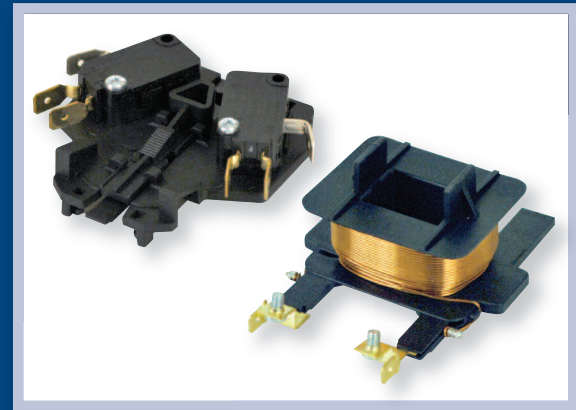


MARS[®] 780

DEFINITE PURPOSE CONTACTORS



MARS 780 Definite Purpose Contactors Feature the Following:

- **Designed for the most demanding applications**
 - HVAC
 - Refrigeration
 - Food Equipment
 - Industrial Lighting
 - Welding Equipment
- **Meets the following standards-**
 - cULus
 - ARI 780 & 790
 - CE
 - Canadian Heater Rated
 - SCCR 600 VAC
- **Large Arch Window Box Lugs**
- **Compact Enclosed Body Design**
- **Push to Test Button On All Models Except 75 and 90 Amp Contactors**
- **Screw Attached Contact Cover On All Models**
- **Replacement Coils For 3 Pole Contactors**
- **Auxiliary Switches and Interlocks**
- **Silver-Cadmium Oxide Contacts**

MARS 780 Definite Purpose Contactors

MARS SERIES **614**



MARS 780 Definite Purpose Contactors

MARS 780 - 1 pole with shunt contactors are designed for demanding applications. The enclosed body design provides quiet operation and improved durability by reducing the intrusion of dust and dirt. Silver-cadmium oxide contacts provide increased contact life when switching inductive loads.

Features:

- Enclosed body and coil – standard cover
- Push to test button
- Quad quick connects
- Box lugs - large window arch design
- Screw terminals and or box lugs available on 30 amp
- Coils - class F insulation

1 Pole with Shunt 30 - 40 Amps

| MARS No. | Furnas No. | FLA | Locked Rotor Amps | | Non Inductive Amps | Coil Volts | Termination |
|----------|----------------------------------|-----|-------------------|------|--------------------|------------|-------------|
| | | | 240V | 277V | | | |
| 61320 | 45EG10AJA, 45CG10AJA, 45DG10AJA | 30 | 180 | 180 | 40 | 24 | Screw Type |
| 61321 | 45EG10AFA, 45CG10AFA, 45DG10AFA | | | | | 120 | |
| 61322 | 45EG10AGA, 45CG10AGA, 45DG10AGA | | | | | 208-240 | |
| 61323 | 45EG10ALA, 45CG10ALA, 45DG10ALA | | | | | 277 | |
| 61324 | 45EG10AHA, 45CG10AHA, 45DG10AHA | | | | | 480 | |
| 61720 | 45EG10AJAL | 30 | 180 | 180 | 40 | 24 | Box Lug |
| 61721 | 45EG10AFAL | | | | | 120 | |
| 61722 | 45EG10AGAL | | | | | 208-240 | |
| 61723 | 45EG10ALAL | | | | | 277 | |
| 61724 | 45EG10AHAL | | | | | 480 | |
| 61730 | 45GG10AJAL, 45FG10AJA, 45GG10AJA | 40 | 240 | 240 | 50 | 24 | Box Lug |
| 61731 | 45GG10AFAL, 45FG10AFA, 45GG10AFA | | | | | 120 | |
| 61732 | 45GG10AGAL, 45FG10AGA, 45GG10AGA | | | | | 208-240 | |
| 61733 | 45GG10ALAL, 45FG10ALA, 45GG10ALA | | | | | 277 | |
| 61734 | 45GG10AHAL, 45FG10AHA, 45GG10AHA | | | | | 480 | |

MARS 780 Definite Purpose Contactors

MARS SERIES **614**



MARS 780 Definite Purpose Contactors

MARS 780 - 2 pole contactors are designed for demanding applications. The enclosed body design provides quiet operation and improved durability by reducing the intrusion of dust and dirt. Silver-cadmium oxide contacts provide increased contact life when switching inductive loads.

Features:

- Enclosed body and coil – standard cover
- Push to test button
- Quad quick connects
- Box lugs - large window arch design
- Screw terminals and or box lugs available on 30 amp
- Coils - class F insulation

2 Pole 30 - 40 Amps

| MARS No. | Furnas No. | FLA | Locked Rotor Amps | | | Non Inductive Amps | Coil Volts | Termination |
|----------|-------------------------------|-----|-------------------|------|------|--------------------|------------|-------------|
| | | | 240V | 480V | 600V | | | |
| 61345 | 45EG20AJ, 45CG20AJ, 45DG20AJ | 30 | 180 | 150 | 120 | 40 | 24 | Screw Type |
| 61346 | 45EG20AF, 45CG20AF, 45DG20AF | | | | | | 120 | |
| 61347 | 45EG20AG, 45CG20AG, 45DG20AG | | | | | | 208-240 | |
| 61348 | 45EG20AL, 45CG20AL, 45DG20AL | | | | | | 277 | |
| 61349 | 45EG20AH, 45CG20AH, 45DG20AH | | | | | | 480 | |
| 61745 | 45EG20AJL | 30 | 180 | 150 | 120 | 40 | 24 | Box Lug |
| 61746 | 45EG20AFL | | | | | | 120 | |
| 61747 | 45EG20AGL | | | | | | 208-240 | |
| 61748 | 45EG20ALL | | | | | | 277 | |
| 61749 | 45EG20AHL | | | | | | 480 | |
| 61755 | 45GG20AJL, 45FG20AJ, 45GG20AJ | 40 | 240 | 200 | 160 | 50 | 24 | Box Lug |
| 61756 | 45GG20AFL, 45FG20AF, 45GG20AF | | | | | | 120 | |
| 61757 | 45GG20AGL, 45FG20AG, 45GG20AG | | | | | | 208-240 | |
| 61758 | 45GG20ALL, 45FG20AL, 45GG20AL | | | | | | 277 | |
| 61759 | 45GG20AHL, 45FG20AH, 45GG20AH | | | | | | 480 | |

MARS 780 Definite Purpose Contactors

MARS SERIES **614**



MARS 780 Definite Purpose Contactors

MARS 780 - 2 pole "Large Body" contactors feature a 2 pole configuration in a 3 pole body for increased durability in demanding applications.

Features:

- Large arch window box lugs
- Recessed push to test button
- Accepts MARS 780 and Furnas auxiliary switches
- Use standard MARS 780 replacement coils
- Dual QC coil terminals plus screw terminal for easy termination and jumper arrangements
- Coils - class F insulation

2 Pole - Large Body 30 - 40 Amp

| MARS No. | Furnas No. | FLA | Locked Rotor Amps | | | Non Inductive Amps | Coil Volts | Horsepower | | Termination |
|----------|--------------------|-----|-------------------|------|------|--------------------|------------|------------|--------|-------------|
| | | | 240V | 480V | 600V | | | 1 PH | 3 PH | |
| | | | | | | | | 240V | 240V | |
| 61425 | 42BF15AJ, 42AF15AJ | 30 | 180 | 150 | 120 | 40 | 24 | 3 HP | 7.5 HP | Box Lug |
| 61426 | 42BF15AF, 42AF15AF | | | | | | 120 | | | |
| 61427 | 42BF15AG, 42AF15AG | | | | | | 208-240 | | | |
| 61428 | 42BF15AL, 42AF15AL | | | | | | 277 | | | |
| 61440 | 42CF15AJ | 40 | 240 | 200 | 160 | 50 | 24 | 5 HP | 10 HP | Box Lug |
| 61441 | 42CF15AF | | | | | | 120 | | | |
| 61442 | 42CF15AG | | | | | | 208-240 | | | |
| 61443 | 42CF15AL | | | | | | 277 | | | |

MARS 780 Definite Purpose Contactors

MARS SERIES **614**



MARS 780 - 3 Pole Contactors

MARS 780 - 3 pole contactors are designed for demanding applications. The enclosed body design provides quiet operation and improved durability by reducing the intrusion of dust and dirt. Side attachment rails for auxiliary switches (30-60 amp contactors) allow attachment of MARS 780 or Furnas auxiliary switches. Silver-cadmium oxide contacts provide increased contact life when switching inductive loads.

Features:

- Large arch window box lugs
- SEMS screws or box lugs available on 30 amp contactors
- Recessed push to test button (not on 75 and 90 amp contactors)
- Enclosed body design
- Accepts MARS 780 and Furnas auxiliary switches
- Use standard MARS 780 replacement coils
- Dual QC coil terminals plus screw terminal for easy termination and jumper arrangements
- Coils - class F insulation • 600 volt rating • Foot print compatible

3 Pole 30 - 90 Amp

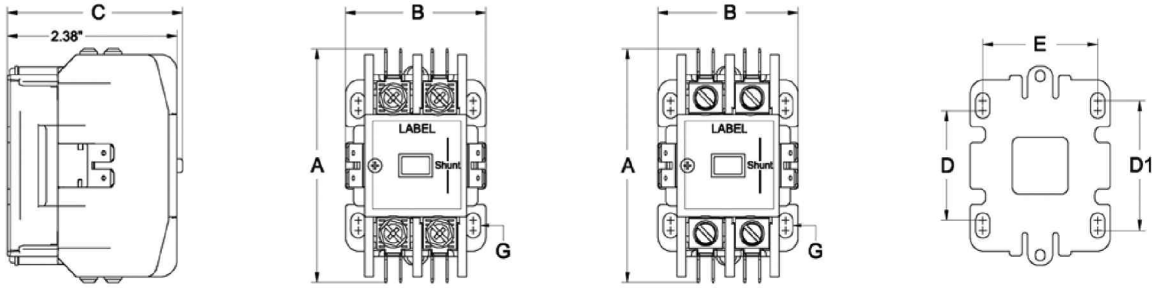
* For 25 Amp Contactors - Use 30 Amp in Place of 25Amp

| MARS No. | Furnas No. | FLA | Locked Rotor Amps | | | Non Inductive Amps | Coil Volts | Horsepower | | | | Termination |
|----------|-------------|-----|-------------------|------|------|--------------------|------------|------------|--------|-------|-------|-------------|
| | | | 240V | 480V | 600V | | | 1 PH | 3 PH | | | |
| | | | | | | | | 240V | 240V | 480V | 600V | |
| 61430* | 42BF35AJ | 30 | 180 | 150 | 120 | 40 | 24 | 3 HP | 7.5 HP | 10 HP | 15 HP | Screw Type |
| 61431* | 42BF35AF | | | | | | 120 | | | | | |
| 61432* | 42BF35AG | | | | | | 208-240 | | | | | |
| 61433* | 42BF35AL | | | | | | 277 | | | | | |
| 61434* | 42BF35AH | | | | | | 480 | | | | | |
| 61750 | - | 30 | 180 | 150 | 120 | 40 | 24 | 3 HP | 7.5 HP | 10 HP | 15 HP | Box Lug |
| 61751 | - | | | | | | 120 | | | | | |
| 61752 | - | | | | | | 208-240 | | | | | |
| 61753 | - | | | | | | 277 | | | | | |
| 61754 | - | | | | | | 480 | | | | | |
| 61445 | 42CF35AJ | 40 | 240 | 200 | 160 | 50 | 24 | 5 HP | 10 HP | 15 HP | 20 HP | Box Lug |
| 61446 | 42CF35AF | | | | | | 120 | | | | | |
| 61447 | 42CF35AG | | | | | | 208-240 | | | | | |
| 61448 | 42CF35AL | | | | | | 277 | | | | | |
| 61449 | 42CF35AH | | | | | | 480 | | | | | |
| 61460 | 42DF35AJ | 50 | 300 | 250 | 200 | 63 | 24 | 5 HP | 15 HP | 20 HP | 25 HP | Box Lug |
| 61461 | 42DF35AF | | | | | | 120 | | | | | |
| 61462 | 42DF35AG | | | | | | 208-240 | | | | | |
| 61463 | 42DF35AL | | | | | | 277 | | | | | |
| 61464 | 42DF35AH | | | | | | 480 | | | | | |
| 61470 | 42EF35AJ | 60 | 360 | 300 | 240 | 75 | 24 | 7.5 HP | 20 HP | 25 HP | 30 HP | Box Lug |
| 61471 | 42EF35AF | | | | | | 120 | | | | | |
| 61472 | 42EF35AG | | | | | | 208-240 | | | | | |
| 61473 | 42EF35AL | | | | | | 277 | | | | | |
| 61474 | 42EF35AH | | | | | | 480 | | | | | |
| 61480 | 42FE35AJ106 | 75 | 450 | 375 | 300 | 94 | 24 | 15 HP | 25 HP | 40 HP | 40 HP | Box Lug |
| 61481 | 42FE35AF106 | | | | | | 120 | | | | | |
| 61482 | 42FE35AG106 | | | | | | 208-240 | | | | | |
| 61483 | 42FE35AL106 | | | | | | 277 | | | | | |
| 61484 | 42FE35AH106 | | | | | | 480 | | | | | |
| 61490 | 42GE35AJ106 | 90 | 540 | 450 | 360 | 120 | 24 | 15 HP | 30 HP | 50 HP | 50 HP | Box Lug |
| 61491 | 42GE35AF106 | | | | | | 120 | | | | | |
| 61492 | 42GE35AG106 | | | | | | 208-240 | | | | | |
| 61493 | 42GE35AL106 | | | | | | 277 | | | | | |
| 61494 | 42GE35AH106 | | | | | | 480 | | | | | |

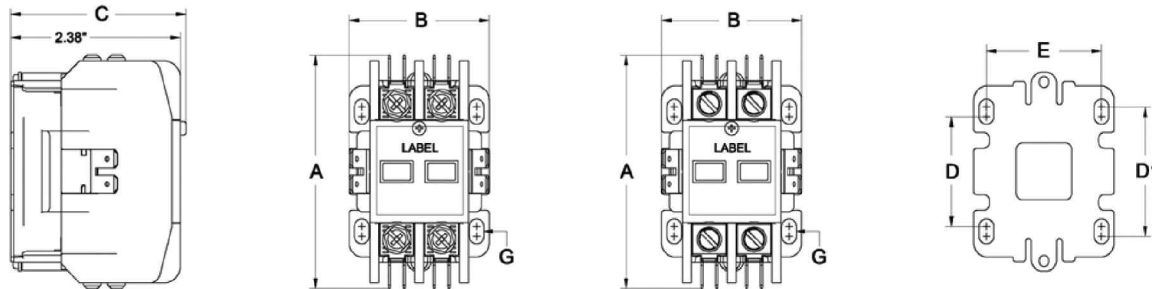
MARS 780 Definite Purpose Contactors

MARS SERIES **614**

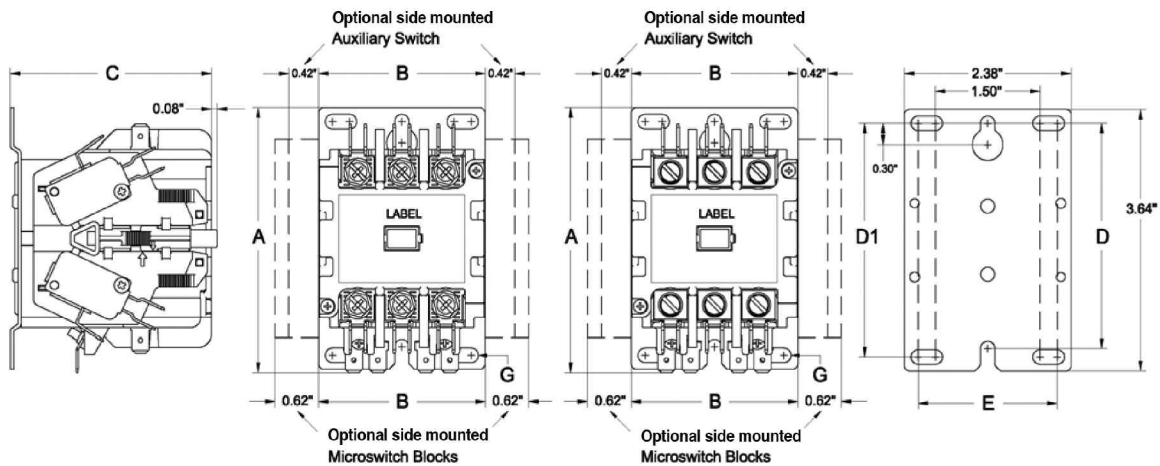
30-40A 1 Pole with Shunt



30-40A 2 Pole



30-40A 2* Pole & 3 Pole



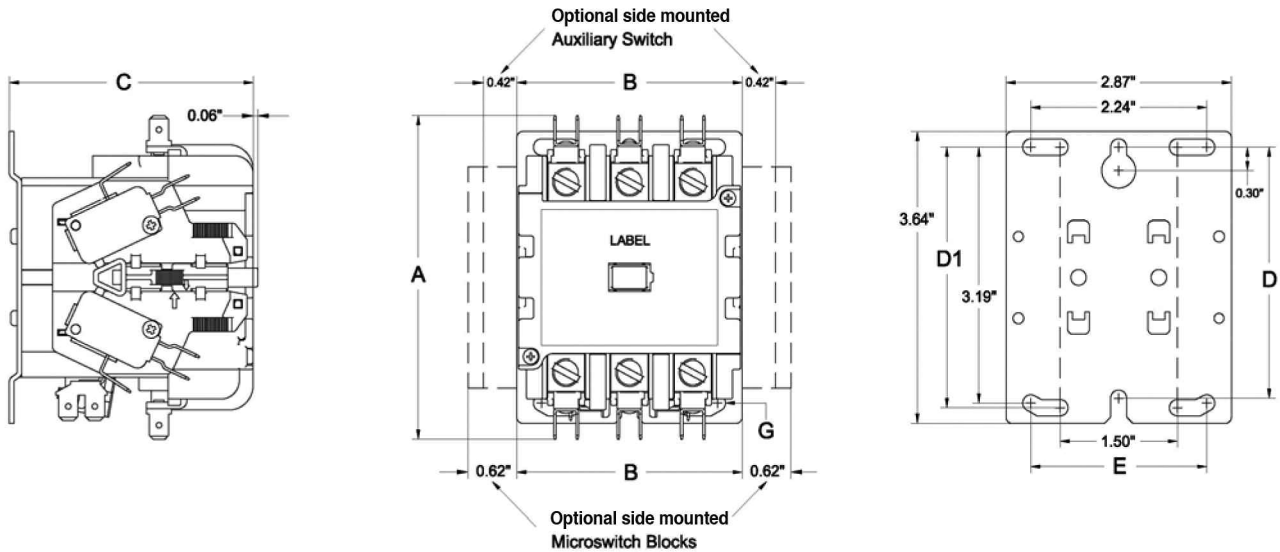
Note - 2* Pole is a 3 pole body with center contacts removed.

| MARS No. | FLA | Poles | A | B | C | D | D1 | E | Mtg Screw G | Max Wire Size |
|-------------------------|-------|----------|------|------|------|------|------|------|-------------|---------------|
| 61320-61324 | 30 | 1 | 3.19 | 1.97 | 2.46 | 1.5 | 1.77 | 1.61 | 10 | 8 |
| 61720-61724 61730-61734 | 30-40 | 1 | 3.19 | 1.97 | 2.46 | 1.5 | 1.77 | 1.61 | 10 | 4 |
| 61345-61349 | 30 | 2 | 3.19 | 1.97 | 2.46 | 1.5 | 1.77 | 1.61 | 10 | 8 |
| 61745-61749 61755-61759 | 30-40 | 2 | 3.19 | 1.97 | 2.46 | 1.5 | 1.77 | 1.61 | 10 | 4 |
| 61430-61434 | 30 | 3 | 3.69 | 2.38 | 2.87 | 3.13 | 3.25 | 1.98 | 10 | 8 |
| 61750-61754 61445-61449 | 30-40 | 3 | 3.69 | 2.38 | 2.87 | 3.13 | 3.25 | 1.98 | 10 | 4 |
| 61425-61428 61440-61443 | 30-40 | 2(at 3P) | 3.69 | 2.38 | 2.87 | 3.13 | 3.25 | 1.98 | 10 | 4 |

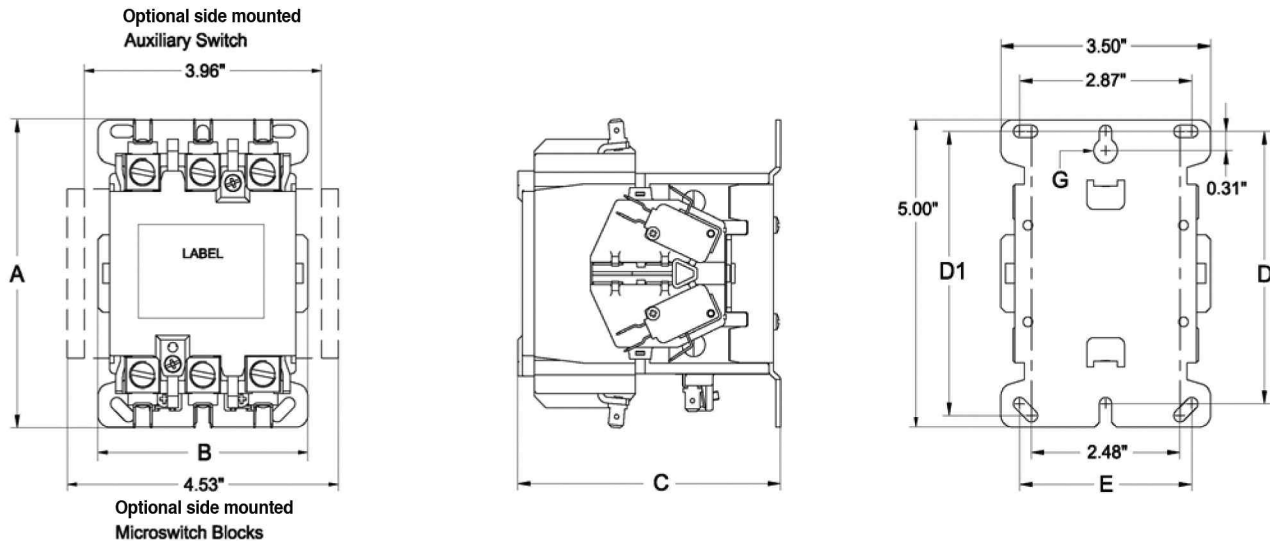
MARS 780 Definite Purpose Contactors

MARS SERIES **614**

50-60A 3 Pole



75-90A 3 Pole



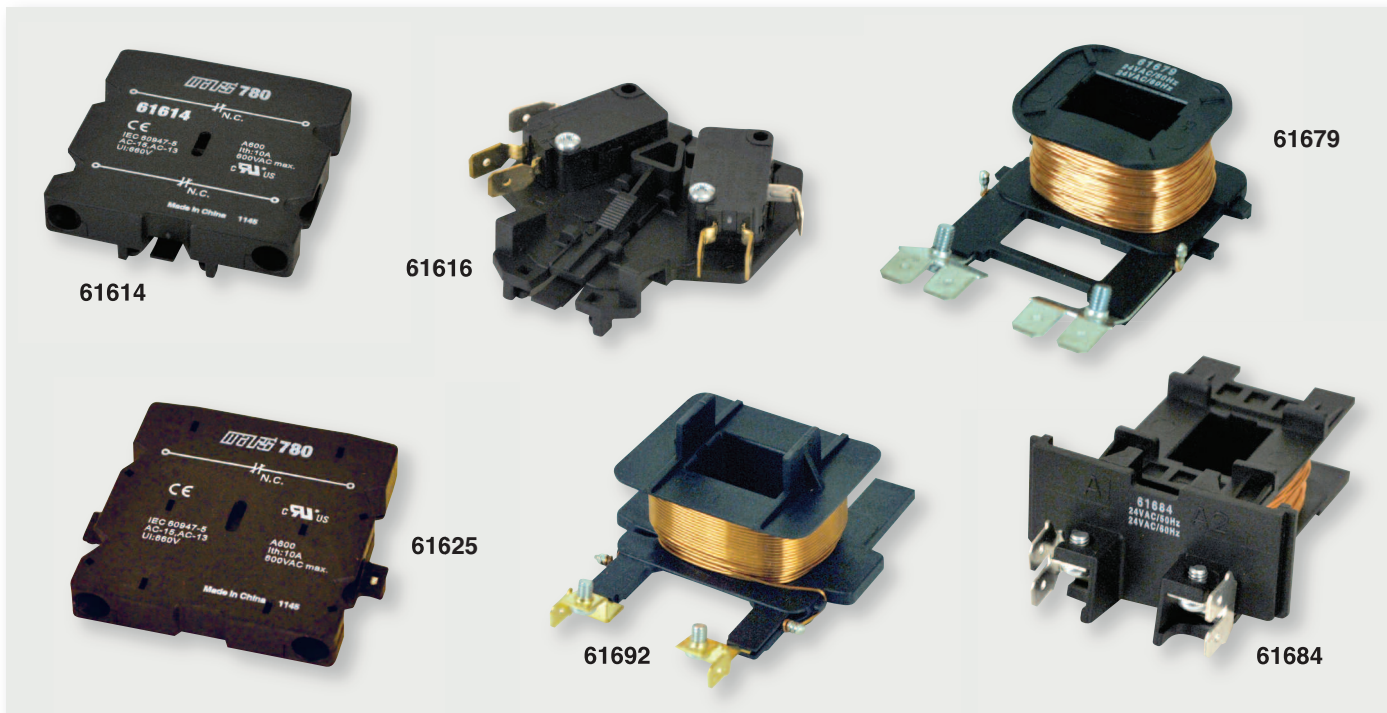
| MARS No. | FLA | Poles | A | B | C | D | D1 | E | Mtg Screw G | Max Wire Size |
|----------------------------|-------|-------|------|------|------|------|------|------|-------------|---------------|
| 61460-61464 61470-61474 | 50-60 | 3 | 4.04 | 2.87 | 3.11 | 3.13 | 3.25 | 2.24 | 10 | 2 |
| 61480-61484 61490-61494 | 75-90 | 3 | 5.02 | 3.5 | 4.39 | 4.43 | 4.63 | 2.87 | 10 | 1/10 |

MARS 780 Definite Purpose Contactors

MARS SERIES **614**

Renewal Parts and Accessories

- Snap on Side Mounted Auxiliary Switches
- Replacement Coils



Auxiliary Switches

| MARS No. | Furnas No. | Description | Contactor F.L.A. | Used On |
|----------|-------------|-------------|------------------|-------------|
| 61610 | 49ACRO | 1 NO | 30 - 60 | 61320-61324 |
| 61611 | 49ACRC | 1 NC | | 61720-61724 |
| 61612 | 49ACR6 | 1 NO- 1 NC | | 61730-61734 |
| 61613 | 49ACR7 | 2 NO | | 61345-61349 |
| 61614 | 49ACR8 | 2 NC | | 61745-61749 |
| 61615 | 49D36098001 | SPDT | | 61755-61759 |
| 61616 | 49D36098003 | DPDT | | 61430-61434 |
| 61623 | - | SPDT | | 61750-61754 |
| 61624 | - | 1 NO | | 61445-61449 |
| 61625 | - | 1 NC | | 61425-61428 |
| | | | 75-90 | 61440-61443 |
| | | | | 61460-61464 |
| | | | | 61470-61474 |

MARS 780 Replacement Coils

| MARS No. | Furnas No. | Contactor Size | Coil Voltage |
|----------|------------|------------------|------------------|
| 61679 | - | 3 Pole 30-40 Amp | 24V |
| 61680 | - | | 120V |
| 61681 | - | | 208-240 V |
| 61682 | - | | 277V |
| 61683 | - | | 480 V |
| 61684 | - | 3 Pole 50-60 Amp | 24V |
| 61685 | - | | 120V |
| 61687 | - | | 208-240 V |
| 61690 | - | | 277V |
| 61691 | - | | 480 V |
| 61692 | - | | 3 Pole 75-90 Amp |
| 61693 | - | 120V | |
| 61694 | - | 208-240 V | |
| 61695 | - | 277V | |
| 61696 | - | 480 V | |



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