

## Specifications

# MIRA 3-Pole MRC (AC), MRD (DC) Magnetic Contactors



| Frame size                                                |                       |                        |           |
|-----------------------------------------------------------|-----------------------|------------------------|-----------|
| Type                                                      |                       |                        |           |
| Terminal Type                                             |                       |                        |           |
| Number of poles                                           |                       |                        |           |
| Rated operation 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<br>A   |
|                                                           |                       | 380/440V               | kW<br>A   |
|                                                           |                       | 500/550V               | kW<br>A   |
|                                                           |                       | 690V                   | kW<br>A   |
|                                                           | Continuous current    |                        | A         |
| UL rating (50/60Hz)                                       | Single Phase          | 110~120V               | HP        |
|                                                           |                       | 220~240V               | HP        |
|                                                           |                       | 200~208V               | HP        |
|                                                           | Three Phase           | 220~240V               | HP        |
|                                                           |                       | 440~480V               | HP        |
|                                                           |                       | 550~600V               | HP        |
| Size and weight                                           | NEMA size             |                        |           |
|                                                           | MRC                   | Weight<br>Size (WxHxD) | lbs<br>in |
|                                                           |                       | Weight<br>Size (WxHxD) | lbs<br>in |
|                                                           | MRD                   | Weight<br>Size (WxHxD) | lbs<br>in |
| Auxiliary (standard)                                      |                       |                        |           |
| Auxiliary                                                 | Side mount            |                        |           |
|                                                           | Front mount           |                        |           |

\*Minimum conduct current of auxiliary contactor is DC 17V 5mA

\*\*10A max, Not motor duty rated.

| 22AF                     |         |         |         |
|--------------------------|---------|---------|---------|
| MRC-9B                   | MRC-12B | MRC-18B | MRC-22B |
| Screw                    |         |         |         |
| 3 pole                   |         |         |         |
| 690V                     |         |         |         |
| 690V                     |         |         |         |
| 50/60Hz                  |         |         |         |
| 6kV                      |         |         |         |
| 1800 operations per hour |         |         |         |
| 15 mil. operations       |         |         |         |
| 2.5 mil. operations      |         |         |         |
| 25                       | 25      | 40      | 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                       | -       | 0       | -       |
| 0.73 lbs                 |         |         |         |
| 1.77 x 2.89 x 3.39 in    |         |         |         |
| 1.12 lbs                 |         |         |         |
| 1.77 x 2.89 x 4.63 in    |         |         |         |
| 1NO & 1NC                |         |         |         |
| MA-1                     |         |         |         |
| CA-2, CA-4               |         |         |         |

| 40AF                     |         |
|--------------------------|---------|
| MRC-32A                  | MRC-40A |
| Screw                    |         |
| 3 pole                   |         |
| 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                        | -       |
| 0.88 lbs                 |         |
| 1.77 x 3.27 x 3.54 in    |         |
| 1.32 lbs                 |         |
| 1.77 x 3.27 x 4.61 in    |         |
| 1NO & 1NC                |         |
| MA-1                     |         |
| CA-2, CA-4               |         |

## MTK Thermal Overload Relays



| Frame size                            |              |     |
|---------------------------------------|--------------|-----|
| Rated operation voltage, Ue           |              |     |
| Rated insulation voltage, Ui          |              |     |
| Rated impulse withstand voltage, Uimp |              |     |
| Trip class                            |              |     |
| Setting range                         |              |     |
| Size and weight                       | Weight       | lbs |
|                                       | Size (WxDxH) | in  |

| MTK-32                |  |
|-----------------------|--|
| 690V                  |  |
| 690V                  |  |
| 6kV                   |  |
| 10                    |  |
| 0.1~18A               |  |
| 0.22 lbs              |  |
| 1.77 x 2.88 x 2.51 in |  |

| MTK-32                |  |
|-----------------------|--|
| 690V                  |  |
| 690V                  |  |
| 6kV                   |  |
| 10                    |  |
| 0.1~40A               |  |
| 0.37 lbs              |  |
| 1.77 x 2.95 x 3.54 in |  |

\*The safety cover of magnetic contactor is optional.



| 65AF                     |          |
|--------------------------|----------|
| MRC-50LA                 | MRC-65LA |
| Lug                      |          |
| 3 pole                   |          |
| 690V                     |          |
| 1000V                    |          |
| 50/60Hz                  |          |
| 8kV                      |          |
| 1800 operations per hour |          |
| 12 mil. operations       |          |
| 2 mil. operations        |          |
| 70                       | 100      |
| 15                       | 18.5     |
| 55                       | 65       |
| 22                       | 30       |
| 50                       | 65       |
| 30                       | 33       |
| 43                       | 60       |
| 30                       | 33       |
| 28                       | 35       |
| 70                       | 100      |
| 3                        | 5        |
| 10                       | 15       |
| 20                       | 25       |
| 25                       | 30       |
| 40                       | 50       |
| 50                       | 60       |
| 2                        | -        |
| 1.98 lbs                 |          |
| 2.17 x 4.17 x 4.69 in    |          |
| 2.65 lbs                 |          |
| 2.17 x 4.17 x 5.76 in    |          |
| 1NO & 1NC                |          |
| MA-1                     |          |
| CA-2, CA-4               |          |

| 100AF                    |          |           |
|--------------------------|----------|-----------|
| MRC-75LA                 | MRC-85LA | MRC-100LA |
| Lug                      |          |           |
| 3 pole                   |          |           |
| 690V                     |          |           |
| 1000V                    |          |           |
| 50/60Hz                  |          |           |
| 6kV                      |          |           |
| 1800 operations per hour |          |           |
| 12 mil. operations       |          |           |
| 2 mil. operations        |          |           |
| 110                      | 135      | 160       |
| 22                       | 25       | 30        |
| 75                       | 85       | 105       |
| 37                       | 45       | 55        |
| 75                       | 85       | 105       |
| 37                       | 45       | 55        |
| 64                       | 75       | 85        |
| 37                       | 45       | 55        |
| 42                       | 45       | 65        |
| 110                      | 135      | 160       |
| 5                        | 7.5      | 10        |
| 15                       | 15       | 20        |
| 25                       | 30       | 30        |
| 30                       | 40       | 40        |
| 50                       | 60       | 75        |
| 60                       | 75       | 75        |
| -                        | 3        | -         |
| 3.53 lbs                 |          |           |
| 2.76 x 5.51 x 5.35 in    |          |           |
| 5.73 lbs                 |          |           |
| 2.76 x 5.51 x 6.78 in    |          |           |
| 1NO & 1NC                |          |           |
| MA-1                     |          |           |
| CA-2, CA-4               |          |           |

| 150AF                    |           |
|--------------------------|-----------|
| MRC-130LA                | MRC-150LA |
| Lug                      |           |
| 3 pole                   |           |
| 690V                     |           |
| 1000V                    |           |
| 50/60Hz                  |           |
| 8kV                      |           |
| 1800 operations per hour |           |
| 5 mil. operations        |           |
| 1 mil. operations        |           |
| 160                      | 210       |
| 37                       | 45        |
| 130                      | 150       |
| 60                       | 75        |
| 130                      | 150       |
| 60                       | 70        |
| 90                       | 100       |
| 55                       | 50        |
| 60                       | 60        |
| 160                      | 210       |
| 10                       | 15        |
| 20                       | 25        |
| 40                       | 40        |
| 40                       | 50        |
| 75                       | 100       |
| 75                       | 75        |
| -                        | 4         |
| 5.29 lbs                 |           |
| 3.74 x 6.22 x 5.13 in    |           |
| 1NO & 1NC                |           |
| MA-1                     |           |
| CA-2, CA-4               |           |



| MTK-63                |
|-----------------------|
| 690V                  |
| 690V                  |
| 6kV                   |
| 10                    |
| 4~65A                 |
| 0.68/0.73 lbs         |
| 2.17 x 3.19 x 3.94 in |

| MTK-95                |
|-----------------------|
| 690V                  |
| 690V                  |
| 6kV                   |
| 10                    |
| 7~100A                |
| 1.06/1.10 lbs         |
| 2.76 x 3.82 x 4.33 in |

| MTK-150               |
|-----------------------|
| 690V                  |
| 690V                  |
| 6kV                   |
| 10                    |
| 34~150A               |
| 1.48 lbs              |
| 3.74 x 4.29 x 4.45 in |

## Specifications

# MIRA 3-Pole MRC (AC/DC) Magnetic Contactors

| Frame size                                                |                       |                        |           |
|-----------------------------------------------------------|-----------------------|------------------------|-----------|
| Type                                                      |                       |                        |           |
| Terminal Type                                             |                       |                        |           |
| Number of poles                                           |                       |                        |           |
| Rated operation 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<br>A   |
|                                                           |                       | 380/440V               | kW<br>A   |
|                                                           |                       | 500/550V               | kW<br>A   |
|                                                           |                       | 690V                   | kW<br>A   |
|                                                           | UL rating (50/60Hz)   | Continuous current     |           |
| Single Phase                                              |                       | 110~120V               | HP        |
|                                                           |                       | 220~240V               | HP        |
| Three Phase                                               |                       | 200~208V               | HP        |
|                                                           |                       | 220~240V               | HP        |
|                                                           |                       | 440~480V               | HP        |
|                                                           |                       | 550~600V               | HP        |
| NEMA size                                                 |                       |                        |           |
| Size and weight                                           |                       | Weight<br>Size (WxHxD) | lbs<br>in |
| Auxiliary (standard)                                      |                       |                        |           |
| Auxiliary                                                 | Side mount            |                        |           |

\*Minimum conduct current of auxiliary contactor is DC 17V 5mA

\*\*10A max, Not motor duty rated.

# MTK Thermal Overload Relays

| Frame size                            |              |     |
|---------------------------------------|--------------|-----|
| Rated operation voltage, Ue           |              |     |
| Rated insulation voltage, Ui          |              |     |
| Rated impulse withstand voltage, Uimp |              |     |
| Trip class                            |              |     |
| Setting range                         |              |     |
| Size and weight                       | Weight       | lbs |
|                                       | Size (WxDxH) | in  |

\* The safety cover of magnetic contactor is optional.



| 225AF                    |  |          |
|--------------------------|--|----------|
| MRC-185A                 |  | MRC-225A |
| Screw                    |  |          |
| 3 pole                   |  |          |
| 690V                     |  |          |
| 1000V                    |  |          |
| 50/60Hz                  |  |          |
| 8kV                      |  |          |
| 1800 operations per hour |  |          |
| 5 mil. operations        |  |          |
| 1 mil. operations        |  |          |
| 230                      |  | 275      |
| 55                       |  | 75       |
| 185                      |  | 225      |
| 90                       |  | 132      |
| 185                      |  | 225      |
| 110                      |  | 132      |
| 180                      |  | 200      |
| 110                      |  | 140      |
| 120                      |  | 150      |
| 230                      |  | 275      |
| 15                       |  | 15       |
| 30                       |  | 40       |
| 60                       |  | 60       |
| 60                       |  | 75       |
| 150                      |  | 150      |
| 125                      |  | 125      |
| -                        |  | -        |
| 11.91 lbs                |  |          |
| 5.43 x 7.99 x 7.29 in    |  |          |
| 2NO & 2NC                |  |          |
| CA-100                   |  |          |



| MTK-225               |  |
|-----------------------|--|
| 690V                  |  |
| 690V                  |  |
| 6kV                   |  |
| 10                    |  |
| 65~240A               |  |
| 6.95 lbs              |  |
| 5.79 x 5.55 x 7.24 in |  |



| 400AF                    |                     |
|--------------------------|---------------------|
| MRC-330A                 | MRC-400A            |
| Screw                    |                     |
| 3 pole                   |                     |
| 690V                     |                     |
| 1000V                    |                     |
| 50/60Hz                  |                     |
| 8kV                      |                     |
| 1200 operations per hour |                     |
| 5 mil. operations        | 2.5 mil. operations |
| 1 mil. operations        | 0.5 mil. operations |
| 350                      | 450                 |
| 90                       | 125                 |
| 330                      | 400                 |
| 160                      | 225                 |
| 330                      | 350                 |
| 160                      | 225                 |
| 280                      | 350                 |
| 200                      | 250                 |
| 225                      | 300                 |
| 350                      | 450                 |
| -                        | -                   |
| -                        | -                   |
| 100                      | 125                 |
| 125                      | 150                 |
| 250                      | 300                 |
| 250                      | 300                 |
| 5                        | -                   |
| 20.28 lbs                |                     |
| 6.42 x 9.57 x 8.05 in    |                     |
| 2NO & 2NC                |                     |
| CA-100                   |                     |



| 800AF                    |          |
|--------------------------|----------|
| MRC-630A                 | MRC-800A |
| Screw                    |          |
| 3 pole                   |          |
| 690V                     |          |
| 1000V                    |          |
| 50/60Hz                  |          |
| 8kV                      |          |
| 1200 operations per hour |          |
| 2.5 mil. operations      |          |
| 0.5 mil. operations      |          |
| 660                      | 900      |
| 190                      | 220      |
| 630                      | 800      |
| 330                      | 440      |
| 630                      | 800      |
| 330                      | 500      |
| 500                      | 720      |
| 400                      | 500      |
| 420                      | 630      |
| 660                      | 900      |
| -                        | -        |
| -                        | -        |
| 220                      | 200      |
| 250                      | 300      |
| 500                      | 600      |
| 500                      | 600      |
| 6                        | 7        |
| 49.38 lbs                |          |
| 11.22 x 12.28 x 9.66 in  |          |
| 2NO & 2NC                |          |
| CA-100                   |          |



| MTK-400               |  |
|-----------------------|--|
| 690V                  |  |
| 690V                  |  |
| 6kV                   |  |
| 10                    |  |
| 85~400A               |  |
| 7.90 lbs              |  |
| 5.94 x 6.73 x 7.80 in |  |



| MTK-800                |  |
|------------------------|--|
| 690V                   |  |
| 690V                   |  |
| 6kV                    |  |
| 10                     |  |
| 200~800A               |  |
| 32.80 lbs              |  |
| 14.2 x 20.87 x 8.35 in |  |

Ordering Information

MIRA MRC/MRD 9-150A 3 Pole Contactors

| Frame Size | Model Number |           | AC 3 Rating @ 440V | NEMA Size | Continuous Current (A) | UL MAX HP RATING (50/60Hz) |          |             |          |          |          |
|------------|--------------|-----------|--------------------|-----------|------------------------|----------------------------|----------|-------------|----------|----------|----------|
|            |              |           |                    |           |                        | Single Phase               |          | Three Phase |          |          |          |
|            | AC           | DC        |                    |           |                        | 110-120V                   | 220-240V | 200-208V    | 220-240V | 440-480V | 550-600V |
| 22AF       | MRC-9B       | MRD-9B    | 9A                 | 00        | 25                     | 1/2                        | 1.5      | 2           | 3        | 5        | 7.5      |
|            | MRC-12B      | MRD-12B   | 12A                | -         | 25                     | 3/4                        | 2        | 3           | 5        | 7.5      | 10       |
|            | MRC-18B      | MRD-18B   | 18A                | 0         | 40                     | 1                          | 3        | 5           | 7.5      | 10       | 15       |
|            | MRC-22B      | MRD-22B   | 22A                | -         | 40                     | 2                          | 3        | 7.5         | 10       | 15       | 20       |
| 40AF       | MRC-32A      | MRD-32A   | 32A                | 1         | 50                     | 2                          | 5        | 7.5         | 10       | 20       | 25       |
|            | MRC-40A      | MRD-40A   | 40A                | -         | 60                     | 3                          | 7.5      | 15          | 15       | 30       | 30       |
| 65AF       | MRC-50LA     | MRD-50LA  | 50A                | 2         | 70                     | 3                          | 10       | 20          | 25       | 40       | 50       |
|            | MRC-65LA     | MRD-65LA  | 65A                | -         | 100                    | 5                          | 15       | 25          | 30       | 50       | 60       |
| 100AF      | MRC-75LA     | MRD-75LA  | 75A                | -         | 110                    | 5                          | 15       | 25          | 30       | 50       | 60       |
|            | MRC-85LA     | MRD-85LA  | 85A                | 3         | 135                    | 7.5                        | 15       | 30          | 40       | 60       | 75       |
|            | MRC-100LA    | MRD-100LA | 105A               | -         | 160                    | 10                         | 20       | 30          | 40       | 75       | 75       |
| 150AF      | MRC-130LA    | MRD-130LA | 130A               | -         | 160                    | 10                         | 20       | 40          | 40       | 75       | 75       |
|            | MRC-150LA    | MRD-150LA | 150A               | 4         | 210                    | 15                         | 25       | 40          | 50       | 100      | 75       |

| Coil Voltage (22AF~100AF) |          |                                              |
|---------------------------|----------|----------------------------------------------|
| AC                        | 50/60 Hz | 24VAC, 48VAC, 120VAC, 220VAC, 240VAC, 380VAC |
|                           | 60 Hz    | 208VAC, 277VAC, 480VAC, 600VAC               |
| DC                        | DC       | 12VDC, 24VDC, 48VDC, 110VDC                  |

| Coil Voltage (150AF) |          |                                                      |
|----------------------|----------|------------------------------------------------------|
| AC                   | 50/60 Hz | 24VAC, 48VAC, 110VAC, 220VAC, 300VAC, 400VAC, 500VAC |
| DC                   | DC       | 24VDC, 48VDC, 110VDC, 220VDC                         |

How to Order:

(Model Number)-(Coil Voltage)

Example:

MRC-9B-24VAC

MODEL NUMBER

COIL VOLTAGE (VAC/VDC)

## Ordering Information

### MIRA Metasol MRC 185~800A 3-Pole Contactors

| Frame Size | Model Number | AC 3 Rating @ 440V | NEMA Size | Continuous Current (A) | UL MAX HP RATING (50/60Hz) |          |             |          |          |          |
|------------|--------------|--------------------|-----------|------------------------|----------------------------|----------|-------------|----------|----------|----------|
|            |              |                    |           |                        | Single Phase               |          | Three Phase |          |          |          |
|            |              |                    |           |                        | 110-120V                   | 220-240V | 200-208V    | 220-240V | 440-480V | 550-600V |
| 225AF      | MRC-185A     | 185A               | -         | 230                    | 15                         | 30       | 60          | 60       | 125      | 125      |
|            | MRC-225A     | 225A               | -         | 275                    | 15                         | 40       | 60          | 75       | 150      | 150      |
| 400AF      | MRC-330A     | 330A               | 5         | 350                    | -                          | -        | 100         | 125      | 250      | 250      |
|            | MRC-400A     | 400A               | -         | 450                    | -                          | -        | 125         | 150      | 300      | 300      |
| 800AF      | MRC-630A     | 630A               | 6         | 660                    | -                          | -        | 200         | 250      | 500      | 500      |
|            | MRC-800A     | 800A               | 7         | 900                    | -                          | -        | 200         | 300      | 600      | 600      |

| Coil Voltage (225AF) |             | Coil Voltage | Operating Range |
|----------------------|-------------|--------------|-----------------|
| AC/DC                | AC 50/60 Hz | 24V          | (24~25VAC)      |
|                      | DC          |              | (24VDC)         |
|                      | AC 50/60 Hz | 48V          | (48~50VAC)      |
|                      | DC          |              | (48VDC)         |
|                      | AC 50/60 Hz | 100V         | (100~240VAC)    |
|                      | DC          |              | (100~120VDC)    |
| AC                   | AC 50/60 Hz | 300VAC       | (265~347VAC)    |
|                      |             | 400VAC       | (380~450VAC)    |
|                      |             | 500VAC       | (440~575VAC)    |

| Coil Voltage (400AF) |             | Coil Voltage | Operating Range |
|----------------------|-------------|--------------|-----------------|
| AC/DC                | AC 50/60 Hz | 100V         | (100~240VAC)    |
|                      | DC          |              | (100~220VDC)    |
| AC                   | AC 50/60 Hz | 300VAC       | (265~347VAC)    |
|                      |             | 400VAC       | (380~450VAC)    |
|                      |             | 500VAC       | (440~575VAC)    |

| Coil Voltage (800AF) |             | Coil Voltage | Operating Range |
|----------------------|-------------|--------------|-----------------|
| AC/DC                | AC 50/60 Hz | 100V         | (100~127VAC)    |
|                      | DC          |              | (100~110VDC)    |
|                      | AC 50/60 Hz | 200V         | (200~240VAC)    |
|                      | DC          |              | (200~220VDC)    |
| AC                   | AC 50/60 Hz | 300VAC       | (265~347VAC)    |
|                      |             | 400VAC       | (380~450VAC)    |
|                      |             | 500VAC       | (440~575VAC)    |

## How to Order:

# (Model Number)-(Coil Voltage)

Example:

**MRC-225A-300VAC**

MODEL NUMBER COIL VOLTAGE (VAC/V)

## Terminal Connections

### 3 Pole Contactor Terminal Connections

| Model Number           | Main Terminal Size | WIRE TYPE                                                                         |                                                                                   |                                                                                   |                                                                                   | Torque |         |       |
|------------------------|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|---------|-------|
|                        |                    |  |  |  |  |        |         |       |
|                        |                    | AWG/mm²                                                                           |                                                                                   |                                                                                   |                                                                                   |        | in(max) | lb-in |
| MRC-9B                 | M4                 | 18~10 (1~6)                                                                       | 18~10 (1~6)                                                                       | 18~10 (1~6)                                                                       | 0.38                                                                              | 20     | 2.25    | 23    |
| MRC-12B                |                    | 18~10 (1~6)                                                                       | 16~10 (1~6)                                                                       | 16~10 (1~6)                                                                       |                                                                                   |        |         |       |
| MRC-18B                |                    | 18~10 (1~6)                                                                       | 16~8 (1.5~10)                                                                     | 16~8 (1.5~10)                                                                     |                                                                                   |        |         |       |
| MRC-22B                |                    | 18~10 (1~6)                                                                       | 14~8 (2.5~10)                                                                     | 14~8 (2.5~10)                                                                     |                                                                                   |        |         |       |
| MRC-32A                | M5                 | 18~10 (1~6)                                                                       | 12~8 (2.5~10)                                                                     | 12~8 (2.5~10)                                                                     | 0.50                                                                              | 20     | 2.25    | 23    |
| MRC-40A                |                    | 18~10 (1~6)                                                                       | 8~6 (10~16)                                                                       | 8~6 (10~16)                                                                       |                                                                                   | 35     | 4       | 41    |
| MRC-50LA               | M6                 | -                                                                                 | 10~4 (6~25)                                                                       | 10~4 (6~25)                                                                       | 0.55                                                                              | 35     | 4       | 41    |
| MRC-65LA               |                    | -                                                                                 | 8~3 (10~35)                                                                       | 8~3 (10~35)                                                                       |                                                                                   |        |         |       |
| MRC-75LA               | M8                 | -                                                                                 | 8~2 (10~35)                                                                       | 8~2 (10~35)                                                                       | 0.67                                                                              | 45     | 5.1     | 52    |
| MRC-85LA               |                    | -                                                                                 | 8~1/0 (10~50)                                                                     | 8~1/0 (10~50)                                                                     |                                                                                   |        |         |       |
| MRC-100LA              |                    | -                                                                                 | 8~2/0 (10~70)                                                                     | 8~2/0 (10~70)                                                                     |                                                                                   |        |         |       |
| MRC-130LA              | M8                 | -                                                                                 | 3~2/0 (35~70)                                                                     | 3~2/0 (35~70)                                                                     | 0.96                                                                              | 80     | 9.1     | 93    |
| MRC-150LA              |                    | -                                                                                 | 3~4/0 (35~95)                                                                     | 3~4/0 (35~95)                                                                     |                                                                                   |        |         |       |
| MRC-9B~150LA Aux./Coil | M4                 | 20~14 (0.5~2.5)                                                                   | 18~12 (0.75~2.5)                                                                  | 18~12 (0.75~2.5)                                                                  | 0.30                                                                              | 15     | 1.75    | 18    |
| MRC-185A               | M10                | -                                                                                 | 1~4/0 (50~95)                                                                     | 1~4/0 (50~95)                                                                     | 0.98                                                                              | 130    | 14.7    | 150   |
| MRC-225A               |                    | -                                                                                 | 1/0~300 (50~150)                                                                  | 1/0~300 (50~150)                                                                  |                                                                                   |        |         |       |
| MRC-330A               | M12                | -                                                                                 | 4/0~500 (95~240)                                                                  | 4/0~500 (95~240)                                                                  | 1.18                                                                              | 200    | 22.6    | 230   |
| MRC-400A               |                    | -                                                                                 | 350~700 (185~185x2)                                                               | 350~700 (185~185x2)                                                               |                                                                                   |        |         |       |
| MRC-630A               | M16                | -                                                                                 | 600~2000                                                                          | -                                                                                 | 1.57                                                                              | 500    | 26.5    | 270   |
| MRC-800A               |                    | -                                                                                 | 1700~Bus bar                                                                      | -                                                                                 |                                                                                   |        |         |       |
| MRC-185~800A Aux./Coil | M4                 | 16~10 (1.25~5.5)                                                                  | 16~10 (1.25~5.5)                                                                  | 16~10/1.25~5.5                                                                    | 0.30                                                                              | 15     | 1.75    | 18    |

## Control Coil Specifications

MIRA 3 Pole  
Contactor Coils

| Frame size                      |          |     | 22AF                                    | 40AF               | 65AF                 | 100AF                             | 150AF                      |
|---------------------------------|----------|-----|-----------------------------------------|--------------------|----------------------|-----------------------------------|----------------------------|
| AC Contactor Model Number       |          |     | MRC-9B<br>MRC-12B<br>MRC-18B<br>MRC-22B | MRC-32A<br>MRC-40A | MRC-50LA<br>MRC-65LA | MRC-75LA<br>MRC-85LA<br>MRC-100LA | MRC-130LA<br>MRC-150LA     |
| AC coil                         |          |     |                                         |                    |                      |                                   |                            |
| Control voltage, Uc             | 50/60 Hz | VAC | 24, 48, 120, 220, 240, 380              |                    |                      |                                   | 24, 48, 110, 300, 400, 500 |
|                                 | 60 Hz    | VAC | 208, 277, 480, 600                      |                    |                      |                                   | -                          |
| Voltage limit, Uc               | Pick-up  |     | 85 ~110%                                |                    |                      |                                   |                            |
|                                 | Drop-out |     | 30 ~ 60%                                |                    |                      |                                   |                            |
| Coil consumption at 68°F (20°C) |          |     |                                         |                    |                      |                                   |                            |
| AC 220V<br>50/60 Hz             | Inrush   | VA  | 58/56                                   | 53/50              | 110/104              | 229/216                           | 108/104                    |
|                                 | Holding  | VA  | 9.0/6.0                                 | 12.0/9.0           | 13.0/10.0            | 17.0/13.0                         | 18.0/21.0                  |
| Power consumption               |          | 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                    |
| Frame size                      |          |     | 22AF                                    | 40AF               | 65AF                 | 100AF                             | 150AF                      |
| DC Contactor Model Number       |          |     | MRD-9B<br>MRD-12B<br>MRD-18B<br>MRD-22B | MRD-32A<br>MRD-40A | MRD-50LA<br>MRD-65LA | MRD-75LA<br>MRD-85LA<br>MRD-100LA | MRD-130LA<br>MRD-150LA     |
| DC coil                         |          |     |                                         |                    |                      |                                   |                            |
| Control voltage, Uc             |          | VDC | 12, 24, 48, 110                         |                    |                      |                                   | 24, 48, 110, 220           |
| Voltage limit, Uc               | Pick-up  |     | 70 ~ 110%                               |                    |                      |                                   |                            |
|                                 | Drop-out |     | 10 ~ 30%                                |                    |                      |                                   |                            |
| Coil consumption at 68°F (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                    |

## Control Coil Specifications

MIRA 3 Pole  
Contactor Coils

| Frame size                       |                                      |    | 225AF                | 400AF                | 800AF                |
|----------------------------------|--------------------------------------|----|----------------------|----------------------|----------------------|
| Contactor Model Number           |                                      |    | MRC-185A<br>MRC-225A | MRC-330A<br>MRC-400A | MRC-630A<br>MRC-800A |
| Contactor coil                   |                                      |    |                      |                      |                      |
| Control voltage, Uc              | AC 50/60Hz / DC<br>(Dual rated coil) |    | 24~25 / 24           | -                    | -                    |
|                                  |                                      |    | 48~50 / 48           | -                    | 100~127 / 100~110    |
|                                  |                                      |    | 100~240 / 100~220    | 100~240 / 100~220    | 200~240 / 200~220    |
|                                  | AC 50/60 Hz                          |    | 265~347              | 265~347              | 265~347              |
|                                  |                                      |    | 380~450              | 380~450              | 380~450              |
|                                  |                                      |    | 440~575              | 440~575              | 440~575              |
| Voltage limit, Uc                | Pick-up                              |    | 85 ~110%             |                      |                      |
|                                  | Drop-out                             |    | 30 ~60%              |                      |                      |
| Coil consumption at 68°F (20° C) |                                      |    |                      |                      |                      |
| AC 220V<br>50/60 Hz              | Inrush                               | VA | 380                  | 571                  | 1000                 |
|                                  | Holding                              | VA | 11.6                 | 14                   | 29                   |
| Power consumption                |                                      | W  | 4.7                  | 5                    | 7.8                  |
| Operating time                   | Closing                              | ms | 70                   | 55                   | 75                   |
|                                  | Opening                              | ms | 70                   | 55                   | 75                   |

## MIRA Replacement Coils:

## 3 Pole Contactor Replacement Coils - MR(C/D)-9B~MR(C/D)-150LA

| Contactor                               | VAC 50/60 Hz     |                     | VAC 60 Hz     |                    | VDC           |                     |
|-----------------------------------------|------------------|---------------------|---------------|--------------------|---------------|---------------------|
|                                         | Coil Voltages    | Coil Part #         | Coil Voltages | Coil Part #        | Coil Voltages | Coil Part #         |
| MRC-9B<br>MRC-12B<br>MRC-18B<br>MRC-22B | 24VAC            | MC-9B-22B 24VAC     | 208VAC        | MC-9B-22B 208VAC   | 12VDC         | MC-9B-22B 12VDC     |
|                                         | 48VAC            | MC-9B-22B 48VAC     | 277VAC        | MC-9B-22B 277VAC   | 24VDC         | MC-9B-22B 24VDC     |
|                                         | 120VAC           | MC-9B-22B 120VAC    | 480VAC        | MC-9B-22B 480VAC   | 48VDC         | MC-9B-22B 48VDC     |
|                                         | 220VAC           | MC-9B-22B 220VAC    | 600VAC        | MC-9B-22B 600VAC   | 110VDC        | MC-9B-22B 110VDC    |
|                                         | 240VAC           | MC-9B-22B 240VAC    | -             | -                  | -             | -                   |
|                                         | 380VAC           | MC-9B-22B 380VAC    | -             | -                  | -             | -                   |
| MRC-32A<br>MRC-40A                      | 24VAC            | MC-32A-40A 24VAC    | 208VAC        | MC-32A-40A 208 VAC | 12VDC         | MC-32A-40A 12VDC    |
|                                         | 48VAC            | MC-32A-40A 48VAC    | 277VAC        | MC-32A-40A 277VAC  | 24VDC         | MC-32A-40A 24VDC    |
|                                         | 120VAC           | MC-32A-40A 120VAC   | 480VAC        | MC-32A-40A 480VAC  | 48VDC         | MC-32A-40A 48VDC    |
|                                         | 220VAC           | MC-32A-40A 220VAC   | 600VAC        | MC-32A-40A 600VAC  | 110VDC        | MC-32A-40A 110VDC   |
|                                         | 240VAC           | MC-32A-40A 240VAC   | -             | -                  | -             | -                   |
|                                         | 380VAC           | MC-32A-40A 380VAC   | -             | -                  | -             | -                   |
| MRC-50A<br>MRC-65A                      | 24VAC            | MC-50A-65A 24VAC    | 208VAC        | MC-50A-65A 208VAC  | 12VDC         | MC-50A-65A 12VDC    |
|                                         | 48VAC            | MC-50A-65A 48VAC    | 277VAC        | MC-50A-65A 277VAC  | 24VDC         | MC-50A-65A 24VDC    |
|                                         | 120VAC           | MC-50A-65A 120VAC   | 480VAC        | MC-50A-65A 480VAC  | 48VDC         | MC-50A-65A 48VDC    |
|                                         | 220VAC           | MC-50A-65A 220VAC   | 600VAC        | MC-50A-65A 600VAC  | 110VDC        | MC-50A-65A 110VDC   |
|                                         | 240VAC           | MC-50A-65A 240VAC   | -             | -                  | -             | -                   |
|                                         | 380VAC           | MC-50A-65A 380VAC   | -             | -                  | -             | -                   |
| MRC-75A<br>MRC-85A<br>MRC-100A          | 24VAC            | MC-75A-100A 24VAC   | 208VAC        | MC-75A-100A 208VAC | 12VDC         | MC-75A-100A 12VDC   |
|                                         | 48VAC            | MC-75A-100A 48VAC   | 277VAC        | MC-75A-100A 277VAC | 24VDC         | MC-75A-100A 24VDC   |
|                                         | 120VAC           | MC-75A-100A 120VAC  | 480VAC        | MC-75A-100A 480VAC | 48VDC         | MC-75A-100A 48VDC   |
|                                         | 220VAC           | MC-75A-100A 220VAC  | 600VAC        | MC-75A-100A 600VAC | 110VDC        | MC-75A-100A 110VDC  |
|                                         | 240VAC           | MC-75A-100A 240VAC  | -             | -                  | -             | -                   |
|                                         | 380VAC           | MC-75A-100A 380VAC  | -             | -                  | -             | -                   |
| MRC-130A<br>MRC-150A                    | 24VAC            | MC-130A-150A 24VAC  | -             | -                  | 12VDC         | MC-130A-150A 12VDC  |
|                                         | 48VAC            | MC-130A-150A 48VAC  | -             | -                  | 48VDC         | MC-130A-150A 48VDC  |
|                                         | 110VAC (110~120) | MC-130A-150A 110VAC | -             | -                  | 110VDC        | MC-130A-150A 110VDC |
|                                         | 220VAC (220~240) | MC-130A-150A 220VAC | -             | -                  | 220VDC        | MC-130A-150A 220VDC |
|                                         | 300VAC           | MC-130A-150A 300VAC | -             | -                  | -             | -                   |
|                                         | 400VAC (400~440) | MC-130A-150A 400VAC | -             | -                  | -             | -                   |
|                                         | 500VAC           | MC-130A-150A 500VAC | -             | -                  | -             | -                   |

## MIRA Replacement Coils:

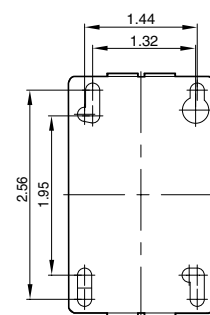
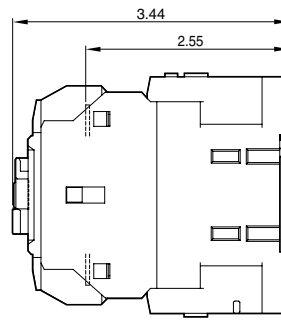
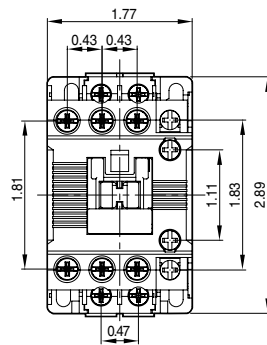
### 3 Pole Contactor Replacement Coils 185A~800A

| Contactor            | VAC 50/60 Hz / VDC |                          | VAC 50/60Hz            |                            |
|----------------------|--------------------|--------------------------|------------------------|----------------------------|
|                      | Coil Voltages      | Coil Part #              | Coil Voltages          | Coil Part #                |
| MRC-185A<br>MRC-225A | 24V (24~25VAC)     | <b>MC-185A-225A 24V</b>  | 300VAC<br>(265~347VAC) | <b>MC-185A-225A 300V</b>   |
|                      | 24V (24VDC)        |                          | -                      | -                          |
|                      | 48V (48~50VAC)     | <b>MC-185A-225A 48V</b>  | 400VAC<br>(380~450VAC) | <b>MC-185A-225A 400V</b>   |
|                      | 48V(48VDC)         |                          | -                      | -                          |
|                      | 100V (100~240VAC)  | <b>MC-185A-225A 100V</b> | 500VAC<br>(440~575VAC) | <b>MC-185A-225A 500V</b>   |
|                      | 100V (100~120VDC)  |                          | -                      | -                          |
| MRC-330A<br>MRC-400A | 100V (100~240VAC)  | <b>MC-330A-400A 100V</b> | 300VAC<br>(265~347VAC) | <b>MC-330A-400A 300VAC</b> |
|                      | 100V (100~220VDC)  |                          | 400VAC<br>(380~450VAC) | <b>MC-330A-400A 400VAC</b> |
|                      | -                  | -                        | 500VAC<br>(440~575VAC) | <b>MC-330A-400A 500VAC</b> |
| MRC-630A<br>MRC-800A | 100V (100~127VAC)  | <b>MC-630A-800A 100V</b> | 300VAC<br>(265~347VAC) | <b>MC-630A-800A 300VAC</b> |
|                      | 100V (100~110VDC)  |                          | 400VAC<br>(380~450VAC) | <b>MC-630A-800A 400VAC</b> |
|                      | 200V (200~240VAC)  | <b>MC-630A-800A 200V</b> | 500VAC<br>(440~575VAC) | <b>MC-630A-800A 500VAC</b> |
|                      | 200V (200~220VDC)  |                          | -                      | -                          |

## 3-Pole Contactors (22AF~40AF)

**MRC-9B~22B**

1NO &amp; 1NC

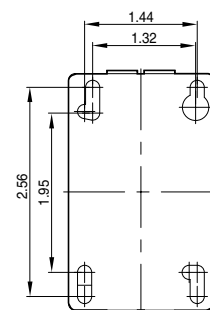
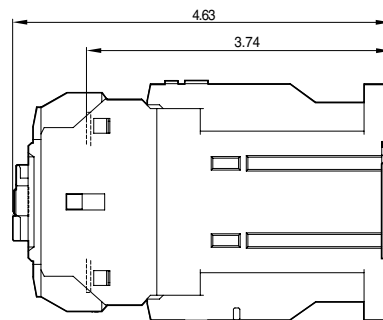
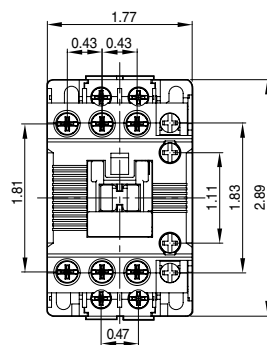


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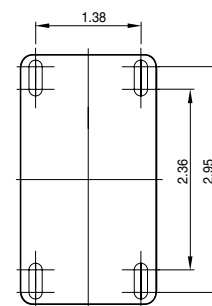
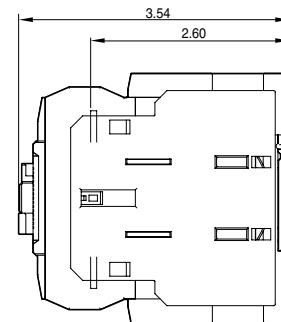
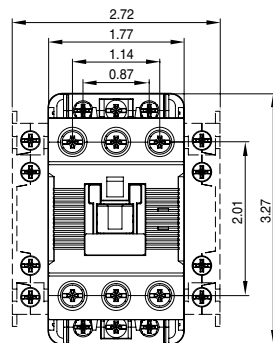
0.66lbs

**MRD-9B~22B**

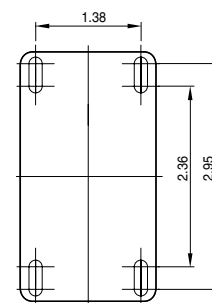
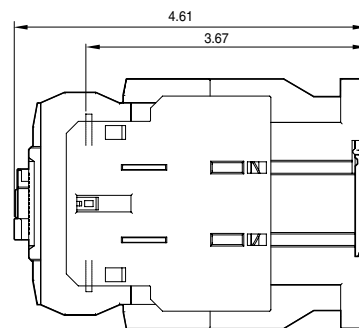
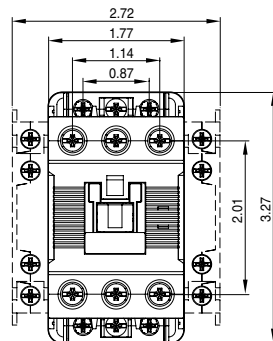
1NO &amp; 1NC



1.10lbs

**MRC-32A~40A**Shown with  
2NO & 2NC  
Aux contacts

1.10lbs

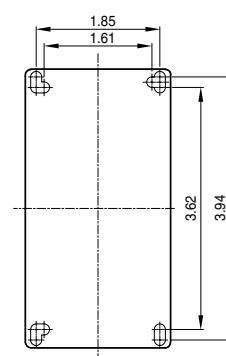
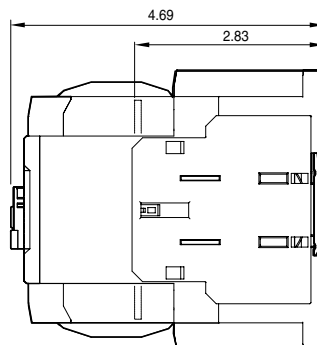
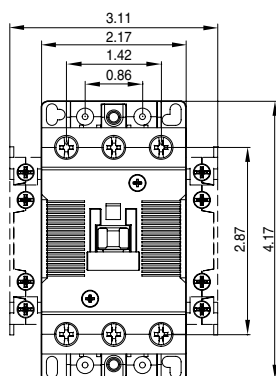
**MRD-32A~40A**Shown with  
2NO & 2NC  
Aux contacts

1.76lbs

## 3-Pole Contactors (65AF~100AF)

**MRC-50LA~65LA**

Shown with  
2NO & 2NC  
Aux contacts

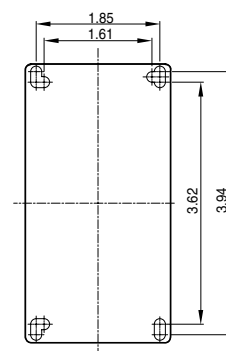
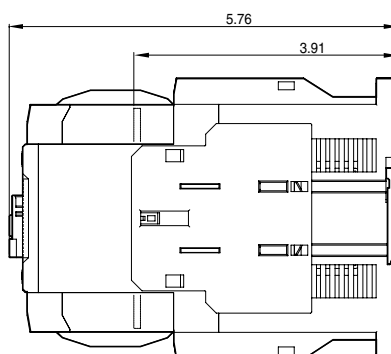
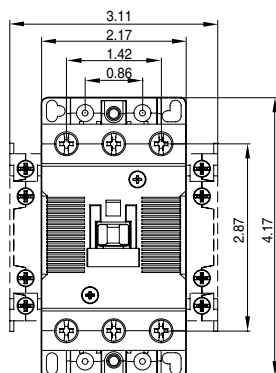


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1.98lbs

**MRD-50LA~65LA**

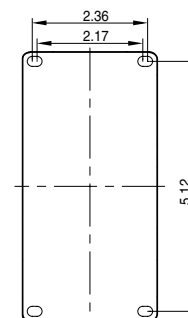
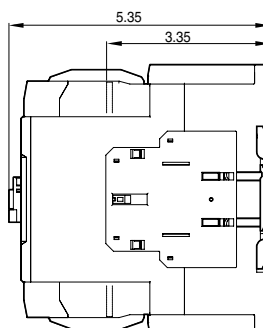
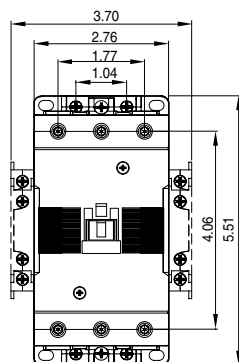
Shown with  
2NO & 2NC  
Aux contacts



2.65lbs

**MRC-75LA~100LA**

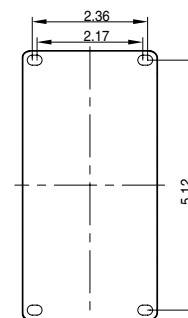
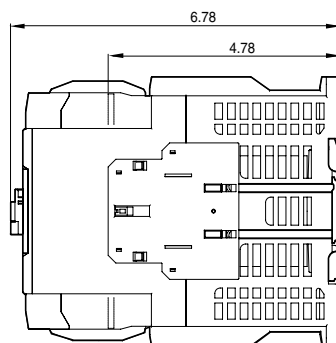
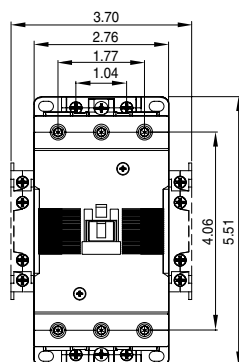
Shown with  
2NO & 2NC  
Aux contacts



3.53lbs

**MRD-75LA~100LA**

Shown with  
2NO & 2NC  
Aux contacts

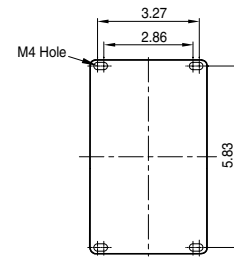
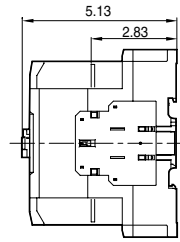
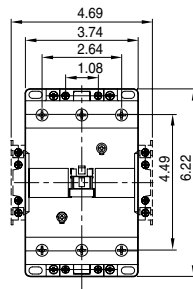


5.73lbs

# 3-Pole Contactors (150AF-800AF)

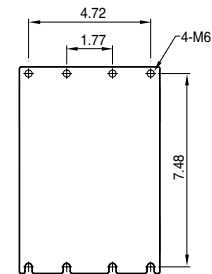
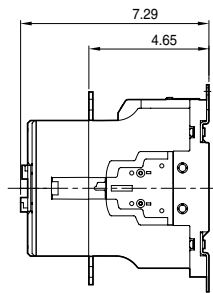
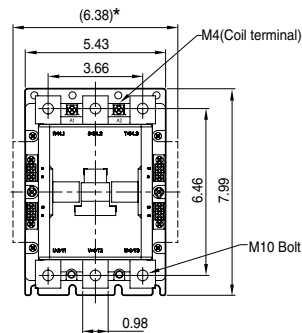
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MRC-130LA  
MRC-150LA  
MRD-130LA  
MRD-150LA



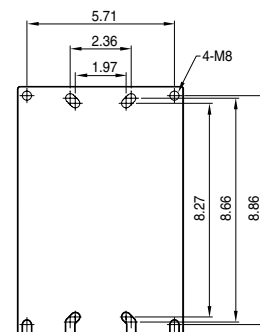
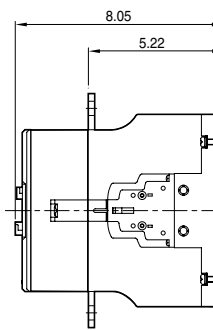
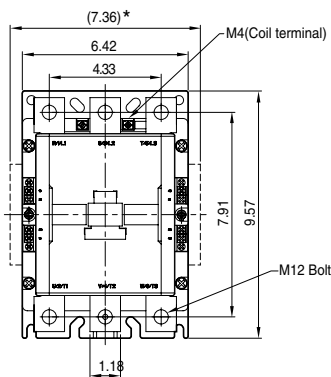
5.29lbs

MRC-185A  
MRC-225A



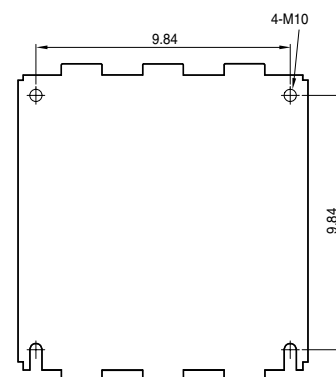
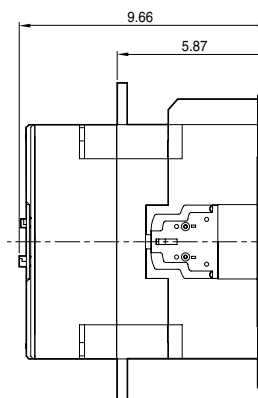
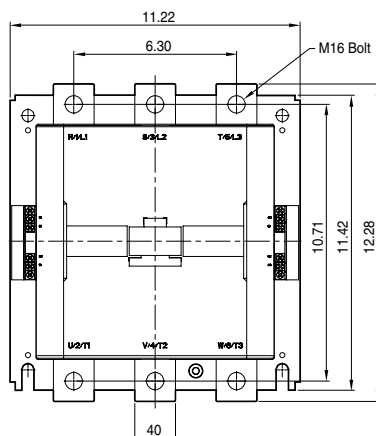
11.91lbs

MRC-265A  
MRC-330A  
MRC-400A



20.28lbs

MRC-600A  
MRC-800A



49.38lbs

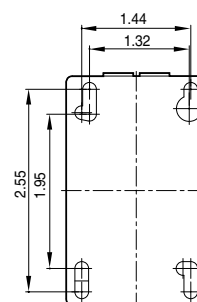
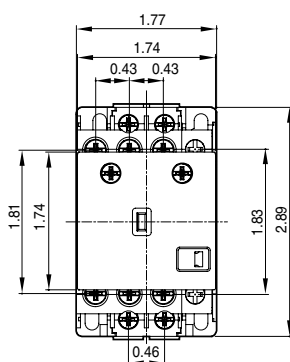
\*Optional auxiliary contact unit (side mount type)

### 3-Pole Latching Contactors (22AF~40AF)

[in]

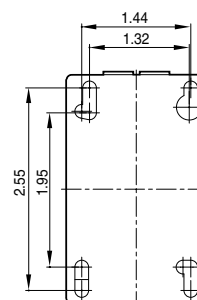
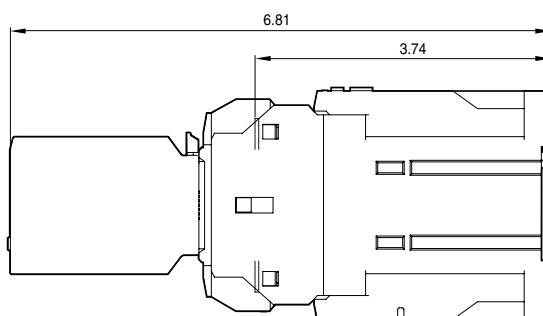
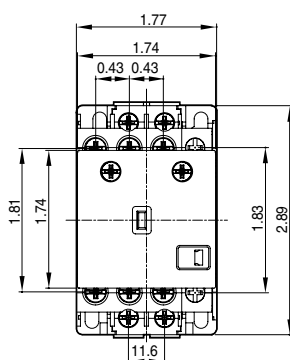
#### MRC-9B~22B

Shown with ML-65



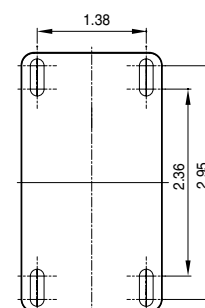
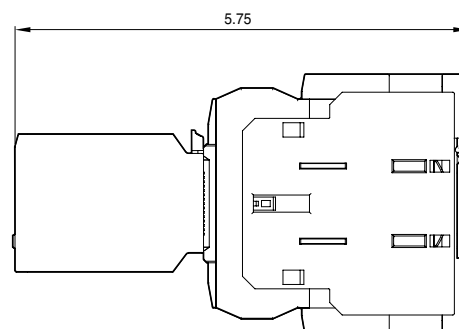
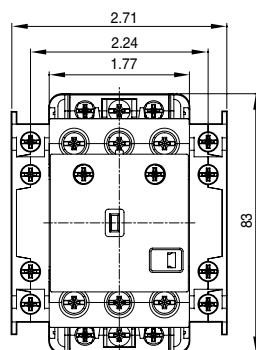
#### MRD-9B~22B

Shown with ML-65



#### MRC~32A~40A

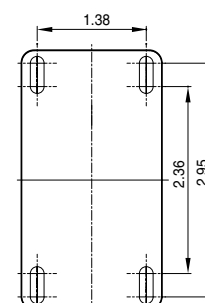
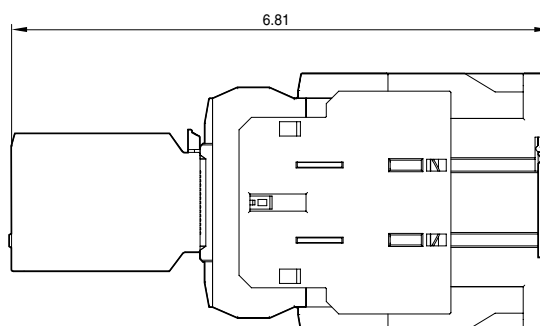
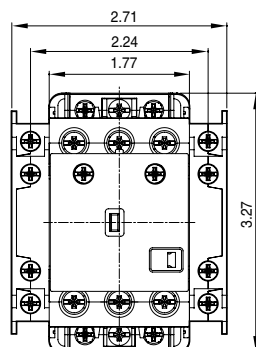
Shown with ML-65  
and 2NO & 2NC



2.20lbs

#### MRD-32A~40A

Shown with ML-65  
and 2NO & 2NC

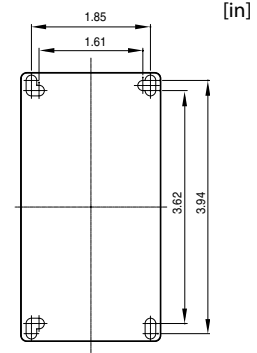
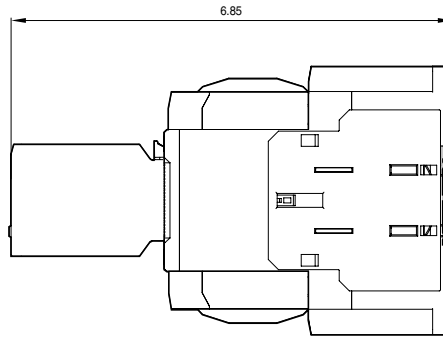
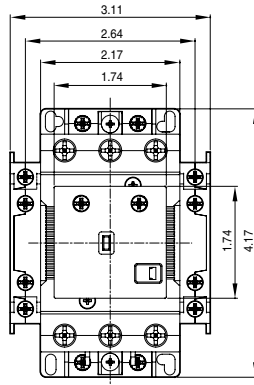


2.87lbs

### 3-Pole Latching Contactors (65AF~100AF)

#### MRC~50LA~65LA

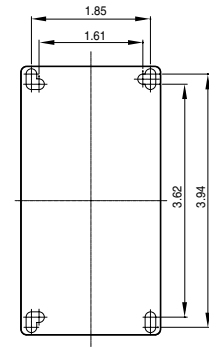
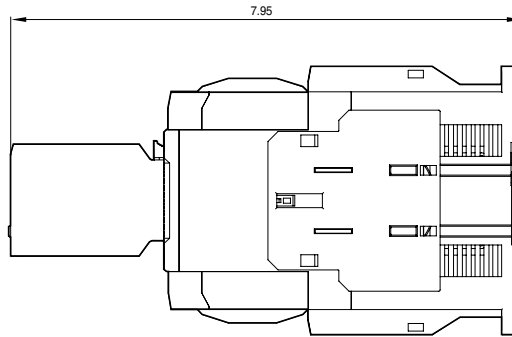
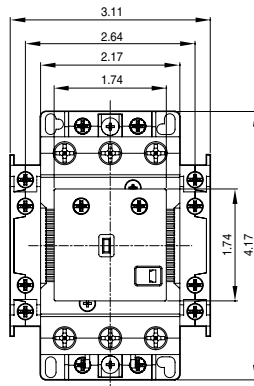
Shown with ML-65  
and 2NO & 2NC  
Aux contacts



5.29lbs

#### MRD~50LA~65LA

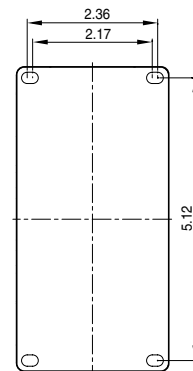
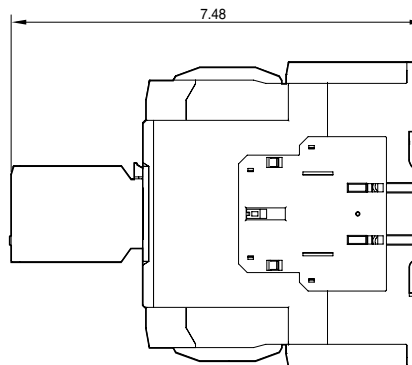
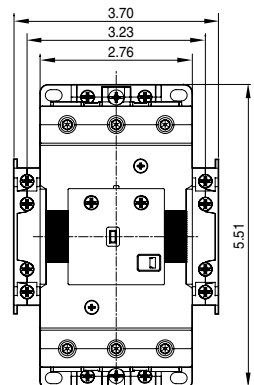
Shown with ML-65  
and 2NO & 2NC  
Aux contacts



5.29lbs

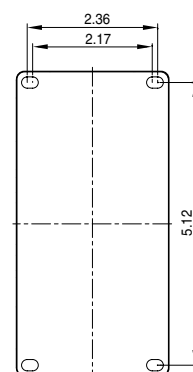
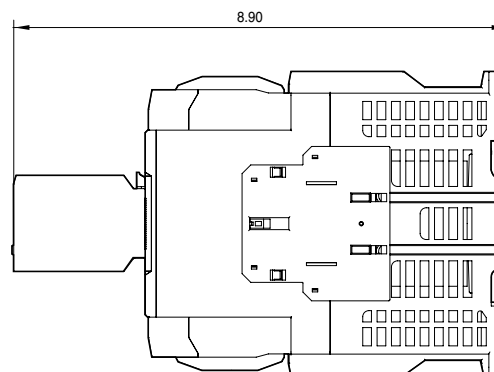
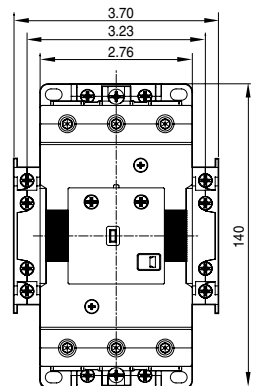
#### MRC~75LA~100LA

Shown with ML-150  
and 2NO & 2NC  
Aux contacts



#### MRD~75LA~100LA

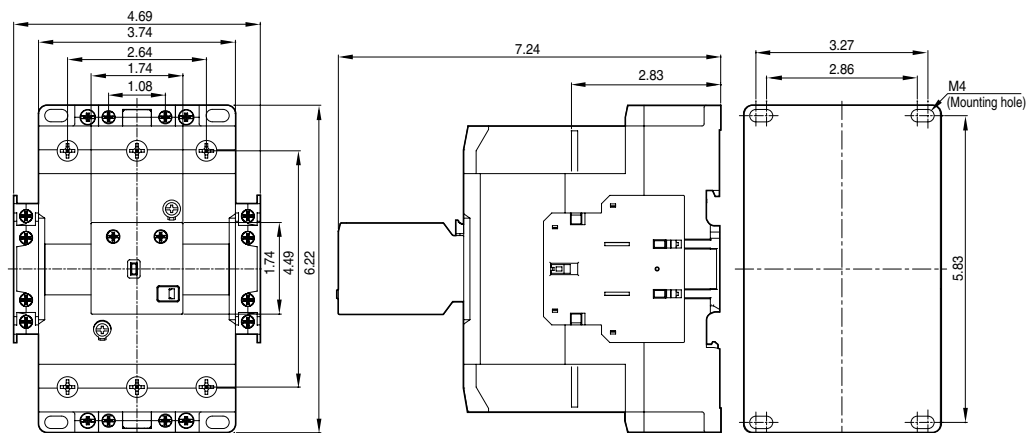
Shown with ML-150  
and 2NO & 2NC  
Aux contacts



## 3-Pole Latching Contactors (150AF~400AF)

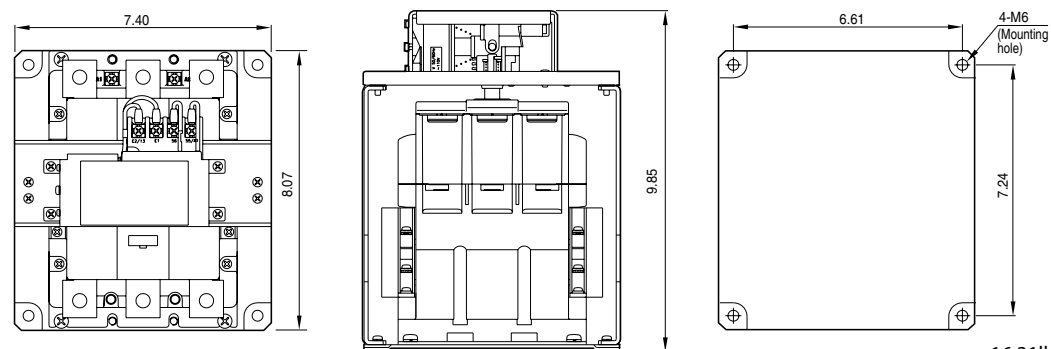
### MRC-130LA~150LA

Shown with ML-150  
and 2NO & 2NC  
Aux contacts



### MRC-185A

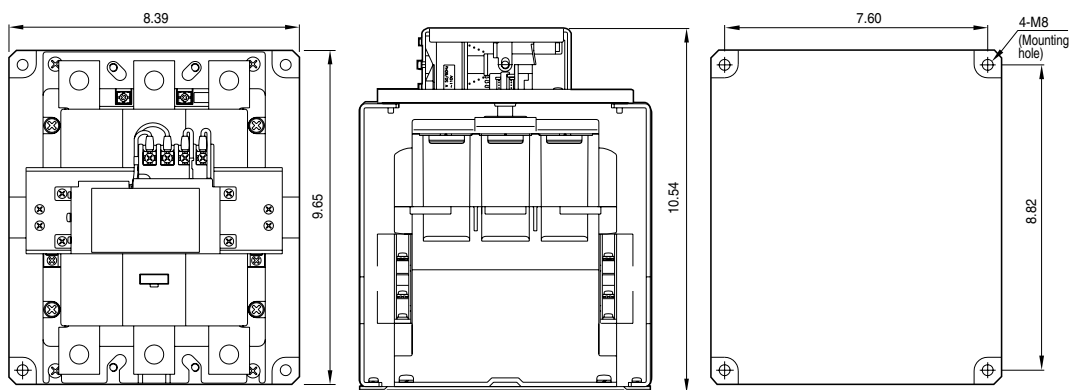
### MRC-225A



### MRC-265A

### MRC-330A

### MRC-400A



16.31lbs

25.57lbs

### Wiring Diagram

### MRC-185A~400A

