

# Product data sheet

## Characteristics

# LC1G185EHEN

High power contactor, TeSys Giga, 3 pole (3NO), AC-3  $\leq 440\text{V}$  185A, 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	$\leq 1000\text{ V AC 50/60 Hz}$ $\leq 460\text{ V DC}$
[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 $\leq 690\text{ V}$
Average impedance	0.00017 Ohm
[Ui] rated insulation voltage	1000 V
Power dissipation per pole	20 W AC-1 - Ith 305 A 6 W AC-3 - Ith 185 A
Compatibility code	LC1G
Pole contact composition	3 NO
Auxiliary contact composition	1 NO + 1 NC

Motor power kW	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)
Motor power hp	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
Irms rated making capacity	2310 A at 440 V
Coil technology	Built-in bidirectional peak limiting
Mechanical durability	8 Mcycles
Inrush power in VA (50/60 Hz, AC)	640 VA
Inrush power in W (DC)	445 W
Hold-in power consumption in VA (50/60 Hz, AC)	18.7 VA
Hold-in power consumption in W (DC)	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: 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
Connection pitch	35 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
Product certifications	CB Scheme[RETURN]CCC[RETURN]cULus[RETURN]EAC[RETURN]CE[RETURN]UKCA[RETURN] RO-MR by DNV-GL
Tightening torque	18 N.m
Height	193 mm
Width	108 mm
Depth	193 mm
Net weight	3.6 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	25.000 cm
Package 1 Width	23.500 cm
Package 1 Length	38.500 cm
Package 1 Weight	4.760 kg
Unit Type of Package 2	S06
Number of Units in Package 2	6
Package 2 Height	75.000 cm
Package 2 Width	60.000 cm
Package 2 Length	80.000 cm
Package 2 Weight	38.560 kg

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<input checked="" type="checkbox"/> <a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant with Exemptions
Mercury free	Yes
China RoHS Regulation	<input checked="" type="checkbox"/> <a href="#">China RoHS Declaration</a>
RoHS exemption information	<input checked="" type="checkbox"/> Yes
Environmental Disclosure	<input checked="" type="checkbox"/> <a href="#">Product Environmental Profile</a>
Circularity Profile	<input checked="" type="checkbox"/> <a href="#">End Of Life Information</a>
PVC free	Yes
Halogen content performance	Halogen free plastic parts product





