

| Range | TeSys |
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| Product name | TeSys D |
| Product or component type | Reversing contactor |
| Device short name | LC2D |
| Contactor application | Motor control Resistive load |
| Utilisation category | $\begin{aligned} & \mathrm{AC}-1 \\ & \mathrm{AC}-3 \end{aligned}$ |
| Device presentation | Preassembled with reversing power busbar |
| Poles description | 3P |
| Power pole contact composition | 3 NO |
| [Ue] rated operational voltage | <= 300 V DC for power circuit <= $690 \mathrm{~V} \mathrm{AC} 25 . . .400 \mathrm{~Hz}$ for power circuit |
| [le] rated operational current | $40 \mathrm{~A}\left(<=60^{\circ} \mathrm{C}\right)$ at $<=440 \mathrm{~V}$ AC AC-1 for power circuit $25 \mathrm{~A}\left(<=60^{\circ} \mathrm{C}\right.$ ) at $<=440 \mathrm{~V}$ AC AC-3 for power circuit |
| Motor power kW | 15 kW at $660 . . .690 \mathrm{~V} \mathrm{AC} 50 / 60 \mathrm{~Hz}$ 15 kW at 500 V AC $50 / 60 \mathrm{~Hz}$ <br> 11 kW at $415 \ldots 440 \mathrm{~V}$ AC $50 / 60 \mathrm{~Hz}$ <br> 11 kW at $380 \ldots 400 \mathrm{~V}$ AC $50 / 60 \mathrm{~Hz}$ <br> 5.5 kW at $220 . . .230 \mathrm{~V}$ AC $50 / 60 \mathrm{~Hz}$ |
| Motor power HP (UL / CSA) | 20 hp at $575 / 600 \mathrm{~V}$ AC $50 / 60 \mathrm{~Hz}$ for 3 phases motors <br> 15 hp at $460 / 480 \mathrm{~V}$ AC $50 / 60 \mathrm{~Hz}$ for 3 phases motors <br> 7.5 hp at $230 / 240$ V AC $50 / 60 \mathrm{~Hz}$ for 3 phases motors <br> 2 hp at 115 V AC $50 / 60 \mathrm{~Hz}$ for 1 phase motors <br> 5 hp at 200/208 V AC $50 / 60 \mathrm{~Hz}$ for 3 phases motors <br> 3 hp at $230 / 240 \mathrm{~V}$ AC $50 / 60 \mathrm{~Hz}$ for 1 phase motors |
| Control circuit type | AC 50/60 Hz |
| Control circuit voltage | 120 V AC $50 / 60 \mathrm{~Hz}$ |
| Auxiliary contact composition | $1 \mathrm{NO}+1 \mathrm{NC}$ |
| [Uimp] rated impulse withstand voltage | 6 kV conforming to IEC 60947 |
| Overvoltage category | III |
| [Ith] conventional free air thermal current | 40 A at $<=60^{\circ} \mathrm{C}$ for power circuit 10 A at $<=60^{\circ} \mathrm{C}$ for signalling circuit |
| Irms rated making capacity | 450 A at 440 V for power circuit conforming to IEC 60947 <br> 250 A DC for signalling circuit conforming to IEC 60947-5-1 <br> 140 A AC for signalling circuit conforming to IEC 60947-5-1 |
| Rated breaking capacity | 450 A at 440 V for power circuit conforming to IEC 60947 |
| [lcw] rated short-time withstand current | $380 \mathrm{~A}<=40^{\circ} \mathrm{C} 1 \mathrm{~s}$ power circuit <br> $240 \mathrm{~A}<=40^{\circ} \mathrm{C} 10$ s power circuit <br> $120 \mathrm{~A}<=40^{\circ} \mathrm{C} 1 \mathrm{~min}$ power circuit $50 \mathrm{~A}<=40^{\circ} \mathrm{C} 10 \mathrm{~min}$ power circuit <br> 140 A 100 ms signalling circuit 120 A 500 ms signalling circuit 100 A 1 s signalling circuit |
| Associated fuse rating | 40 A gG at <= 690 V coordination type 2 for power circuit <br> 63 A gG at <= 690 V coordination type 1 for power circuit <br> 10 A gG for signalling circuit conforming to IEC 60947-5-1 |
| Average impedance | 2 mOhm at 50 Hz - Ith 40 A for power circuit |


| [Ui] rated insulation voltage | 600 V for signalling circuit certifications UL <br> 600 V for signalling circuit certifications CSA <br> 690 V for signalling circuit conforming to IEC 60947-1 <br> 600 V for power circuit certifications UL <br> 600 V for power circuit certifications CSA <br> 690 V for power circuit conforming to IEC 60947-4-1 |
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| Electrical durability | 1.4 Mcycles 40 A AC-1 at $\mathrm{Ue}<=440 \mathrm{~V}$ 1.65 Mcycles $25 \mathrm{~A} \mathrm{AC}-3$ at $\mathrm{Ue}<=440 \mathrm{~V}$ |
| Power dissipation per pole | $\begin{aligned} & \text { 3.2 W AC-1 } \\ & \text { 1.25 W AC-3 } \end{aligned}$ |
| Safety cover | With |
| Interlocking type | Mechanical |
| Mounting support | Plate <br> Rail |
| Standards | EN 60947-4-1 <br> EN 60947-5-1 <br> IEC 60947-4-1 <br> IEC 60947-5-1 <br> UL 508 <br> CSA C22.2 No 14 |
| Product certifications | BV <br> CCC <br> CSA <br> DNV <br> GL <br> GOST <br> RINA <br> UL <br> LROS |
| Connections - terminals | Power circuit : screw clamp terminals 2 cable(s) <br> $2.5 \ldots 10 \mathrm{~mm}^{2}$ - cable stiffness: solid - without cable end <br> Power circuit : screw clamp terminals 1 cable(s) <br> $1.5 \ldots 10 \mathrm{~mm}^{2}$ - cable stiffness: solid - without cable <br> end <br> Power circuit : screw clamp terminals 2 cable(s) <br> $1.5 \ldots 6 \mathrm{~mm}^{2}$ - cable stiffness: flexible - with cable end <br> Power circuit : screw clamp terminals 1 cable(s) <br> $1 . . .10 \mathrm{~mm}^{2}$ - cable stiffness: flexible - with cable end <br> Power circuit : screw clamp terminals 2 cable(s) <br> $2.5 \ldots 10 \mathrm{~mm}^{2}$ - cable stiffness: flexible - without cable <br> end <br> Power circuit : screw clamp terminals 1 cable(s) <br> 2.5... $10 \mathrm{~mm}^{2}$ - cable stiffness: flexible - without cable end <br> Control circuit : screw clamp terminals 2 cable(s) <br> $1 . . .4 \mathrm{~mm}^{2}$ - cable stiffness: solid - without cable end <br> Control circuit : screw clamp terminals 1 cable(s) <br> $1 . . .4 \mathrm{~mm}^{2}$ - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 2 cable(s) <br> $1 . .2 .5 \mathrm{~mm}^{2}$ - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 1 cable(s) <br> $1 . .4 \mathrm{~mm}^{2}$ - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 2 cable(s) <br> $1 . . .4 \mathrm{~mm}^{2}$ - cable stiffness: flexible - without cable end <br> Control circuit : screw clamp terminals 1 cable(s) <br> $1 . . .4 \mathrm{~mm}^{2}$ - cable stiffness: flexible - without cable end |
| Tightening torque | Power circuit : 2.5 N.m - on screw clamp terminals with screwdriver Philips No 2 <br> Power circuit : 2.5 N.m - on screw clamp terminals with screwdriver flat $\varnothing 6 \mathrm{~mm}$ Control circuit : 1.7 N.m - on screw clamp terminals with screwdriver Philips No 2 Control circuit : 1.7 N.m - on screw clamp terminals with screwdriver flat $\varnothing 6 \mathrm{~mm}$ |
| Operating time | $4 . . .19 \mathrm{~ms}$ opening 12... 22 ms closing |
| Safety reliability level | B10d $=20000000$ cycles contactor with mechanical load conforming to EN/ISO 13849-1 <br> B10d $=1369863$ cycles contactor with nominal load conforming to EN/ISO 13849-1 |


| Mechanical durability | 15 Mcycles |
| :--- | :--- |
| Operating rate | $3600 \mathrm{cyc} / \mathrm{h}$ at $<=60^{\circ} \mathrm{C}$ |


| Complementary | Without built-in suppressor module |
| :--- | :--- |
| Coil technology | $0.85 . .1 .1 \mathrm{Uc}$ at $60^{\circ} \mathrm{C}$ operational 60 Hz |
| Control circuit voltage limits | $0.8 \ldots 1.1 \mathrm{Uc}$ at $60^{\circ} \mathrm{C}$ operational 50 Hz |
|  | $0.3 . .0 .6 \mathrm{Uc}$ at $60^{\circ} \mathrm{C}$ drop-out $50 / 60 \mathrm{~Hz}$ |
| Inrush power in VA | 70 VA at $20^{\circ} \mathrm{C}(\cos \phi 0.75) 50 \mathrm{~Hz}$ |
|  | 70 VA at $20^{\circ} \mathrm{C}(\cos \phi 0.75) 60 \mathrm{~Hz}$ |
| Hold-in power consumption in VA | 7 VA at $20^{\circ} \mathrm{C}(\cos \phi 0.3) 50 \mathrm{~Hz}$ |
|  | 7.5 VA at $20^{\circ} \mathrm{C}(\cos \phi 0.3) 60 \mathrm{~Hz}$ |
| Heat dissipation | $2 . .3 \mathrm{~W}$ at $50 / 60 \mathrm{~Hz}$ |
| Auxiliary contacts type | Type mirror contact $(1 \mathrm{NC})$ conforming to IEC $60947-4-1$ |
|  | Type mechanically linked (1 NO + 1 NC$)$ conforming to IEC 60947-5-1 |
| Signalling circuit frequency | $25 \ldots . .400 \mathrm{~Hz}$ |
| Minimum switching current | 5 mA for signalling circuit |
| Non-overlap time | 1.5 ms on energisation (between NC and NO contact) |
| Insulation resistance | 1.5 ms on de-energisation (between NC and NO contact) |


| Environment |  |
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| IP degree of protection front face conforming to IEC 60529 |  |
| Protective treatment | TH conforming to IEC $60068-2-30$ |
| Pollution degree | 3 |
| Ambient air temperature for operation | $-5 \ldots . .60^{\circ} \mathrm{C}$ |
| Ambient air temperature for storage | $-60 \ldots . .80^{\circ} \mathrm{C}$ |
| Permissible ambient air temperature around the de- | $-40 \ldots . .70^{\circ} \mathrm{C}$ at Uc |
| vice | 3000 m without derating in temperature |
| Operating altitude | $850^{\circ} \mathrm{C}$ conforming to IEC $60695-2-1$ |
| Fire resistance | V1 conforming to UL 94 |
| Flame retardance | Shocks contactor open 8 Gn for 11 ms |
| Mechanical robustness | Shocks contactor closed 15 Gn for 11 ms |
|  | Vibrations contactor closed $4 \mathrm{Gn}, 5 \ldots . .300 \mathrm{~Hz}$ |
|  | Vibrations contactor open $2 \mathrm{Gn}, 5 \ldots . . .300 \mathrm{~Hz}$ |
| Height | 85 mm |
| Width | 90 mm |
| Depth | 92 mm |
| Product weight | 0.787 kg |

Offer Sustainability

| Sustainable offer status | Green Premium product |
| :--- | :--- |
| RoHS | Compliant - since 0627 - ${ }^{\text {S S Schneider Electric declaration of conformity }}$ |
| REACh | Reference not containing SVHC above the threshold |
| Product environmental profile | Available |
| Product end of life instructions | Need no specific recycling operations |

