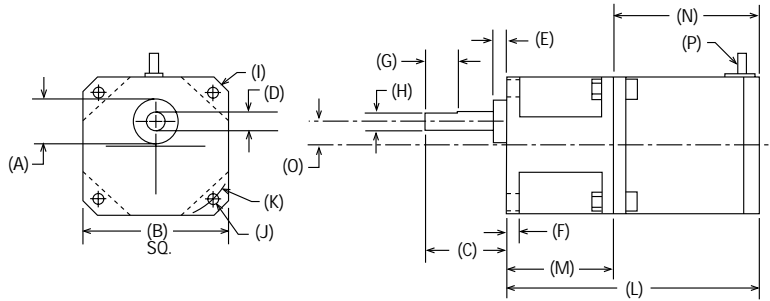


# SP SERIES: LIGHT DUTY OFFSET GEARMOTORS

## SIZES 017 AND 023-RATIOS 5, 10, 18:1



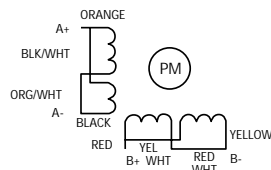
| PART NUMBER      | A<br>PILOT<br>DIAMETER<br>(in.)           | B<br>SQUARE<br>FLANGE<br>(in.)         | C<br>SHAFT<br>LENGTH<br>(in.)                 | D<br>SHAFT<br>DIAMETER<br>(in.)   | E<br>PILOT<br>LENGTH<br>(in.)    | F<br>FLANGE<br>THICKNESS<br>(in.) | O<br>FLAT<br>LENGTH<br>(in.)         | H<br>DIMENSION<br>OVER FLAT<br>(in.) |
|------------------|---|--|---|---|----------------------------------|-----------------------------------|--------------------------------------|--------------------------------------|
| 017SPX<br>023SPX | .708 / .710<br>.708 / .710                | 1.65<br>2.25                           | 0.79<br>1.26                                  | .2495 / .2500<br>.3120 / .3125  | 0.12<br>0.20                     | 0.19<br>0.19                      | 0.470 (2X)<br>0.500 (1X)             | 0.22 (2X)<br>0.29 (1X)               |
| PART NUMBER      | I<br>HOUSING<br>DIAMETER<br>(in.)         | J<br>BOLT HOLE<br>THREAD /<br>DIAMETER | K<br>BOLT HOLE<br>CIRCLE<br>(in.)             | L<br>GEARMOTOR<br>LENGTH<br>(in.)   | M<br>GEARHEAD<br>LENGTH<br>(in.) | N<br>MOTOR<br>LENGTH<br>(in.)     | O<br>OFFSET<br>DIMENSION<br>(in.)    | P<br>NUMBER OF<br>LEAD WIRES         |
| 017SPX<br>023SPX | 2.05<br>3.05                              | M3 x .5<br>0.205 (in.)                 | 1.725<br>2.625                                | 2.86<br>4.7   | 0.98<br>1.67                     | 1.88<br>3.03                      | 0.31<br>0.39                         | 8<br>6                               |
| PART NUMBER      | RATED<br>PHASE<br>CURRENT<br>(AMPS/PHASE) | NOMINAL<br>MOTOR<br>STEP<br>ANGLE      | BACKLASH<br>(ARC-MINUTES)                     | RADIAL<br>SHAFT<br>PLAY<br>(in.)  | AXIAL<br>SHAFT<br>PLAY<br>(in.)  | GEARHEAD<br>WEIGHT<br>(OZ.)       | PHASE<br>RESISTANCE<br>(OHMS +/-10%) | WINDING<br>INDUCTANCE<br>(mH +/-20%) |
| 017SPX<br>023SPX | 1.25<br>4.70                              | 1.8" STEP<br>1.8" STEP                 | 45<br>45                                      | 0.002<br>0.002  | 0.010<br>0.010                   | 13<br>45                          | 3.3@25°C<br>.37@25°C                 | 3.0<br>0.6                           |
| PART NUMBER      | INPUT<br>RPM<br>(MAX.)                    | EFFICIENCY<br>(MIN.)<br>(AMPS/PHASE)   | GEARHEAD<br>MAX. CONT.<br>TORQUE<br>(OZ. in.) | SPECIFICATIONS  |                                  |                                   |                                      |                                      |
| 017SPX<br>023SPX | 1000<br>1000                              | 80%<br>80%                             | 160<br>320                                    | Gearhead Ambient Operating Temperature Range -60°F to +250°F. Motor is rated to 265°F. Molded Composite Housing (Max. Temp. 420°F). Gears are High-Strength Heat-Treated Steel. Composite Bushings throughout Gearhead. Input/Output shafts turn in the same direction. |                                  |                                   |                                      |                                      |

### SIZE 017 MOTOR P/N HT17-075P

### SIZE 023 MOTOR P/N 4023-828P

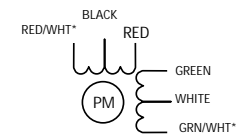
#### Bipolar Chopper Drive Switching Sequence for CW Rotation Facing Mounting End

| Step | A+ | A- | B+ | B- |
|------|----|----|----|----|
| 0    | +  | -  | +  | -  |
| 1    | -  | +  | +  | -  |
| 2    | -  | +  | -  | +  |
| 3    | +  | -  | -  | +  |
| 4    | +  | -  | +  | -  |



#### Bipolar Chopper Drive Switching Sequence for CW Rotation Facing Mounting End

| Step | Red | Black | Green | White |
|------|-----|-------|-------|-------|
| 0    | +   | -     | +     | -     |
| 1    | -   | +     | +     | -     |
| 2    | -   | +     | -     | +     |
| 3    | +   | -     | -     | +     |
| 4    | +   | -     | +     | -     |



Motor Connection: Center Tap to end

\* These wires are not used; do not connect them or ground them. They must be electrically isolated.

ALL SPECIFICATIONS SUBJECT TO CHANGE.