

Mini contactors

Mini contactors providing various connections and Accessories

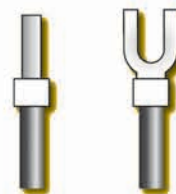
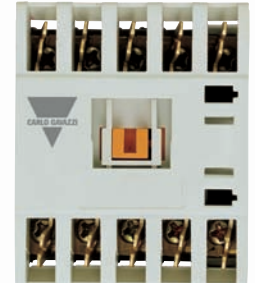
Ratings

| Frame size | AC3 ratings (IEC60947-4) | | | | AC1 rating lth |
|------------|--------------------------|---------------|---------------|------|-------------------|
| | 220 ~ 240V | 380 ~ 440V | 500 ~ 550V | 690V | |
| 6A | 1.5kW | 2.2kW | 3kW | 3kW | 20A |
| | 7A | 6A | 5A | 4A | |
| 9A | 2.2kW | 4kW | 3.7kW | 4kW | 20A |
| | 9A | 9A | 6A | 5A | |
| 12A | 3kW | 5.5kW | 4kW | 4kW | 20A |
| | 12A | 12A | 7A | 5A | |

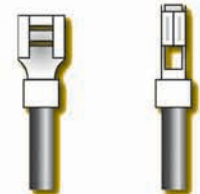
Screw clamps



Fast-on



For conventional
screw connections



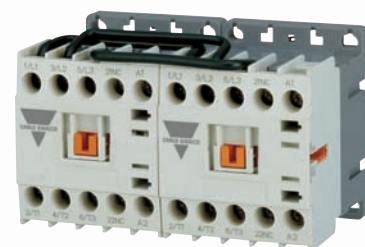
For fast-on
connections



Mini-overload relay



Overload relay
separately mounted

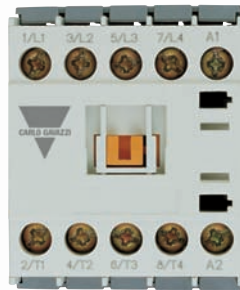


Reversing contactor

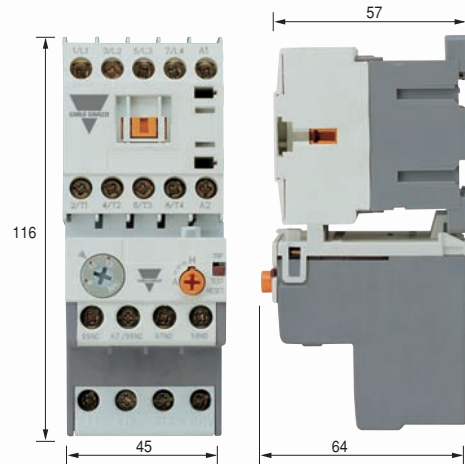
Cage clamps



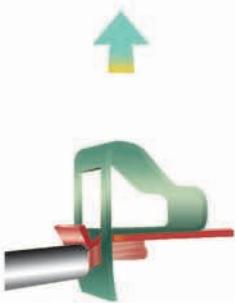
Solder pins



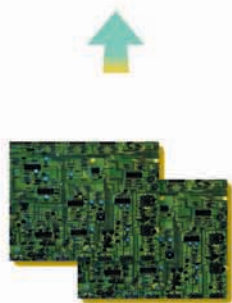
Dimensions,mm



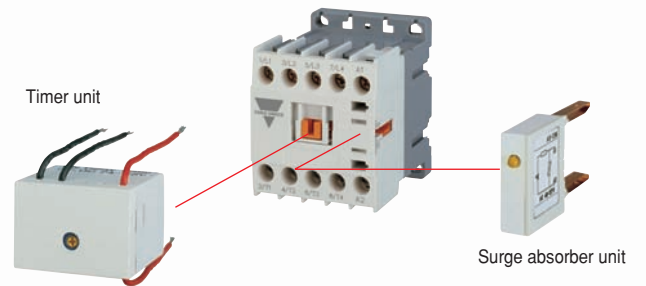
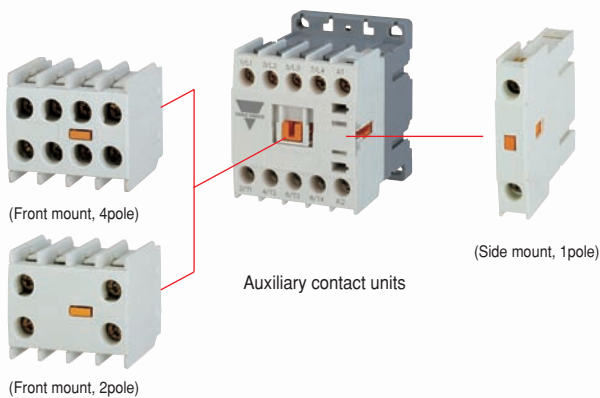
(Screw clamp type)



For screwless connections



To mount on printed circuit boards



Quick selection table

Mini contactors & overloads

Mini contactors

3NO main contacts
1 auxiliary contacts



Screw clamp type



Fast-on type



Cage clamp type



Solder pin type

| Frame size | | 6A | | 9A | | 12A | |
|------------------|---------|---------|--|---------|--|----------|--|
| Screw clamp type | AC coil | CGMS-6A | | CGMS-9A | | CGMS-12A | |
| | DC coil | CGMS-6D | | CGMS-9D | | CGMS-12D | |
| Fast-on type | AC coil | CGMF-6A | | CGMF-9A | | CGMF-12A | |
| | DC coil | CGMF-6D | | CGMF-9D | | CGMF-12D | |
| Cage clamp type | AC coil | CGMC-6A | | CGMC-9A | | CGMC-12A | |
| | DC coil | CGMC-6D | | CGMC-9D | | CGMC-12D | |
| Solder pin type | AC coil | CGMP-6A | | CGMP-9A | | CGMP-12A | |
| | DC coil | CGMP-6D | | CGMP-9D | | CGMP-12D | |

| Ratings / IEC60947-4 | | kW | | A | | kW | | A | |
|----------------------|-----------------|------------|-----------|----------|-----------|------------|-----------|---|-----------|
| AC1 | | | 20 | | 20 | | | | 20 |
| AC3 | 200/240V | 1.5 | 7 | 2.2 | 9 | 3 | 12 | | |
| | 380/440V | 2.2 | 6 | 4 | 9 | 5.5 | 12 | | |
| | 690V | 3 | 4 | 4 | 5 | 4 | 5 | | |

| Ratings / UL508 | | hp | | A | | hp | | A | |
|--------------------|-------------|--|--|----------|--|---------------|--|---|--|
| continuous current | | lth = 20A (maximum for cage clamp type is 10A) | | | | | | | |
| single phase | 115V | 0.5 | | 0.5 | | 1* | | | |
| | 230V | 1 | | 1.5 | | 2** | | | |
| three phase | 200V | * | | * | | * | | | |
| | 230V | 1.5 | | 3 | | 3 | | | |
| | 460V | 3 | | 5 | | 7.5*** | | | |
| | 575V | 3 | | 5 | | 7.5 | | | |
| NEMA size | | 00 | | 00 | | 00 | | | |

| Additional auxiliary contacts | Screw clamp type | Fast-on type | Cage clamp type | Solder pin type |
|-------------------------------|------------------|--------------|-----------------|-----------------|
| 2-pole, Front mount | AX-2M | AX-2MF | AX-2MC | AX-1MP |
| 4-pole, Front mount | AX-4M | AX-4MF | AX-4MC | |
| 2-pole, Side mount | AX-1M | AX-1MF | AX-1MC | |

See page 30 for more details

Overload Relays

| | | | | | | | | | | | | | | | | | | | | |
|---|----------------|---|------------|-------|-------------|-------|------------|-------|------------|--------|----------|--------|---------|---------|-----------|--|---------|--|--------------------------------|-------------------------------------|
| <p>Bimetallic style</p> <p>Type CGT</p> <p>Class 10A</p> | <p>CGT-12M</p> | <p>Setting ranges (A)</p> <table border="0"> <tr> <td>0.1 - 0.16</td> <td>4 - 6</td> </tr> <tr> <td>0.16 - 0.25</td> <td>5 - 8</td> </tr> <tr> <td>0.25 - 0.4</td> <td>6 - 9</td> </tr> <tr> <td>0.4 - 0.63</td> <td>7 - 10</td> </tr> <tr> <td>0.63 - 1</td> <td>9 - 13</td> </tr> <tr> <td>1 - 1.6</td> <td>12 - 16</td> </tr> <tr> <td>1.6 - 2.5</td> <td></td> </tr> <tr> <td>2.5 - 4</td> <td></td> </tr> </table> | 0.1 - 0.16 | 4 - 6 | 0.16 - 0.25 | 5 - 8 | 0.25 - 0.4 | 6 - 9 | 0.4 - 0.63 | 7 - 10 | 0.63 - 1 | 9 - 13 | 1 - 1.6 | 12 - 16 | 1.6 - 2.5 | | 2.5 - 4 | | <p>Base for separate mount</p> | <p>See page 27 for more details</p> |
| 0.1 - 0.16 | 4 - 6 | | | | | | | | | | | | | | | | | | | |
| 0.16 - 0.25 | 5 - 8 | | | | | | | | | | | | | | | | | | | |
| 0.25 - 0.4 | 6 - 9 | | | | | | | | | | | | | | | | | | | |
| 0.4 - 0.63 | 7 - 10 | | | | | | | | | | | | | | | | | | | |
| 0.63 - 1 | 9 - 13 | | | | | | | | | | | | | | | | | | | |
| 1 - 1.6 | 12 - 16 | | | | | | | | | | | | | | | | | | | |
| 1.6 - 2.5 | | | | | | | | | | | | | | | | | | | | |
| 2.5 - 4 | | | | | | | | | | | | | | | | | | | | |
| Differential | | CGT-12M | | | | | | | | | | | | | | | | | | |
| Non-differential (3-heater) | | CGTH-12M/3 | | | | | | | | | | | | | | | | | | |
| Non-differential (2-heater) | | CGTH-12M | | | | | | | | | | | | | | | | | | |

Note: * = 1/2 for cage clamp type, ** = 1.5hp for cage clamp type, *** = 5hp for cage clamp type

Contactors

- For motor control
- 3 main plus 1 auxiliary contacts
- Coil voltage : A.C.



Cage clamp connection types

| Frame size | AC3 ratings (IEC60947-4) | | | | AC1 rating Ith | Auxiliary contact (standard) | Type |
|------------|--------------------------|--------------|-------------|-----------|----------------|------------------------------|----------|
| | 220 ~ 240V | 380 ~ 440V | 500 ~ 550V | 690V | | | |
| 6A | 1.5kW 7A | 2.2kW 6A | 3kW 5A | 3kW 4A | 20A | 1NO or 1NC | CGMC-6A |
| 9A | 2.2kW 9A | 4kW 9A | 3.7kW 6A | 4kW 5A | 20A | 1NO or 1NC | CGMC-9A |
| 12A | 3kW 12A | 5.5kW 12A | 4kW 7A | 4kW 5A | 20A | 1NO or 1NC | CGMC-12A |



Solder pin connection types

| Frame size | AC3 ratings (IEC60947-4) | | | | AC1 rating Ith | Auxiliary contact (standard) | Type |
|------------|--------------------------|--------------|-------------|-----------|----------------|------------------------------|----------|
| | 220 ~ 240V | 380 ~ 440V | 500 ~ 550V | 690V | | | |
| 6A | 1.5kW 7A | 2.2kW 6A | 3kW 5A | 3kW 4A | 20A | 1NO or 1NC | CGMP-6A |
| 9A | 2.2kW 9A | 4kW 9A | 3.7kW 6A | 4kW 5A | 20A | 1NO or 1NC | CGMP-9A |
| 12A | 3kW 12A | 5.5kW 12A | 4kW 7A | 4kW 5A | 20A | 1NO or 1NC | CGMP-12A |

Coil voltage, AC 50/60Hz

24, 36, 42, 48, 110, 115, 120, 127, 200 / 208, 220, 220 / 230, 230 / 240, 256, 277, 380 / 400
400, 440, 480, 500, 550V AC

Ordering information

Type, Auxiliary contact and Coil voltage

For more information

- Drawings → page 34
- Reversing contactors → page 23
- Overload relays → page 27
- Optional accessories → page 29~33

Certificate
CE, ULcUL

Contactors

- For motor control
- 3 main plus 1 auxiliary contacts
- Coil voltage : D.C.



Cage clamp connection types

| Frame size | AC3 ratings (IEC60947-4) | | | | AC1 rating lth | Auxiliary contact (standard) | Type |
|------------|--------------------------|--------------|-------------|-----------|----------------|------------------------------|----------|
| | 220 ~ 240V | 380 ~ 440V | 500 ~ 550V | 690V | | | |
| 6A | 1.5kW 7A | 2.2kW 6A | 3kW 5A | 3kW 4A | 20A | 1NO or 1NC | CGMC-6D |
| 9A | 2.2kW 9A | 4kW 9A | 3.7kW 6A | 4kW 5A | 20A | 1NO or 1NC | CGMC-9D |
| 12A | 3kW 12A | 5.5kW 12A | 4kW 7A | 4kW 5A | 20A | 1NO or 1NC | CGMC-12D |



Solder pin connection types

| Frame size | AC3 ratings (IEC60947-4) | | | | AC1 rating lth | Auxiliary contact (standard) | Type |
|------------|--------------------------|--------------|-------------|-----------|----------------|------------------------------|----------|
| | 220 ~ 240V | 380 ~ 440V | 500 ~ 550V | 690V | | | |
| 6A | 1.5kW 7A | 2.2kW 6A | 3kW 5A | 3kW 4A | 20A | 1NO or 1NC | CGMP-6D |
| 9A | 2.2kW 9A | 4kW 9A | 3.7kW 6A | 4kW 5A | 20A | 1NO or 1NC | CGMP-9D |
| 12A | 3kW 12A | 5.5kW 12A | 4kW 7A | 4kW 5A | 20A | 1NO or 1NC | CGMP-12D |

Coil voltage, DC

- ① Standard type : 12, 20, 24, 36, 42, 48, 60, 72, 110, 120, 125, 220, 240, 250V DC
- ② Low consumption type : 12, 20, 24, 48, 72, 110, 120V DC(Low)
- ③ Wide Voltage : 12, 20, 24, 48, 72, 110, 12V DC(Wide)

Ordering information

Type, Auxiliary contact and Coil voltage

For more information

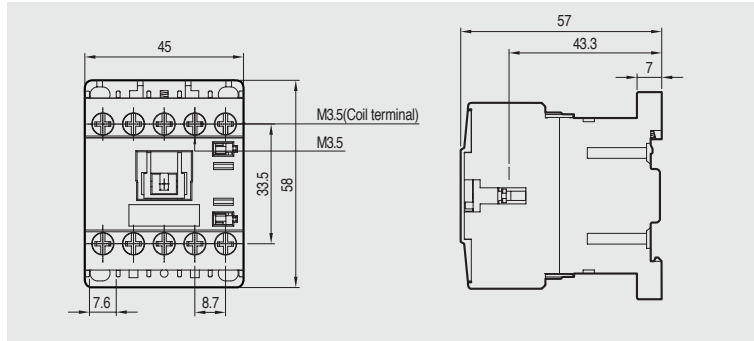
- Drawings → page 34
- Reversing contactors → page 25
- Overload relays → page 27
- Optional accessories → page 29~33

Certificate
CE, ULcUL

Mini contactors

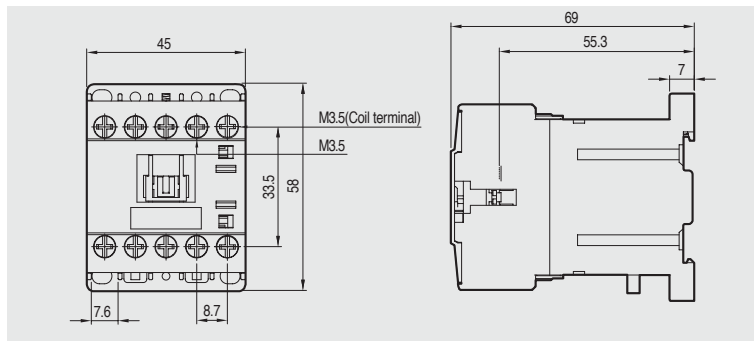
Dimensions

CGMS-12A



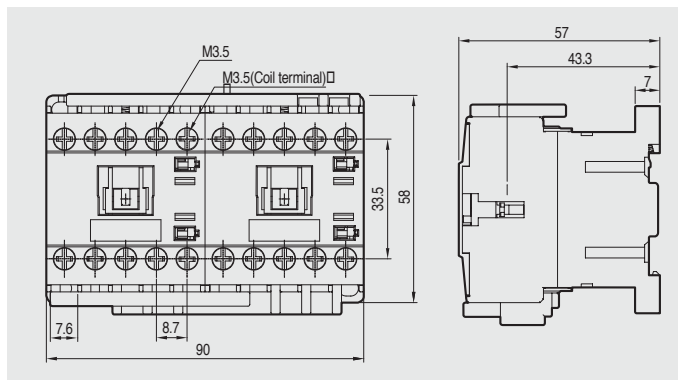
0.17kg

CGMS-12D



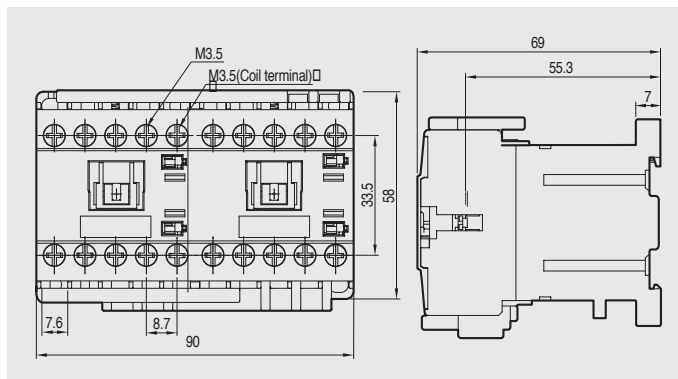
0.23kg

CGMUS-12A



0.36kg

CGMUS-12D



0.48kg