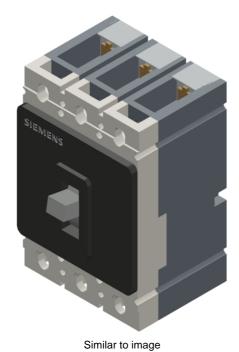
Product data sheet



CIRCUIT-BREAKER VL160X N STANDARD BREAKING CAPACITY ICU=55KA / 415 V AC 3 POLE, LINE PROTECTION OVERCURRENT RELEASE TM, LI IN=63A, RATED CURRENT IR=50-63A, OVERLOAD II=600A, SHORT-CIRCUIT WITH SCREW CONNECTION

General technical data:		
Number of poles		3
Design of the overcurrent release		TM
Acceptability for application		system protection
Electrical operating cycles as operating time / typical		10,000
Mechanical operating cycles as operating time / typical		20,000
Active power loss / maximum	W	70
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		adjustable
ground-fault protection		No
• for zero conductors / short-circuit and overload protection		No
overload protection		Yes
Operating cycles / maximum	1/s	120

Protection class IP

IP20

Impulse voltage resistance / rated value	Protective function of the overcurrent release		Ц
- during operating - minimum - maximum - during storage - minimum - maximum - c	Impulse voltage resistance / rated value	kV	8
• minimum °C -25 • maximum °C 70 • during storage **** **** • maximum °C -40 • maximum °C 50 Main circuit: Insulation voltage / for AC / rated value V 800 Operating frequency 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 • for DC • maximum V 690 • for DC • maximum V 500 Operating current • at 50 °C / rated value A 63 • at 60 °C / rated value A 58.6 • at 70 °C / rated value A 54.2 Continuous current / rated value of the continuous of °C 5	Ambient temperature	_	
Inaximum Inaxi	during operating		
 during storage minimum maximum C 40 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 according to DIN EN 81348-2 Q Operating voltage for main current circuit at 50 Hz / for AC maximum v 690 for DC maximum v 690 meximum v 690 operating current at 40 °C / rated value at 50 °C / rated value at 60 °C	• minimum	°C	-25
• minimum °C 440 • 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 • 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 A 690 • at 50 Hz / for AC V 690 • maximum V 690 • for DC V 690 • maximum V 500 Operating current • at 40 °C / rated value A 63 • at 60 °C / rated value A 63 • at 60 °C / rated value A 58.6 • at 70 °C / rated value A 63 • at 70 °C / rated value A 63 • at 70 °C / rated value	• 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 o according to DIN EN 61346-2 Q Operating voltage - for main current circuit Q • at 50 Hz / for AC • maximum V 690 • at 60 Hz / for AC V 690 • maximum V 500 Operating current A 63 • at 40 °C / rated value A 63 • at 60 °C / rated value A 63 • at 70 °C / rated value A 54.2 Continuous current / rated value A 63 • at 70 °C / rated value A 63 • at 70 °C / rated value A 63 • at 70 °C / rated value A 63 • at 70 °C / rated value A 63	during storage		
Insulation voltage / for AC / rated value Operating frequency 1 / rated value	• minimum	°C	-40
Insulation voltage / for AC / rated value Operating frequency 1 / rated value 1 / rated value Hz 50 60 Item designation according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 Operating voltage for main current circuit at 50 Hz / for AC maximum to for DC maximum of the C / rated value at 40 °C / rated value at 40 °C / rated value at 60 °C / rated value at 60 °C / rated value at 60 °C / rated value at 70 °C / rated value A 63 Continuous current / rated value A 63 Derating temperature / for the rated value of the continuous current Auxiliary circuit: Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts 1	• maximum	°C	50
Operating frequency 1 / / rated value 2 / rated value 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 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 1 / rated value 1 / rated value 1 / rated value 2 / 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 Item designation - according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 - according to DIN EN 61346-2 Q Q Operating voltage - for main current circuit - at 50 Hz / for AC - maximum V 690 - at 60 Hz / for AC - maximum V 690 - for DC - maximum V 500 Operating current - at 40 °C / rated value A 63 - at 50 °C / rated value A 58.6 - at 70 °C / rated value A 54.2 Continuous current / 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 1 Number of NO contacts / for auxiliary contacts 1 Number of NO contacts / for auxiliary contacts 1	Insulation voltage / for AC / rated value	V	800
tem 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 to EO PO maximum for DC maximum to 40 °C / rated value at 40 °C / rated value at 60 °C / rated value at 60 °C / rated value at 60 °C / rated value A 63 Continuous current / for the rated value of the continuous current Auxiliary circuit: Number of NC contacts / for auxiliary contacts Number of NC contacts / for auxiliary contacts 1 Q Q Q Q 690 690 690 690 690 6	Operating frequency	_	
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 40 °C / rated value • at 60 °C / rated value • at 70 °C / rated value • at 70 °C / rated value A 63 Derating temperature / for the rated value of the continuous current Auxiliary circuit: Number of NC contacts / for auxiliary contacts Number of NC contacts / for auxiliary contacts 1 Q Q Q 69 Q 69 49 690 690 690 690 690 690	• 1 / rated value	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 of at 40 °C / rated value at 50 °C / rated value at 60 °C / rated value at 70 °C / rated value A 63 Continuous current / for the rated value of the continuous current Auxilliary circuit: Number of NC contacts / for auxiliary contacts Number of NC contacts / for auxiliary contacts 1 Operating temperature / for the value of the continuous at 70 °C / Tated value A 63 A 63 A 63 A 63 A 63 Berating temperature / for the rated value of the continuous current Auxiliary circuit: Number of NC contacts / for auxiliary contacts 1	• 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 * A 63 * Ba.6 * at 70 °C / rated value * A 63 * Ba.6 * A 54.2 Continuous current / rated value of the continuous current * A 63	Item designation	_	
of r main current circuit			Q
• for main current circuit • at 50 Hz / for AC • maximum • at 60 Hz / for AC • maximum • for DC • maximum • tof 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 * of or DC * of of or DC * of or o	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 70 °C / rated value A 58.6 • at 70 °C / rated value A 63 Derating temperature / for the rated value of the continuous current Auxiliary circuit: Number of NC contacts / for auxiliary contacts Number of NO contacts / for auxiliary contacts 1 Number of NO contacts / for auxiliary contacts 2	• 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 * at 70 °C / rated value * at 70 °C / rated value * A 54.2 Continuous current / rated value A 63 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 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 58.6 • at 70 °C / rated value A 54.2 Continuous current / rated value A 63 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
• 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 58.6 • at 70 °C / rated value A 63 Continuous current / rated value A 63 Derating temperature / for the rated value of the continuous current Auxiliary circuit: Number of NC contacts / for auxiliary contacts I 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 A 54.2 Continuous current / rated value A 63 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 58.6 • at 70 °C / rated value A 63 Continuous current / rated value A 63 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	• for DC		
at 40 °C / rated value at 50 °C / rated value at 60 °C / rated value at 60 °C / rated value A 58.6 at 70 °C / rated value A 54.2 Continuous current / rated value A 63 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 54.2 Continuous current / rated value A 63 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 54.2 Continuous current / rated value A 63 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	63
• at 70 °C / rated value Continuous current / rated value A 63 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 50 °C / rated value	Α	63
Continuous current / rated value A 63 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	58.6
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	54.2
Auxiliary circuit: Number of NC contacts / for auxiliary contacts 1 Number of NO contacts / for auxiliary contacts 2	Continuous current / rated value	А	63
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	Α	50
• final value	Α	63
of the non-delayed short-circuit release		
• initial value	Α	600
• final value	Α	600
Breaking capacity limit short-circuit current (lcu) / at 415 V / rated value	kA	55

Installation/mounting/dimensions:		
Type of mounting		fixed mounting
Height	mm	157.5
Width	mm	104.5
Depth	mm	106.5

Connections:	
Arrangement of electrical connectors / for main current circuit	front side
Design of the electrical connection / for main current circuit	screw-type terminals

Certificates/approvals:

Further information:

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

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

Industry Mall (Online ordering system)

 $\underline{\text{http://www.siemens.com/lowvoltage/mall}}$

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

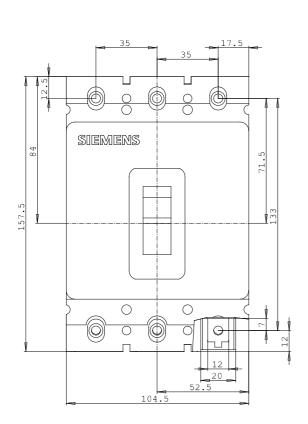
http://support.automation.siemens.com/WW/view/en/3VL1706-1DD36-0AD1/all

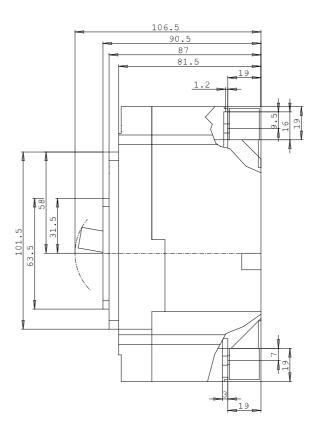
 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ ...)$

 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL1706-1DD36-0AD1}}$

CAx-Online-Generator

http://www.siemens.com/cax





last change: May 14, 2012