The P5-M48 series provides a combination of optimum performance and price for use in instrumentation applications which require digital control of position and speed. Features include:

- · High performance permanent magnet stepper motor
- · Precision Ovoid gearhead incorporating metal gears for optimum torque transmission
- Wide range of standard gear ratio options from stock
- Choice of output shaft options
- Optional integral freewheel and clutch
- · Special shaft and gear ratios to meet customer special requirements

## Dimensions: mm 25 16.5 Ls 47.6 Leads 300 typ 25 28.2 A 2.8 A 0 A 3.2 A 2.8 A 0 Db Dearing dia. Db: 10mm (LO series) 8mm (L8 series) Shaft length Ls: plain 20 mm long (L.1 option) 12.8 mm long with flat (L.2 option): A 24.6

Additional options: Integral Clutch: L.2C

Fiat length: 9 mm

Integral Freewheel CW version : L 2F & CCW version: L 2R

P542-M48 geared stepper motor performance

| Geared Stepper Motor | Ratio | Steps per rev.<br>at output | '   | Max Working    | Typical Working<br>Torque ( Ncm ) |
|----------------------|-------|-----------------------------|---|----------------|-----------------------------------|
|                      |       |                             | (Nom)   | Torque ( Ncm ) |                                   |
| P542-M48 -G01        | 25:6  | 200                         | 19.8  | 13.5           | 6.0                               |
| -G03                 | 25:4  | 300                         | 29.7  | 20.3           | 9.0                               |
| -G04                 | 25:3  | 400                         | 39.6  | 27.0           | 12.0                              |
| -G05                 | 10:1  | 480                         | 42.9  | 29.3           | 13.0                              |
| -G06                 | 25:2  | 600                         | 53.6  | 36.6           | 16.3                              |
| -G08                 | 50:3  | 800                         | 71.5  | 48.7           | 21.7                              |
| -G09                 | 20:1  | 960                         | 85,8  | 58.5           | 26.0                              |
| -G11                 | 25:1  | 1,200                       | 100.0   | 73.1           | 32.5                              |
| -G14                 | 100:3 | 1,600                       | 100.0   | 97.5           | 43.3                              |
| -G16                 | 125:3 | 2,000                       | 100.0   | 100.0          | 54.2                              |
| -G17                 | 50:1  | 2,400                       | 100.0   | 100.0          | 65.0                              |
| -G19                 | 125:2 | 3,000                       | 100.0   | 100.0          | 72.5                              |
| -G21                 | 250:3 | 4,000                       | 100.0   | 100.0          | 90.0                              |
| -G23                 | 125:1 | 6,000                       | 100.0   | 100.0          | 100.0                             |
| -G27                 | 250:1 | 12,000                      | Use P535-M48 series for ratios of 250:1 and above |                |                                   |

| Standard Versions:        |         | P542-M482U | P42-M481U | Step rate @     |
|---------------------------|---------|------------|-----------|-----------------|
| Number of phases          |         | 4          | 4         | typical working |
| Rated voltage (L/R Drive) |         | 12         | 5         | torque          |
| Current per phase         | ( m A ) | 230        | 550       | L/R : 300 Hz    |
| Resistance per phase      | (Ohms)  | 52.4       | 9.1       | L/4R: 550 Hz    |
| Inductance per phase      | ( m H ) | 51.7       | 8.1       |                 |