

# Product datasheet

Specifications



High power contactor, TeSys Giga, 3 pole (3NO), AC-3  $\leq 440\text{V}$  185A, standard version, 48...130V wide band AC/DC coil

LC1G185EHEN

EAN Code: 3606481921840

## Main

Range	TeSys
Range of product	TeSys Giga
Product or component type	Contacteur
Device short name	LC1G
Contacteur 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	$\leq 1000\text{ V AC } 50/60\text{ Hz}$ $\leq 460\text{ V DC}$
[Ie] rated operational current	305 A (at $<40\text{ }^\circ\text{C}$ ) at $\leq 1000\text{ V AC-1}$ 185 A (at $<60\text{ }^\circ\text{C}$ ) at $\leq 440\text{ V AC-3}$
[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 $<60\text{ }^\circ\text{C}$ ) Drop-out: 0.1 Uc Max...0.45 Uc Min (at $<60\text{ }^\circ\text{C}$ )

## Complementary

[Uimp] rated impulse withstand voltage	8 kV
Overvoltage category	III
[Ith] conventional free air thermal current	305 A (at $40\text{ }^\circ\text{C}$ )
Rated breaking capacity	1610 A at 440 V
[Icw] rated short-time withstand current	1.5 kA - 10 s 0.92 kA - 30 s 0.74 kA - 1 min 0.5 kA - 3 min 0.4 kA - 10 min
Associated fuse rating	200 A aM at $\leq 440\text{ V}$ for motor 160 A aM at $\leq 690\text{ V}$ for motor 315 A gG at $\leq 690\text{ V}$ 300 A UL Type J at $\leq 600\text{ V}$

<b>Average impedance</b>	0.00017 Ohm
<b>[Ui] rated insulation voltage</b>	1000 V
<b>Power dissipation per pole</b>	20 W AC-1 - lth 305 A 6 W AC-3 - lth 185 A
<b>Compatibility code</b>	LC1G
<b>Pole contact composition</b>	3 NO
<b>Auxiliary contact composition</b>	1 NO + 1 NC
<b>Motor power kW</b>	55 kW at 230 V AC 50/60 Hz (AC-3e) 90 kW at 400 V AC 50/60 Hz (AC-3e) 90 kW at 415 V AC 50/60 Hz (AC-3e) 110 kW at 440 V AC 50/60 Hz (AC-3e) 110 kW at 500 V AC 50/60 Hz (AC-3e) 110 kW at 690 V AC 50/60 Hz (AC-3e) 75 kW at 1000 V AC 50/60 Hz (AC-3e) 55 kW at 230 V AC 50/60 Hz (AC-3) 90 kW at 400 V AC 50/60 Hz (AC-3) 90 kW at 415 V AC 50/60 Hz (AC-3) 110 kW at 440 V AC 50/60 Hz (AC-3) 110 kW at 500 V AC 50/60 Hz (AC-3) 110 kW at 690 V AC 50/60 Hz (AC-3) 75 kW at 1000 V AC 50/60 Hz (AC-3) 55 kW at 230 V AC 50/60 Hz (AC-4) 90 kW at 400 V AC 50/60 Hz (AC-4) 90 kW at 415 V AC 50/60 Hz (AC-4) 100 kW at 440 V AC 50/60 Hz (AC-4) 110 kW at 500 V AC 50/60 Hz (AC-4) 110 kW at 690 V AC 50/60 Hz (AC-4) 75 kW at 1000 V AC 50/60 Hz (AC-4)
<b>Motor power hp</b>	50 hp at 200/208 V 60 Hz 60 hp at 230/240 V 60 Hz 125 hp at 460/480 V 60 Hz 150 hp at 575/600 V 60 Hz
<b>Irms rated making capacity</b>	2310 A at 440 V
<b>Coil technology</b>	Built-in bidirectional peak limiting
<b>Safety reliability level</b>	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
<b>Mechanical durability</b>	8 Mcycles
<b>inrush power in VA (50/60 Hz, AC)</b>	640 VA
<b>inrush power in W (DC)</b>	445 W
<b>hold-in power consumption in VA (50/60 Hz, AC)</b>	18.7 VA
<b>hold-in power consumption in W (DC)</b>	7.8 W
<b>Operating time</b>	40...70 ms closing 15...50 ms opening
<b>Maximum operating rate</b>	600 cyc/h AC-3 600 cyc/h AC-3e 300 cyc/h AC-1 150 cyc/h AC-4
<b>Connections - terminals</b>	Power circuit: bar 2 - busbar cross section: 25 x 6 mm Power circuit: lugs-ring terminals 1 185 mm <sup>2</sup> Power circuit: bolted connection Control circuit: push-in 1 0.2...2.5 mm <sup>2</sup> - cable stiffness: solid stranded without cable end Control circuit: push-in 1 0.25...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end Control circuit: push-in 2 0.5...1.0 mm <sup>2</sup> with cable end Control circuit: push-in 0.75...2.5 mm <sup>2</sup> - cable stiffness: solid stranded without cable end Control circuit: push-in 0.75...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end
<b>Connection pitch</b>	35 mm

<b>Mounting support</b>	Plate
<b>Standards</b>	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
<b>Product certifications</b>	CB Scheme CCC cULus EAC CE UKCA EU-RO-MR by DNV-GL
<b>Tightening torque</b>	18 N.m
<b>Height</b>	193 mm
<b>Width</b>	108 mm
<b>Depth</b>	193 mm
<b>Net weight</b>	3.5 kg

## Environment

<b>IP degree of protection</b>	IP2X front face with shrouds conforming to IEC 60529 IP2X front face with shrouds conforming to VDE 0106
<b>Ambient air temperature for operation</b>	-25...60 °C
<b>Ambient air temperature for storage</b>	-60...80 °C
<b>Mechanical robustness</b>	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
<b>Colour</b>	Dark grey
<b>Protective treatment</b>	TH
<b>Permissible ambient air temperature around the device</b>	-40...70 °C at U <sub>c</sub>

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	26.000 cm
<b>Package 1 Width</b>	17.500 cm
<b>Package 1 Length</b>	32.000 cm
<b>Package 1 Weight</b>	4.549 kg
<b>Unit Type of Package 2</b>	S06
<b>Number of Units in Package 2</b>	12
<b>Package 2 Height</b>	75.000 cm
<b>Package 2 Width</b>	60.000 cm
<b>Package 2 Length</b>	80.000 cm
<b>Package 2 Weight</b>	68.588 kg

## Logistical informations

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Country of origin CN

## Contractual warranty

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Warranty (in months) 18



## 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	763 kg CO2 eq.
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Carbon footprint of the manufacturing phase [A1 to A3]	26 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	1 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	726 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	10 kg CO2 eq.

## Use Better



### Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
<a href="#">EU RoHS Directive</a>	Compliant with Exemptions
SCIP Number	6fbdad13-bb7c-47d4-a6d6-d82dd6f54349
REACH Regulation	<a href="#">REACH Declaration</a>
Halogen-free status	Halogen free plastic parts product
PVC free	No

## Use Longer



### Lifetime extension

Repair	No
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## Use Again



### Repack and remanufacture

End of life manual availability	<a href="#">End of Life Information</a>
Take-back	No
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

## Installation

### Installation Videos

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[TeSys Giga - How to install the auxiliary contact block](#)

[TeSys Giga - How to install and remove remote wear diagnosis module](#)

[TeSys Giga - How to install mechanical interlock kit](#)

[TeSys Giga - How to install cable memory kit](#)

[TeSys Giga - How to directly mount LR9G overload relay](#)

[TeSys Giga - How to replace control module](#)

[TeSys Giga - How to replace switching modules](#)

[TeSys Giga - How to assemble reverser solution](#)

[TeSys Giga - How to assemble change-over solution](#)

Offer Marketing Illustration

Product benefits / Features

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Offer Marketing Illustration

Product benefits / Features

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### TeSys Giga Contactors

#### Technical Benefits

- Self-diagnostic indicators and full-scale protection help speed up corrections and prevent downtime.
- Modular design that simplifies machine integration and maintenance.
- High power contactors (up to 800 A AC-3 or 1050 A AC-1) for AC/DC motor applications and AC/DC load applications.
- They can be used up to 1000 Vac power voltage and 460 Vdc power voltage.
- Ground fault protection, phase imbalance/failure protection, and protection of single-phase loads.
- The coil is designed for less energy consumption and wider voltage bandwidth.

Offer Marketing Illustration

Product benefits / Features

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Offer Marketing Illustration

Product benefits / Features

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## TeSys Giga Contactors



### Simplified maintenance

A patented modular design for the switching and control unit and cable memory enables better performance and faster spare parts replacement in an optimised footprint.



### Ready for critical applications

Improved auxiliary contacts (17 V/1 mA, 10-8) enable better reliability in harsh environments and conform to high-density PLC input applications.



### Resilience and uptime

Self diagnostic functions enable predictive maintenance with easier and safer commissioning.



Technical Illustration

Assembly's dimensions

