

## General Specifications

- Designed to MIL-R-6106
  - Type II Unsealed Continuous Duty
  - Type III Unsealed Intermittent Duty
  - Covered/Gasketed Contact Area
  - Twin-break Silver Alloy Contacts
- Meets Explosion, Humidit, Salt, Spray, Sand, and Dust requirements.
- Altitude: 50,000 feet
- Shock: 25 g's ½ Sine 6 to 9 milliseconds
  - Maximum contact opening: 2 milliseconds
- Acceleration: 10 g's
- Vibration Limits:
  - 5 to 10 Hz: 0.8 in DA
  - 10 to 55 Hz: 0.6 in DA
  - 55 to 2000 Hz: 2 g's
- Temperature Range: -55°C to 71°C
- Insulation Resistance:
  - 100 megohm minimum initially
  - 50 megohm minimum after tests
- Dielectric:
  - 1250 Vac minimum initially
  - 1000 Vac minimum after tests
- Life:
  - Electrical Operations: 50,000 cycles
  - Mechanical Operations at 25% of Rated Resistive Load: 100,000 cycles
- Minimum Current: 10% of Rated DC Resistive Load
- Intermittent Duty Ratings:
  - % of Rated Resistive
  - Time On in Minutes
  - Cooling time is required between successive over load applications.

## Intermittent Duty Ratings

| Minutes                     |      |      |        |
|-----------------------------|------|------|--------|
| 15                          | 5    | 1    | Inrush |
| 130%                        | 150% | 200% | 600%   |
| Rupture Time Per MIL-R-6106 |      |      |        |

(Coil Voltage must be maintained at rated value)

- Options:
  - Other Coil Voltage
  - Alternate Mountings
- MIL-STD-461 applies to AC operated coils.
- See drawing for additional applicable details.

## Special Service Use

### Mechanical Interlock/Type Service

| Part Number | Reversing | Transfer | Dynamic Braking |
|-------------|-----------|----------|-----------------|
| 9565H29     | X         | X        | —               |
| 6046H39     | X         | —        | X               |
| 6046H46     | X         | X        | —               |
| 6046H53     | X         | X        | —               |



### Cat N. 6041H217

- SPST rated 400 Amp resistive and motor at 28 Vdc continuous duty with top mounting.
- MS24185-D1 - 2.6 Lbs/ 1179gm



### Cat N. 6041H202

- SPST rated 200 Amp resistive and motor at 28 Vdc continuous duty with side mounting.
- MS24171-D2 - 1.25 Lbs/ 567gm



### Cat N. 6041H209

- 2 PST rated 100 Amp resistive at 28 Vdc and 75 amperes 115/200 V 400 Hz intermittent duty with top mounting.
- AN-3392-1 - 1.5 Lbs/ 680 gm



### Cat N. 6041H201

- SPST rated 50 Amp resistive, inductive and motor at 28 Vdc continuous duty with side mounting.
- MS24166-D2 - 0.5 Lbs/ 225 gm



### Cat N. 9565H2

- 3 PST rated 25 Amp resistive, inductive and motor at 28 Vdc and 115/200 V 400 Hz continuous duty cycle with base mounting.
- MS24192-D1 - 1.1 Lbs/ 499 gm

## Reversing and Dynamic Braking Relay



### Cat N. 6046H39

- Control of split field series motors.
- SPST see circuit diagram 6 for details.
- Rated 28 Vdc 50 Amp N.O., 25 Amp N.C
- 2.9 Lbs./1315 gm

# POWER RELAYS — CONTINUOUS DUTY, TYPE II, UNSEALED INTERMITTENT DUTY, TYPE III, UNSEALED

| Safran Electrical & Power Part Number | Government Part Number | Continuous Power Contacts, Ratings |       |       |                     |      |       | Contacts Operate Milliseconds, Maximum |          |                |                            | Coil Data       |                           |                                       |                           |                             |                    |          |                      |
|---------------------------------------|------------------------|------------------------------------|-------|-------|---------------------|------|-------|--|----------|----------------|----------------------------|-----------------|---------------------------|---------------------------------------|---------------------------|-----------------------------|--------------------|----------|----------------------|
|                                       |                        | 28VDC                              |       |       | 115/200 VAC 400 Hz. |      |       | OP TIME                                | REL TIME | Contact Bounce | Poles & Throw <sup>③</sup> | Weight Lbs./GMS | Circuit Dia./ Dim. Figure | Resistance (OHMS)± 10% Pickup/ Sealed | Volts Pickup <sup>⑤</sup> | Volts Drop-out <sup>⑥</sup> | Duty Cycle         | Mounting | Coil Voltage Nominal |
|                                       |                        | RES.                               | IND.  | MOTOR | RES.                | IND. | MOTOR |  |          |                |                            |                 |                           |                                       |                           |                             |                    |          |                      |
| 9565H2                                | MS24192-D1             | 25                                 | 25    | 25    | 25                  | 25   | 25    | 20                                     | 15       | 6              | 3PST                       | 1.1/498         | 10 / 11                   | / 60                                  | 18                        | 1.5 to 7                    | CONT               | BASE     | 28 dc                |
| 9565H29                               | MS24152-D1             | 25                                 | 25    | 25    | 25                  | 25   | 25    | 20                                     | 15       | 6              | 3PDT                       | 2/909.09        | 16 / 11                   | 22 / 92                               | 18                        | 1.5 to 7                    | CONT               | BASE     | 28 dc                |
| 9565H95                               | —                      | 25                                 | 25    | 25    | 25                  | 25   | 25    | 20                                     | 15       | 6              | 3PST                       | 1.06/482.95     | 10 / 11                   | / 1160                                | 70                        | 8 to 38                     | CONT               | BASE     | 120 dc               |
| 6041H53 <sup>②</sup>                  | —                      | 50/25                              | 50/25 | 50/25 | 25/25               | —    | —     | 20                                     | 15       | 5 N.O./10 N.C. | SPDT                       | .54/245.45      | 4 / 2                     | 16.9                                  | 8.2                       | 0.8 to 4.8                  | CONT               | TOP      | 12 dc                |
| 6041H220 <sup>②</sup>                 | MS24187-D1             | 50/25                              | 50/25 | 50/25 | 25/25               | —    | —     | 20                                     | 15       | 5 N.O./10 N.C. | SPDT                       | .54/245.45      | 4 / 2                     | 94.2                                  | 18                        | 1.5 to 9                    | CONT               | TOP      | 28 dc                |
| 6041H230                              | MS24187-D2             | 50/25                              | 50/25 | 50/25 | 25/25               | —    | —     | 20                                     | 15       | 5 N.O./10 N.C. | SPDT                       | .54/245.45      | 4 / 2                     | 94.2                                  | 18                        | 1.5 to 9                    | CONT               | TOP      | 29 dc                |
| 6046H39 <sup>②</sup>                  | —                      | 50/25                              | 50/25 | 50/25 | —                   | —    | —     | —                                      | —        | —              | SPDT                       | 2.9/1318.18     | 6 / 7                     | 26                                    | 18                        | 7                           | —                  | TOP      | 28 dc                |
| 6041H201                              | MS24166-D2             | 50                                 | 50    | 50    | —                   | —    | —     | 20                                     | 10       | 5              | SPST                       | .50/225         | 1 / 4                     | 94.2                                  | 18                        | 1.5 to 7                    | CONT               | SIDE     | 28 dc                |
| 6041H149                              | —                      | 50                                 | 50    | 50    | —                   | —    | —     | 20                                     | 15       | 5              | SPST                       | .56/254.55      | 1 / 4                     | 16.9                                  | 8.2                       | 0.8 to 4.8                  | CONT               | SIDE     | 12 dc                |
| 6041H200                              | MS24166-D1             | 50                                 | 50    | 50    | —                   | —    | —     | 20                                     | 10       | 5              | SPST                       | .50/225         | 1 / 4                     | 94.2                                  | 18                        | 1.5 to 7                    | CONT               | TOP      | 28 dc                |
| 9565H94                               | MS24193-D1             | 50                                 | 50    | 50    | 50                  | 50   | 50    | 20                                     | 15       | 4              | 3PST                       | 1.51/685        | 10 / 11                   | 13.5 / 71.5                           | 18                        | 1.5 to 7                    | CONT               | BASE     | 28 dc                |
| 6041H219                              | MS24178-D1             | 55                                 | 40    | 40    | 55                  | —    | 35    | —                                      | —        | —              | DPST                       | .75/340.91      | 2 / 2                     | 66                                    | 18                        | 1.5 to 7                    | Note <sup>④</sup>  | TOP      | 28 dc                |
| 6041H80                               | —                      | 100                                | 80    | 80    | —                   | —    | —     | —                                      | —        | —              | SPST                       | 1.4/636.36      | 1 / 3                     | 66.3                                  | 18                        | 1.5 to 7                    | CONT               | SIDE     | 28 dc                |
| 6041H144                              | —                      | 100                                | 80    | 80    | —                   | —    | —     | —                                      | —        | —              | SPST                       | 1.4/636.36      | 1 / 3                     | 66.3                                  | 18                        | 1.5 to 7                    | CONT               | SIDE     | 28 dc                |
| 6041H111                              | —                      | 100                                | 80    | 80    | —                   | —    | —     | —                                      | —        | —              | SPST                       | 1.4/636.36      | 1 / 1                     | 66.3                                  | 18                        | 1.5 to 7                    | CONT               | TOP      | 28 dc                |
| 6041H209                              | AN3362-1               | 100                                | 80    | 80    | 75                  | —    | 65    | 35                                     | 10       | 3.5            | DPST                       | 1.5/685         | 2 / 2                     | 43                                    | 20                        | 1.5 to 7                    | Note <sup>④</sup>  | TOP      | 28 dc                |
| 6046H53                               | MS25031-D1B            | 100                                | 80    | 80    | 75                  | —    | 65    | —                                      | —        | —              | DPDT                       | 3.5/1590.91     | 9 / 7                     | 43                                    | 18                        | 1.5 to 7                    | CONT               | TOP      | 28 dc                |
| 9565H13                               | —                      | 100                                | 75    | 75    | 100                 | —    | 75    | 22                                     | 15       | 4              | 3PST                       | 2.5/1136.36     | 12 / 11                   | 9 / 53                                | 18                        | 1.5 to 7                    | CONT               | BASE     | 28 dc                |
| 6041H202                              | MS24171-D2             | 200                                | 100   | 200   | —                   | —    | —     | 25                                     | 10       | 50             | SPST                       | 1.25/568.18     | 1 / 5                     | 66                                    | 18                        | 1.5 to 7                    | CONT               | SIDE     | 28 dc                |
| 6041H105                              | —                      | 200                                | 100   | 200   | —                   | —    | —     | —                                      | —        | —              | SPST                       | 1.25/568.18     | 1 / 5                     | 10 (+15/-10)                          | 9                         | 3.5                         | CONT               | SIDE     | 12 dc                |
| 6041H123                              | —                      | 200                                | 100   | 200   | —                   | —    | —     | 40                                     | 15       | 5              | SPST                       | 1.3/590.91      | 1 / 5                     | 66                                    | 18                        | 1.5 to 7                    | CONT               | SIDE     | 28 dc                |
| 6041H203                              | MS24172-D2             | 200                                | 100   | 200   | —                   | —    | —     | 25                                     | 18       | 5              | SPST                       | 1.23/560        | 1 / 5                     | 10 (+15/-10)                          | 7.5                       | 0.5 to 3.0                  | INTER <sup>⑦</sup> | SIDE     | 28 dc                |
| 6041H212                              | —                      | 200                                | 100   | 200   | —                   | —    | —     | 40                                     | 15       | 5              | SPST                       | 1.3/590.91      | 1 / 5                     | 66                                    | 18                        | 1.5 to 7                    | CONT               | SIDE     | 28 dc                |
| 6041H215                              | MS24171-D1             | 200                                | 100   | 200   | —                   | —    | —     | 25                                     | 10       | 5              | SPST                       | 1.33/604.55     | 1 / 1                     | 66                                    | 18                        | 1.5 to 7                    | CONT               | TOP      | 28 dc                |
| 6041H216                              | MS24172-D1             | 200                                | 100   | 200   | —                   | —    | —     | 25                                     | 10       | 5              | SPST                       | 1.33/604.55     | 1 / 1                     | 10(+15/-10)                           | 7.5                       | 0.5 to 3.0                  | INTER <sup>⑦</sup> | TOP      | 28 dc                |
| 6046H46                               | MS25032-D1             | 200                                | 100   | 150   | 150                 | —    | 100   | 40                                     | 15       | 5              | DPDT                       | 5.5/2500.00     | 8 / 7                     | 41                                    | 18                        | 1.5 to 7                    | CONT               | TOP      | 28 dc                |
| 6041H205                              | MS24185-D2             | 400                                | 100   | 400   | —                   | —    | —     | 40                                     | 15       | 5              | SPST                       | 2.6/1181.82     | 1 / 5                     | 60                                    | 18                        | 1.5 to 7                    | CONT               | SIDE     | 28 dc                |
| 6041H217                              | MS24185-D1             | 400                                | 100   | 400   | —                   | —    | —     | 40                                     | 15       | 5              | SPST                       | 2.6/1181.82     | 1 / 1                     | 60                                    | 18                        | 1.5 to 7                    | CONT               | TOP      | 28 dc                |
| 6041H218                              | MS24179-D1             | 400                                | 100   | 400   | —                   | —    | —     | 20                                     | 15       | 5              | SPST                       | 2.6/1181.82     | 1 / 1                     | 10                                    | 7                         | 0.5 to 3.0                  | INTER <sup>⑦</sup> | TOP      | 28 dc                |
| 6041H206                              | MS24179-D2             | 400                                | 100   | 400   | —                   | —    | —     | 20                                     | 15       | 5              | SPST                       | 2.6/1181.82     | 1 / 5                     | 10                                    | 7                         | 0.5 to 3.0                  | INTER <sup>⑦</sup> | SIDE     | 28 dc                |

- ① Coil will exceed 95° C temperature rise when left on continuously in 25° ambient, but will not be damaged. At maximum ambient temperature of 71°C, the duty cycle should be limited to 15 minutes "on" time per half hour to obtain maximum coil life.
- ② Continuous and intermittent duty ratings shown are for N.O. pole rated at 1/2 the listed continuous DC duty ratings. N.C. pole on 6041H53 and H220 limited to 15 g's shock.
- ③ Time on 1 1/2 minutes at 29 Vdc. Minimum time off is 3 minutes.
- ④ All continuous duty resistive and motor load ratings and all intermittent duty ratings for all 3 pole relays listed under 28 Vdc apply for 120 Vdc systems with all 3 poles of the relay connected in the series.
- ⑤ Pick-up voltage below values shown may cause relay to rapidly cycle on and off (chatter).
- ⑥ Relay must drop-out at voltage value or less and may drop-out at any voltage below the higher voltage noted.

|             |          |             |          |
|-------------|----------|-------------|----------|
| AN3362-1*   | 6041H209 | MS24179-D1  | 6041H218 |
| MS24152-D1* | 9565H29* | MS24185-D2  | 6041H205 |
| MS24166-D1  | 6041H200 | MS24187-D1  | 6041H220 |
| MS24166-D2  | 6041H201 | MS24187-D2  | 6041H230 |
| MS24171-D1  | 6041H215 | MS24192-D1  | 9565H2   |
| MS24171-D2  | 6041H202 | MS24193-D1  | 9565H94  |
| MS24172-D1  | 6041H216 | MS25031-D1B | 6046H53  |
| MS24172-D2  | 6041H203 | MS24185-D1  | 6041H217 |
| MS24178-D1  | 6041H219 | MS25032-1   | 6046H46  |

\*Inactive for new design

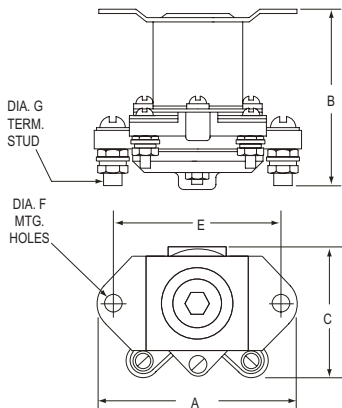
| AN Part Number | Use MS Part Number | Safran Electrical & Power Part Number |
|----------------|--------------------|---------------------------------------|
| 3343-1         | —                  | 9565H13                               |
| 3350-1         | MS24166-D2         | 6041H201                              |
| 3362-1         | —                  | 6041H209                              |
| 3370-1         | MS24171-D2         | 6041H202                              |
| 3371-1         | MS24172-D2         | 6041H203                              |
| 3380-1         | MS24185-D2         | 6041H205                              |
| —              | MS25030-D1B        | 6041H51                               |
| 3381-2         | MS24179-D1         | 6041H218                              |

**Approximate Dimensions and Weights**

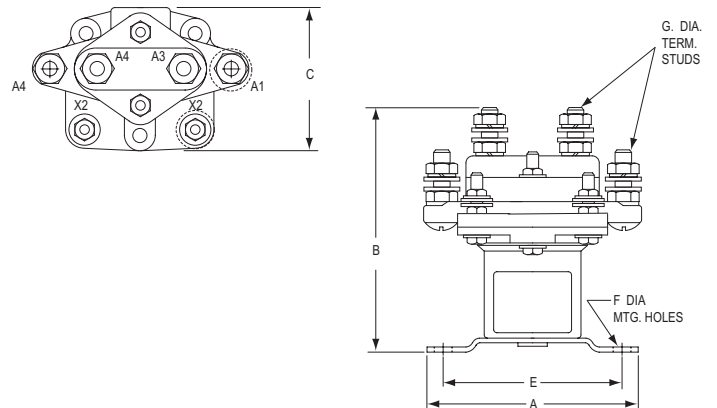
| Catalog Number | Ampere Ratings | Figure Number | Dimensions in Inches |        |        |          |       |                |                  | Dimensions in Millimeters |             |        | Dimensions in Millimeters |        |          |        |        |              |  |
|----------------|----------------|---------------|----------------------|--------|--------|----------|-------|----------------|------------------|---------------------------|-------------|--------|---------------------------|--------|----------|--------|--------|--------------|--|
|                |                |               | Wide A               | High B | Deep C | Mounting |       | Hole F         | Net Stud G Power | Coil                      | Weight Lbs. | Wide A | High B                    | Deep C | Mounting |        | Hole F | Weight Grams |  |
|                |                |               |                      |        |        | D        | E     |                |                  |                           |             |        |                           |        | D        | E      |        |              |  |
| 6041H11        | 100            | 1             | 3.27                 | 3.13   | 2.08   | —        | 2.75  | 0.27           | .250-28 UNF      | .138-32 UNC               | 1.4         | 83.06  | 79.5                      | 52.83  | —        | 69.85  | 6.86   | 636.36       |  |
| 6041H53        | 50/25          | 2             | 2.63                 | 3.14   | 2.062  | —        | 2.2   | 0.214          | .190-32 UNF-2A   | .138-32 UNC-2A            | 0.54        | 66.8   | 79.076                    | 52.37  | —        | 55.88  | 5.44   | 245.45       |  |
| 6041H80        | 100            | 3             | 2.91                 | 3      | 2.08   | —        | 2.26  | 0.276          | .250-32 UNC      | .138-32 UNC-2A            | 1.4         | 73.91  | 76.2                      | 52.83  | —        | 57.4   | 7.01   | 636.36       |  |
| 6041H105       | 200            | 5             | 4.406                | 3.28   | 1.99   | —        | 2.395 | 0.276          | .375-24 UNF-2A   | .138-32 UNC-2A            | 1.25        | 111.92 | 83.31                     | 50.55  | —        | 60.83  | 7.01   | 568.18       |  |
| 6041H123       | 200            | 6             | 4.5                  | 3.575  | 2      | —        | 2.395 | 0.276          | .375-24 UNF-2A   | .138-32 UNC-2A            | 1.3         | 112.01 | 90.81                     | 50.8   | —        | 62.83  | 7.01   | 590.91       |  |
| 6041H144       | 100            | 3             | 3.33                 | 3      | 2      | —        | 2.26  | 0.276          | .250-28 UNF      | .138-32 UNC               | 1.4         | 84.58  | 76.2                      | 50.8   | —        | 57.4   | 7.01   | 636.36       |  |
| 6041H149       | 50             | 4             | 2.75                 | 2.5    | 2.125  | —        | 1.875 | 0.229          | .190-32 UNC-2A   | .138-32 UNC-2A            | 0.562       | 69.85  | 63.5                      | 53.98  | —        | 47.63  | 5.82   | 255.68       |  |
| 6041H200       | 50             | 2             | 2.75                 | 2.625  | 2.125  | —        | 2.188 | 0.219          | .191-32 UNC-2A   | .138-32 UNC-2A            | 0.5         | 69.85  | 66.68                     | 53.98  | —        | 55.58  | 5.56   | 225          |  |
| 6041H201       | 50             | 4             | 2.75                 | 2.5    | 2.125  | —        | 1.875 | 0.229          | .190-32 UNC-2A   | .138-32 UNC-2A            | 0.5         | 69.85  | 63.5                      | 53.98  | —        | 47.63  | 5.82   | 225          |  |
| 6041H202       | 200            | 5             | 4.41                 | 3.28   | 1.99   | —        | 2.395 | 0.276          | .375-24 UNF-2A   | .138-32 UNC-2A            | 1.25        | 112.01 | 83.31                     | 50.55  | —        | 60.83  | 7.01   | 568.18       |  |
| 6041H203       | 200            | 5             | 4.5                  | 3.313  | 2      | —        | 2.395 | 0.276          | .375-24 UNF-2A   | .138-32 UNC-2A            | 1.23        | 114.3  | 84.15                     | 50.8   | —        | 60.83  | 7.01   | 560          |  |
| 6041H205       | 400            | 5             | 5.5                  | 3.92   | 2.438  | —        | 2.406 | 0.276          | .500-20 UNF-2A   | .138-32 UNC-2A            | 2.6         | 139.7  | 99.57                     | 61.93  | —        | 61.11  | 7.01   | 1181.82      |  |
| 6041H206       | 400            | 5             | 5.5                  | 3.92   | 2.438  | —        | 2.406 | 0.276          | .500-20 UNF-2A   | .138-32 UNC-2A            | 2.6         | 139.7  | 99.57                     | 61.93  | —        | 61.11  | 7.01   | 1181.82      |  |
| 6041H209       | 100            | 2             | 3.469                | 3.406  | 2.656  | —        | 2.948 | 0.276          | .250-28 UNF-2B   | .138-32 UNC-2B            | 1.5         | 88.11  | 86.51                     | 67.46  | —        | 74.88  | 7.01   | 681.82       |  |
| 6041H212       | 200            | 5             | 4.48                 | 3.313  | 2.466  | —        | 3.717 | 0.27           | .375-24 UNF-2A   | .138-32 UNC-2A            | 1.3         | 113.79 | 84.15                     | 62.64  | —        | 94.41  | 6.86   | 590.91       |  |
| 6041H215       | 200            | 1             | 4.406                | 3.75   | 2      | —        | 3.01  | 0.276          | .375-24 UNF-2A   | .138-32 UNC-2A            | 1.33        | 111.91 | 95.25                     | 50.8   | —        | 76.45  | 7.01   | 604.55       |  |
| 6041H216       | 200            | 1             | 4.406                | 3.75   | 2      | —        | 3.01  | 0.276          | .375-24 UNF-2A   | .138-32 UNC-2A            | 1.33        | 111.91 | 95.25                     | 50.8   | —        | 76.45  | 7.01   | 604.55       |  |
| 6041H217       | 400            | 1             | 5.5                  | 4.5    | 2      | —        | 3.01  | 0.276          | .500-20 UNF-2A   | .138-32 UNC-2A            | 2.6         | 139.7  | 114.3                     | 50.8   | —        | 76.45  | 7.01   | 1181.82      |  |
| 6041H218       | 400            | 1             | 5.5                  | 4.5    | 2      | —        | 3.01  | 0.276          | .500-20 UNF-2A   | .138-32 UNC-2A            | 2.6         | 139.7  | 114.3                     | 50.8   | —        | 76.45  | 7.01   | 1181.82      |  |
| 6041H219       | 55             | 2             | 2.922                | 2.844  | 2.031  | —        | 2.385 | 0.223          | .190-32 UNC-2B   | .138-32 UNC-2B            | 0.75        | 74.22  | 72.24                     | 51.59  | —        | 60.58  | 5.66   | 340.91       |  |
| 6041H220       | 50/25          | 2             | 2.812                | 3.13   | 2.062  | 1.395    | 2.2   | 0.214          | .190-32 UNF-2A   | .137-32 UNC-2A            | 0.54        | 71.42  | 79.5                      | 52.37  | 35.43    | 55.88  | 5.44   | 245.45       |  |
| 6046H39        | 50/25          | 7             | 4.82                 | 3.45   | 2.25   | 2.01     | 4.301 | 0.228          | .190-32          | .138-32 UNC               | 2.9         | 122.43 | 87.63                     | 57.15  | 51.05    | 109.25 | 5.79   | 1318.18      |  |
| 6046H46        | 200            | 7             | 7.688                | 4.125  | 3.468  | 1.76     | 6.895 | 0.266          | .375-24 UNF      | .138-32 UNC               | 5.5         | 195.28 | 104.78                    | 88.09  | 44.7     | 175.13 | 6.76   | 2500         |  |
| 6046H53        | 100            | 7             | 6.688                | 3.75   | 2.656  | 2.125    | 6.02  | 0.266          | .250-28 UNF      | .138-32 UNC               | 3.5         | 169.88 | 95.25                     | 67.46  | 53.98    | 152.91 | 6.76   | 1590.91      |  |
| 9565H2         | 25             | 11            | 3.063                | 2.75   | 2.75   | 2.688    | 2.49  | 0.229          | .190-32 UNF-2B   | .138-32 UNC-2B            | 1.062       | 77.8   | 69.85                     | 68.28  | 63.25    | 5.82   | 482.95 |              |  |
| 9565H13        | 100            | 11            | 3.812                | 3.546  | 3.28   | 2.468    | 3.102 | 0.225          | .250-28 UNF-2B   | .164-32 UNC-2B            | 2.5         | 96.82  | 90.07                     | 83.31  | 62.69    | 78.79  | 5.72   | 1136.36      |  |
| 9565H29        | 25             | 12            | 4.75                 | 2.75   | 4.125  | 2.75     | 4.187 | 0.218          | .190-32 UNF-2B   | .164-32 UNC-2B            | 2.25        | 120.65 | 69.85                     | 104.78 | 69.85    | 106.35 | 5.54   | 1022.73      |  |
| 9565H94        | 50             | 11            | 3.625                | 3.188  | 3.312  | 2.135    | 2.322 | 0.219          | .190-32 UNF-2B   | .164-32 UNC-2B            | 1.5         | 92.08  | 80.98                     | 84.12  | 64.23    | 58.98  | 5.56   | 681.82       |  |
| 9565H95        | 25             | 11            | 3.063                | 2.75   | 2.75   | 2.494    | 0.229 | .190-32 UNF-2B | .164-32 UNC-2B   | 1.06                      | 77.8        | 69.85  | 69.85                     | 63.35  | 5.82     | 481.82 |        |              |  |

Note: All coils and auxiliary terminals are 6-32, except for Catalog Number 9565 relays which have 8-32 coil terminals. Dimensions are approximate and should not be used for construction purposes.

**Dimension Figures**



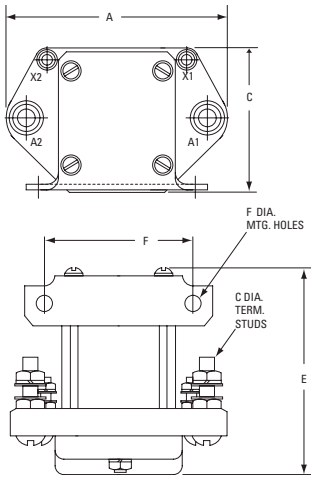
**Figure 1**



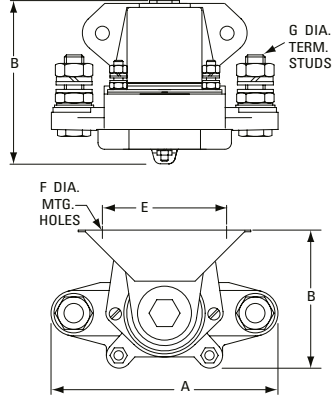
**Figure 2**

**POWER RELAYS — CONTINUOUS DUTY, TYPE II, UNSEALED  
INTERMITTENT DUTY, TYPE III, UNSEALED**

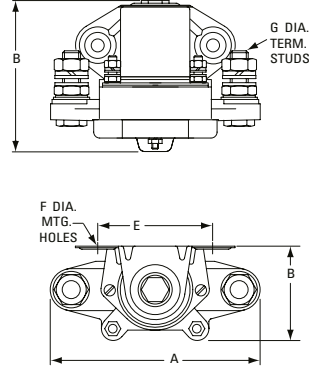
**Dimension Figures (cont.)**



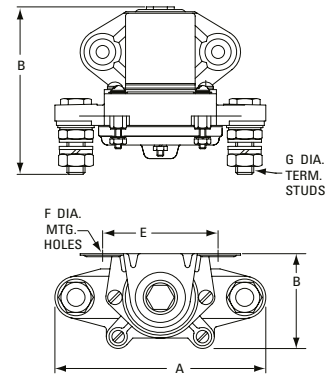
**Figure 3**



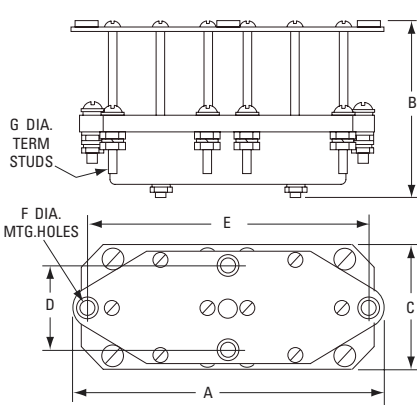
**Figure 4**



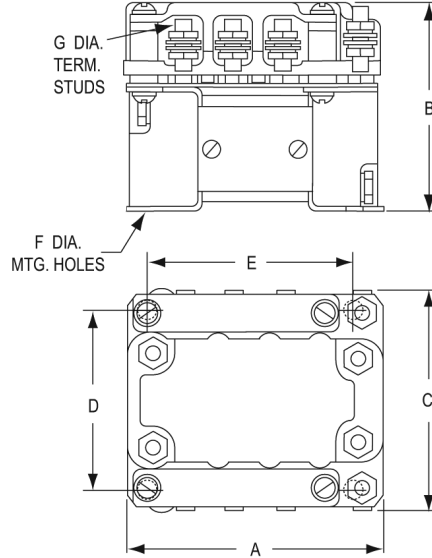
**Figure 5**



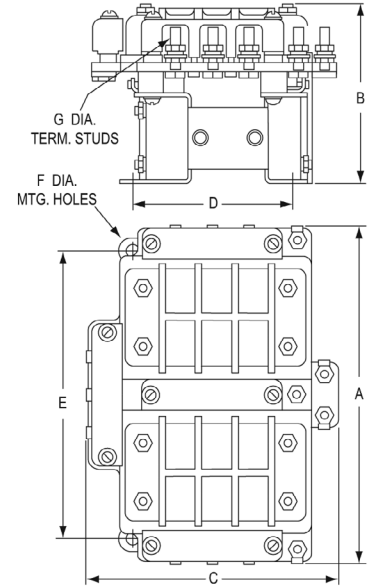
**Figure 6**



**Figure 7**

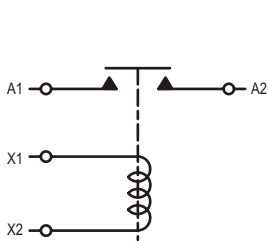


**Figure 11**

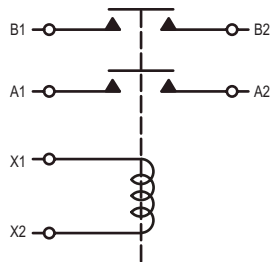


**Figure 12**

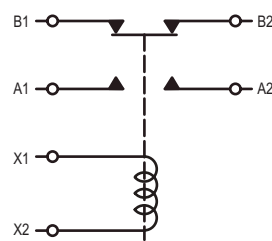
**Typical Wiring Diagrams**



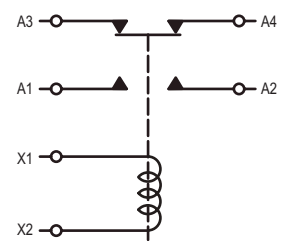
**Diagram 1**



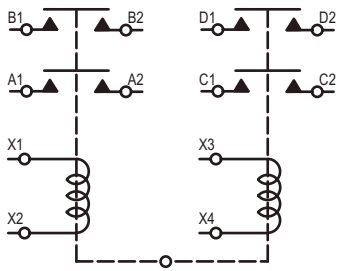
**Diagram 2**



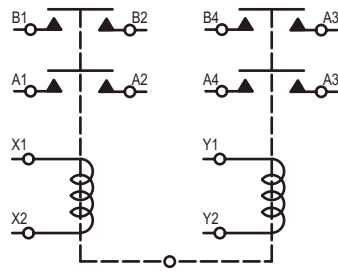
**Diagram 3**



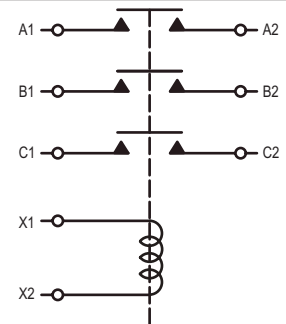
**Diagram 4**



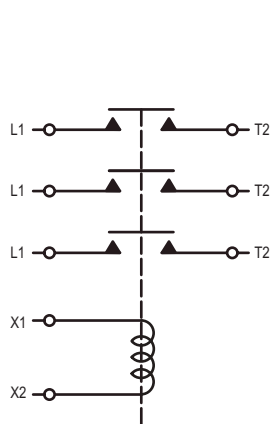
**Diagram 8**



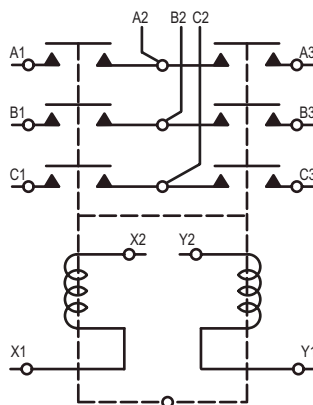
**Diagram 9**



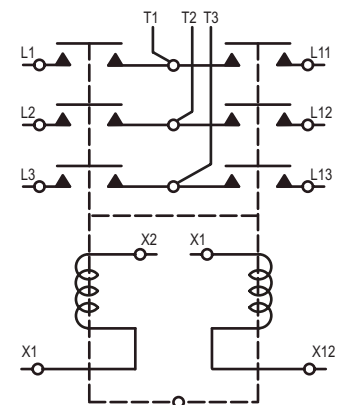
**Diagram 10**



**Diagram 12**



**Diagram 16**



**Diagram 18**

# POWER RELAYS — CONTINUOUS DUTY, TYPE II, UNSEALED INTERMITTENT DUTY, TYPE III, UNSEALED

## P/N 6046H39

### Typical Operation:

All items shown within dotted lines are part of the relay. All other parts external to dotted lines, including switches connected to C1 & C2 customer supplied.

### Internal Mechanical Interlocks

Prevents the opposite contacts from transferring when either one of the coils is energized and the respective contacts are closed.

### Reversing Operation

Closing either external start/stop switch at C1 or C2 will cause the motor to turn in either direction.

### Dynamic Braking Operation

Internal switch provides for dynamic braking current flow through the motor shunt-fields series (SF) 1 and 2. Switch S is mechanically closed when either coil is energized and maintains that position until the alternate coil is energized. Switch S is shown in the last position commanded by external start/stop switch at C1.

