| Main |  |  |
| :---: | :---: | :---: |
| Range of product | TeSys D | \% |
| Range | TeSys |  |
| Product name | TeSys D | $\stackrel{\otimes}{8}$ |
| Product or component type | Contactor | $\stackrel{\text { ¢ }}{5}$ |
| Device short name | LC1D | ? |
| Contactor application | Motor control Resistive load | - |
| Utilisation category | $\begin{aligned} & \mathrm{AC}-4 \\ & \mathrm{AC}-3 \\ & \mathrm{AC}-1 \end{aligned}$ |  |
| Poles description | 3P |  |
| Pole contact composition | 3 NO | \% |
| [Ue] rated operational voltage | <= 300 V DC $25 \ldots 400 \mathrm{~Hz}$ for power circuit $<=1000 \mathrm{~V} \mathrm{AC}$ for power circuit | - |
| [le] rated operational current | $125 \mathrm{~A}\left(<=60^{\circ} \mathrm{C}\right)$ at $<=440 \mathrm{~V}$ AC AC-1 for power circuit $95 \mathrm{~A}\left(<=60^{\circ} \mathrm{C}\right.$ ) at $<=440 \mathrm{~V}$ AC AC-3 for power circuit | - |
| Motor power kW | 45 kW at $660 \ldots 690 \mathrm{~V}$ AC $50 / 60 \mathrm{~Hz} \mathrm{AC}-3$ 45 kW at $415 \ldots 440 \mathrm{~V}$ AC $50 / 60 \mathrm{~Hz} \mathrm{AC}-3$ 55 kW at 500 V AC $50 / 60 \mathrm{~Hz} \mathrm{AC}-3$ 45 kW at 1000 V AC $50 / 60 \mathrm{~Hz} \mathrm{AC}-3$ 15 kW at 400 V AC $50 / 60 \mathrm{~Hz} \mathrm{AC}-4$ 25 kW at 220 ... 230 V AC $50 / 60 \mathrm{~Hz} \mathrm{AC}-3$ 45 kW at $380 \ldots . .400 \mathrm{~V}$ AC $50 / 60 \mathrm{~Hz} \mathrm{AC}-3$ | a 0 0 0 0 0 0 0 0 $\#$ 0 0 0 0 0 |
| Motor power hp | 20 hp at 200/208 V AC $50 / 60 \mathrm{~Hz}$ for 3 phases motors 7.5 hp at 115 V AC $50 / 60 \mathrm{~Hz}$ for 1 phase motors 15 hp at $230 / 240 \mathrm{~V}$ AC $50 / 60 \mathrm{~Hz}$ for 1 phase motors 25 hp at 230/240 V AC $50 / 60 \mathrm{~Hz}$ for 3 phases motors 60 hp at $460 / 480$ V AC $50 / 60 \mathrm{~Hz}$ for 3 phases motors 60 hp at $575 / 600 \mathrm{~V}$ AC $50 / 60 \mathrm{~Hz}$ for 3 phases motors |  |
| Control circuit type | AC $50 / 60 \mathrm{~Hz}$ | $\bigcirc$ |
| Control circuit voltage | 230 V AC $50 / 60 \mathrm{~Hz}$ | ¢ |
| Auxiliary contact composition | $1 \mathrm{NO}+1 \mathrm{NC}$ | d |


| [Uimp] rated impulse withstand voltage | Conforming to IEC 60947 |
| :---: | :---: |
| Overvoltage category | III |
| [lth] conventional free air thermal current | 125 A at $<=60^{\circ} \mathrm{C}$ for power circuit 10 A at $<=60^{\circ} \mathrm{C}$ for signalling circuit |
| Irms rated making capacity | 1100 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 | 1100 A at 440 V for power circuit conforming to IEC 60947 |
| [lcw] rated short-time withstand current | $1100 \mathrm{~A}<=40^{\circ} \mathrm{C} 1$ s power circuit $135 \mathrm{~A}<=40^{\circ} \mathrm{C} 10 \mathrm{~min}$ power circuit $400 \mathrm{~A}<=40^{\circ} \mathrm{C} 1 \mathrm{~min}$ power circuit $800 \mathrm{~A}<=40^{\circ} \mathrm{C} 10$ s power circuit 100 A 1 s signalling circuit 120 A 500 ms signalling circuit 140 A 100 ms signalling circuit |
| Associated fuse rating | 160 A gG at <= 690 V coordination type 2 for power circuit 200 AgG at $<=690 \mathrm{~V}$ coordination type 1 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1 |
| Average impedance | 0.8 mOhm at 50 Hz - Ith 125 A for power circuit |
| [Ui] rated insulation voltage | 1000 V for power circuit conforming to IEC 60947-4-1 600 V for power circuit certifications CSA 600 V for power circuit certifications UL 690 V for signalling circuit conforming to IEC 60947-1 600 V for signalling circuit certifications CSA 600 V for signalling circuit certifications UL |
| Electrical durability | 1.2 Mcycles 95 A AC-3 at Ue <= 440 V <br> 1.3 Mcycles $125 \mathrm{~A} \mathrm{AC}-1$ at $\mathrm{Ue}<=440 \mathrm{~V}$ |
| Power dissipation per pole | 7.2 W AC-3 12.5 W AC-1 |
| Protective cover | With |
| Mounting support | Rail Plate |
| 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 | GOST <br> RINA <br> CCC <br> BV <br> LROS <br> GL <br> DNV |
| Connections - terminals | Control circuit : screw clamp terminals 2 cable(s) $1 . . .2 .5 \mathrm{~mm}^{2}$ - cable stiffness: flexible - with cable end <br> Control circuit : screw clamp terminals 1 cable(s) $1 \ldots . .4 \mathrm{~mm}^{2}$ - cable stiffness: flexible - without cable end <br> Control circuit : screw clamp terminals 2 cable(s) $1 \ldots . .4 \mathrm{~mm}^{2}$ - cable stiffness: flexible - without cable end <br> Control circuit : screw clamp terminals 1 cable(s) $1 \ldots 4 \mathrm{~mm}^{2}$ - cable stiffness: solid - without cable end <br> Control circuit : screw clamp terminals 2 cable(s) $1 \ldots 4 \mathrm{~mm}^{2}$ - cable stiffness: solid - without cable end <br> Control circuit : screw clamp terminals 1 cable(s) $1 \ldots .2 .5 \mathrm{~mm}^{2}$ - cable stiffness: flexible - with cable end <br> Power circuit : connector 1 cable(s) $4 \ldots 50 \mathrm{~mm}^{2}$ - cable stiffness: flexible - without cable end <br> Power circuit : connector 2 cable(s) $4 \ldots 25 \mathrm{~mm}^{2}$ - cable stiffness: flexible - without cable end <br> Power circuit : connector 1 cable(s) $4 \ldots 50 \mathrm{~mm}^{2}$ - cable stiffness: flexible - with cable end <br> Power circuit : connector 2 cable(s) $4 \ldots 16 \mathrm{~mm}^{2}$ - cable stiffness: flexible - with cable end <br> Power circuit : connector 1 cable(s) $4 \ldots 50 \mathrm{~mm}^{2}$ - cable stiffness: solid - without cable end <br> Power circuit : connector 2 cable(s) $4 \ldots 25 \mathrm{~mm}^{2}$ - cable stiffness: solid - without cable end |
| Tightening torque | Power circuit : $9 \mathrm{~N} . \mathrm{m}$ - on connector - with screwdriver flat $\varnothing 6$ to $\varnothing 8 \mathrm{~mm}$ <br> Power circuit: $9 \mathrm{~N} . \mathrm{m}$ - on connector hexagonal 4 mm <br> Control circuit : 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm <br> Control circuit : 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2 |
| Operating time | $20 . . .35 \mathrm{~ms}$ closing <br> 6... 20 ms opening |
| Safety reliability level | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 |


| Mechanical durability | 4 Mcycles |
| :--- | :--- |
| Operating rate | $3600 \mathrm{cyc} / \mathrm{h}$ at $<=60^{\circ} \mathrm{C}$ |

## Complementary

| Coil technology | Without built-in suppressor module |
| :---: | :---: |
| Control circuit voltage limits | 0.85...1.1 Uc operational at $55^{\circ} \mathrm{C}, \mathrm{AC} 60 \mathrm{~Hz}$ 0.3...0.6 Uc drop-out at $55^{\circ} \mathrm{C}, \mathrm{AC} 50 / 60 \mathrm{~Hz}$ 0.8...1.1 Uc operational at $55^{\circ} \mathrm{C}, \mathrm{AC} 50 \mathrm{~Hz}$ |
| Inrush power in VA | 245 VA at $20^{\circ} \mathrm{C}(\cos \phi 0.75) 60 \mathrm{~Hz}$ <br> 245 VA at $20^{\circ} \mathrm{C}(\cos \phi 0.75) 50 \mathrm{~Hz}$ |
| Hold-in power consumption in VA | $\begin{aligned} & 26 \mathrm{VA} \text { at } 20^{\circ} \mathrm{C}(\cos \phi 0.3) 60 \mathrm{~Hz} \\ & 26 \mathrm{VA} \text { at } 20^{\circ} \mathrm{C}(\cos \phi 0.3) 50 \mathrm{~Hz} \end{aligned}$ |
| Heat dissipation | $6 . . .10 \mathrm{~W}$ 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 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 |
| Motor power range AC-3 | 15... 25 kW 200... 240 V 3 phases 30... 50 kW 380 ... 440 V 3 phases 30... 50 kW 480 ... 500 V 3 phases 55... 100 kW 480 ... 500 V 3 phases 30... 50 kW 525 ... 690 V 3 phases |
| Motor starter type | Direct on-line contactor |
| Contactor coil voltage | 230 V AC |

## Environment

| IP degree of protection | IP2x 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 | $-40 \ldots 70^{\circ} \mathrm{C}$ at Uc |
| around the device |  |
| Operating altitude | 3000 m without derating in temperature |
| Fire resistance | $850^{\circ} \mathrm{C}$ conforming to IEC 60695-2-1 |
| Flame retardance | V1 conforming to UL 94 |
| Mechanical robustness | Vibrations contactor open 2 Gn, 5...300 Hz |
|  | Shocks contactor open 8 Gn for 11 ms |
|  | Vibrations contactor closed 3 Gn, 5...300 Hz |
| Shocks contactor closed 10 Gn for 11 ms |  |
| Weight | 127 mm |
| Depth | 85 mm |
| Product weight | 130 mm |

Contractual warranty
Warranty period 18 months
<!-- File : MPC-LC1D95P7-BOM.xml , Range ID : 664, Reference ID : LC1D95P7 -->

Our Proposal - Type 1: Circuit Breaker + Contactor for Motor Power 45 kW and 415 VAC
<!-- DataBOM 2 Template BEGIN -->

| Motor Power <br> $(\mathrm{kW})$ | Icu <br> $(\mathrm{kA})$ | Breaker | Contactor |
| :--- | :--- | :--- | :--- |
| 45 | 36 |  | Lerm |
|  |  | GV7RE100 | LC1D95P7 |

Non contractual pictures. Type 1 coordination requires that in a short-circuit condition, the contactor or starter must not present any danger to personnel or installations and must not be able to resume operation without repair or the replacement of parts.
<!-- DataBOM 2 Template END --> <!-- No Variants -->

