**ABILITY**
Technical Datasheet

# MC-12b

LS ELECTRIC — Metasol Magnetic Contactor
Brand: LS ELECTRIC | Series: Metasol



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| **GENERAL** | |
| Product code | **1345004700** |
| Product description | **MC-12b AC100V 50Hz 110V 60Hz SCREW 1a1b (Metasol) EXP (MC12B-30-11-HF7-S-E)** |
| Product type | **Metasol Contactor** |
| Product name | **MC-12b** |
| Main contact | **3NO** |
| Auxiliary contact | **1NO 1NC** |
| Control voltage | **AC100V 50Hz / 110V 60Hz** |
| Type of terminal | **Screw** |
| Local/Export | **Export** |
| Standards | **IEC 60947-4-1, IEC 60947-5-1, UL508** |
| Certificates | **CE, UL, CCC** |
| Certificates | **KR, LR, BV, DNV, ABS, NK, RINA** |
| **CHARACTERISTICS** | |
| Number of poles | **3P** |
| Rated operational voltage [Ue] | **690V** |
| Rated insulation voltage [Ui] | **690V** |
| Rated withstand voltage [Uimp] | **6kV** |
| Rated frequency [Hz] | **50/60Hz** |
| Rated operational current (AC-1) | **27A** |
| Motor power (AC-3) | **3.5kW at 200/240V** |
| Motor power (AC-3) | **3.5kW at 380/440V** |
| Motor power (AC-3) | **7.5kW at 500/550V** |
| Motor power (AC-3) | **7.5kW at 690V** |
| Motor power (AC-4) | **2.2kW at 200/240V** |
| Motor power (AC-4) | **4kW at 380/440V** |
| Rated operational current (AC-3) | **13A at 200/240V** |
| Rated operational current (AC-3) | **12A at 380/440V** |
| Rated operational current (AC-3) | **12A at 500/550V** |
| Rated operational current (AC-3) | **9A at 690V** |
| Rated operational current (AC-4) | **11A at 200/240V** |
| Rated operational current (AC-4) | **19A at 380/440V** |
| Type 2 Coordination | **See the Type 2 Coordination Table in the catalog** |
| Motor power (UL/CSA) | **0.75hp at 110~220V for 1 phase motors** |
| Motor power (UL/CSA) | **2hp at 220~240V for 1 phase motors** |
| Motor power (UL/CSA) | **3hp at 200~208V for 3 phase motors** |
| Motor power (UL/CSA) | **5hp at 220~240V for 3 phase motors** |
| Motor power (UL/CSA) | **7.5hp at 440~480V for 3 phase motors** |

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|---|---|
| Motor power (UL/CSA) | **10hp at 550~600V for 3 phase motors** |
| NEMA size | **10hp at 550~600V for 3 phase motors** |
| Rated Short-time withstand current | **280A at 1s** |
| Rated Short-time withstand current | **120A at 10s** |
| Rated Short-time withstand current | **80A at 30s** |
| Rated Short-time withstand current | **61A at 1min** |
| Rated Short-time withstand current | **50A at 3min** |
| Rated Short-time withstand current | **30A at 10min** |
| Rated Short-time withstand current | **28A at =15min** |
| Conductor size (AWG) | **16~8** |
| Conductor size (mm2) | **1.5~10** |
| The max. number of conductor | **1.5~10** |
| Conductor type | **Solid, Stranded** |
| Conductor charateristic | **65/75? Cu-wire only** |
| Main terminal size | **M4** |
| Crimp terminal (mm) | **M4** |
| Torque (lb-in) | **M4** |
| Torque (Nm) | **M4** |
| Torque (kgf.cm) | **M4** |
| **ENVIRONMENT** | |
| Degree of protection | **IP20** |
| Ambient air temperature | **-30? ~ +65? at storage** |
| Ambient air temperature | **-5? ~ +55? at operation (AC type)** |
| Operating altitude | **3000m(8900ft)** |
| Shock resistance (1/2 sin wave=11ms) | **8G at opened** |
| Shock resistance (1/2 sin wave=11ms) | **10G at closed** |
| Vibration resistance (Conforming to IEC68-2-6) (5~300Hz) | **2G at opened** |
| Vibration resistance (Conforming to IEC68-2-6) (5~300Hz) | **4G at closed** |
| Flame resistance | **V0 at conforming to UL94** |
| Flame resistance | **960? at conforming to IEC695-2-1** |
| REACH | **Yes** |
| RoHS | **Yes** |
| WEEE | **Yes** |
| **DIMENSIONS** | |
| Weight | **0.3kg** |
| Size width | **45mm / 1.77inch** |
| Size height | **73.5mm / 2.89inch** |
| Size depth | **87.4mm / 3.44inch** |
| Drawings | **MC-9b~22b AC.png** |
| **CONTROL COIL** | |
| Control voltage | **AC100V 50Hz / 110V 60Hz** |
| Control voltage limit [Uc] | **85~110%** |
| Consumption at 20℃ | **70VA at inrush** |
| Consumption at 20℃ | **9VA at holding** |
| Heat dissipation | **2.3W at holding** |
| Operating time | **15~30ms at closing** |
| Operating time | **4~19ms at opening** |
| **APPLICABLE ACCESSORIES** | |
| Applicable Accessories | **Metasol MS_33.png** |