Product data sheet
Characteristics

LC1G500EHEA
High power contactor, TeSys Giga, 3 pole (3NO), AC-3 <=440V 500A, advanced 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	450 VA
Inrush power in W	360 W
Hold-in power consumption in VA	11.7 VA
Hold-in power consumption in W	8.3 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	290 Mm

Width	140 Mm
Depth	226 Mm
Net weight	7.8 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	31.5 Cm
Package 1 Width	23 Cm
Package 1 Length	37 Cm
Package 1 Weight	9.169 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	81.852 Kg

Offer Sustainability

Recyclability potential, in %	55
Total lifecycle Carbon footprint	1 621 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	75.68125808925478
Carbon footprint of the manufacturing phase [A1 to A3]	76 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	13.716980807965497
Carbon footprint of the distribution phase [A4]	14 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.11359776545629194
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]	12.049848323550044
Carbon footprint of the end-of-life phase [C1 to C4]	12 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	1621
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