Product data sheet
Characteristics

LC1G500EHEN
High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 500A, standard version, 48…130V wide band AC/DC coil



Main

Range	TeSys
Range of product	TeSys Giga
Product or component type	Contactor
Device short name	LC1G
Contactor application	Power switching Motor control
Utilisation category	AC-1 AC-3 AC-3e AC-4 AC-5a AC-5b AC-6a AC-6b AC-8b AC-8a DC-1 DC-3 DC-5
Poles description	3P
[Ue] rated operational voltage	<= 1000 V AC 50/60 Hz <= 460 V DC
[Ie] rated operational current	700 A (at <40 °C) at <= 1000 V AC-1 500 A (at <60 °C) at <= 440 V AC-3
[Uc] control circuit voltage	48...130 V AC 50/60 Hz 48...130 V DC
Control circuit voltage limits	Operational: 0.8 Uc Min...1.1 Uc Max (at <60 °C) Drop-out: 0.1 Uc Max...0.45 Uc Min (at <60 °C)

Complementary

[Uimp] rated impulse withstand voltage	8 KV
Overvoltage category	III
[Ith] conventional free air thermal current	700 A (at 40 °C)
Rated breaking capacity	4600 A at 440 V
[Icw] rated short-time withstand current	4.0 KA - 10 s 2.8 KA - 30 s 2.2 KA - 1 min 1.5 KA - 3 min 1.2 KA - 10 min
Associated fuse rating	500 A aM at <= 440 V for motor 400 A aM at <= 690 V for motor 800 A gG at <= 690 V 600 A UL Type L at <= 600 V

Average impedance	0.00008 Ohm
[Ui] rated insulation voltage	1000 V
Power dissipation per pole	40 W AC-1 - Ith 700 A 20 W AC-3 - Ith 500 A
Compatibility code	LC1G
Pole contact composition	3 NO
Auxiliary contact composition	1 NO + 1 NC
Motor power kW	147 KW at 230 V AC 50/60 Hz (AC-3e) 250 KW at 400 V AC 50/60 Hz (AC-3e) 250 KW at 415 V AC 50/60 Hz (AC-3e) 280 KW at 440 V AC 50/60 Hz (AC-3e) 315 KW at 500 V AC 50/60 Hz (AC-3e) 355 KW at 690 V AC 50/60 Hz (AC-3e) 335 KW at 1000 V AC 50/60 Hz (AC-3e) 160 KW at 230 V AC 50/60 Hz (AC-3) 250 KW at 400 V AC 50/60 Hz (AC-3) 250 KW at 415 V AC 50/60 Hz (AC-3) 315 KW at 440 V AC 50/60 Hz (AC-3) 355 KW at 500 V AC 50/60 Hz (AC-3) 355 KW at 690 V AC 50/60 Hz (AC-3) 335 KW at 1000 V AC 50/60 Hz (AC-3) 150 KW at 230 V AC 50/60 Hz (AC-4) 250 KW at 400 V AC 50/60 Hz (AC-4) 250 KW at 415 V AC 50/60 Hz (AC-4) 295 KW at 440 V AC 50/60 Hz (AC-4) 295 KW at 500 V AC 50/60 Hz (AC-4) 355 KW at 690 V AC 50/60 Hz (AC-4) 280 KW at 1000 V AC 50/60 Hz (AC-4)
Motor power hp	150 Hp at 200/208 V 60 Hz 200 Hp at 230/240 V 60 Hz 400 Hp at 460/480 V 60 Hz 450 Hp at 575/600 V 60 Hz
Irms rated making capacity	5681 A at 440 V
Coil technology	Built-in bidirectional peak limiting
Safety reliability level	B10d = 400000 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 3000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical durability	8 Mcycles
Inrush power in VA	965 VA
Inrush power in W	760 W
Hold-in power consumption in VA	17.6 VA
Hold-in power consumption in W	7.8 W
Operating time	40...70 ms closing 15...50 ms opening
Maximum operating rate	600 Cyc/H AC-3 600 Cyc/H AC-3e 300 Cyc/H AC-1 150 Cyc/H AC-4
Connections - terminals	Power circuit: bar 2 - busbar cross section: 32 x 10 mm Power circuit: lugs-ring terminals 1 185 mm² Power circuit: bolted connection Control circuit: push-in 1 0.2…2.5 mm² - cable stiffness: solid stranded without cable end Control circuit: push-in 1 0.25…2.5 mm² - cable stiffness: flexible with cable end Control circuit: push-in 2 0.5…1.0 mm² with cable end Control circuit: push-in 0.75…2.5 mm² - cable stiffness: solid stranded without cable end Control circuit: push-in 0.75…2.5 mm² - cable stiffness: flexible with cable end
Connection pitch	45 Mm
Mounting support	Plate
Standards	EN/IEC 60947-4-1 EN/IEC 60947-5-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 JIS C8201-4-1 JIS C8201-5-1 IEC 60335-1:Clause 30.2 IEC 60335-2-40:Annex JJ UL 60335-1 UL 60335-2-40:Annex JJ
Product certifications	CB Scheme[RETURN]CCC[RETURN]cULus[RETURN]EAC[RETURN]CE[RETURN]UKCA[RETU
Tightening torque	35 N.M
Height	225 Mm

Width	140 Mm
Depth	226 Mm
Net weight	7 Kg

Environment

IP degree of protection	IP2X front face with shrouds conforming to IEC 60529 IP2X front face with shrouds conforming to VDE 0106
Ambient air temperature for operation	-25…60 °C
Ambient air temperature for storage	-60…80 °C
Mechanical robustness	Vibrations 5…300 Hz 2 gn contactor open Vibrations 5…300 Hz 4 gn contactor closed Shocks 10 gn 11 ms contactor open Shocks 15 gn 11 ms contactor closed
Colour	Dark grey
Protective treatment	TH
Permissible ambient air temperature around the device	-40…70 °C at Uc

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	31 Cm
Package 1 Width	22.5 Cm
Package 1 Length	31 Cm
Package 1 Weight	7.95 Kg
Unit Type of Package 2	P06
Number of Units in Package 2	8
Package 2 Height	75 Cm
Package 2 Width	60 Cm
Package 2 Length	80 Cm
Package 2 Weight	72.1 Kg

Offer Sustainability

Recyclability potential, in %	55
Total lifecycle Carbon footprint	1 613 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	69.73868162511891
Carbon footprint of the manufacturing phase [A1 to A3]	70 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	12.639908235885825
Carbon footprint of the distribution phase [A4]	13 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.10467794270991464
Carbon footprint of the installation phase [A5]	0.1 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	1519.7475807248088
Carbon footprint of the use phase [B2, B3, B4, B6]	1 520 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	Yes
Carbon footprint of the end-of-life phase [C1 to C4]	11.103680846266759
Carbon footprint of the end-of-life phase [C1 to C4]	11 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	1613
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	6fbdad13-bb7c-47d4-a6d6-d82dd6f54349
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
California proposition 65	WARNING: This product can expose you to chemicals including: Styrene and Bisphenol A (BP
Halogen-free status	Halogen free plastic parts product

PVC free	Yes
End of life manual availability	End Of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection and

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised