

Product data sheet

Specifications



High power contactor, TeSys Giga,
3P(3NO), AC-3 $\leq 440\text{V}$
500A, standard version, 200-500V
AC/DC wide band coil

LC1G500LSEN

Main

Range	TeSys
Range of product	TeSys Giga
Product or component type	Contactors
Device short name	LC1G
Contactors application	Power switching Motor control
Utilisation category	AC-1 AC-3 AC-3e AC-4 AC-5a AC-5b AC-6a AC-6b AC-8a AC-8b DC-1 DC-3 DC-5
Poles description	3P
[Ue] rated operational voltage	$\leq 1000\text{ V AC } 50/60\text{ Hz}$ $\leq 460\text{ V DC}$
[Ie] rated operational current	700 A (at $<104\text{ }^\circ\text{F}$ ($40\text{ }^\circ\text{C}$)) at $\leq 1000\text{ V AC-1}$ 500 A (at $<140\text{ }^\circ\text{F}$ ($60\text{ }^\circ\text{C}$)) at $\leq 440\text{ V AC-3}$
[Uc] control circuit voltage	200...500 V AC 50/60 Hz 200...500 V DC
Control circuit voltage limits	Operational: $0.8\text{ Uc Min} \dots 1.1\text{ Uc Max}$ (at $<140\text{ }^\circ\text{F}$ ($60\text{ }^\circ\text{C}$)) Drop-out: $0.1\text{ Uc Max} \dots 0.45\text{ Uc Min}$ (at $<140\text{ }^\circ\text{F}$ ($60\text{ }^\circ\text{C}$))

Complementary

[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[Ith] conventional free air thermal current	700 A (at $104\text{ }^\circ\text{F}$ ($40\text{ }^\circ\text{C}$))
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 $\leq 440\text{ V}$ for motor 400 A aM at $\leq 690\text{ V}$ for motor 800 A gG at $\leq 690\text{ V}$ 600 A UL Type L at $\leq 600\text{ V}$

Average impedance	0.00008 Ohm
[Ui] rated insulation voltage	1000 V
Power dissipation per pole	40 W AC-1 - lth 700 A 20 W AC-3 - lth 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	5090 A at 440 V
Coil technology	Built-in bidirectional peak limiting
Safety reliability level	B10d = 400000 cycles contactor with nominal load EN/ISO 13849-1 B10d = 3000000 cycles contactor with mechanical load EN/ISO 13849-1
Mechanical durability	8 Mcycles
inrush power in VA (50/60 Hz, AC)	535 VA
inrush power in W (DC)	300 W
hold-in power consumption in VA (50/60 Hz, AC)	15.4 VA
hold-in power consumption in W (DC)	8.6 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 0.3 in ² (185 mm ²) Power circuit: bolted connection Control circuit: push-in 1 0.0003...0.004 in ² (0.2...2.5 mm ²) - cable stiffness: solid stranded without cable end Control circuit: push-in 1 0.0004...0.004 in ² (0.25...2.5 mm ²) - cable stiffness: flexible with cable end Control circuit: push-in 2 0.0008...0.002 in ² (0.5...1.0 mm ²) with cable end Control circuit: push-in 0.001...0.004 in ² (0.75...2.5 mm ²) - cable stiffness: solid stranded without cable end Control circuit: push-in 0.001...0.004 in ² (0.75...2.5 mm ²) - cable stiffness: flexible with cable end
Connection pitch	1.8 in (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 CCC cULus EAC CE UKCA EU-RO-MR by DNV-GL
Tightening torque	309.8 lbf.in (35 N.m)
Height	8.9 in (225 mm)
Width	5.5 in (140 mm)
Depth	8.9 in (226 mm)
Net weight	15.4 lb(US) (7 kg)

Environment

IP degree of protection	IP2X front face with shrouds IEC 60529 IP2X front face with shrouds VDE 0106
Ambient air temperature for operation	-13...140 °F (-25...60 °C)
Ambient air temperature for storage	-76...176 °F (-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...158 °F (-40...70 °C) at Uc

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	13.600 in (34.544 cm)
Package 1 Width	8.800 in (22.352 cm)
Package 1 Length	14.800 in (37.592 cm)
Package 1 Weight	19.271 lb(US) (8.741 kg)

Contractual warranty

Warranty (in months)	18
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)



Environmental footprint

Total lifecycle Carbon footprint	1 672 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	46 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	2 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	1 606 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	18 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile

Use Better



Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	6fbdad13-bb7c-47d4-a6d6-d82dd6f54349
EU RoHS Directive	Compliant By Exemption
REACH Regulation	Reference contains Substances of Very High Concern above the threshold
Halogen content performance	Halogen free plastic parts product
PVC free	No

Use Longer




Lifetime extension

Repair	No
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Use Again



Repack and remanufacture

Recyclability potential, in %	55
Circularity Profile	End of Life Information
Take-back	Nej
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins