current • at 40 °C / rated value • at 50 °C / rated value • at 60 °C / rated value • at 70 °C / rated value A 688 Continuous current / rated value A 800 Derating temperature / for the rated value of the continuous current Auxiliary circuit: Number of NC contacts / for auxiliary contacts 1 Number of NO contacts / for auxiliary contacts 2	• at 60 Hz / for AC		
• maximum Operating current • at 40 °C / rated value • at 50 °C / rated value • at 60 °C / rated value • at 70 °C / rated value • at 70 °C / rated value A 688 Continuous current / rated value A 800 Derating temperature / for the rated value of the continuous current Auxiliary circuit: Number of NC contacts / for auxiliary contacts 1 Number of NO contacts / for auxiliary contacts 2	• maximum	V	690
Operating current • at 40 °C / rated value • at 50 °C / rated value • at 60 °C / rated value • at 70 °C / rated value • at 70 °C / rated value A 688 Continuous current / rated value A 800 Derating temperature / for the rated value of the continuous current Auxiliary circuit: Number of NC contacts / for auxiliary contacts 1 Number of NO contacts / for auxiliary contacts 2	• for DC		
at 40 °C / rated value at 50 °C / rated value at 60 °C / rated value at 70 °C / rated value A 800 A 744 at 70 °C / rated value A 688 Continuous current / rated value Derating temperature / for the rated value of the continuous current Auxiliary circuit: Number of NC contacts / for auxiliary contacts 1 Number of NO contacts / for auxiliary contacts 2	• maximum	V	500
at 50 °C / rated value at 60 °C / rated value at 70 °C / rated value A 688 Continuous current / rated value A 800 Derating temperature / for the rated value of the continuous current Auxiliary circuit: Number of NC contacts / for auxiliary contacts 1 Number of NO contacts / for auxiliary contacts 2	Operating current		
at 60 °C / rated value at 70 °C / rated value A 688 Continuous current / rated value A 800 Derating temperature / for the rated value of the continuous current Auxiliary circuit: Number of NC contacts / for auxiliary contacts 1 Number of NO contacts / for auxiliary contacts 2	• at 40 °C / rated value	Α	800
• at 70 °C / rated value Continuous current / rated value Derating temperature / for the rated value of the continuous current **C 50 Auxiliary circuit: Number of NC contacts / for auxiliary contacts 1 Number of NO contacts / for auxiliary contacts 2	• at 50 °C / rated value	Α	800
Continuous current / rated value Derating temperature / for the rated value of the continuous current **C 50 Auxiliary circuit: Number of NC contacts / for auxiliary contacts 1 Number of NO contacts / for auxiliary contacts 2	• at 60 °C / rated value	Α	744
Derating temperature / for the rated value of the continuous current Auxiliary circuit: Number of NC contacts / for auxiliary contacts 1 Number of NO contacts / for auxiliary contacts 2	• at 70 °C / rated value	Α	688
Auxiliary circuit: Number of NC contacts / for auxiliary contacts 1 Number of NO contacts / for auxiliary contacts 2	Continuous current / rated value	А	800
Number of NC contacts / for auxiliary contacts 1 Number of NO contacts / for auxiliary contacts 2		°C	50
Number of NO contacts / for auxiliary contacts 2	Auxiliary circuit:		
	Number of NC contacts / for auxiliary contacts		1
Short-circuit:	Number of NO contacts / for auxiliary contacts		2
	Short-circuit:		
Adjustable response current	Adjustable response current		

• of the current-dependent overload release		
• initial value		
• of the non-delayed short-circuit release		
• initial value	Α	6,500
• final value	Α	6,500
Breaking capacity limit short-circuit current (lcu) / at 415 V / rated value	kA	55

Installation/mounting/dimensions:		
Type of mounting		fixed mounting
Height	mm	406.5
Width	mm	253.5
Depth	mm	176.5

Connections:	
Arrangement of electrical connectors / for main current circuit	front side
Design of the electrical connection / for main current circuit	screw-type terminals
Type of the connectable conductor cross-section	
for auxiliary contacts	
• solid	0,75 1.5 mm ²
• finely stranded / with conductor end processing	0.75 1.0 mm ²

Certificates/approvals:

Further information:

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

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

Industry Mall (Online ordering system)

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

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

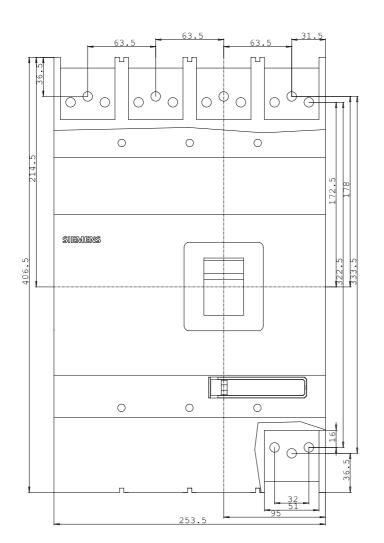
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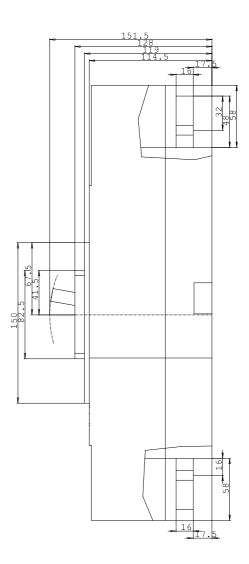
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last change: Feb 8, 2013