

## MOTOR PROTECTION CIRCUIT BREAKER, IEC BREAKING CAPACITY ICU 50KA AT 400V, 35...50A



| Product designation   |      |        | Motor protection circuit breaker |
|---|------|--------|----------------------------------|
| Product type designation  |      |        | SM2R                             |
| Electrical features   |      |        |                                  |
| Number of poles   |      | Nr.    | 3                                |
| Magnetic protection   |      |        | yes                              |
| Thermal protection  |      |        | yes                              |
| Phase failure detection   |      |        | yes                              |
| Rated insulation voltage Ui IEC/EN                              |      | V      | 1000                             |
| Rated impulse withstand voltage Uimp                            |      | kV     | 6                                |
| Rated frequency   |      | Hz     | 50/60                            |
| Thermal trip adjustment range                                   |      |        | 3450                             |
| Rated current (In)  |      | Α      | 50                               |
| Magnetic tripping   |      |        | 13 x In                          |
| Power dissipation per pole                                      |      |        |                                  |
|   | max  | W      | 7                                |
| Operational short-circuit current breaking capacity (Ics) at AC |      |        |                                  |
|   | 230V | kA     | 100                              |
|   | 400V | kA     | 50                               |
|   | 440V | kA     | 27                               |
|   | 500V | kA     | 8                                |
|   | 690V | kA     | 5                                |
| Maximum short-circuit current breaking capacity (Icu) at AC     |      |        |                                  |
|   | 230V | kA     | 100                              |
|   | 400V | kA     | 50                               |
|   | 440V | kA     | 35                               |
|   | 500V | kA     | 10                               |
|   | 690V | kA     | 5                                |
| Tripping class  |      |        | 10A                              |
| IEC Utilization category  |      |        | A                                |
| Operations  |      |        |                                  |
| Mechanical life   |      | cycles | 50000                            |
| Electrical life   |      | cycles | 25000                            |
| Mechanical features   |      |        |                                  |
| Tightening torque for terminals                                 |      |        |                                  |
|   | min  | Nm     | 4.5                              |
|   | max  | Nm     | 4.5                              |
|   | min  | lbin   | 3.3                              |
|   | max  | lbin   | 3.3                              |
| Max number of wires simultaneously connectable                  |      | Nr.    | 2                                |
| Conductor section   |      |        |                                  |
| AWG/Kcmil   |      |        |                                  |
|   | min  |        | 18                               |
|   | max  |        | 3                                |
| Flexible w/o lug conductor section                              |      |        |                                  |





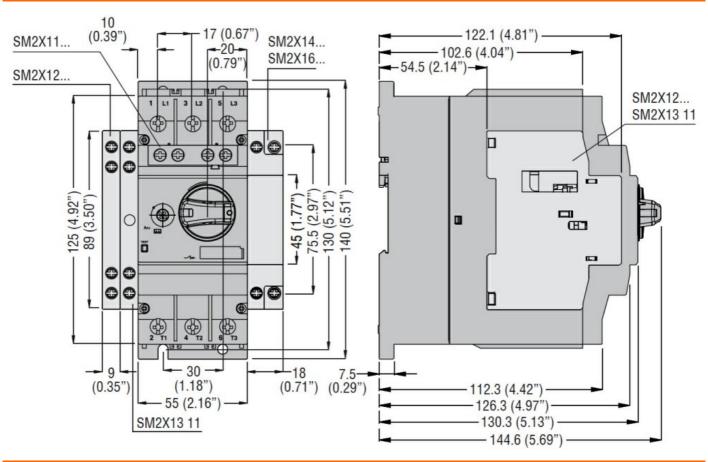
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|                         | min   | mm² | 0.75                     |
|-------------------------|---|-----|--------------------------|
|                         | max   | mm² | 25                       |
|                         | Flexible c/w lug conductor section  |     |                          |
|                         | min   | mm² | 0.75                     |
|                         | max   | mm² | 25                       |
|                         | Flexible with insulated spade lug conductor section   | _   |                          |
|                         | min   | mm² | 0.75                     |
|                         | max   | mm² | 25                       |
| Screwdriver             |   |     | PZ2                      |
|                         | ection according to IEC/EN 60529  |     | IP20                     |
| Cable stripping leng    |   |     | 4                        |
| Ambient conditions      | main circuit  | mm  | 1                        |
| Ambient conditions      |   |     |                          |
| Temperature             | Operating temperature   |     |                          |
|                         | Operating temperature min   | °C  | -20                      |
|                         | max   | °C  | -20<br>+70               |
|                         | Storage temperature   |     | 170                      |
|                         | Storage temperature min   | °C  | -50                      |
|                         | max   | °C  | +80                      |
|                         | Compensation temperature  |     |                          |
|                         | min   | °C  | -50                      |
|                         | max   | °C  | +40                      |
| Max altitude            |   | m   | 3000                     |
| Operating position      |   |     |                          |
|                         | normal  |     | Vertical plan            |
|                         | allowable   |     | Any                      |
| Fixing                  |   |     | Screw / DIN rail<br>35mm |
| Weight                  |   | g   | 1000                     |
| JL technical data       |   |     |                          |
| Motor Disconnect        |   |     |                          |
|                         | at 480V   | kA  | 50                       |
|                         | at 600V   | kA  | 10                       |
|                         | protection  |     | Fuse or CB               |
| JL technical data       |   |     |                          |
|                         | Group Motor Installation at 480V  | kA  | 50                       |
|                         | Group Motor Installation at 600V  | kA  | 10                       |
|                         | Group Motor Installation protection   |     | Fuse or CB               |
| Tap Conductor Prote     |   |     |                          |
|                         | at 480Y/277V  | kA  | 50                       |
| 11.500 / 111.000 / 5    | at 600Y/347V  | kA  | 10                       |
| JL508 / UL 60947-4      | -1 Manual Self Protected Combination Motor Controller (Type E) Short of the Controller (Type E) |     |                          |
|                         | at 240V   | kΑ  | 100                      |
| Application III /00 A L | at 480Y/277V  | kA  | 50                       |
| viaximum UL/CSA h       | norsepower ratings single-phase   | LID | 2                        |
|                         | 110V-120V   | HP  | 3                        |
|                         | 220V-240V   | HP  | 10                       |
| Acrimum III /CCA I      | orsepower ratings three-phase, 3-pole   | LID | 15                       |
| Maximum UL/CSA h        | 0001.0001   |     |                          |
| Maximum UL/CSA h        | 200V-208V   | HP  | 15<br>15                 |
| Maximum UL/CSA h        | 220V-240V   | HP  | 15                       |
| Maximum UL/CSA h        |   |     |                          |

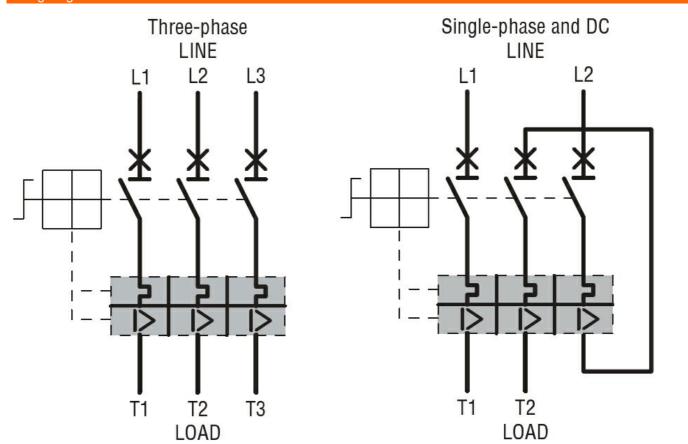


**ENERGY AND AUTOMATION** 

#### **Dimensions**



## Wiring diagrams





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### SM2R5000

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| Certifications and compliance |                  |  |  |
|-------------------------------|------------------|--|--|
| Certifications                |                  |  |  |
|                               | CSA C22.2 n° 14  |  |  |
|                               | IEC/EN 60947-1   |  |  |
|                               | IEC/EN 60947-2   |  |  |
|                               | IEC/EN 60947-4-1 |  |  |
|                               | UL508            |  |  |
| Compliance                    |                  |  |  |
|                               | cULus            |  |  |
|                               | EAC              |  |  |
| ETIM classification           |                  |  |  |

ETIM 8.0

EC000074 -Motor protection circuit-breaker