

Schneider Service Manual

LC1G2254KUEN

1. Description

LC1G2254KUEN High power contactor, TeSys Giga,

3. Product Information

LC1G2254KUEN High power contactor, TeSys Giga,
4 pole (4NO), AC-1 $\leq 440\text{V } 330\text{A}$,
standard version, 100...250V 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
Utilisation category AC-3
AC-3e
AC-1
AC-5a
AC-5b
AC-6a
AC-6b
DC-1
DC-3
DC-5
Poles description 4P
[Ue] rated operational voltage $\leq 1000\text{ V AC } 50/60\text{ Hz}$
 $\leq 460\text{ V DC}$
[Ie] rated operational current 225 A (at $\leq 60\text{ }^{\circ}\text{C}$) at $\leq 440\text{ V AC-3}$
330 A (at $\leq 40\text{ }^{\circ}\text{C}$) at $\leq 1000\text{ V AC-1}$
[Uc] control circuit voltage 100...250 V AC 50/60 Hz
100...250 V DC
Control circuit voltage limits Operational: 0.8 Uc Min...1.1 Uc Max (at $\leq 60\text{ }^{\circ}\text{C}$)
Drop-out: 0.1 Uc Max...0.45 Uc Min (at $\leq 60\text{ }^{\circ}\text{C}$)
Complementary
[Uimp] rated impulse withstand
voltage
8 kV
Overvoltage category III
[Ith] conventional free air thermal
current
330 A (at $40\text{ }^{\circ}\text{C}$)
Rated breaking capacity 2050 A at 440 V
[Icw] rated short-time withstand
current
1.8 kA - 10 s
1.0 kA - 30 s
0.85 kA - 1 min
0.56 kA - 3 min
0.44 kA - 10 min
Associated fuse rating 250 A aM at $\leq 440\text{ V}$ for motor
200 A aM at $\leq 690\text{ V}$ for motor
400 A gG at $\leq 690\text{ V}$
Average impedance 0.00015 Ohm
[Ui] rated insulation voltage 1000 V
Power dissipation per pole 20 W AC-1 - Ith 330 A
8 W AC-3 - Ith 225 A
Compatibility code LC1G
Pole contact composition 4 NO
Auxiliary contact composition 1 NO + 1 NC
Irms rated making capacity 2720 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 (50/60 Hz, AC) 540 VA

inrush power in W (DC) 380 W

hold-in power consumption in VA

(50/60 Hz, AC)

12.4 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

Connections - terminals Power circuit: bar 2 - busbar cross section: 25 x 6 mm

Power circuit: lugs-ring terminals 1 185 mm²

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 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

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 18 N.m

Height 193 mm

Width 143 mm

Depth 193 mm

Net weight 4.4 kg

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