

## Product Overview

The UEC1 series of AC contactors ranges up to a rated current of 95A under the utilization category AC-3 and can be driven by both 50Hz and 60Hz. It can be combined with a thermal overload protection.

### Product Features

- Designed under several patents.
- Optimized structure to be compatible with other industrial control contactors.
- Material with excellent ability to withstand abnormal heat conditions.
- Optimized arc extinguishing system for extended product life.
- Diversity of auxiliary blocks, which can be combined freely.
- Reliable performance even in harsh environment.

### Design Features

- Magnetic circuit of high efficiency and an effective arc extinguishing structure minimize the contact wear and give strong performance even under heavy load conditions.
- Critical insulation parts use thermosetting material, thus effectively avoiding short circuit in overload situations.
- Each contactor of the UEC1 series can hold up to 4 built-in auxiliary contacts, with any NO/NC combination possible.
- Consistent design approach, expressing the Hongfa brand.
- Modular accessories, such as auxiliary contacts and thermal protection relays, can be mounted to individual needs.
- All UEC1 models can be mounted by screw or by 35mm DIN rail; models from 40A can also be mounted by 75mm DIN rail.

### Typical Applications

Machinery, manufacturing control, elevator, metallurgy, chemical industry, power management, air conditioning compressor, water pump, conveyor belt, lighting control, heater, and electric vehicles.

### Approval Certificate

|   |                           |  |
|---|---------------------------|--|
|  | CB                        | IEC 60947-4-1, IEC 60947-5-1                                       |
|  | CE                        | EN 60947-4-1, EN 60947-5-1   |
|  | CCC                       | GB/T 14048.4, GB/T 14048.5   |
|  | VDE(pending)              | EN 60947-4-1 (VDE 0660 Teil 102), EN 60947-5-1 (VDE 0660 Teil 200) |
|  | UL (USR/CNR)<br>(pending) | UL 60947-4-1, UL 60947-5-1<br>CAN/CSA C22.2 No. 60947-4-1-14       |

## Ordering Information

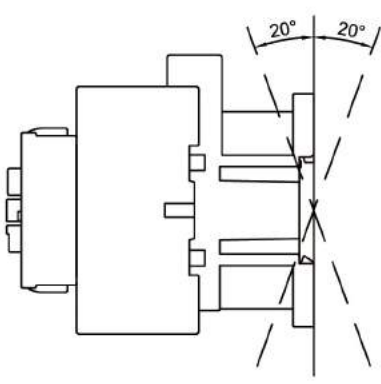
### UEC1 Contactors

|   |                    |                    |                |          |           |          |          |
|---|--------------------|--------------------|----------------|----------|-----------|----------|----------|
|   | <b>UEC</b>         | <b>1</b>           | <b>-25</b>     | <b>D</b> | <b>11</b> | <b>M</b> | <b>7</b> |
| Contactor series  |                    |                    |                |          |           |          |          |
| Design series number  |                    |                    |                |          |           |          |          |
| Rated operational current at rated operational voltage 400V under AC-3 category |                    |                    |                |          |           |          |          |
| <b>09:</b> 9A   | <b>40:</b> 40A     |                    |                |          |           |          |          |
| <b>12:</b> 12A  | <b>50:</b> 50A     |                    |                |          |           |          |          |
| <b>18:</b> 18A  | <b>65:</b> 65A     |                    |                |          |           |          |          |
| <b>25:</b> 25A  | <b>80:</b> 80A     |                    |                |          |           |          |          |
| <b>32:</b> 32A  | <b>95:</b> 95A     |                    |                |          |           |          |          |
| <b>38:</b> 38A  |                    |                    |                |          |           |          |          |
| Product structure   |                    |                    |                |          |           |          |          |
| <b>D:</b> D type  |                    |                    |                |          |           |          |          |
| Number of built-in auxiliary NO contacts / NC contacts                          |                    |                    |                |          |           |          |          |
| <b>11:</b> 1NO+1NC  | <b>20:</b> 2NO     | <b>02:</b> 2NC     | <b>40:</b> 4NO |          |           |          |          |
| <b>22:</b> 2NO+2NC  | <b>31:</b> 3NO+1NC | <b>13:</b> 1NO+3NC | <b>04:</b> 4NC |          |           |          |          |
| * 10 or 01 can be customized for the contactor 09...38A                         |                    |                    |                |          |           |          |          |
| Coil voltage  |                    |                    |                |          |           |          |          |
| <b>B:</b> 24V   | <b>F:</b> 110V     | <b>M:</b> 220V     | <b>Q:</b> 380V |          |           |          |          |
| <b>CC:</b> 36V  | <b>FE:</b> 115V    | <b>P:</b> 230V     | <b>V:</b> 400V |          |           |          |          |
| <b>D:</b> 42V   | <b>FC:</b> 127V    | <b>U:</b> 240V     | <b>N:</b> 415V |          |           |          |          |
| <b>E:</b> 48V   |                    |                    |                |          |           |          |          |
| * Other coil versions on request  |                    |                    |                |          |           |          |          |
| Coil frequency  |                    |                    |                |          |           |          |          |
| <b>7:</b> 50Hz/60Hz   |                    |                    |                |          |           |          |          |
| * Other coil versions on request  |                    |                    |                |          |           |          |          |



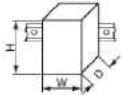
### CA1 Auxiliary Contact Blocks

|   |                |                    |                    |                |
|---|----------------|--------------------|--------------------|----------------|
|   | <b>CA</b>      | <b>1</b>           | <b>R</b>           | <b>22</b>      |
| Auxiliary contact block                     |                |                    |                    |                |
| Design series number                        |                |                    |                    |                |
| Mounting type                               |                |                    |                    |                |
| <b>R:</b> Top mounting                      |                |                    |                    |                |
| <b>S:</b> Side mounting                     |                |                    |                    |                |
| Number of auxiliary NO contacts/NC contacts |                |                    |                    |                |
| CA1R (2P) and CA1S:                         |                |                    |                    |                |
| <b>11:</b> 1NO+1NC                          | <b>20:</b> 2NO | <b>02:</b> 2NC     |                    |                |
| CA1R(4P):                                   |                |                    |                    |                |
| <b>22:</b> 2NO+2NC                          | <b>40:</b> 4NO | <b>31:</b> 3NO+1NC | <b>13:</b> 1NO+3NC | <b>04:</b> 4NC |

## Technical Data

| Parameters                                     |           | Model  | UEC1-09D...18D | UEC1-25D...38D              | UEC1-40D...65D | UEC1-80D...95D |
|--|-----------|--|----------------|-----------------------------|----------------|----------------|
|  |           | <b>Operating environment</b>   |                |                             |                |                |
| Rated insulation voltage $U_i$ (V)             |           | 690  |                |                             |                |                |
| Rated impulse withstand voltage $U_{imp}$ (kV) |           | 6  |                |                             | 8              |                |
| Conforming to standards                        |           | GB/T 14048.4, GB/T 14048.5, IEC 60947-4-1, IEC 60947-5-1, EN 60947-4-1 (VDE 0660 Teil 102), EN 60947-5-1 (VDE 0660 Teil 200), UL 60947-4-1, UL 60947-5-1, CAN/CSA C22.2 No. 60947-4-1-14 |                |                             |                |                |
| Certifications                                 |           | CCC, CB, CE, VDE(pending), UL(USR/CNR) (pending)   |                |                             |                |                |
| Degree of protection (front only)              |           | Protection against direct finger contact: IP20   |                |                             |                |                |
| Ambient air temperature (°C)                   | Storage   | -60...+80  |                |                             |                |                |
|  | Operation | -25...+60  |                |                             |                |                |
| Max. operating altitude (m)                    |           | 3000   |                |                             |                |                |
| Pollution degree                               |           | 3  |                |                             |                |                |
| Mounting category                              |           | III  |                |                             |                |                |
| Mounting type                                  |           | Screw<br>35mm DIN rail   |                | Screw<br>35mm/75mm DIN rail |                |                |
| Flame resistance                               |           | Current-carrying part: 850°C   |                |                             |                |                |
| Operating position                             |           | Vertical mounting( $\pm 20^\circ$ )<br>  |                |                             |                |                |

## Technical Data

|  |                      |                |            |            |  |            |            |
|--|----------------------|---|------------|------------|---|------------|------------|
| Parameters   | Model                | UEC1 - 09D  | UEC1 - 12D | UEC1 - 18D | UEC1 - 25D  | UEC1 - 32D | UEC1 - 38D |
|  | <b>Power circuit</b> |   |            |            |   |            |            |
| Main circuit poles                                       |                      | 3P  |            |            | 3P  |            |            |
| $I_e$ (A) AC-3/400V                                      |                      | 9   | 12         | 18         | 25  | 32         | 38         |
| $I_e$ (A) AC -1 ( $U_e \leq 600V$ )                      |                      | 25  | 25         | 32         | 40  | 50         | 50         |
| Conventional thermal current $I_{th}$ (A)                |                      | 25  | 25         | 32         | 40  | 50         | 50         |
| Rated operational power (kW) (AC-3)                      | 220V/230V            | 2.2   | 3          | 4          | 5.5   | 7.5        | 9          |
|  | 380V/400V            | 4   | 5.5        | 7.5        | 11  | 15         | 18.5       |
|  | 660V/690V            | 5.5   | 7.5        | 10         | 15  | 18.5       | 18.5       |
| Built-in auxiliary contacts (standard type)              |                      | 1NO+1NC   |            |            |   |            |            |
| Electrical durability ( $10^6$ cycles) AC-3/400V         |                      | 1.5   | 1.5        | 1.1        | 1.1   | 1.1        | 1.0        |
| Max. electrical operating frequency (cycles/h) AC-3/400V |                      | 1000  | 1000       | 1000       | 750   | 750        | 600        |
| Mechanical durability ( $10^6$ cycles)                   |                      | 10  |            |            | 10  |            |            |
| Max. mechanical operating frequency (cycles/h)           |                      | 3600  |            |            | 3600  |            |            |
| Auxiliary contact blocks <sup>(1)</sup>                  |                      | CA1R, CA1S  |            |            | CA1R, CA1S  |            |            |
| Outline dimension<br>W x H x D (mm)                      |                      | <br>45×90×96 |            |            | 45×92.5×100   |            |            |
| Net weight (kg)  |                      | 0.4   |            |            | 0.5   |            |            |

Note: <sup>(1)</sup>The max. total number of add-on NO and NC auxiliary contact is 4 besides the build-in auxiliary contact; if more add-on auxiliary contacts are required, please contact us for evaluation.















| UEC1 - 40D   |            |            | UEC1 - 95D   |            |
|--------------|------------|------------|--------------|------------|
| UEC1 - 40D   | UEC1 - 50D | UEC1 - 65D | UEC1 - 80D   | UEC1 - 95D |
| 3P           |            |            | 3P           |            |
| 40           | 50         | 65         | 80           | 95         |
| 60           | 70         | 80         | 105          | 115        |
| 60           | 80         | 80         | 125          | 125        |
| 11           | 15         | 18.5       | 22           | 25         |
| 18.5         | 22         | 30         | 37           | 45         |
| 30           | 33         | 37         | 45           | 45         |
| 1.2          | 1.0        | 1.0        | 1.0          | 1.0        |
| 600          | 600        | 600        | 600          | 600        |
| 5            |            |            | 5            |            |
| 3600         |            |            | 3600         |            |
| CA1R, CA1S   |            |            | CA1R, CA1S   |            |
| 63×112.5×132 |            |            | 70×121×137.5 |            |
| 1.0          |            |            | 1.5          |            |



## Technical Data

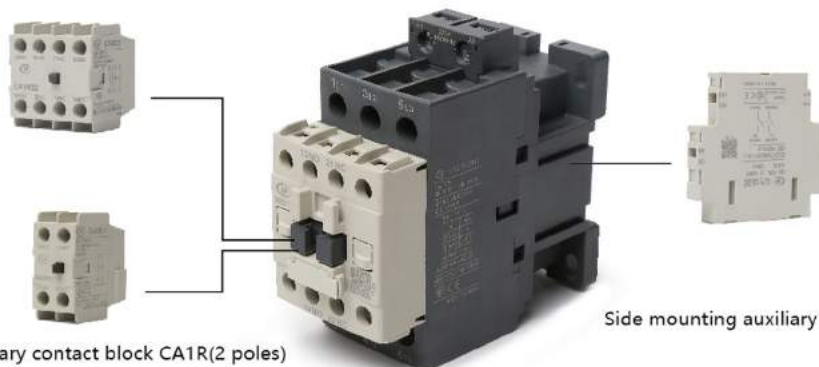
| Parameters  |   | Model                   | UEC1-09D...18D |         | UEC1-25D...38D |      | UEC1-40D...65D |  | UEC1-80D...95D |  |  |
|---|---|-------------------------|----------------|---------|----------------|------|----------------|--|----------------|--|--|
|   |   |                         |                |         |                |      |                |  |                |  |  |
| <b>Coil control circuit, a.c. supply</b>                |   |                         |                |         |                |      |                |  |                |  |  |
| Rated control voltage $U_s$ (V) 50Hz/60Hz               |   | 24...415                |                |         |                |      |                |  |                |  |  |
| Control voltage range                                   | Operating voltage                                   | 0.85 $U_s$ ...1.1 $U_s$ |                |         |                |      |                |  |                |  |  |
|   | Drop-out voltage                                    | 0.2 $U_s$ ...0.75 $U_s$ |                |         |                |      |                |  |                |  |  |
| Max. power consumption at 25°C (for reference)          | Inrush (VA)   | 63                      | 63             | 105     | 200            |      |                |  |                |  |  |
|   | Sealed (VA)   | 9                       | 9.5            | 20      | 21             |      |                |  |                |  |  |
| Operating time (ms)<br>Between coil energization and    | main NO contact closing                             | 12...22                 | 12...22        | 12...26 | 12...26        |      |                |  |                |  |  |
|   | auxiliary NO closing                                | 15...26                 | 15...26        | 15...26 | 15...26        |      |                |  |                |  |  |
|   | auxiliary NC opening                                | 4...19                  | 4...19         | 4...19  | 4...19         |      |                |  |                |  |  |
| Operating time (ms)<br>Between coil de-energization and | main NO contact opening                             | 4...19                  | 4...19         | 4...19  | 6...20         |      |                |  |                |  |  |
|   | auxiliary NO opening                                | 4...19                  | 4...19         | 4...19  | 4...19         |      |                |  |                |  |  |
|   | auxiliary NC closing                                | 12...32                 | 12...32        | 12...32 | 12...32        |      |                |  |                |  |  |
| <b>Built-in auxiliary contacts</b>                      |   |                         |                |         |                |      |                |  |                |  |  |
| Max. rated operational voltage $U_e$ (V)                |   | 690                     |                |         |                |      |                |  |                |  |  |
| Max. insulation voltage $U_i$ (V)                       |   | 690                     |                |         |                |      |                |  |                |  |  |
| Min. switching capacity                                 | $U_{min}$ (V)                                       | 17                      |                |         |                |      |                |  |                |  |  |
|   | $I_{min}$ (A)                                       | 5                       |                |         |                |      |                |  |                |  |  |
| A600<br>AC-15   | Conventional enclosed thermal current $I_{the}$ (A) | 10                      |                |         |                |      |                |  |                |  |  |
|   | Rated operational voltage $U_e$ (V)                 | 120                     | 240            | 380     | 480            | 500  | 600            |  |                |  |  |
|   | Rated operational current (A)                       | 6                       | 3              | 1.9     | 1.5            | 1.4  | 1.2            |  |                |  |  |
|   | Make apparent power VA rating (VA)                  | 7200                    |                |         |                |      |                |  |                |  |  |
|   | Break apparent power VA rating (VA)                 | 720                     |                |         |                |      |                |  |                |  |  |
| Q600<br>DC-13   | Conventional enclosed thermal current $I_{the}$ (A) | 2.5                     |                |         |                |      |                |  |                |  |  |
|   | Rated operational voltage $U_e$ (V)                 | 125                     | 250            | -       | 400            | 500  | 600            |  |                |  |  |
|   | Rated operational current (A)                       | 0.55                    | 0.27           | -       | 0.15           | 0.13 | 0.1            |  |                |  |  |
|   | Make apparent power VA rating (VA)                  | 69                      |                |         |                |      |                |  |                |  |  |
|   | Break apparent power VA rating (VA)                 | 69                      |                |         |                |      |                |  |                |  |  |

| Parameters   |                                 | Model   | UEC1-09D...18D | UEC1-25D...38D | UEC1-40D...65D | UEC1-80D...95D |
|--|---------------------------------|---------|----------------|----------------|----------------|----------------|
|  |                                 |         |                |                |                |                |
| <b>Power circuit connections</b>   |                                 |         |                |                |                |                |
| Solid cable<br>without cable end<br>      | 1 conductor (mm <sup>2</sup> )  | 1...6   | 1.5...10       | 2.5...35       | 4...50         |                |
|  | 2 conductors (mm <sup>2</sup> ) | 1...6   | 2.5...10       | 2.5...25       | 4...25         |                |
| Flexible cable<br>without cable end<br>   | 1 conductor (mm <sup>2</sup> )  | 1...6   | 2.5...10       | 2.5...35       | 4...50         |                |
|  | 2 conductors (mm <sup>2</sup> ) | 1...6   | 2.5...10       | 2.5...16       | 4...25         |                |
| Flexible cable<br>with cable end<br>      | 1 conductor (mm <sup>2</sup> )  | 1...6   | 1.5...10       | 2.5...25       | 4...50         |                |
|  | 2 conductors (mm <sup>2</sup> ) | 1...4   | 1.5...6        | 2.5...16       | 4...16         |                |
| Lugs<br>                                  | L mm≤                           | 9.6     | 12             | -              | -              |                |
|  | l mm>                           | 3.7     | 4.2            | -              | -              |                |
| Screwdriver  | Phillips screwdriver            | N°2     | N°2            | -              | -              |                |
|  | Φ Slotted screwdriver           | Φ 6     | Φ 6            | -              | -              |                |
| Hexagonal key  |                                 | -       | -              | 4              | 4              |                |
| Tightening torque (Nm)   |                                 | 1.5     | 2.5            | 5              | 9              |                |
| <b>Coil circuit connections</b>  |                                 |         |                |                |                |                |
| Solid cable<br>without cable end<br>    | 1 conductor (mm <sup>2</sup> )  | 1...4   | 1...4          | 1...4          | 1...4          |                |
|  | 2 conductors (mm <sup>2</sup> ) | 1...4   | 1...4          | 1...4          | 1...4          |                |
| Flexible cable<br>without cable end<br> | 1 conductor (mm <sup>2</sup> )  | 1...4   | 1...4          | 1...4          | 1...4          |                |
|  | 2 conductors (mm <sup>2</sup> ) | 1...4   | 1...4          | 1...4          | 1...4          |                |
| Flexible cable<br>with cable end<br>    | 1 conductor (mm <sup>2</sup> )  | 1...4   | 1...4          | 1...4          | 1...4          |                |
|  | 2 conductors (mm <sup>2</sup> ) | 1...2.5 | 1...2.5        | 1...2.5        | 1...2.5        |                |
| Lugs<br>                                | L mm≤                           | 8.1     | 8.1            | 8.1            | 8.1            |                |
|  | l mm>                           | 3.7     | 3.7            | 3.7            | 3.7            |                |
| Screwdriver  | Phillips screwdriver            | N°2     | N°2            | N°2            | N°2            |                |
|  | Φ Slotted screwdriver           | Φ 6     | Φ 6            | Φ 6            | Φ 6            |                |
| Tightening torque (Nm)   |                                 | 1.2     | 1.2            | 1.2            | 1.2            |                |
| <b>Auxiliary circuit connections</b>   |                                 |         |                |                |                |                |
| Solid cable<br>without cable end<br>    | 1 conductor (mm <sup>2</sup> )  | 1...4   | 1...4          | 1...4          | 1...4          |                |
|  | 2 conductors (mm <sup>2</sup> ) | 1...4   | 1...4          | 1...4          | 1...4          |                |
| Flexible cable<br>without cable end<br> | 1 conductor (mm <sup>2</sup> )  | 1...4   | 1...4          | 1...4          | 1...4          |                |
|  | 2 conductors (mm <sup>2</sup> ) | 1...4   | 1...4          | 1...4          | 1...4          |                |
| Flexible cable<br>with cable end<br>    | 1 conductor (mm <sup>2</sup> )  | 1...4   | 1...4          | 1...4          | 1...4          |                |
|  | 2 conductors (mm <sup>2</sup> ) | 1...2.5 | 1...2.5        | 1...2.5        | 1...2.5        |                |
| Lugs<br>                                | L mm≤                           | 8.1     | 8.1            | 8.1            | 8.1            |                |
|  | l mm>                           | 3.7     | 3.7            | 3.7            | 3.7            |                |
| Screwdriver  | Phillips screwdriver            | N°2     | N°2            | N°2            | N°2            |                |
|  | Φ Slotted screwdriver           | Φ 6     | Φ 6            | Φ 6            | Φ 6            |                |
| Tightening torque (Nm)   |                                 | 1.2     | 1.2            | 1.2            | 1.2            |                |







# Auxiliary Contact Blocks

Top mounting auxiliary contact block CA1R(4 poles)



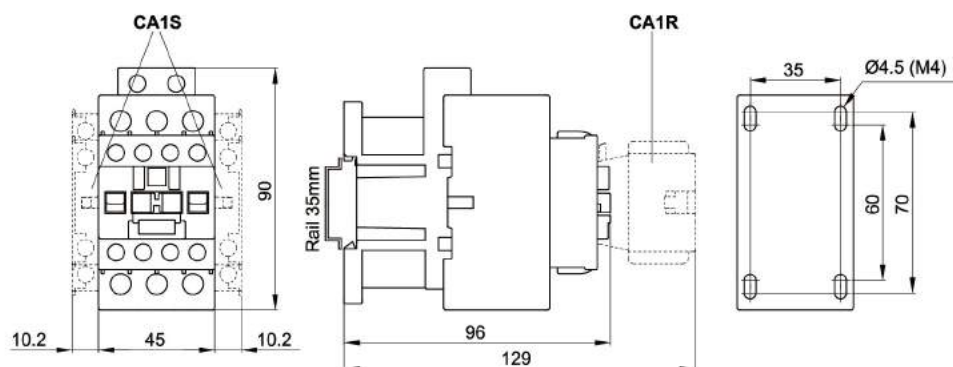
Side mounting auxiliary contact balock CA1S(2 poles)

Top mounting auxiliary contact block CA1R(2 poles)

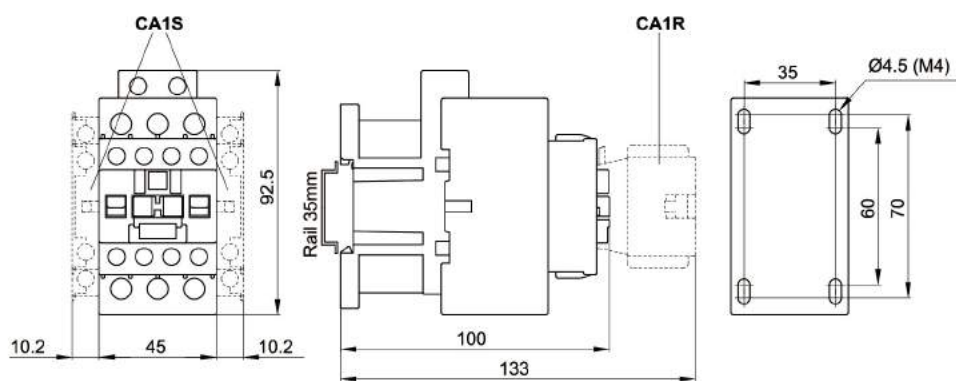
| Parameters   | Model  | CA1R, CA1S  |      |     |      |      |     |  |
|--|--|---|------|-----|------|------|-----|--|
| Conforming to standards  |  | GB/T 14048.5, IEC 60947-5-1, EN 60947-5-1 (VDE 0660 Teil 200), UL 60947-5-1 |      |     |      |      |     |  |
| Certifications   |  | CCC, CB, CE, VDE(pending), UL(USR/CNR) (pending)                            |      |     |      |      |     |  |
| Degree of protection   |  | IP20  |      |     |      |      |     |  |
| Ambient air temperature (°C)   | Storage  | -60...+80   |      |     |      |      |     |  |
|  | Operation  | -25...+60   |      |     |      |      |     |  |
| Max. operating altitude (m)  |  | 3000  |      |     |      |      |     |  |
| Solid cable without cable end     | 1 conductor (mm <sup>2</sup> )                             | 1...4   |      |     |      |      |     |  |
|  | 2 conductors (mm <sup>2</sup> )                            | 1...4   |      |     |      |      |     |  |
| Flexible cable without cable end  | 1 conductor (mm <sup>2</sup> )                             | 1...4   |      |     |      |      |     |  |
|  | 2 conductors (mm <sup>2</sup> )                            | 1...4   |      |     |      |      |     |  |
| Flexible cable with cable end     | 1 conductor (mm <sup>2</sup> )                             | 1...4   |      |     |      |      |     |  |
|  | 2 conductors (mm <sup>2</sup> )                            | 1...2.5   |      |     |      |      |     |  |
| Lugs                              | L mm ≤   | 8.1   |      |     |      |      |     |  |
|  | l mm >   | 3.7   |      |     |      |      |     |  |
| Screwdriver  | Phillips screwdriver                                       | N°2   |      |     |      |      |     |  |
|  | Φ Slotted screwdriver                                      | Φ6  |      |     |      |      |     |  |
| Tightening torque (Nm)   |  | 1.2   |      |     |      |      |     |  |
| Max. rated operating voltage U <sub>e</sub> (V)  |  | 690   |      |     |      |      |     |  |
| Max. insulation voltage U <sub>i</sub> (V)   |  | 690   |      |     |      |      |     |  |
| Min. switching capacity  | U <sub>min</sub> (V)                                       | 17  |      |     |      |      |     |  |
|  | I <sub>min</sub> (mA)                                      | 5   |      |     |      |      |     |  |
| A600<br>AC-15  | Conventional enclosed thermal current I <sub>thc</sub> (A) | 10  |      |     |      |      |     |  |
|  | Rated operational voltage U <sub>e</sub> (V)               | 120   | 240  | 380 | 480  | 500  | 600 |  |
|  | Rated operational current (A)                              | 6   | 3    | 1.9 | 1.5  | 1.4  | 1.2 |  |
|  | Make apparent power VA rating (VA)                         | 7200  |      |     |      |      |     |  |
|  | Break apparent power VA rating (VA)                        | 720   |      |     |      |      |     |  |
| Q600<br>DC-13  | Conventional enclosed thermal current I <sub>thc</sub> (A) | 2.5   |      |     |      |      |     |  |
|  | Rated operational voltage U <sub>e</sub> (V)               | 125   | 250  | -   | 400  | 500  | 600 |  |
|  | Rated operational current (A)                              | 0.55  | 0.27 | -   | 0.15 | 0.13 | 0.1 |  |
|  | Make apparent power VA rating (VA)                         | 69  |      |     |      |      |     |  |
|  | Break apparent power VA rating (VA)                        | 69  |      |     |      |      |     |  |
| For use on contactors  |  | UEC1-09D...95D  |      |     |      |      |     |  |



## Dimensions



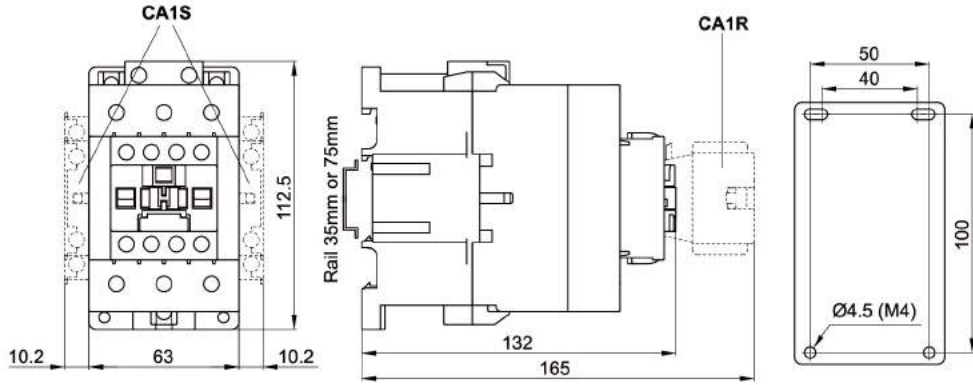
**UEC1-09D, UEC1-12D, UEC1-18D**



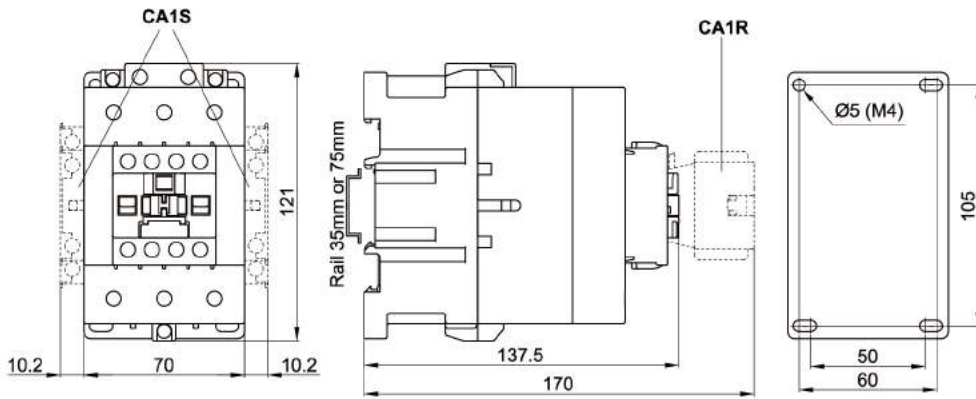
**UEC1-25D, UEC1-32D, UEC1-38D**

Note: The unit is mm. The tolerance for mounting holes:  $\pm 0.5$ ; for other external dimensions:  $\pm 1.5$ , unless otherwise specified.

# Dimensions



**UEC1-40D, UEC1-50D, UEC1-65D**

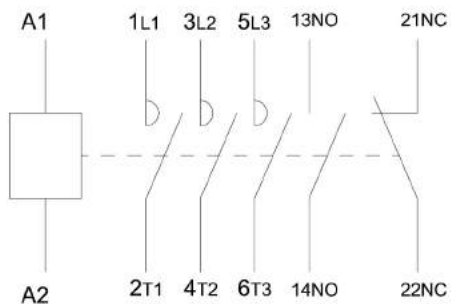


**UEC1-80D, UEC1-95D**

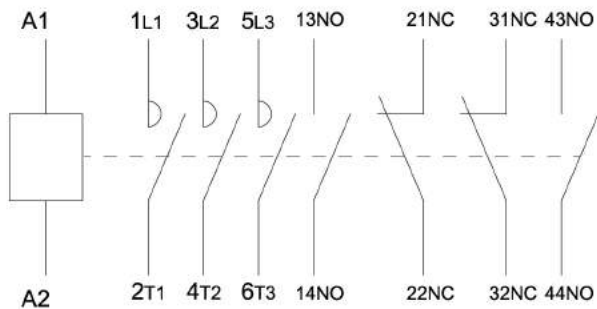
Note: The unit is mm. The tolerance for mounting holes:  $\pm 0.5$ ; for other external dimensions:  $\pm 1.5$ , unless otherwise specified.

## Circuit Diagram

UEC1-09 D 11  
 UEC1-12 D 11  
 UEC1-18 D 11  
 UEC1-25 D 11  
 UEC1-32 D 11  
 UEC1-38 D 11  
 UEC1-40 D 11  
 UEC1-50 D 11  
 UEC1-65 D 11  
 UEC1-80 D 11  
 UEC1-95 D 11





UEC1-09 D 22  
 UEC1-12 D 22  
 UEC1-18 D 22  
 UEC1-25 D 22  
 UEC1-32 D 22  
 UEC1-38 D 22  
 UEC1-40 D 22  
 UEC1-50 D 22  
 UEC1-65 D 22  
 UEC1-80 D 22  
 UEC1-95 D 22




## Reference Selection Table

### UEC1 series contactors



| Standard power ratings<br>of 3-phase motors<br>50Hz/60Hz in category AC-3<br>( $\theta \leq 60^\circ\text{C}$ ) |                    |                    | Rated<br>operational<br>current<br>AC-3 400V | Number of<br>poles | Built-in<br>auxiliary<br>contacts <sup>(1)</sup>                                  |   | Coil control<br>voltage <sup>(2)</sup><br>50Hz/60Hz | Reference    | Net weight<br>(1 pc) |
|---|--------------------|--------------------|--|--------------------|---|---|---|--------------|----------------------|
| 220V<br>230V<br>kW  | 380V<br>400V<br>kW | 660V<br>690V<br>kW |  |                    |  |  |   |              |                      |
| 2.2   | 4                  | 5.5                | 9  | 3                  | 1   | 1   | 24  | UEC1-09D11B7 | 0.40                 |
|   |                    |                    |  |                    |   |   | 110   | UEC1-09D11F7 |                      |
|   |                    |                    |  |                    |   |   | 220   | UEC1-09D11M7 |                      |
|   |                    |                    |  |                    |   |   | 380   | UEC1-09D11Q7 |                      |
|   |                    |                    |  |                    | 2   | 2   | 24  | UEC1-09D22B7 |                      |
|   |                    |                    |  |                    |   |   | 110   | UEC1-09D22F7 |                      |
|   |                    |                    |  |                    |   |   | 220   | UEC1-09D22M7 |                      |
|   |                    |                    |  |                    |   |   | 380   | UEC1-09D22Q7 |                      |
| 3   | 5.5                | 7.5                | 12   | 3                  | 1   | 1   | 24  | UEC1-12D11B7 | 0.40                 |
|   |                    |                    |  |                    |   |   | 110   | UEC1-12D11F7 |                      |
|   |                    |                    |  |                    |   |   | 220   | UEC1-12D11M7 |                      |
|   |                    |                    |  |                    |   |   | 380   | UEC1-12D11Q7 |                      |
|   |                    |                    |  |                    | 2   | 2   | 24  | UEC1-12D22B7 |                      |
|   |                    |                    |  |                    |   |   | 110   | UEC1-12D22F7 |                      |
|   |                    |                    |  |                    |   |   | 220   | UEC1-12D22M7 |                      |
|   |                    |                    |  |                    |   |   | 380   | UEC1-12D22Q7 |                      |
| 4   | 7.5                | 10                 | 18   | 3                  | 1   | 1   | 24  | UEC1-18D11B7 | 0.40                 |
|   |                    |                    |  |                    |   |   | 110   | UEC1-18D11F7 |                      |
|   |                    |                    |  |                    |   |   | 220   | UEC1-18D11M7 |                      |
|   |                    |                    |  |                    |   |   | 380   | UEC1-18D11Q7 |                      |
|   |                    |                    |  |                    | 2   | 2   | 24  | UEC1-18D22B7 |                      |
|   |                    |                    |  |                    |   |   | 110   | UEC1-18D22F7 |                      |
|   |                    |                    |  |                    |   |   | 220   | UEC1-18D22M7 |                      |
|   |                    |                    |  |                    |   |   | 380   | UEC1-18D22Q7 |                      |
| 5.5   | 11                 | 15                 | 25   | 3                  | 1   | 1   | 24  | UEC1-25D11B7 | 0.50                 |
|   |                    |                    |  |                    |   |   | 110   | UEC1-25D11F7 |                      |
|   |                    |                    |  |                    |   |   | 220   | UEC1-25D11M7 |                      |
|   |                    |                    |  |                    |   |   | 380   | UEC1-25D11Q7 |                      |
|   |                    |                    |  |                    | 2   | 2   | 24  | UEC1-25D22B7 |                      |
|   |                    |                    |  |                    |   |   | 110   | UEC1-25D22F7 |                      |
|   |                    |                    |  |                    |   |   | 220   | UEC1-25D22M7 |                      |
|   |                    |                    |  |                    |   |   | 380   | UEC1-25D22Q7 |                      |



| Standard power ratings<br>of 3-phase motors<br>50Hz/60Hz in category AC-3<br>( $\theta \leq 60^\circ\text{C}$ ) |                    |                    | Rated<br>operational<br>current<br>AC-3 400V | Number of<br>poles | Built-in<br>auxiliary<br>contacts <sup>(1)</sup> |   | Coil control<br>voltage <sup>(2)</sup><br>50Hz/60Hz | Reference    | Net weight<br>(1 pc) |
|---|--------------------|--------------------|--|--------------------|--|---|---|--------------|----------------------|
| 220V<br>230V<br>kW  | 380V<br>400V<br>kW | 660V<br>690V<br>kW |  |                    | A  |  |   |              |                      |
| 7.5   | 15                 | 18.5               | 32   | 3                  | 1  | 1   | 24  | UEC1-32D11B7 | 0.50                 |
|   |                    |                    |  |                    |  |   | 110   | UEC1-32D11F7 |                      |
|   |                    |                    |  |                    |  |   | 220   | UEC1-32D11M7 |                      |
|   |                    |                    |  |                    |  |   | 380   | UEC1-32D11Q7 |                      |
|   |                    |                    |  |                    | 2  | 2   | 24  | UEC1-32D22B7 |                      |
|   |                    |                    |  |                    |  |   | 110   | UEC1-32D22F7 |                      |
|   |                    |                    |  |                    |  |   | 220   | UEC1-32D22M7 |                      |
|   |                    |                    |  |                    |  |   | 380   | UEC1-32D22Q7 |                      |
| 9   | 18.5               | 18.5               | 38   | 3                  | 1  | 1   | 24  | UEC1-38D11B7 | 0.50                 |
|   |                    |                    |  |                    |  |   | 110   | UEC1-38D11F7 |                      |
|   |                    |                    |  |                    |  |   | 220   | UEC1-38D11M7 |                      |
|   |                    |                    |  |                    |  |   | 380   | UEC1-38D11Q7 |                      |
|   |                    |                    |  |                    | 2  | 2   | 24  | UEC1-38D22B7 |                      |
|   |                    |                    |  |                    |  |   | 110   | UEC1-38D22F7 |                      |
|   |                    |                    |  |                    |  |   | 220   | UEC1-38D22M7 |                      |
|   |                    |                    |  |                    |  |   | 380   | UEC1-38D22Q7 |                      |
| 11  | 18.5               | 30                 | 40   | 3                  | 1  | 1   | 24  | UEC1-40D11B7 | 1.00                 |
|   |                    |                    |  |                    |  |   | 110   | UEC1-40D11F7 |                      |
|   |                    |                    |  |                    |  |   | 220   | UEC1-40D11M7 |                      |
|   |                    |                    |  |                    |  |   | 380   | UEC1-40D11Q7 |                      |
|   |                    |                    |  |                    | 2  | 2   | 24  | UEC1-40D22B7 |                      |
|   |                    |                    |  |                    |  |   | 110   | UEC1-40D22F7 |                      |
|   |                    |                    |  |                    |  |   | 220   | UEC1-40D22M7 |                      |
|   |                    |                    |  |                    |  |   | 380   | UEC1-40D22Q7 |                      |
| 15  | 22                 | 33                 | 50   | 3                  | 1  | 1   | 24  | UEC1-50D11B7 | 1.00                 |
|   |                    |                    |  |                    |  |   | 110   | UEC1-50D11F7 |                      |
|   |                    |                    |  |                    |  |   | 220   | UEC1-50D11M7 |                      |
|   |                    |                    |  |                    |  |   | 380   | UEC1-50D11Q7 |                      |
|   |                    |                    |  |                    | 2  | 2   | 24  | UEC1-50D22B7 |                      |
|   |                    |                    |  |                    |  |   | 110   | UEC1-50D22F7 |                      |
|   |                    |                    |  |                    |  |   | 220   | UEC1-50D22M7 |                      |
|   |                    |                    |  |                    |  |   | 380   | UEC1-50D22Q7 |                      |

# Reference Selection Table

## UEC1 series contactors (continued)

| Standard power ratings of 3-phase motors<br>50Hz/60Hz in category AC-3<br>(θ≤60°C) |                    |                    | Rated operational current<br>AC-3 400V | Number of poles | Built-in auxiliary contacts <sup>(1)</sup>  |   | Coil control voltage <sup>(2)</sup><br>50Hz/60Hz | Reference    | Net weight<br>(1 pc) |
|--|--------------------|--------------------|--|-----------------|---|---|--|--------------|----------------------|
| 220V<br>230V<br>kW   | 380V<br>400V<br>kW | 660V<br>690V<br>kW |  |                 |  |  |  |              |                      |
| 18.5   | 30                 | 37                 | 65                                     | 3               | 1   | 1   | 24   | UEC1-65D11B7 | 1.00                 |
|  |                    |                    |  |                 |   |   | 110  | UEC1-65D11F7 |                      |
|  |                    |                    |  |                 |   |   | 220  | UEC1-65D11M7 |                      |
|  |                    |                    |  |                 |   |   | 380  | UEC1-65D11Q7 |                      |
|  |                    |                    |  |                 | 2   | 2   | 24   | UEC1-65D22B7 |                      |
|  |                    |                    |  |                 |   |   | 110  | UEC1-65D22F7 |                      |
|  |                    |                    |  |                 |   |   | 220  | UEC1-65D22M7 |                      |
|  |                    |                    |  |                 |   |   | 380  | UEC1-65D22Q7 |                      |
| 22   | 37                 | 45                 | 80                                     | 3               | 1   | 1   | 24   | UEC1-80D11B7 | 1.50                 |
|  |                    |                    |  |                 |   |   | 110  | UEC1-80D11F7 |                      |
|  |                    |                    |  |                 |   |   | 220  | UEC1-80D11M7 |                      |
|  |                    |                    |  |                 |   |   | 380  | UEC1-80D11Q7 |                      |
|  |                    |                    |  |                 | 2   | 2   | 24   | UEC1-80D22B7 |                      |
|  |                    |                    |  |                 |   |   | 110  | UEC1-80D22F7 |                      |
|  |                    |                    |  |                 |   |   | 220  | UEC1-80D22M7 |                      |
|  |                    |                    |  |                 |   |   | 380  | UEC1-80D22Q7 |                      |
| 25   | 45                 | 45                 | 95                                     | 3               | 1   | 1   | 24   | UEC1-95D11B7 | 1.50                 |
|  |                    |                    |  |                 |   |   | 110  | UEC1-95D11F7 |                      |
|  |                    |                    |  |                 |   |   | 220  | UEC1-95D11M7 |                      |
|  |                    |                    |  |                 |   |   | 380  | UEC1-95D11Q7 |                      |
|  |                    |                    |  |                 | 2   | 2   | 24   | UEC1-95D22B7 |                      |
|  |                    |                    |  |                 |   |   | 110  | UEC1-95D22F7 |                      |
|  |                    |                    |  |                 |   |   | 220  | UEC1-95D22M7 |                      |
|  |                    |                    |  |                 |   |   | 380  | UEC1-95D22Q7 |                      |



Note :

<sup>(1)</sup> For other types of built-in auxiliary contacts, please refer to the details in page 07.

<sup>(2)</sup> Coil control voltage code as followed (other coil versions on request).

| Coil control voltage<br>(V)<br>(50Hz/60Hz) | 24 | 36  | 42 | 48 | 110 | 115 | 127 | 220 | 230 | 240 | 380 | 400 | 415 |
|--|----|-----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Coil control voltage code                  | B7 | CC7 | D7 | E7 | F7  | FE7 | FC7 | M7  | P7  | U7  | Q7  | V7  | N7  |

## CA1 series auxiliary contact blocks

| Mounting type | Switching capacity | Auxiliary contacts <sup>(1)</sup>   |   | Reference | Net weight<br>(1 pc) |
|---------------|--------------------|---|---|-----------|----------------------|
|               |                    |  |  |           |                      |
| Top mounting  | A600<br>Q600       | 0   | 2   | CA1R02    | 0.035                |
|               |                    | 1   | 1   | CA1R11    |                      |
|               |                    | 2   | 0   | CA1R20    |                      |
|               |                    | 0   | 4   | CA1R04    | 0.066                |
|               |                    | 1   | 3   | CA1R13    |                      |
|               |                    | 2   | 2   | CA1R22    |                      |
|               |                    | 3   | 1   | CA1R31    |                      |
|               |                    | 4   | 0   | CA1R40    |                      |
| Side mounting |                    | 1   | 1   | CA1S11    | 0.040                |

Note:

<sup>(1)</sup> All the above auxiliary contacts are all instantaneous auxiliary contacts.

## Information for Use

### Altitude dependent compensation factor

- The rarefied atmosphere at high altitude reduces the dielectric strength of the air and hence the rated operational voltage of the contactor. It also reduces the cooling effect of the air and hence the rated operational current of the contactor (unless the temperature drops at the same time).

- At an altitude of less than 3000m, no significant effect on the performance of the product. When the altitude is above 3000m, conditions of air cooling and decrease of rated impulse withstand voltage have to be considered, so the design and application need to be further communicated with manufacturer.

Correction coefficients of operational voltage and operational current when the altitude is above 3000m are described as below.

| Altitude(m) | Rated operational voltage | Rated operational current |
|-------------|---------------------------|---------------------------|
| ≤3500       | 0.90                      | 0.92                      |
| ≤4000       | 0.80                      | 0.90                      |
| ≤4500       | 0.70                      | 0.88                      |
| ≤5000       | 0.60                      | 0.86                      |

### Technical parameter explanation

- Parameters contained in this catalogue such as electrical durability and mechanical durability are based on standard samples' test results, and the actual use may differ from these due to the difference of environment, operating frequency, devices etc.