Product data sheet
Characteristics

# LC1D09P7 <br> TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 9 A - 230 V AC coil 

Product availability : Stock - Normally stocked in distribution facility

Price* : 94.00 USD

| Main |  |  |
| :---: | :---: | :---: |
| Range | TeSys | 을 |
| Product name | TeSys D | ※ |
| Product or component type | Contactor | $\stackrel{\text { \% }}{\substack{0 \\ 7}}$ |
| Device short name | LC1D | 言 |
| Contactor application | Motor control Resistive load | - |
| Utilisation category | $\begin{aligned} & \mathrm{AC}-1 \\ & \mathrm{AC}-3 \\ & \mathrm{AC}-4 \end{aligned}$ | \% |
| Poles description | 3P | $\stackrel{\text { E }}{\text { ¢ }}$ |
| Power pole contact composition | 3 NO | ¢ |
| System Voltage | $\begin{aligned} & \text { <= } 300 \text { V DC power circuit } \\ & \text { <= } 690 \text { V AC } 25 . . .400 \mathrm{~Hz} \text { power circuit } \end{aligned}$ | +80 |
| [le] rated operational current | $25 \mathrm{~A}\left(<=140^{\circ} \mathrm{F}\left(60^{\circ} \mathrm{C}\right)\right)$ at $<=440 \mathrm{~V}$ AC AC-1 power circuit $9 \mathrm{~A}\left(<=140^{\circ} \mathrm{F}\left(60^{\circ} \mathrm{C}\right)\right)$ at $<=440 \mathrm{~V}$ AC AC-3 power circuit | - |
| Motor power kW | 2.2 kW at 400 V AC $50 / 60 \mathrm{~Hz} \mathrm{AC}-4$ <br> 2.2 kW at $220 \ldots . .230 \mathrm{~V}$ AC $50 / 60 \mathrm{~Hz} \mathrm{AC}-3$ <br> 4 kW at $380 \ldots 400 \mathrm{~V}$ AC $50 / 60 \mathrm{~Hz} \mathrm{AC}-3$ <br> 5.5 kW at 500 V AC $50 / 60 \mathrm{~Hz} \mathrm{AC}-3$ <br> 5.5 kW at $660 \ldots 690 \mathrm{~V}$ AC $50 / 60 \mathrm{~Hz} \mathrm{AC}-3$ <br> 4 kW at $415 \ldots 440 \mathrm{~V}$ AC $50 / 60 \mathrm{~Hz} \mathrm{AC}-3$ |  |
| Motor power HP (UL / CSA) | 0.33 hp at 115 V AC $50 / 60 \mathrm{~Hz}$ for 1 phase motors <br> 1 hp at 230/240 V AC 50/60 Hz 1 phase motors <br> 2 hp at 200/208 V AC $50 / 60 \mathrm{~Hz} 3$ phases motors <br> 2 hp at 230/240 V AC 50/60 Hz 3 phases motors <br> 5 hp at $460 / 480 \mathrm{~V}$ AC $50 / 60 \mathrm{~Hz} 3$ phases motors <br> 7.5 hp at $575 / 600 \mathrm{~V}$ AC $50 / 60 \mathrm{~Hz} 3$ phases motors | - |
| Control circuit type | AC 50/60 Hz | - |
| [Uc] control circuit voltage | 230 V AC 50/60 Hz | $\stackrel{\sim}{\square}$ |
| Auxiliary contact composition | $1 \mathrm{NO}+1 \mathrm{NC}$ | $\stackrel{\text { ® }}{\text { ¢ }}$ |
| [Uimp] rated impulse withstand voltage | 6 kV conforming to IEC 60947 |  |
| Jan 29, 2019 |  | 1 |


| Overvoltage category | III |
| :---: | :---: |
| [lth] conventional free air thermal current | 25 A at $<=140^{\circ} \mathrm{F}\left(60^{\circ} \mathrm{C}\right)$ power circuit 10 A at $<=140^{\circ} \mathrm{F}\left(60^{\circ} \mathrm{C}\right)$ signalling circuit |
| Irms rated making capacity | 250 A at 440 V power circuit conforming to IEC 60947 140 A AC signalling circuit conforming to IEC 60947-5-1 250 A DC signalling circuit conforming to IEC 60947-5-1 |
| Rated breaking capacity | 250 A at 440 V power circuit conforming to IEC 60947 |
| [lcw] rated short-time withstand current | $105 \mathrm{~A}<=104^{\circ} \mathrm{F}\left(40^{\circ} \mathrm{C}\right) 10$ s power circuit $210 \mathrm{~A}<=104^{\circ} \mathrm{F}\left(40^{\circ} \mathrm{C}\right) 1 \mathrm{~s}$ power circuit $30 \mathrm{~A}<=104^{\circ} \mathrm{F}\left(40^{\circ} \mathrm{C}\right) 10 \mathrm{~min}$ power circuit $61 \mathrm{~A}<=104^{\circ} \mathrm{F}\left(40^{\circ} \mathrm{C}\right) 1 \mathrm{~min}$ power circuit 100 A 1 s signalling circuit 120 A 500 ms signalling circuit 140 A 100 ms signalling circuit |
| Associated fuse rating | 20 A gG at <= 690 V coordination type 2 power circuit 25 AgG at <= 690 V coordination type 1 power circuit 10 A gG signalling circuit conforming to IEC 60947-5-1 |
| Average impedance | 2.5 mOhm at 50 Hz - Ith 25 A power circuit |
| [Ui] rated insulation voltage | 600 V power circuit certifications CSA <br> 600 V power circuit certifications UL <br> 690 V power circuit conforming to IEC 60947-4-1 <br> 690 V signalling circuit conforming to IEC 60947-1 <br> 600 V signalling circuit certifications CSA <br> 600 V signalling circuit certifications UL |
| Electrical durability | 0.6 Mcycles 25 A AC-1 at Ue <= 440 V <br> 2 Mcycles 9 A AC-3 at Ue $<=440 \mathrm{~V}$ |
| Power dissipation per pole | 0.2 W AC-3 <br> 1.56 W AC-1 |
| Safety cover | With |
| Mounting support | Plate Rail |
| Standards | CSA C22.2 No 14 <br> EN 60947-4-1 <br> EN 60947-5-1 <br> IEC 60947-4-1 <br> IEC 60947-5-1 <br> UL 508 |
| Product certifications | BV <br> CCC <br> CSA <br> DNV <br> GL <br> GOST <br> LROS (Lloyds register of shipping) RINA UL |
| Connections - terminals | Control circuit: screw clamp terminals 2 cable(s) $0 \ldots 0 \mathrm{in}^{2}$ (1...2.5 mm²) - cable stiffness: flexible - with cable end <br> Power circuit: screw clamp terminals 1 cable(s) $0 \ldots 0.01 \mathrm{in}^{2}\left(1 \ldots 4 \mathrm{~mm}^{2}\right)$ - cable stiffness: flexible - with cable end <br> Control circuit: screw clamp terminals 1 cable(s) $0 \ldots 0.01 \mathrm{in}^{2}\left(1 \ldots 4 \mathrm{~mm}^{2}\right)$ - cable stiffness: flexible without cable end <br> Control circuit: screw clamp terminals 2 cable(s) $0 \ldots 0.01 \mathrm{in}^{2}\left(1 \ldots .4 \mathrm{~mm}^{2}\right)$ - cable stiffness: flexible without cable end <br> Control circuit: screw clamp terminals 1 cable(s) $0 \ldots 0.01 \mathrm{in}^{2}\left(1 \ldots 4 \mathrm{~mm}^{2}\right)$ - cable stiffness: flexible with cable end <br> Control circuit: screw clamp terminals 1 cable(s) $0 \ldots 0.01 \mathrm{in}^{2}\left(1 \ldots 4 \mathrm{~mm}^{2}\right)$ - cable stiffness: solid without cable end <br> Control circuit: screw clamp terminals 2 cable(s) $0 \ldots 0.01 \mathrm{in}^{2}\left(1 \ldots 4 \mathrm{~mm}^{2}\right)$ - cable stiffness: solid without cable end <br> Power circuit: screw clamp terminals 1 cable(s) $0 \ldots 0.01 \mathrm{in}^{2}\left(1 \ldots 4 \mathrm{~mm}^{2}\right)$ - cable stiffness: flexible without cable end <br> Power circuit: screw clamp terminals 2 cable(s) $0 \ldots 0.01 \mathrm{in}^{2}\left(1 \ldots 4 \mathrm{~mm}^{2}\right)$ - cable stiffness: flexible without cable end <br> Power circuit: screw clamp terminals 2 cable(s) $0 \ldots 0 \mathrm{in}^{2}\left(1 \ldots 2.5 \mathrm{~mm}^{2}\right)$ - cable stiffness: flexible - with cable end <br> Power circuit: screw clamp terminals 1 cable(s) $0 \ldots . .0 .01 \mathrm{in}^{2}\left(1 \ldots 4 \mathrm{~mm}^{2}\right)$ - cable stiffness: solid without cable end |


|  | Power circuit: screw clamp terminals 2 cable(s) $0 \ldots 0.01 \mathrm{in}^{2}\left(1 \ldots . \mathrm{mm}^{2}\right)$ - cable stiffness: solid without cable end |
| :---: | :---: |
| Tightening torque | Power circuit: 15.04 Ibf.in (1.7 N.m) - on screw clamp terminals - with screwdriver flat $\varnothing 6 \mathrm{~mm}$ Power circuit: 15.04 Ibf.in (1.7 N.m) - on screw clamp terminals - with screwdriver Philips No 2 Control circuit: 15.04 lbf .in ( $1.7 \mathrm{~N} . \mathrm{m}$ ) - on screw clamp terminals - with screwdriver flat $\varnothing 6 \mathrm{~mm}$ Control circuit: 15.04 lbf.in ( 1.7 N.m) - on screw clamp terminals - with screwdriver Philips No 2 |
| Operating time | $4 . . .19 \mathrm{~ms}$ opening $12 . . .22 \mathrm{~ms}$ closing |
| Safety reliability level | B10d $=1369863$ cycles contactor with nominal load conforming to EN/ISO 13849-1 <br> B10d $=20000000$ cycles contactor with mechanical load conforming to EN/ISO 13849-1 |
| Mechanical durability | 15 Mcycles |
| Operating rate | $3600 \mathrm{cyc} / \mathrm{h}$ at $<=140^{\circ} \mathrm{F}\left(60^{\circ} \mathrm{C}\right)$ |

## Complementary

| Coil technology | Without built-in suppressor module |
| :---: | :---: |
| Control circuit voltage limits | 0.3...0.6 Uc drop-out at $140^{\circ} \mathrm{F}\left(60^{\circ} \mathrm{C}\right)$, AC $50 / 60 \mathrm{~Hz}$ 0.8...1.1 Uc operational at $140^{\circ} \mathrm{F}\left(60^{\circ} \mathrm{C}\right)$, AC 50 Hz $0.85 . . .1 .1$ Uc operational at $140^{\circ} \mathrm{F}\left(60^{\circ} \mathrm{C}\right), \mathrm{AC} 60 \mathrm{~Hz}$ |
| Inrush power in VA | 70 VA at $68^{\circ} \mathrm{F}\left(20^{\circ} \mathrm{C}\right)(\cos \phi 0.75) 60 \mathrm{~Hz}$ <br> 70 VA at $68^{\circ} \mathrm{F}\left(20^{\circ} \mathrm{C}\right)(\cos \phi 0.75) 50 \mathrm{~Hz}$ |
| Hold-in power consumption in VA | 7.5 VA at $68^{\circ} \mathrm{F}\left(20^{\circ} \mathrm{C}\right)(\cos \phi 0.3) 60 \mathrm{~Hz}$ <br> 7 VA at $68^{\circ} \mathrm{F}\left(20^{\circ} \mathrm{C}\right)(\cos \phi 0.3) 50 \mathrm{~Hz}$ |
| Heat dissipation | 2... 3 W at $50 / 60 \mathrm{~Hz}$ |
| Auxiliary contacts type | Type mechanically linked ( 1 NO + 1 NC) conforming to IEC 60947-5-1 Type mirror contact ( 1 NC ) conforming to IEC 60947-4-1 |
| Signalling circuit frequency | 25... 400 Hz |
| Minimum switching current | 5 mA signalling circuit |
| Minimum switching voltage | 17 V signalling circuit |
| Non-overlap time | 1.5 ms on energisation between NC and NO contact 1.5 ms on de-energisation between NC and NO contact |
| Insulation resistance | > 10 MOhm signalling circuit |

## Environment

| IP degree of protection | IP20 front face conforming to IEC 60529 |
| :---: | :---: |
| Protective treatment | TH conforming to IEC 60068-2-30 |
| Pollution degree | 3 |
| Ambient air temperature for operation | 23...140 ${ }^{\circ} \mathrm{F}\left(-5 . .60^{\circ} \mathrm{C}\right)$ |
| Ambient air temperature for storage | $-76 \ldots 176{ }^{\circ} \mathrm{F}\left(-60 \ldots 80^{\circ} \mathrm{C}\right)$ |
| Permissible ambient air temperature around the device | $-40 \ldots 158{ }^{\circ} \mathrm{F}\left(-40 \ldots 70^{\circ} \mathrm{C}\right)$ at Uc |
| Operating altitude | $9842.52 \mathrm{ft}(3000 \mathrm{~m})$ without derating in temperature |
| Fire resistance | $1562{ }^{\circ} \mathrm{F}\left(850{ }^{\circ} \mathrm{C}\right)$ conforming to IEC 60695-2-1 |
| Flame retardance | V1 conforming to UL 94 |
| Mechanical robustness | Vibrations contactor open $2 \mathrm{Gn}, 5 . .300 \mathrm{~Hz}$ <br> Vibrations contactor closed 4 Gn, $5 \ldots 300 \mathrm{~Hz}$ Shocks contactor open 10 Gn for 11 ms Shocks contactor closed 15 Gn for 11 ms |
| Height | 3.03 in (77 mm) |
| Width | 1.77 in (45 mm) |
| Depth | 3.39 in (86 mm) |
| Product weight | $0.71 \mathrm{lb}(\mathrm{US})(0.32 \mathrm{~kg})$ |

## Ordering and shipping details

| Category | $22345-$ CTR,D-LINE,OPEN,NONREV-NEW |
| :--- | :--- |
| Discount Schedule | 112 |
| GTIN | 00785901564324 |
| Nbr. of units in pkg. | 1 |


| Package weight(Lbs) | 0.80000000000000004 |
| :--- | :--- |
| Returnability | Y |
| Country of origin | ID |
| Offer Sustainability | Green Premium product |
| Sustainable offer status | Compliant - since 0627 - Schneider Electric declaration of conformity <br> RoHS (date code: YYWW) <br> REAChneider Electric declaration of conformity |
| Reference not containing SVHC above the threshold |  |
| Product environmental profile | Reference not containing SVHC above the threshold |
| Product end of life instructions | Available |
| California proposition 65 | WARNING: This product can expose you to chemicals including: |
| ----- - Substance 1 | Antimony oxide \& Antimony trioxide, which is known to the State of California to cause cancer. |
| ---- - More information | For more information go to www.p65warnings.ca.gov |
|  |  |
| Contractual warranty |  |

## Dimensions Drawings

Dimensions

(1) Including LAD 4BB
(2) Minimum electrical clearance

| LC1 | D09...D18 | D093...D123 | D099...D129 |  |
| :--- | :--- | :--- | :--- | :--- |
| b | without add-on blocks | 77 | 99 | 80 |
| b1 | with LAD 4BB | 94 | 107 | 95.5 |
| with LA4 <br> D•2 | $110^{(1)}$ | $123^{(1)}$ | $111.5^{(1)}$ |  |
| with LA4 <br> DF, DT | $119^{(1)}$ | $132^{(1)}$ | $120.5^{(1)}$ |  |
| with LA4 <br> DW, DL | $126^{(1)}$ | $139^{(1)}$ | $127.5^{(1)}$ |  |
| c | without cover or add-on blocks | 84 | 84 | 84 |
| with <br> cover, <br> without <br> add-on <br> blocks | 86 | 86 | 86 |  |
| c1 | with LAD N or C (2 or 4 contacts) | 117 | 117 | 129 |
| c2 | with LA6 DK10, LAD 6K10 | 129 | 129 | 129 |
| c3 | with LAD T, R, S | 137 | 137 |  |
| with LAD <br> T, R, <br> S and <br> sealing <br> cover | 141 | 141 | 141 |  |
| $(1)$ | Including LAD 4BB. |  |  |  |

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Wiring


