Product data sheet

Specifications

TESYS Motor Starter Kit, LC1D09G7 Contactor, LR9D01 Thermal Overload Relay

LR9D01KITD09G7

Discontinued on: Jul 12, 2021

Discontinued

Product availability: Non-Stock - Not normally stocked in distribution facility

Main

Range	TeSys
Product or Component Type	Motor starter
Contactor application	Resistive load Motor control
Utilisation category	AC-3 AC-1 AC-4
Poles description	3P
power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit <= 690 V AC 25...400 Hz Power circuit <= 300 V DC
[Ie] rated operational current	9 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit 25 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit
Motor power kW	2.2 kW at 220...230 V AC 50/60 Hz (AC-3) 4 kW at 380...400 V AC 50/60 Hz (AC-3) 4 kW at 415...440 V AC 50/60 Hz (AC-3) 5.5 kW at 500 V AC 50/60 Hz (AC-3) 5.5 kW at 660...690 V AC 50/60 Hz (AC-3) 2.2 kW at 400 V AC 50/60 Hz (AC-4)
motor power HP (UL / CSA)	1 hp at 230/240 V AC 50/60 Hz for 1 phase motors 2 hp at 200/208 V AC 50/60 Hz for 3 phase motors 2 hp at 230/240 V AC 50/60 Hz for 3 phase motors 5 hp at 460/480 V AC 50/60 Hz for 3 phase motors 7.5 hp at 575/600 V AC 50/60 Hz for 3 phase motors 0.33 hp at 115 V AC 50/60 Hz for 1 phase motors
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	120 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	25 A (at 140 °F (60 °C)) for power circuit 10 A (at 140 °F (60 °C)) for signalling circuit
Irms rated making capacity	250 A at 440 V for power circuit conforming to IEC 60947 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	250 A at 440 V for power circuit conforming to IEC 60947

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

[Icw] rated short-time withstand current	105 A 104 °F (40 °C) - 10 s for power circuit 210 A 104 °F (40 °C) - 1 s for power circuit 30 A 104 °F (40 °C) - 10 min for power circuit 61 A 104 °F (40 °C) - 1 min for power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 25 A gG at <= 690 V coordination type 1 for power circuit 20 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	2.5 mOhm - Ith 25 A 50 Hz for power circuit
[Ui] rated insulation voltage	Power circuit 690 V IEC 60947-4-1 Power circuit 600 V CSA Power circuit 600 V UL Signalling circuit 690 V IEC 60947-1 Signalling circuit 600 V CSA Signalling circuit 600 V UL
Electrical durability	0.6 Mcycles 25 A AC-1 <= 440 V 2 Mcycles 9 A AC-3 <= 440 V
Power dissipation per pole	1.56 W AC-1 0.2 W AC-3
safety cover	With
Mounting Support	Rail Plate
Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
Product Certifications	RINA DNV GOST LROS (Lloyds register of shipping) UL GL BV CCC CSA
Connections - terminals	Power circuit screw clamp terminals 1 0.002…0.006 in² (1…4 mm²)flexible without cable end Power circuit screw clamp terminals 2 0.002…0.006 in² (1…4 mm²)flexible without cable end Power circuit screw clamp terminals 1 0.002…0.006 in² (1…4 mm²)flexible with cable end Power circuit screw clamp terminals 2 0.002…0.004 in² (1…2.5 mm²)flexible with cable end Power circuit screw clamp terminals 1 0.002…0.006 in² (1…4 mm²)solid without cable end Power circuit screw clamp terminals 2 0.002…0.006 in² (1…4 mm²)solid without cable end Control circuit screw clamp terminals 1 0.002…0.006 in² (1…4 mm²)flexible without cable end Control circuit screw clamp terminals 2 0.002…0.006 in² (1…4 mm²)flexible without cable end Control circuit screw clamp terminals 1 0.002…0.006 in² (1…4 mm²)flexible with cable end Control circuit screw clamp terminals 2 0.002…0.004 in² (1…2.5 mm²)flexible with cable end Control circuit screw clamp terminals 1 0.002…0.006 in² (1…4 mm²)solid without cable end Control circuit screw clamp terminals 2 0.002…0.006 in² (1…4 mm²)solid without cable end
Tightening torque	Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2

Operating time	12...22 ms closing 4...19 ms opening
Safety reliability level	B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1
Mechanical durability	15 Mcycles
Maximum operating rate	3600 cyc/h 140 °F (60 °C)
Relay application	Motor protection
Phase failure sensitivity	Phase difference > 40% 3 s IEC 60947-4-1

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	Drop-out 0.3...0.6 Uc AC 50/60 Hz 140 °F (60 °C)) Operational 0.8...1.1 Uc AC 50 Hz 140 °F (60 °C)) Operational 0.85...1.1 Uc AC 60 Hz 140 °F (60 °C))
Inrush power in VA	70 VA 60 Hz cos phi 0.75 (at 68 °F (20 °C)) 70 VA 50 Hz cos phi 0.75 (at 68 °F (20 °C))
Hold-in power consumption in VA	7.5 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C)) 7 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C))
Heat dissipation	2…3 W 50/60 Hz
Auxiliary contacts type	Mechanically linked 1 NO + 1 NC IEC 60947-5-1 Mirror contact 1 NC IEC 60947-4-1
Signalling circuit frequency	25...400 Hz
Minimum switching current	5 mA for signalling circuit
Minimum switching voltage	17 V for signalling circuit
Non-overlap time	1.5 ms on de-energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact
Insulation resistance	> 10 MOhm for signalling circuit
Contact compatibility	M2
motor power range	0…0.5 kW 100…120 V 3 phase 0.55…1 kW 100…120 V 3 phase 0…0.5 kW 200…240 V 3 phase 0.55…1 kW 200…240 V 3 phase 1.1…2 kW 200…240 V 3 phase 0…0.5 kW 380…440 V 3 phase 0.55…1 kW 380…440 V 3 phase 1.1…2 kW 380…440 V 3 phase 2.2…3 kW 380…440 V 3 phase 4…6 kW 380…440 V 3 phase 0…0.5 kW 480…500 V 3 phase 0.55…1 kW 480…500 V 3 phase 1.1…2 kW 480…500 V 3 phase 2.2…3 kW 480…500 V 3 phase 4…6 kW 480…500 V 3 phase 0…0.5 kW 525…690 V 3 phase 0.55…1 kW 525…690 V 3 phase 1.1…2 kW 525…690 V 3 phase 2.2…3 kW 525…690 V 3 phase 4…6 kW 525…690 V 3 phase
Motor starter type	Direct on-line contactor
Thermal overload class	Class 5…30
Thermal protection adjustment range	0.1…0.5 A
Power Consumption in W	300 mW
Mounting support	Under contactor Plate, with specific accessories Rail, with specific accessories

[Ue] rated operational voltage	690 V power circuit 660 V signalling circuit
[Ui] rated insulation voltage	Power circuit 1000 V Signalling circuit 690 V
Tripping threshold	1.25 In IEC 60947-4-1
Control type	Red push-button stop and manual reset White 2 microswitches adjustable trip class Red knob automatic reset White dial full-load current adjustment
Time range	1.5...4 min - automatic reset time
[Ith] conventional free air thermal current	5 A signalling circuit
Associated fuse rating	5 A gG signalling circuit 5 A BS signalling circuit
[Uimp] rated impulse withstand voltage	6 kV
IP degree of protection	Front face IP20 IEC 60529 Front face IP20 VDE 0106
Mechanical robustness	Vibrations 6 Gn) IEC 60068-2-6 Shocks 11 ms 15 gn) IEC 60068-2-7
Connections - terminals	Control circuit screw clamp terminals 1 0.004 in² (2.5 mm²) solid or flexible - without cable end Power circuit screw clamp terminals 1 0.02 in² (16 mm²) solid or flexible - without cable end
Tightening torque	Control circuit 0.8 N.m screw clamp terminals Power circuit 3.1 N.m screw clamp terminals

Environment

IP degree of protection	IP20 front face IEC 60529
Protective treatment	TH IEC 60068-2-30
Pollution degree	3
Ambient Air Temperature for Operation	23…140 °F (-5…60 °C)
Permissible ambient air temperature around the device	-40…158 °F (-40…70 °C) at Uc
Operating altitude	9842.52 ft (3000 m) without derating
Mechanical robustness	Vibrations contactor open2 Gn, 5...300 Hz Vibrations contactor closed4 Gn, 5...300 Hz Shocks contactor open10 Gn for 11 ms Shocks contactor closed15 Gn for 11 ms
Height	3.03 in (77 mm)
Width	1.8 in (45 mm)
Depth	3.4 in (86 mm)
Net Weight	0.71 lb(US) (0.32 kg)
Standards	UL 60947-4-1 CSA C22.2 IEC 60947-4-1 GB 14048.4
Product certifications	CSA UL CCC TÜV
Ambient air temperature for operation	-13…158 °F (-25…70 °C) IEC 60255-8
Ambient air temperature for storage	-76…176 °F (-60…80 °C)

Ambient Air Temperature for Storage	-67…176 °F (-55…80 °C)
Fire resistance	1562 °F (850 °C) IEC 60695-2-1
Flame retardance	V1 conforming to UL 94
Electromagnetic compatibility	Surge withstand 2 kV common mode IEC 61000-4-5 Resistance to electrostatic discharge 8 kV IEC 61000-4-2 Immunity to radiated radio-electrical interference 10 V/m IEC 61000-4-3 Immunity to fast transients 2 kV IEC 61000-4-4
Dielectric strength	6 kV 50 Hz IEC 60255-5
Height	2.9 in (72.5 mm)
Width	1.8 in (45 mm)
Depth	3.1 in (79.9 mm)
Net weight	0.40 lb(US) (0.18 kg)

Ordering and shipping details

Category	US10I1222350
Discount Schedule	0I12
Returnability	No

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1

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 >

Use Better

Materials and Substances

EU RoHS Directive	**Under investigation**

Use Longer

Lifetime extension

Repair	**No**