

# Product data sheet

Specifications

**SQUARE D**



## TESYS Motor Starter Kit, LC1D09G7 Contactor, LR9D02 Thermal Overload Relay

LR9D02KITD09G7

⚠ Discontinued on: Jun 30, 2023

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**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.

<b>[Icw] rated short-time withstand current</b>	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
<b>Associated fuse rating</b>	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
<b>Average impedance</b>	2.5 mOhm - lth 25 A 50 Hz for power circuit
<b>[Ui] rated insulation voltage</b>	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
<b>Electrical durability</b>	0.6 Mcycles 25 A AC-1 <= 440 V 2 Mcycles 9 A AC-3 <= 440 V
<b>Power dissipation per pole</b>	1.56 W AC-1 0.2 W AC-3
<b>safety cover</b>	With
<b>Mounting Support</b>	Rail Plate
<b>Standards</b>	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
<b>Product Certifications</b>	RINA DNV GOST LROS (Lloyds register of shipping) UL GL BV CCC CSA
<b>Connections - terminals</b>	Power circuit screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end Power circuit screw clamp terminals 2 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end Power circuit screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible with cable end Power circuit screw clamp terminals 2 0.002...0.004 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible with cable end Power circuit screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end Power circuit screw clamp terminals 2 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end Control circuit screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end Control circuit screw clamp terminals 2 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end Control circuit screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible with cable end Control circuit screw clamp terminals 2 0.002...0.004 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible with cable end Control circuit screw clamp terminals 1 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end Control circuit screw clamp terminals 2 0.002...0.006 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end
<b>Tightening torque</b>	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

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

## Complementary

<b>Coil technology</b>	Without built-in suppressor module
<b>Control circuit voltage limits</b>	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)
<b>Inrush power in VA</b>	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))
<b>Hold-in power consumption in VA</b>	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))
<b>Heat dissipation</b>	2...3 W 50/60 Hz
<b>Auxiliary contacts type</b>	Mechanically linked 1 NO + 1 NC IEC 60947-5-1 Mirror contact 1 NC IEC 60947-4-1
<b>Signalling circuit frequency</b>	25...400 Hz
<b>Minimum switching current</b>	5 mA for signalling circuit
<b>Minimum switching voltage</b>	17 V for signalling circuit
<b>Non-overlap time</b>	1.5 ms on de-energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact
<b>Insulation resistance</b>	> 10 MOhm for signalling circuit
<b>Contact compatibility</b>	M2
<b>motor power range</b>	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
<b>Motor starter type</b>	Direct on-line contactor
<b>Thermal overload class</b>	Class 5...30
<b>Thermal protection adjustment range</b>	0.4...2 A
<b>Power Consumption in W</b>	300 mW
<b>Mounting support</b>	Under contactor Plate, with specific accessories Rail, with specific accessories

<b>[Ue] rated operational voltage</b>	690 V power circuit 660 V signalling circuit
<b>[Ui] rated insulation voltage</b>	Power circuit 1000 V Signalling circuit 690 V
<b>Tripping threshold</b>	1.25 In IEC 60947-4-1
<b>Control type</b>	Red push-button stop and manual reset White 2 microswitches adjustable trip class Red knob automatic reset White dial full-load current adjustment
<b>Time range</b>	1.5...4 min - automatic reset time
<b>[Ith] conventional free air thermal current</b>	5 A signalling circuit
<b>Associated fuse rating</b>	5 A gG signalling circuit 5 A BS signalling circuit
<b>[Uimp] rated impulse withstand voltage</b>	6 kV
<b>IP degree of protection</b>	Front face IP20 IEC 60529 Front face IP20 VDE 0106
<b>Mechanical robustness</b>	Vibrations 10...150 Hz 6 Gn IEC 60068-2-6 Shocks 11 ms 15 gn IEC 60068-2-7
<b>Connections - terminals</b>	Control circuit screw clamp terminals 1 0.004 in <sup>2</sup> (2.5 mm <sup>2</sup> ) solid or flexible - without cable end Power circuit screw clamp terminals 1 0.02 in <sup>2</sup> (16 mm <sup>2</sup> ) solid or flexible - without cable end
<b>Tightening torque</b>	Control circuit 0.8 N.m screw clamp terminals Power circuit 3.1 N.m screw clamp terminals

## Environment

<b>IP degree of protection</b>	IP20 front face IEC 60529
<b>Protective treatment</b>	TH IEC 60068-2-30
<b>Pollution degree</b>	3
<b>Ambient Air Temperature for Operation</b>	23...140 °F (-5...60 °C)
<b>Permissible ambient air temperature around the device</b>	-40...158 °F (-40...70 °C) at Uc
<b>Operating altitude</b>	9842.52 ft (3000 m) without derating
<b>Mechanical robustness</b>	Vibrations contactor open 2 Gn, 5...300 Hz Vibrations contactor closed 4 Gn, 5...300 Hz Shocks contactor open 10 Gn for 11 ms Shocks contactor closed 15 Gn for 11 ms
<b>Height</b>	3.03 in (77 mm)
<b>Width</b>	1.8 in (45 mm)
<b>Depth</b>	3.4 in (86 mm)
<b>Net Weight</b>	0.71 lb(US) (0.32 kg)
<b>Standards</b>	GB 14048.4 CSA C22.2 IEC 60947-4-1 UL 60947-4-1
<b>Product certifications</b>	CULus CSA CCC TÜV
<b>Ambient air temperature for operation</b>	-13...158 °F (-25...70 °C) IEC 60255-8
<b>Ambient air temperature for storage</b>	-76...176 °F (-60...80 °C)

<b>Ambient Air Temperature for Storage</b>	-67...176 °F (-55...80 °C)
<b>Fire resistance</b>	1562 °F (850 °C) IEC 60695-2-1
<b>Flame retardance</b>	V1 conforming to UL 94
<b>Electromagnetic compatibility</b>	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
<b>Dielectric strength</b>	6 kV 50 Hz IEC 60255-5
<b>Height</b>	2.9 in (72.5 mm)
<b>Width</b>	1.8 in (45 mm)
<b>Depth</b>	3.1 in (79.9 mm)
<b>Net weight</b>	0.40 lb(US) (0.18 kg)

## Ordering and shipping details

<b>Category</b>	US10I1222350
<b>Discount Schedule</b>	0I12
<b>GTIN</b>	3606486288085
<b>Returnability</b>	No

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Nbr. of units in pkg.</b>	1
<b>Package 1 Height</b>	4.200 in (10.668 cm)
<b>Package 1 Width</b>	8.400 in (21.336 cm)
<b>Package 1 Length</b>	4.300 in (10.922 cm)
<b>Package weight(Lbs)</b>	20.160 oz (571.526 g)



## 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

Packaging made with recycled cardboard	No
Packaging without single use plastic	No
EU RoHS Directive	Under investigation

### Use Longer



#### Lifetime extension

Repair	No
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