

# Table of Specifications

## Midi-Contactors



| Frame size                                               |                                                                                     |               |                 |    |
|----------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|-----------------|----|
| Type                                                     |                                                                                     | Terminal type |                 |    |
| Number of poles                                          |                                                                                     |               |                 |    |
| Rated operational voltage, Ue                            |                                                                                     |               |                 |    |
| Rated insulation voltage, Ui                             |                                                                                     |               |                 |    |
| Rated frequency                                          |                                                                                     |               |                 |    |
| Rated impulse withstand voltage, Uimp                    |                                                                                     |               |                 |    |
| Maximum operating rate in operating cycles per hour(AC3) |                                                                                     |               |                 |    |
| Durability                                               | Mechanical                                                                          |               |                 |    |
|                                                          | Electrical                                                                          |               |                 |    |
| Current and power                                        | AC-1, Thermal current                                                               |               | A               |    |
|                                                          | AC-3                                                                                | 200/240V      | kW              |    |
|                                                          |                                                                                     |               | A               |    |
|                                                          |                                                                                     | 380/440V      | kW              |    |
|                                                          |                                                                                     |               | A               |    |
|                                                          |                                                                                     | 500/550V      | kW              |    |
|                                                          | A                                                                                   |               |                 |    |
|                                                          | 690V                                                                                | kW            |                 |    |
|                                                          |                                                                                     | A             |                 |    |
| UL rating (50/60Hz)                                      | Continuous current                                                                  |               | A               |    |
|                                                          | Single phase                                                                        | 110~120V      | HP              |    |
|                                                          |                                                                                     | 220~240V      | HP              |    |
|                                                          |                                                                                     | 200~208V      | HP              |    |
|                                                          | Three phase                                                                         | 220~240V      | HP              |    |
|                                                          |                                                                                     | 440~480V      | HP              |    |
| 550~600V                                                 |                                                                                     | HP            |                 |    |
|                                                          | NEMA size                                                                           |               |                 |    |
| Size and weight                                          |  | AC control    | Weight          | kg |
|                                                          |                                                                                     |               | Size(W × H × D) | mm |
|                                                          |                                                                                     | DC control    | Weight          | kg |
|                                                          |                                                                                     |               | Size(W × H × D) | mm |
| Auxiliary(standard)                                      |                                                                                     |               |                 |    |
| Auxiliary                                                | Side mount                                                                          |               |                 |    |
|                                                          | Front mount                                                                         |               |                 |    |

Note) Minimum conduct current of Auxiliary contactor is DC 17V 5mA.

| 22AF                     |      |      |      |
|--------------------------|------|------|------|
| CC9                      | CC12 | CC18 | CC22 |
| Screw Only               |      |      |      |
| 3pole                    |      |      |      |
| 690V                     |      |      |      |
| 690V                     |      |      |      |
| 50/60Hz                  |      |      |      |
| 6kV                      |      |      |      |
| 1800 operations per hour |      |      |      |
| 15 mil. operations       |      |      |      |
| 2.5 mil. operations      |      |      |      |
| 25                       | 25   | 32   | 40   |
| 2.5                      | 3.5  | 4.5  | 5.5  |
| 11                       | 13   | 18   | 22   |
| 4                        | 5.5  | 7.5  | 11   |
| 9                        | 12   | 18   | 22   |
| 4                        | 7.5  | 7.5  | 15   |
| 7                        | 12   | 13   | 20   |
| 4                        | 7.5  | 7.5  | 15   |
| 6                        | 9    | 9    | 18   |
| 25                       | 25   | 40   | 40   |
| 0.5                      | 0.75 | 1    | 2    |
| 1.5                      | 2    | 3    | 3    |
| 2                        | 3    | 5    | 7.5  |
| 3                        | 5    | 7.5  | 10   |
| 5                        | 7.5  | 10   | 15   |
| 7.5                      | 10   | 15   | 20   |
| 00                       | 00   | 0    | 1    |
| 0.34                     |      |      |      |
| 45 × 73.5 × 86           |      |      |      |
| 0.51                     |      |      |      |
| 45 × 73.5 × 117.7        |      |      |      |
| GUA1, GUA2, GUA4         |      |      |      |
| GUA-1                    |      |      |      |
| GUA-2, GUA-4             |      |      |      |

| 40AF                     |      |
|--------------------------|------|
| CC32                     | CC40 |
| Screw Only               |      |
| 3pole                    |      |
| 690V                     |      |
| 1000V                    |      |
| 50/60Hz                  |      |
| 8kV                      |      |
| 1800 operations per hour |      |
| 12 mil. operations       |      |
| 2 mil. operations        |      |
| 50                       | 60   |
| 7.5                      | 11   |
| 32                       | 40   |
| 15                       | 18.5 |
| 32                       | 40   |
| 18.5                     | 22   |
| 28                       | 32   |
| 18.5                     | 22   |
| 20                       | 23   |
| 50                       | 60   |
| 2                        | 3    |
| 5                        | 7.5  |
| 7.5                      | 15   |
| 10                       | 15   |
| 20                       | 30   |
| 25                       | 30   |
| 1                        | 1    |
| 0.55                     |      |
| 69 × 83 × 93             |      |
| 0.77                     |      |
| 69 × 83 × 120            |      |
| GUA-1                    |      |
| GUA-2, GUA-4             |      |

## GT Type Thermal Overload Relays



|                                       |                        |                    |  |
|---------------------------------------|------------------------|--------------------|--|
| Type                                  | Screws clamp terminals |                    |  |
| Rated operational voltage, Ue         |                        |                    |  |
| Rated insulation voltage, Ui          |                        |                    |  |
| Rated impulse withstand voltage, Uimp |                        |                    |  |
| Trip class                            |                        |                    |  |
| Setting range                         |                        |                    |  |
| Size and weight                       | Weight                 | kg                 |  |
|                                       |                        | Size(W × H × D) mm |  |

| GT32         |  |
|--------------|--|
| ●            |  |
| 690V         |  |
| 690V         |  |
| 6kV          |  |
| 10A, 20      |  |
| 0.1~40A      |  |
| 0.17         |  |
| 45 × 75 × 90 |  |

| GT32         |  |
|--------------|--|
| ●            |  |
| 690V         |  |
| 690V         |  |
| 6kV          |  |
| 10A, 20      |  |
| 0.1~40A      |  |
| 0.17         |  |
| 45 × 75 × 90 |  |

# Table of Specifications



| 400AF                    |                     |        |
|--------------------------|---------------------|--------|
| CC265*                   | CC330*              | CC400* |
| Screw Only               |                     |        |
| 3pole                    |                     |        |
| 690V                     |                     |        |
| 1000V                    |                     |        |
| 50/60Hz                  |                     |        |
| 8kV                      |                     |        |
| 1200 operations per hour |                     |        |
| 5 mil. operations        | 2.5 mil. operations |        |
| 1 mil. operations        | 0.5 mil. operations |        |
| 300                      | 350                 | 450    |
| 80                       | 90                  | 125    |
| 265                      | 330                 | 400    |
| 147                      | 160                 | 200    |
| 265                      | 330                 | 400    |
| 147                      | 160                 | 225    |
| 225                      | 280                 | 350    |
| 160                      | 200                 | 250    |
| 185                      | 225                 | 300    |
| 300                      | 350                 | 450    |
| -                        | -                   | -      |
| -                        | -                   | -      |
| 75                       | 100                 | 125    |
| 100                      | 125                 | 150    |
| 200                      | 250                 | 300    |
| 200                      | 250                 | 300    |
| 5                        | 5                   | 5      |

9.2  
163 × 243 × 198

| 2a2b |
|------|
| -    |
| -    |



| GT400           |
|-----------------|
| ●               |
| 690V            |
| 690V            |
| 6kV             |
| 10A, 20         |
| 85~400A         |
| 2.6             |
| 151 × 171 × 198 |



| 800AF                    |        |        |
|--------------------------|--------|--------|
| CC500*                   | CC630* | CC800* |
| Screw Only               |        |        |
| 3pole                    |        |        |
| 690V                     |        |        |
| 1000V                    |        |        |
| 50/60Hz                  |        |        |
| 8kV                      |        |        |
| 1200 operations per hour |        |        |
| 2.5 mil. operations      |        |        |
| 0.5 mil. operations      |        |        |
| 580                      | 660    | 900    |
| 147                      | 190    | 220    |
| 500                      | 630    | 800    |
| 265                      | 330    | 440    |
| 500                      | 630    | 800    |
| 265                      | 330    | 500    |
| 400                      | 500    | 720    |
| 300                      | 400    | 500    |
| 380                      | 420    | 630    |
| 580                      | 660    | 900    |
| -                        | -      | -      |
| -                        | -      | -      |
| 150                      | 200    | 200    |
| 200                      | 250    | 300    |
| 400                      | 500    | 600    |
| 400                      | 500    | 600    |
| 6                        | 6      | 7      |

22.4  
285 × 312 × 242

| 2a2b |
|------|
| -    |
| -    |



| GT800           |
|-----------------|
| ●               |
| 690V            |
| 690V            |
| 6kV             |
| 10A, 20         |
| 200~800A        |
| 11.5            |
| 360 × 530 × 212 |

# Type Numbering System

## Midi-Contactor

| CC                                | 9                                                                                                                                |                                  | S                           | A                          | 120                                       |                                                             |                                                                             |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------|----------------------------|-------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------|
| Magnetic 3-pole<br>Midi-Contactor | Amperage Size                                                                                                                    | Type                             | Terminal Type               | Coil Type                  | Coil Voltage                              | AC Coil Frequency                                           | Auxiliary Contact s                                                         |
|                                   | 9 - 9A<br>12 - 12A<br>18 - 18A<br>22 - 22A<br>32 - 32A<br>40 - 40A<br>50 - 50A<br>65 - 65A<br>75 - 75A<br>85 - 85A<br>100 - 100A | BLANK -<br>3-pole<br>/4 - 4-pole | S - Screw<br>L - Lug (>50A) | A - AC type<br>D - DC type | 24 - 24V<br>120 - 120V<br>&<br>600 - 600V | BLANK<br>- 50/60 Hz<br>50Hz - 50Hz only<br>60Hz - 60Hz only | BLANK<br>- standard<br>arrangement<br>NOAUX<br>- no aux.<br>contact (>=32A) |

## Overload

| GT                          | 32                                                                  |                                   | S                                                    | 0.16A                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------|---------------------------------------------------------------------|-----------------------------------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bimetallic<br>Midi-Overload | Frame Size                                                          | Class                             | Terminal Type<br>(Must match<br>contactor<br>number) | Setting Ranges<br>(Use upper<br>limit in part)                                                                                                                                                                                                                                                                                             |
|                             | 32 - 9, 12, 18A<br>22, 32, 40A<br>65 - 50, 65A<br>75 - 75, 85, 100A | BLANK<br>class 10<br>L - class 20 | S - Screw<br>L - Lug (>35A)                          | 0.1 ~ 0.16A<br>0.16 ~ 0.25A<br>0.25 ~ 0.4A<br>0.4 ~ 0.63A<br>0.63 ~ 1A<br>1 ~ 1.6A<br>1.6 ~ 2.5A<br>2.5 ~ 4A<br>4 ~ 6A<br>5 ~ 8A<br>6 ~ 9A<br>7 ~ 10A<br>9 ~ 13A<br>12 ~ 18A<br>16 ~ 22A<br>18 ~ 25A<br>22 ~ 32A<br>24 ~ 36A<br>28 ~ 40A<br>34 ~ 50A<br>45 ~ 65A<br>54 ~ 75A<br>63 ~ 85A<br>70 ~ 95A<br>80 ~ 100A<br>(Setting Range Guide) |

| CGE                         | 22                                                          | 3P                                                                                                                                                             | 22A                                                                                                    |
|-----------------------------|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Electronic<br>Midi Overload | Frame Size                                                  | Protection                                                                                                                                                     | Setting Range<br>(Use upper<br>limit in part)                                                          |
|                             | 22 - 9, 12, 18, 22A<br>40 - 32, 40A<br>80 - 50, 65, 75, 85A | Direct Mount<br>22 and 40AF<br>2P - 2-Pole<br>3P - 3-Pole<br>3PR - 3-pole<br><br>Separate Mount<br>All CGE sizes<br>2S - 2-Pole<br>3S - 3-Pole<br>3SR - 3-Pole | CGE22<br>0.3 ~ 1.5A<br>1 ~ 5A<br>4.4 ~ 22A<br><br>CGE40<br>4 ~ 20A<br>8 ~ 40A<br><br>CGE80<br>16 ~ 80A |

|                                                                         |                      |
|-------------------------------------------------------------------------|----------------------|
| Tunel Type<br>22 and 40AF<br>2T - 2-Pole<br>3T - 3-Pole<br>3TR - 3-Pole | GT32<br>GT65<br>GT95 |
|-------------------------------------------------------------------------|----------------------|

## Optional Accessories

### Auxiliary contact unit

|                |                 |                            |
|----------------|-----------------|----------------------------|
| <b>GUA1</b>    | -               | <b>11</b>                  |
| <b>Version</b> |                 | <b>Contact composition</b> |
| GUA1           | Side mount      | 11 1NO+1NC                 |
| GUA2           | Front mount(2P) | 20 2NO                     |
| GUA4           | Front mount(4P) | 02 2NC                     |
|                |                 | 40 4NO                     |
|                |                 | 31 3NO+1NC                 |
|                |                 | 22 2NO+2NC                 |
|                |                 | 13 1NO+3NC                 |
|                |                 | 04 4NC                     |

### Surge absorber

| <b>GUS11</b>                 |
|------------------------------|
| Composition and voltage      |
| 1 Varistor+RC AC/DC 24~48V   |
| 2 Varistor+RC AC/DC 100~125V |
| 3 Varistor+RC AC/DC 200~240V |
| 4 Varistor+RC AC 380~440V    |
| 5 Varistor+RC AC 24~48V      |
| 6 Varistor+RC AC 100~125V    |
| 11 Varistor AC 200~240V      |
| 12 Varistor DC 24~48V        |
| 13 Varistor DC 100~125V      |
| 14 Varistor DC 200~220V      |
| 22 RC AC 100~125V            |

(Note) See page 52 for details.

### Interlock unit

**GUR02**

#### Contact composition

|    |     |
|----|-----|
| 02 | 2NC |
|----|-----|

### Wire kit for Interlocking

**GUW32**

#### Frame size

|    |      |
|----|------|
| 22 | 22AF |
| 32 | 32AF |
| 63 | 63AF |
| 95 | 95AF |

### Separate mounting unit (For relay)

**GUZ32**

#### Frame size

|     |       |
|-----|-------|
| 32  | 32AF  |
| 63  | 63AF  |
| 95  | 95AF  |
| 150 | 150AF |

### Remote reset unit (For relay)

**GTTR-16**

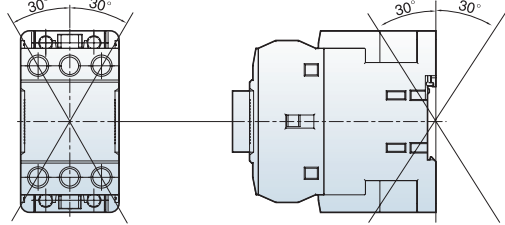
#### Cable length

|    |     |
|----|-----|
| 16 | 400 |
| 20 | 500 |
| 24 | 600 |

# Environment / Connections



## Environment

|                                                                |                                                                                     |
|----------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Standards                                                      | IEC/EN 60947-1, IEC/EN 60947-4-1, UL508, K60947                                     |
| Certifications                                                 | CE, UL                                                                              |
| Rated insulation voltage (Ui)                                  | 1000V                                                                               |
| Rated impulse withstand voltage (Uimp)                         | 8kV                                                                                 |
| Degree of protection                                           | IP20 (Conforming to IEC60529)                                                       |
| Ambient air temperature                                        | Storage: -50° C ~ +80° C<br>Operation: -5° C ~ +60° C                               |
| Operating altitude                                             | 3000m (8900ft)                                                                      |
| Operating positions                                            |  |
| Shock resistance<br>(1/2 sine wave =11ms)                      | Opened: 8G<br>Closed: 10G                                                           |
| Vibration resistance (Conforming to IEC68-2-6)<br>(5...300 Hz) | Opened: 2G<br>Closed: 4G                                                            |
| Flame resistance                                               | Conforming to UL 94: Vo<br>Conforming to IEC 695-2-1: 960° C                        |

## Connections

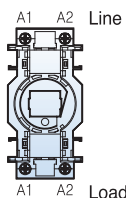
| Wire type |                                                                                     | Main Terminal Size |  |  |  |  |  |  |  | Torque  |         |      |
|-----------|-------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------|---------|------|
|           |                                                                                     |                    | (AWG / mm²)                                                                         |                                                                                     |                                                                                     |                                                                                     |                                                                                       |                                                                                       |                                                                                       | mm(max) | [lb-in] | [Nm] |
| Frame     |                                                                                     |                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                       |                                                                                       |                                                                                       |         |         |      |
| CC9       |  | M4                 | 18~10 / 1~6                                                                         |                                                                                     | 18~10 / 1~6                                                                         |                                                                                     | 18~10 / 1~6                                                                           |                                                                                       | 9.6                                                                                   | 20      | 2.25    |      |
| CC12      |                                                                                     |                    | 18~10 / 1~6                                                                         |                                                                                     | 16~10 / 1~6                                                                         |                                                                                     | 16~10 / 1~6                                                                           |                                                                                       |                                                                                       |         |         |      |
| CC18      |                                                                                     |                    | 18~10 / 1~6                                                                         |                                                                                     | 16~8 / 1.5~10                                                                       |                                                                                     | 16~8 / 1.5~10                                                                         |                                                                                       |                                                                                       |         |         |      |
| CC22      |                                                                                     |                    | 18~10 / 1~6                                                                         |                                                                                     | 14~8 / 2.5~10                                                                       |                                                                                     | 14~8 / 2.5~10                                                                         |                                                                                       |                                                                                       |         |         |      |
| CC32      |  | M5                 | 18~10 / 1~6                                                                         |                                                                                     | 12~8 / 2.5~10                                                                       |                                                                                     | 12~8 / 2.5~10                                                                         |                                                                                       | 12.8                                                                                  | 20      | 2.25    |      |
| CC40      |                                                                                     |                    | 18~10 / 1~6                                                                         |                                                                                     | 8~6 / 10~16                                                                         |                                                                                     | 8~6 / 10~16                                                                           |                                                                                       |                                                                                       | 35      | 4       |      |
| CC50      |  | M6                 | -                                                                                   |                                                                                     | 10~4 / 6~25                                                                         |                                                                                     | 10~4 / 6~25                                                                           |                                                                                       | 14                                                                                    | 35      | 4       |      |
| CC65      |                                                                                     |                    | -                                                                                   |                                                                                     | 8~3 / 10~35                                                                         |                                                                                     | 8~3 / 10~35                                                                           |                                                                                       |                                                                                       |         |         |      |
| CC75      |  | M8                 | -                                                                                   |                                                                                     | 8~2 / 10~35                                                                         |                                                                                     | 8~2 / 10~35                                                                           |                                                                                       | 17                                                                                    | 45      | 5.1     |      |
| CC85      |                                                                                     |                    | -                                                                                   |                                                                                     | 8~1/0 / 10~50                                                                       |                                                                                     | 8~1/0 / 10~50                                                                         |                                                                                       |                                                                                       |         |         |      |
| CC100     |                                                                                     |                    | -                                                                                   |                                                                                     | 8~2/0 / 10~70                                                                       |                                                                                     | 8~2/0 / 10~70                                                                         |                                                                                       |                                                                                       |         |         |      |
| CC130     |  | M8                 | -                                                                                   |                                                                                     | 3~2/0 / 35~70                                                                       |                                                                                     | 3~2/0 / 35~70                                                                         |                                                                                       | 24.5                                                                                  | 80      | 9.1     |      |
| CC150     |                                                                                     |                    | -                                                                                   |                                                                                     | 3~4/0 / 35~95                                                                       |                                                                                     | 3~4/0 / 35~95                                                                         |                                                                                       |                                                                                       |         |         |      |
| CC9~150   |  | M4                 | 20~14 / 0.5~2.5                                                                     | 18~12 / 0.75~2.5                                                                    |                                                                                     | 18~12 / 0.75~2.5                                                                    |                                                                                       | 7.6                                                                                   | 15                                                                                    | 1.75    |         |      |
| CC185     |  | M10                | -                                                                                   |                                                                                     | 1~4/0 / 50~95                                                                       |                                                                                     | 1~4/0 / 50~95                                                                         |                                                                                       | 25                                                                                    | 130     | 14.7    |      |
| CC225     |                                                                                     |                    | -                                                                                   |                                                                                     | 1/0~300 / 50~150                                                                    |                                                                                     | 1/0~300 / 50~150                                                                      |                                                                                       |                                                                                       |         |         |      |
| CC265     |  | M12                | -                                                                                   |                                                                                     | 3/0~500 / 95~240                                                                    |                                                                                     | 3/0~500 / 95~240                                                                      |                                                                                       | 30                                                                                    | 200     | 22.6    |      |
| CC330     |                                                                                     |                    | -                                                                                   |                                                                                     | 4/0~500 / 95~240                                                                    |                                                                                     | 4/0~500 / 95~240                                                                      |                                                                                       |                                                                                       |         |         |      |
| CC400     |                                                                                     |                    | -                                                                                   |                                                                                     | 350~700 / 185~185×2                                                                 |                                                                                     | 350~700 / 185~185×2                                                                   |                                                                                       |                                                                                       |         |         |      |
| CC500     |  | M16                | -                                                                                   |                                                                                     | 350~800 / 185~240×2                                                                 |                                                                                     | 350~800 / 185~240×2                                                                   |                                                                                       | 40                                                                                    | 500     | 26.5    |      |
| CC630     |                                                                                     |                    | -                                                                                   |                                                                                     | 600~2000                                                                            |                                                                                     | -                                                                                     |                                                                                       |                                                                                       |         |         |      |
| CC800     |                                                                                     |                    | -                                                                                   |                                                                                     | 1700~Busbar                                                                         |                                                                                     | -                                                                                     |                                                                                       |                                                                                       |         |         |      |
| CC185~800 |  | M4                 | 16~10 / 1.25~5.5                                                                    | 16~10 / 1.25~5.5                                                                    |                                                                                     | 16~10 / 1.25~5.5                                                                    |                                                                                       | 7.6                                                                                   | 15                                                                                    | 1.75    |         |      |

a data sheet and specify products, visit [www.CavazziOnline.com](http://www.CavazziOnline.com)

# Control Coil Characteristics



| Frame size               |          |      | 22AF                                                                           | 40AF      | 65AF      | 100AF       | 150AF                                 |
|--------------------------|----------|------|--------------------------------------------------------------------------------|-----------|-----------|-------------|---------------------------------------|
| Type                     |          |      | CC9                                                                            | CC32      | CC50      | CC75        | CC130                                 |
|                          |          |      | CC12                                                                           | CC40      | CC65      | CC85        | CC150                                 |
|                          |          |      | CC12                                                                           |           |           | CC100       |                                       |
|                          |          |      | CC22                                                                           |           |           |             |                                       |
| AC coil                  |          |      |                                                                                |           |           |             |                                       |
| Control voltage          | [Uc]     |      |                                                                                |           |           |             | 24, 48, 110,<br>220, 300,<br>400, 500 |
|                          | 50Hz     | [V]  | 24, 32, 36, 42, 48, 80, 100, 110, 220, 230, 240, 380, 400, 415, 440, 500, 550V |           |           |             |                                       |
|                          | 60Hz     | [V]  | 24, 48, 100, 110, 120, 200, 208, 220, 230, 240, 277, 380, 440, 480, 600V       |           |           |             |                                       |
|                          | 50/60Hz  | [V]  | 24, 48, 100, 110, 120, 200, 220, 230, 240, 380, 415, 440, 500, 550V            |           |           |             |                                       |
| Voltage limit            | [Uc]     |      |                                                                                |           |           |             |                                       |
|                          | Pick-up  |      | 85 ~110% (50Hz)                                                                |           |           |             |                                       |
|                          |          |      | 85 ~110% (60Hz)                                                                |           |           |             |                                       |
| Drop-out                 |          |      | 30 ~ 60%                                                                       |           |           |             |                                       |
| Coil consumption at 20°C |          |      |                                                                                |           |           |             |                                       |
| AC 220V                  | Inrush   | [VA] | 58/56                                                                          | 53/50     | 110/104   | 229/216     | 108/104                               |
| 50/60Hz                  | Holding  | [VA] | 9.0/6.0                                                                        | 12.0/9.0  | 13.0/10.0 | 17.0/13.0   | 18.0/21.0                             |
| Heat dissipation         |          | [W]  | 2.1/1.5                                                                        | 2.7/2.2   | 2.8/2.4   | 5.4/4.7     | 2.7/3.6                               |
| Operating time           |          |      |                                                                                |           |           |             |                                       |
|                          | Closing  | [ms] | 12 ... 22                                                                      | 12 ... 22 | 12 ... 22 | 15 ... 30   | 20 ... 40                             |
|                          | Opening  | [ms] | 4 ... 19                                                                       | 4 ... 19  | 4 ... 19  | 10 ... 30   | 60 ... 70                             |
| DC coil                  |          |      |                                                                                |           |           |             |                                       |
| Control voltage          |          | [Uc] | 12, 20, 24, 48, 60, 80, 100, 110, 125, 200, 220, 250                           |           |           |             | 24, 48, 110, 220                      |
| Voltage limit            |          |      | [Uc]                                                                           |           |           |             |                                       |
|                          | Pick-up  |      | 70 ~ 110%                                                                      |           |           |             |                                       |
|                          | Drop-out |      | 10 ~ 30%                                                                       |           |           |             |                                       |
| Coil consumption at 20°C |          |      |                                                                                |           |           |             |                                       |
| DC 110V                  | Inrush   | [W]  | 9                                                                              | 7         | 9         | 18          | 213                                   |
|                          | Holding  | [W]  | 9                                                                              | 7         | 9         | 18          | 7.5                                   |
| Time constant (L/R)      |          | [ms] | 28                                                                             | 28        | 65        | 75          |                                       |
| Operating time           |          |      |                                                                                |           |           |             |                                       |
|                          | Closing  | [ms] | 35 ... 50                                                                      | 50 ... 65 | 50 ... 65 | 100 ... 120 | 70 ... 80                             |
|                          | Opening  | [ms] | 4 ... 19                                                                       | 4 ... 19  | 4 ... 19  | 10 ... 25   | 60 ... 70                             |



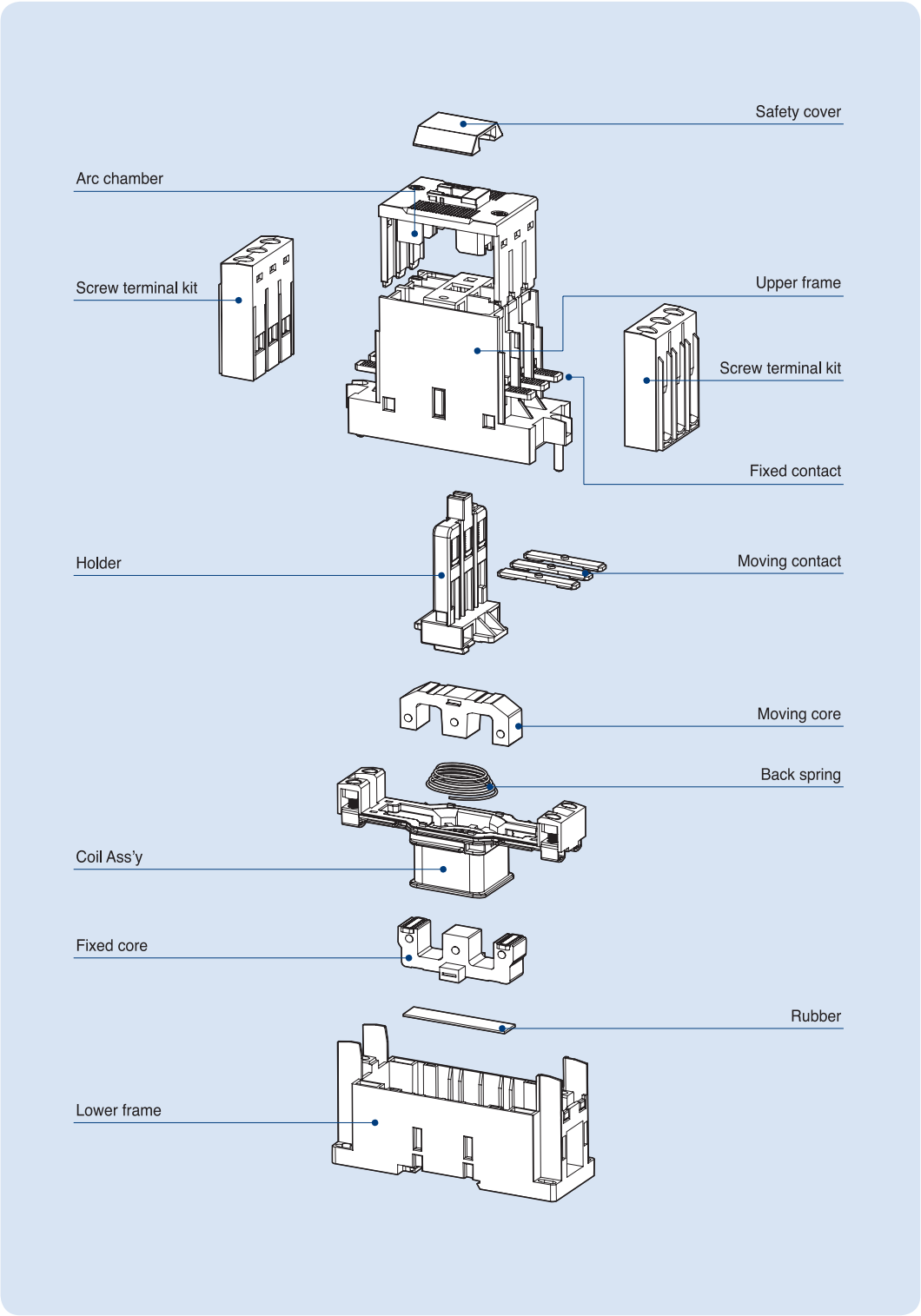
Note) A1(A2) in line side is internally connected to A1(A2) in load side.

To instantly view a data sheet and specify products, visit [www.GavazziOnline.com](http://www.GavazziOnline.com)

# Control Coil Characteristics



| Frame size           |                          |      | 225AF           | 400AF                   | 800AF                   |
|----------------------|--------------------------|------|-----------------|-------------------------|-------------------------|
| Type                 | CC185<br>CC225           |      |                 | CC265<br>CC330<br>CC400 | CC500<br>CC630<br>CC800 |
|                      | AC/DC common coil        |      |                 |                         |                         |
|                      | Control voltage [Uc]     |      |                 |                         |                         |
|                      | AC/DC                    |      | 24/24           | -                       | -                       |
|                      | AC/DC                    |      | 48/48           | -                       | 100/100                 |
|                      | AC/DC                    |      | 100~240/100~220 | 100~240/100~220         | 200/200                 |
|                      | AC                       |      | 300             | 300                     | 300                     |
|                      | AC                       |      | 400             | 400                     | 400                     |
|                      | AC                       |      | 500             | 500                     | 500                     |
| Voltage limit [Uc]   | Pick-up                  |      |                 | 86~110%                 |                         |
|                      | Drop-out                 |      |                 | 30~60%                  |                         |
|                      | Coil consumption at 20°C |      |                 |                         |                         |
| AC 220V              | Inrush                   | [VA] | 380             | 571                     | 1000                    |
| 50/60Hz              | Holding                  | [VA] | 11.6            | 14                      | 29                      |
| Heat dissipation [W] |                          |      | 4.7             | 5                       | 7.8                     |
| Operating time       |                          |      |                 |                         |                         |
|                      | Closing                  | [ms] | 70              | 55                      | 75                      |
|                      | Opening                  | [ms] | 70              | 55                      | 75                      |



# Contactors (400AF)

## Description

- 3-pole main contact
- AC/DC common use coil built
- Wide coil operation voltage
- Screw mountable
- 2NO+2NC Auxiliary contacts built-in as standard
- Top/side mountable accessories available
- Direct mountable overload relays available

## Rating



| Contactor type                    |        |                 | CC265                |     | CC330   |     | CC400   |     |     |
|-----------------------------------|--------|-----------------|----------------------|-----|---------|-----|---------|-----|-----|
|                                   |        |                 | kW                   | A   | kW      | A   | kW      | A   |     |
| AC duty                           | AC3    | 200/240V        | 80                   | 265 | 90      | 330 | 125     | 400 |     |
|                                   |        | 380/440V        | 147                  | 265 | 160     | 330 | 200     | 400 |     |
|                                   |        | 500/550V        | 147                  | 225 | 160     | 280 | 225     | 350 |     |
|                                   |        | 690V            | 160                  | 185 | 200     | 225 | 250     | 300 |     |
|                                   | AC4    | 200/240V        | 50                   | 200 | 55      | 220 | 75      | 300 |     |
|                                   |        | 380/440V        | 102                  | 200 | 110     | 220 | 150     | 300 |     |
|                                   | AC1    |                 | -                    | 300 | -       | 350 | -       | 450 |     |
| DC1 duty<br>(L/R=1ms)             | 2-pole | 24V             | -                    | 220 | -       | 300 | -       | 400 |     |
|                                   |        | in series       | 48V                  | -   | 180     | -   | 240     | -   | 240 |
|                                   |        |                 | 110V                 | -   | 150     | -   | 200     | -   | 200 |
|                                   | 3-pole | 24V             | -                    | 220 | -       | 300 | -       | 400 |     |
|                                   |        | in series       | 48V                  | -   | 220     | -   | 300     | -   | 400 |
|                                   |        |                 | 110V                 | -   | 220     | -   | 300     | -   | 400 |
| DC2, 4 duty<br>(L/R=15ms)         | 2-pole | 24V             | -                    | 220 | -       | 300 | -       | 400 |     |
|                                   |        | in series       | 48V                  | -   | 150     | -   | 200     | -   | 200 |
|                                   |        |                 | 110V                 | -   | 120     | -   | 150     | -   | 150 |
|                                   | 3-pole | 24V             | -                    | 220 | -       | 300 | -       | 400 |     |
|                                   |        | in series       | 48V                  | -   | 220     | -   | 280     | -   | 280 |
|                                   |        |                 | 110V                 | -   | 150     | -   | 200     | -   | 200 |
| Directly mountable Overload relay |        |                 | GT400                |     |         |     |         |     |     |
| Conductor size (solid, stranded)  |        | AWG             | 310~500              |     | 410~500 |     | 350~700 |     |     |
| (the max. number of conducts: 2)  |        | mm <sup>2</sup> | 95~240               |     | 95~240  |     | 185~370 |     |     |
| Conductor type                    |        |                 | 75℃ Cu stranded wire |     |         |     |         |     |     |



## Coil Voltage, AC/DC Common

| Nominal(ordering) voltage | AC 50/60Hz | DC         |
|---------------------------|------------|------------|
| 100/200V                  | 100 - 240V | 100 - 220V |
| 300V                      | 265 - 347V | -          |
| 400V                      | 380 - 450V | -          |
| 500V                      | 440 - 575V | -          |

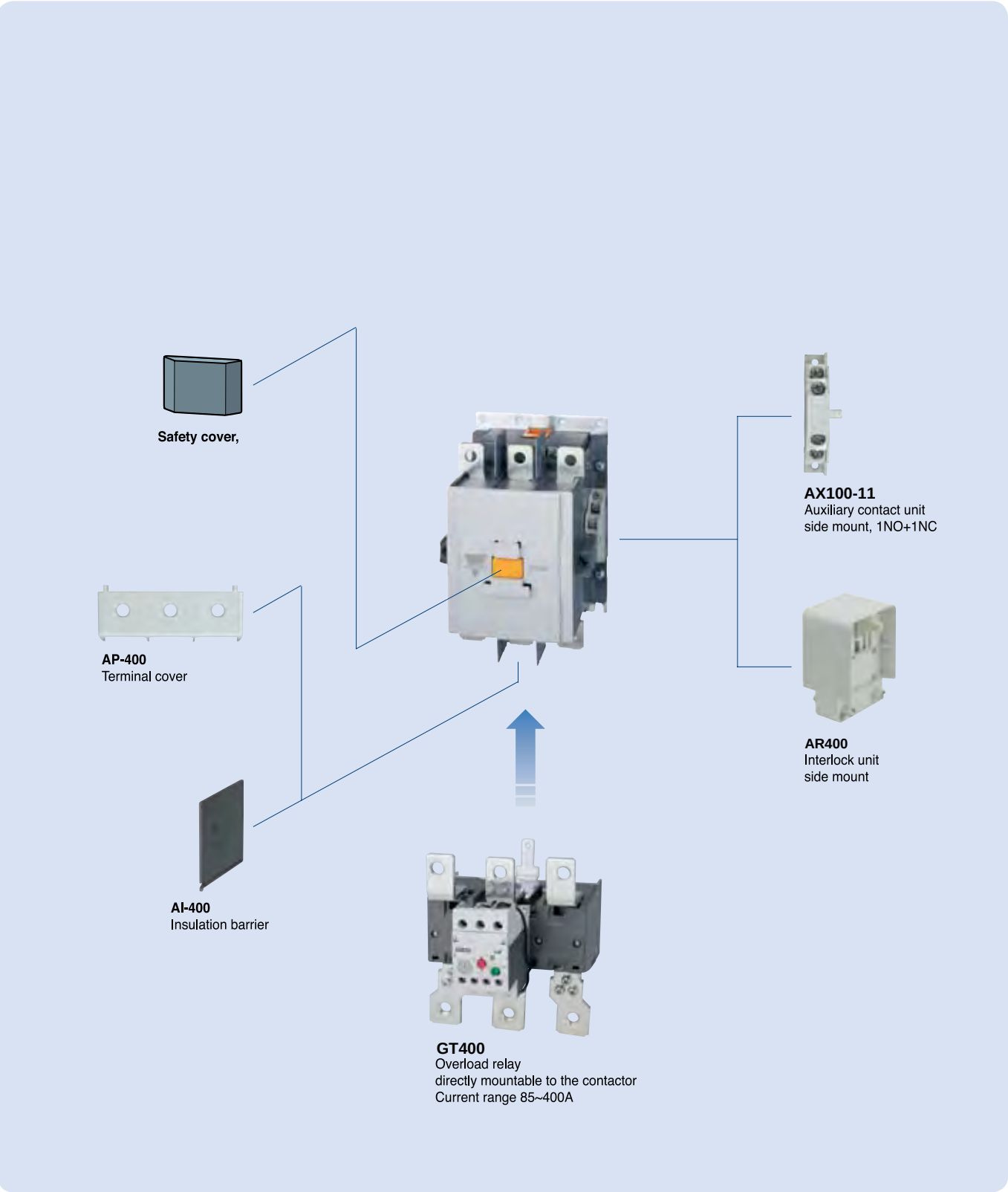
### Certification

- CE(IEC)
- UL508



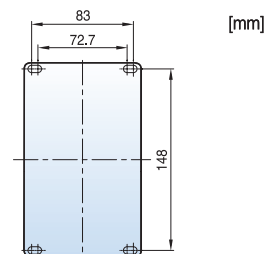
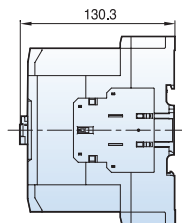
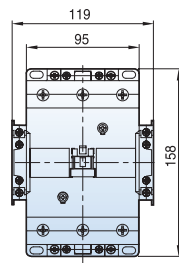
# Contactors (400AF)

## Accessories



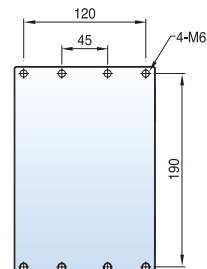
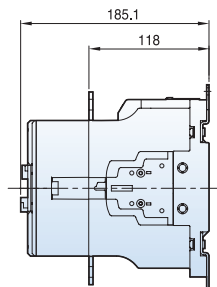
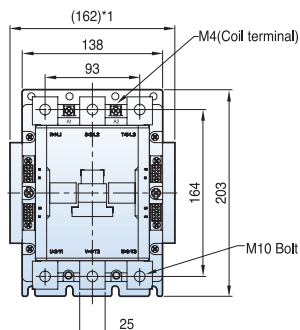
# Contactors (150AF ~ 800AF)

**CC130 ~ CC150**  
2NO2NC aux



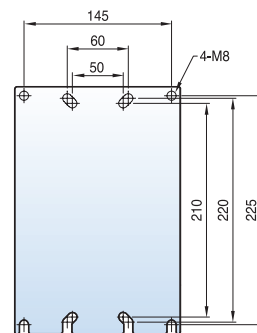
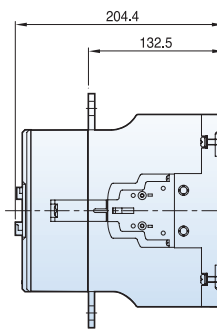
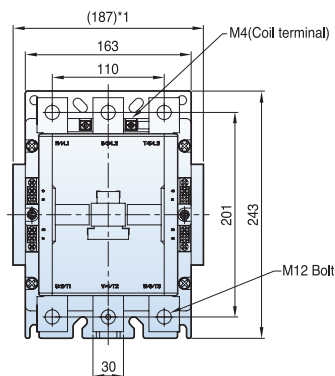
2.4kg

**CC185 ~ CC225**  
2NO2NC aux



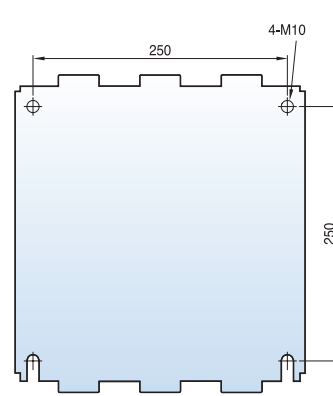
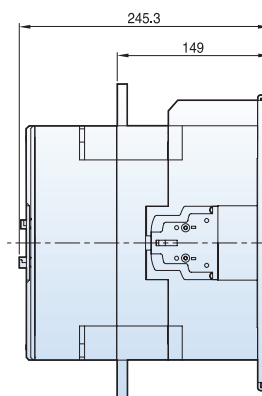
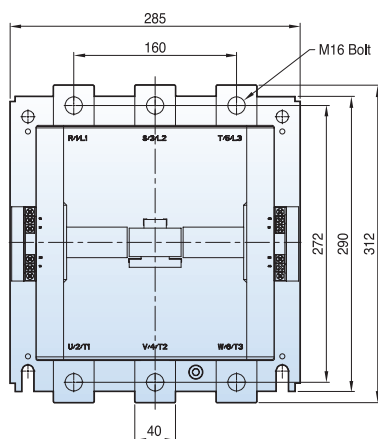
5.4kg

**CC265 ~ CC400**  
2NO2NC aux



9.2kg

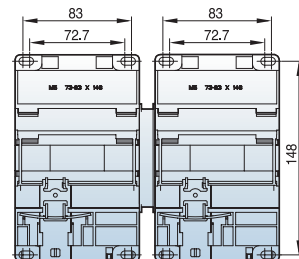
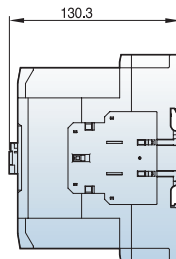
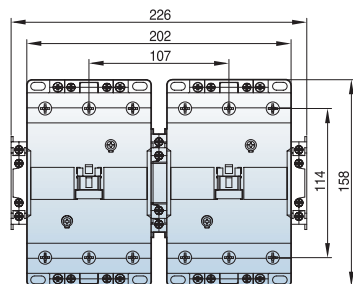
**CC500 ~ CC800**  
2NO2NC aux



22.4kg

# Reversing Contactors and Starters (150AF ~ 800AF)

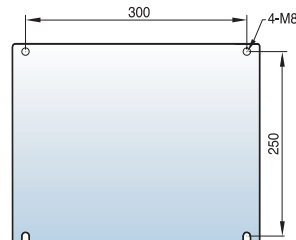
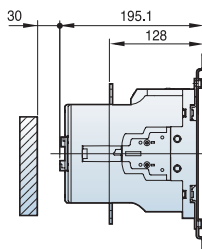
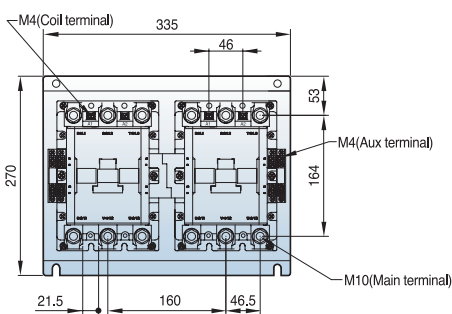
**CC130 ~ CC150**  
AC coil  
reversing  
combination  
shown with aux  
contacts



[mm]

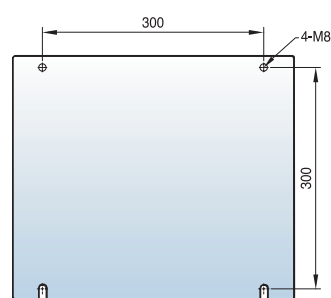
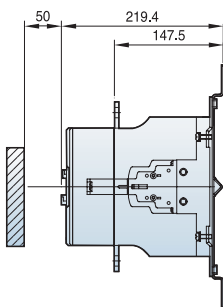
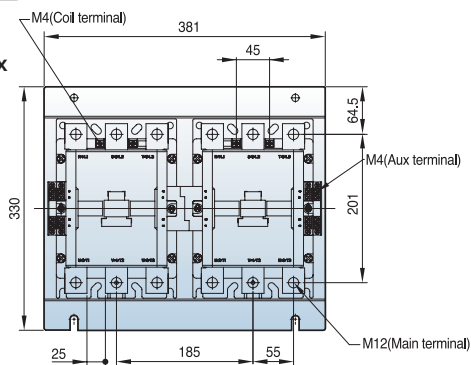
4.3kg

**CC185 ~ CC225**  
reversing  
combination  
shown with aux  
contacts



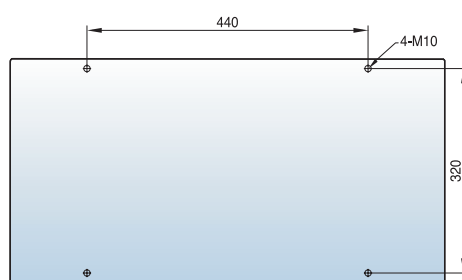
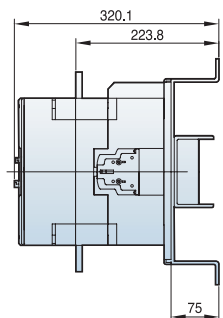
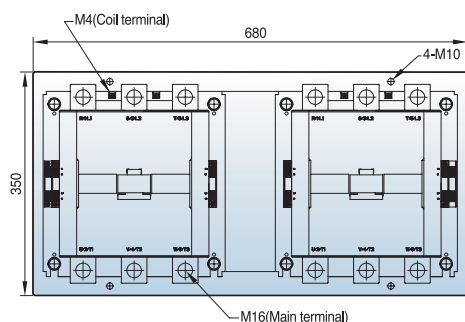
12.9kg

**CC265 ~ CC400**  
reversing  
combination  
shown with aux  
contacts



21.4kg

**CC500 ~ CC800**  
reversing  
combination  
shown with aux  
contacts

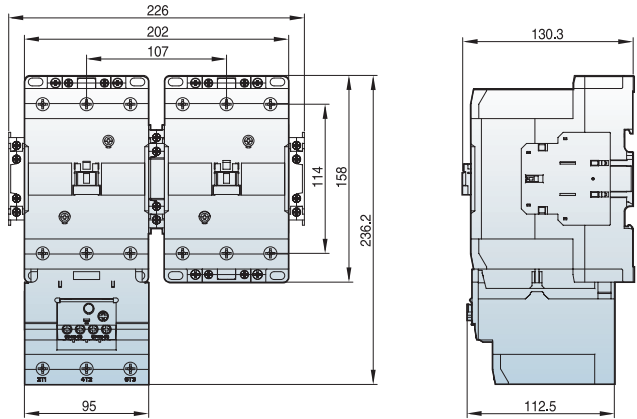


60kg

# Reversing Contactors and Starters (150AF ~ 400AF)

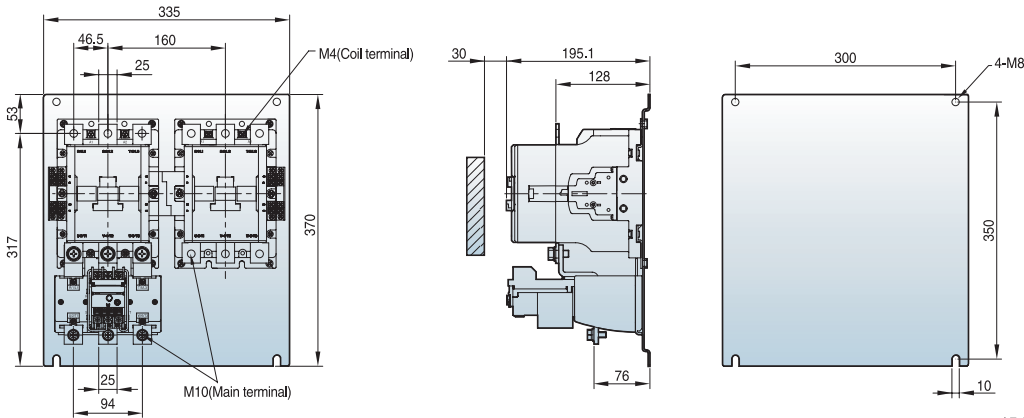
[mm]

**CC130 ~ CC150**  
AC coil  
reversing  
combination  
shown with GT150  
and aux contacts



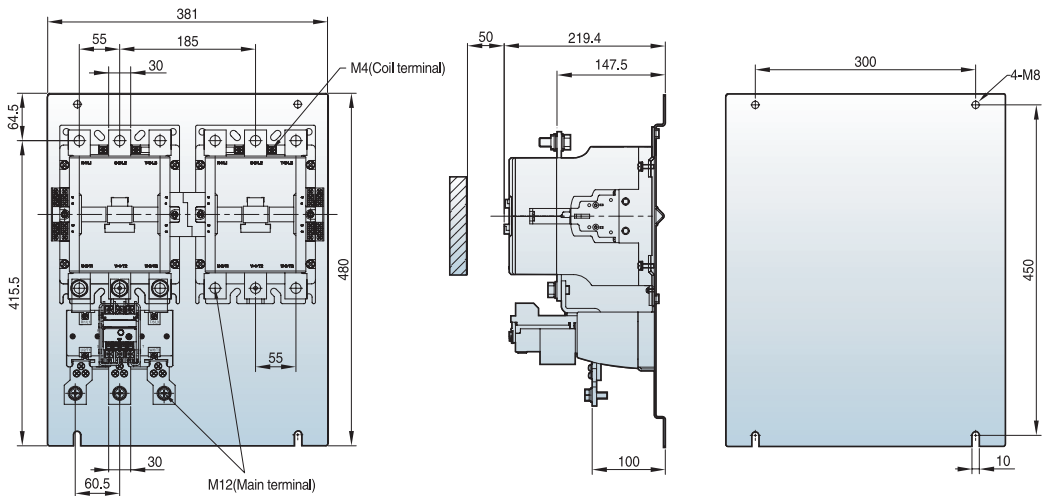
5kg

**CC185 ~ CC225**  
AC coil  
reversing  
combination  
shown with GT225  
and aux contacts



15.5kg

**CC265 ~ CC400**  
AC coil  
reversing  
combination  
shown with GT400  
and aux contacts



23kg