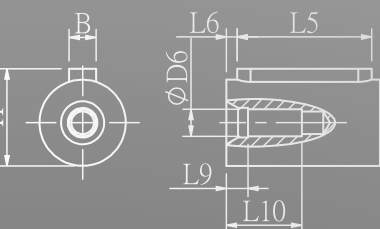
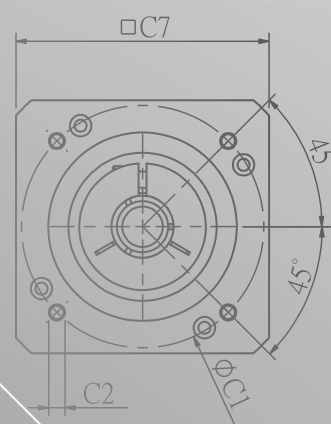
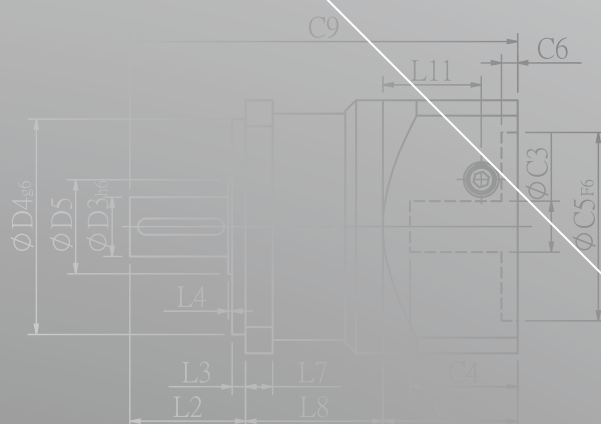
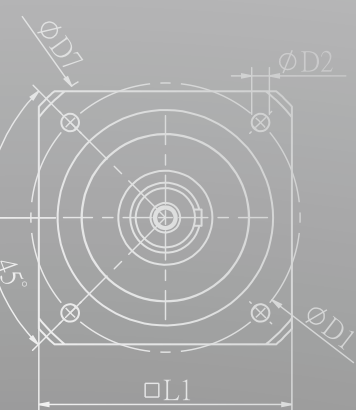
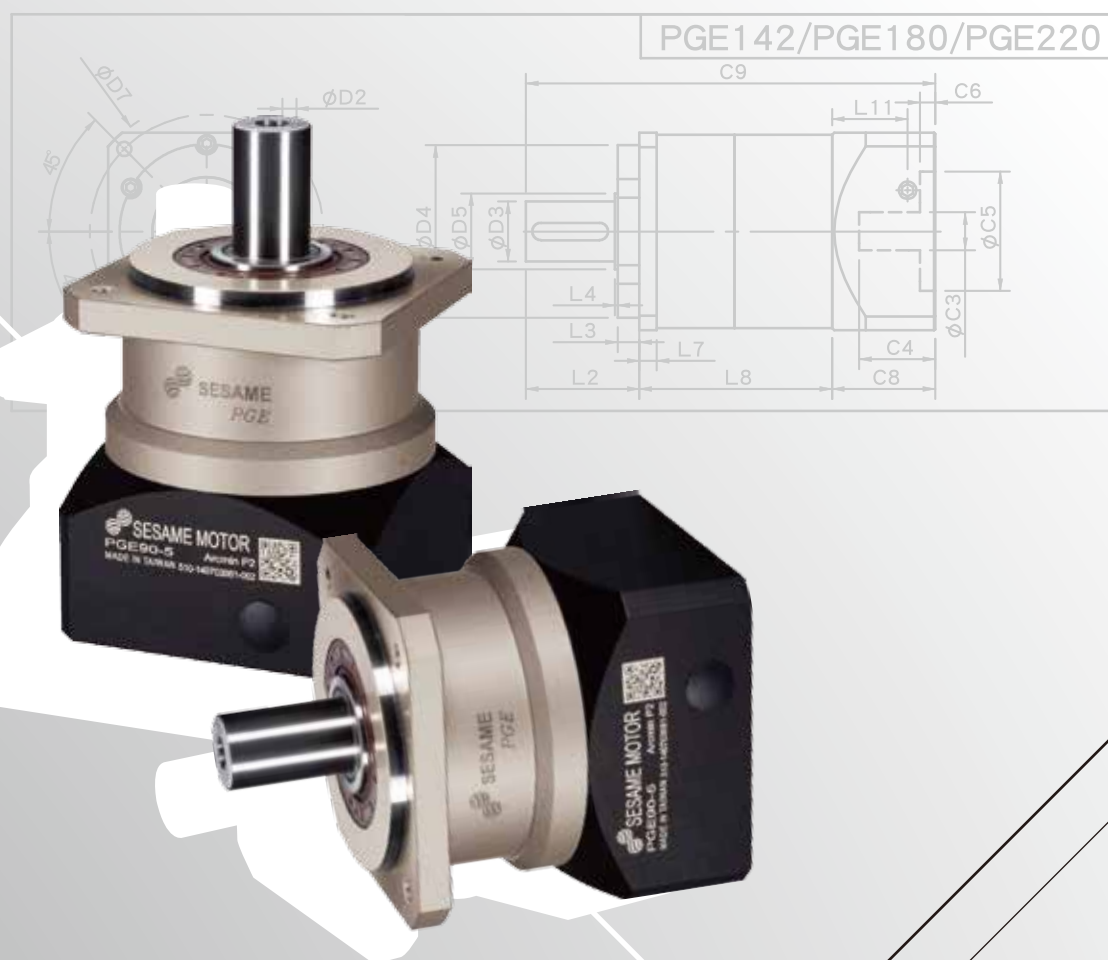
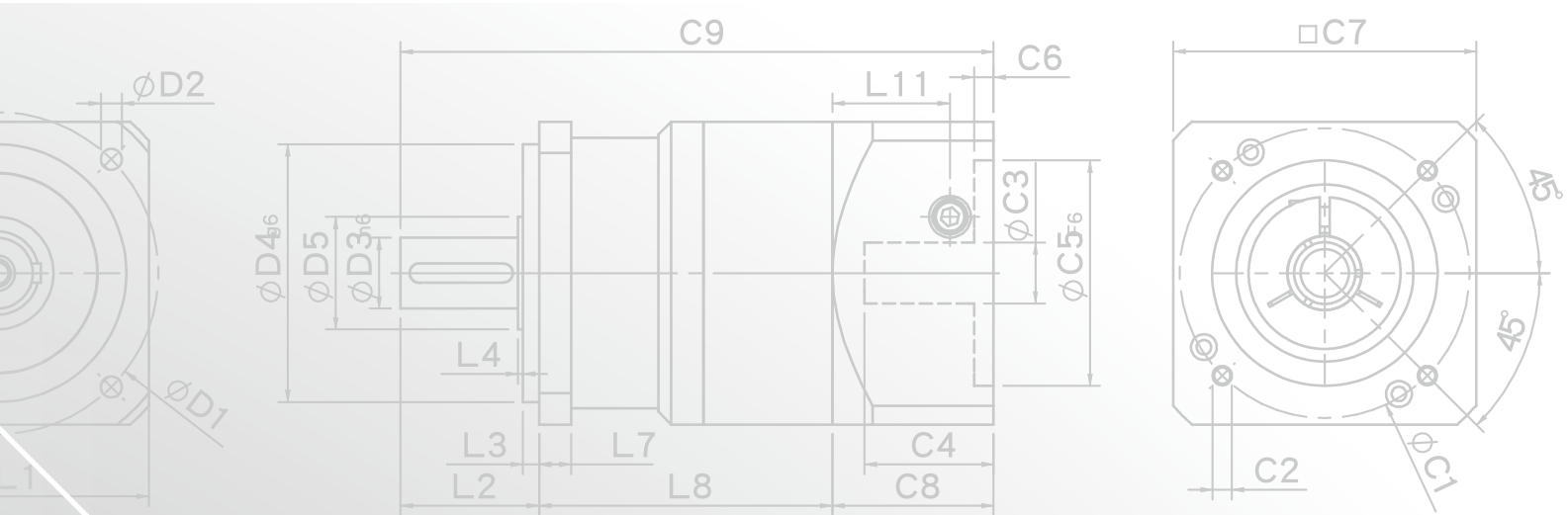
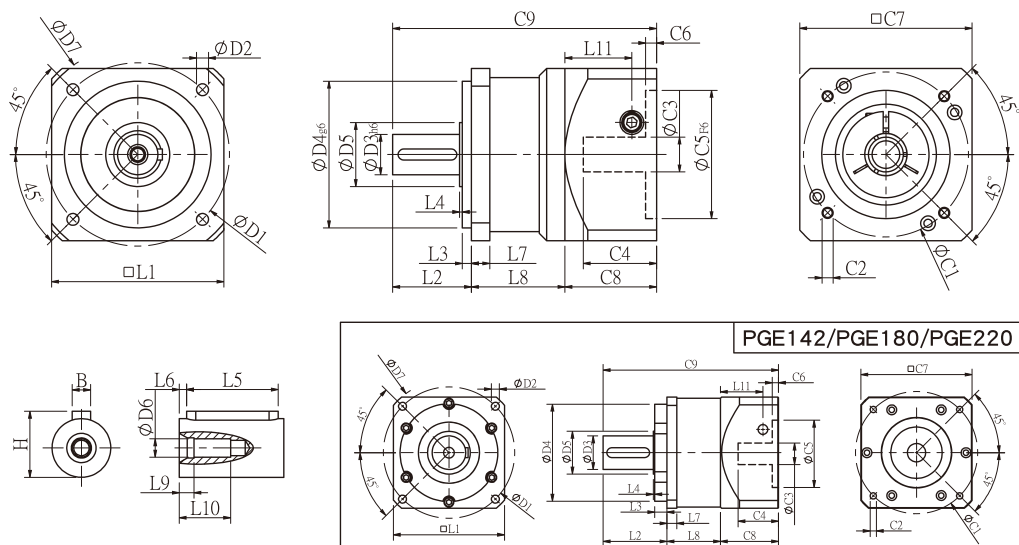


PGE SERIES





PGE Single Stage Dimensions



Specifications

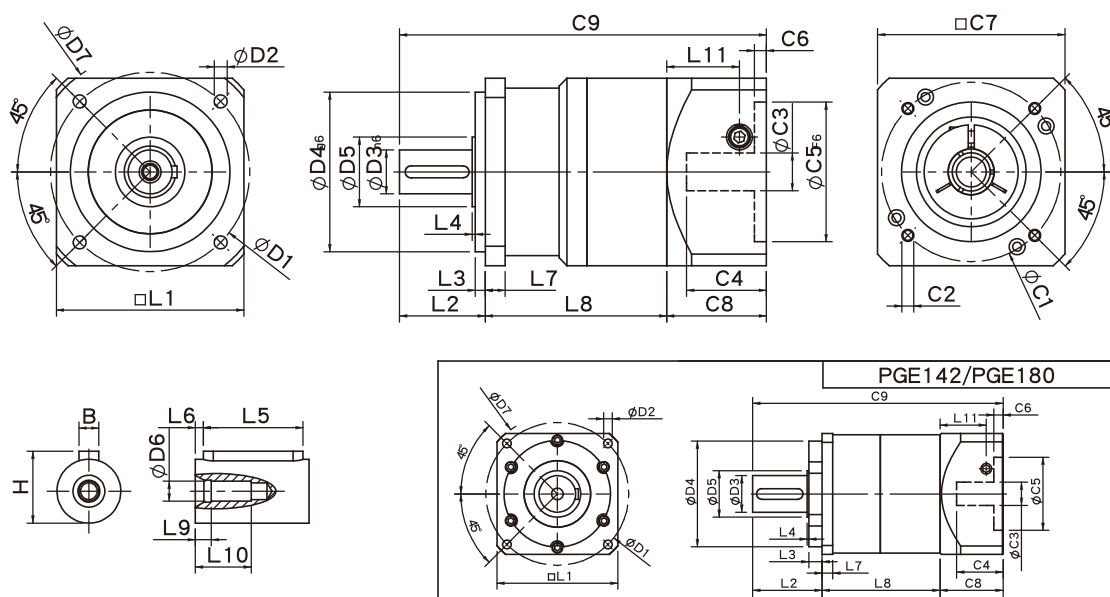
Unit:mm

| Dimensions | PGE50 | PGE70 | PGE90 | PGE120 | PGE142 | PGE180 | PGE220 |
|-------------------------------|---------|---------|----------|-----------|----------|-----------|-----------|
| D1 | 50 | 70 | 100 | 130 | 165 | 215 | 250 |
| D2 | 3.4 | 6 | 6.5 | 8.5 | 10.5 | 13 | 17 |
| D3 _{h6} | 13 | 16 | 22 | 32 | 40 | 55 | 75 |
| D4 _{g6} | 35 | 50 | 80 | 110 | 130 | 160 | 180 |
| D5 | 15 | 25 | 35 | 45 | 50 | 70 | 90 |
| D6 | M4x0.7P | M5x0.8P | M8x1.25P | M12x1.75P | M16x2.0P | M20x2.5P | M20x2.5P |
| D7 | 64 | 90 | 120 | 152 | 186 | 239 | 292 |
| L1 | 50 | 70 | 94 | 120 | 142 | 182 | 220 |
| L2 | 24.5 | 37 | 43 | 60 | 93 | 104.5 | 138 |
| L3 | 4 | 7 | 5 | 6 | 8 | 20 | 30 |
| L4 | 1.5 | 1.5 | 1.5 | 3 | 6 | 2.5 | 3 |
| L5 | 15 | 25 | 32 | 40 | 60 | 70 | 90 |
| L6 | 2 | 2 | 3 | 5 | 5 | 6 | 7 |
| L7 | 5 | 6 | 10 | 12 | 18 | 16 | 20 |
| L8 | 30 | 36 | 51 | 61 | 79 | 87.5 | 117.5 |
| L9 | 4 | 4 | 4.5 | 6 | 6 | 8 | 7 |
| L10 | 14 | 16.5 | 20.5 | 30 | 38 | 48 | 42 |
| L11 | 24.4 | 31.5 | 36.5 | 42 | 63 | 69.5 | 102.2 |
| C1 ² | 46 | 70 | 90 | 115 | 145 | 200 | 235 |
| C2 ² | M4x0.7P | M5x0.8P | M6x1.0P | M8x1.25P | M8x1.25P | M12x1.75P | M12x1.75P |
| C3 ² | ≤8 | ≤14 | ≤19/≤24 | ≤24/≤28 | ≤35 | ≤50 | ≤55 |
| C4 ² | 27 | 35 | 43 | 58 | 66 | 82 | 98 |
| C5 ² _{F6} | 30 | 50 | 70 | 95 | 110 | 114.3 | 200 |
| C6 ² | 4 | 5 | 5 | 8 | 6 | 13 | 12 |
| C7 ² | 50 | 70 | 94 | 120 | 140 | 182 | 220 |
| C8 ² | 38.5 | 46 | 55 | 63 | 80 | 95 | 130 |
| C9 ² | 93 | 119 | 149 | 184 | 252 | 287 | 385.5 |
| B | 5 | 5 | 6 | 10 | 12 | 16 | 20 |
| H | 15 | 18 | 24.5 | 35 | 43 | 59 | 79.5 |

★ C1~C9 are motor specific dimensions(metric std shown). Size may vary according to the motor flange chosen.

★ Specification subject to change without notice.

● PGE Double Stage Dimensions-1



Specifications

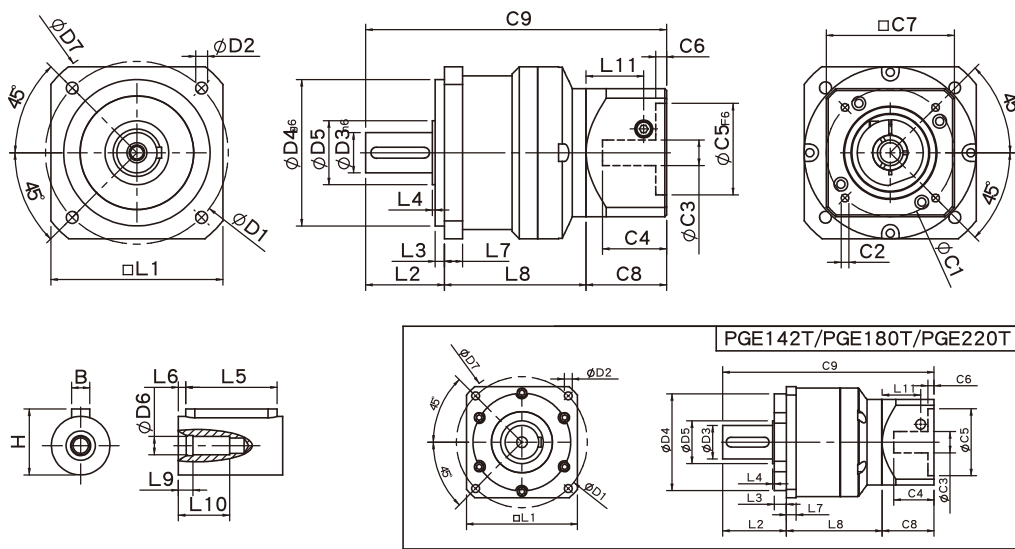
Unit:mm

| Dimensions | PGE50 | PGE70 | PGE90 | PGE120 | PGE142 | PGE180 |
|-------------------------------|---------|---------|----------|-----------|----------|-----------|
| D1 | 50 | 70 | 100 | 130 | 165 | 215 |
| D2 | 3.4 | 6 | 6.5 | 8.5 | 10.5 | 13 |
| D3 _{h6} | 13 | 16 | 22 | 32 | 40 | 55 |
| D4 _{g6} | 35 | 50 | 80 | 110 | 130 | 160 |
| D5 | 15 | 25 | 35 | 45 | 50 | 70 |
| D6 | M4x0.7P | M5x0.8P | M8x1.25P | M12x1.75P | M16x2.0P | M20x2.5P |
| D7 | 64 | 90 | 120 | 152 | 186 | 239 |
| L1 | 50 | 70 | 94 | 120 | 142 | 182 |
| L2 | 24.5 | 37 | 43 | 60 | 93 | 104.5 |
| L3 | 4 | 7 | 5 | 6 | 8 | 20 |
| L4 | 1.5 | 1.5 | 1.5 | 3 | 6 | 2.5 |
| L5 | 15 | 25 | 32 | 40 | 60 | 70 |
| L6 | 2 | 2 | 3 | 5 | 5 | 6 |
| L7 | 5 | 6 | 10 | 12 | 18 | 16 |
| L8 | 56 | 64 | 91 | 109 | 140 | 177.5 |
| L9 | 4 | 4 | 4.5 | 6 | 6 | 8 |
| L10 | 14 | 16.5 | 20.5 | 30 | 38 | 48 |
| L11 | 24.4 | 31.5 | 36.5 | 42 | 63 | 69.5 |
| C1 ² | 46 | 70 | 90 | 115 | 145 | 200 |
| C2 ² | M4x0.7P | M5x0.8P | M6x1.0P | M8x1.25P | M8x1.25P | M12x1.75P |
| C3 ² | ≤8 | ≤14 | ≤19/≤24 | ≤24/≤28 | ≤35 | ≤50 |
| C4 ² | 27 | 35 | 43 | 58 | 66 | 82 |
| C5 ² _{F6} | 30 | 50 | 70 | 95 | 110 | 114.3 |
| C6 ² | 4 | 5 | 5 | 8 | 6 | 13 |
| C7 ² | 50 | 70 | 94 | 120 | 140 | 182 |
| C8 ² | 38.5 | 46 | 55 | 63 | 80 | 95 |
| C9 ² | 119 | 147 | 189 | 232 | 313 | 377 |
| B | 5 | 5 | 6 | 10 | 12 | 16 |
| H | 15 | 18 | 24.5 | 35 | 43 | 59 |

★ C1~C9 are motor specific dimensions(metric std shown), Size may vary according to the motor flange chosen.

★ Specification subject to change without notice.

PGE Double Stage Dimensions-2



Specifications

Unit:mm

| Dimensions | PGE70T | PGE90T | PGE120T | PGE142T | PGE180T | PGE220T |
|-------------------------------|---------|----------|-----------|----------|----------|-----------|
| D1 | 70 | 100 | 130 | 165 | 215 | 250 |
| D2 | 6 | 6.5 | 8.5 | 10.5 | 13 | 17 |
| D3 _{h6} | 16 | 22 | 32 | 40 | 55 | 75 |
| D4 _{g6} | 50 | 80 | 110 | 130 | 160 | 180 |
| D5 | 25 | 35 | 45 | 50 | 70 | 90 |
| D6 | M5x0.8P | M8x1.25P | M12x1.75P | M16x2.0P | M20x2.5P | M20x2.5P |
| D7 | 90 | 120 | 152 | 186 | 239 | 292 |
| L1 | 70 | 94 | 120 | 142 | 182 | 220 |
| L2 | 37 | 43 | 60 | 93 | 104.5 | 138 |
| L3 | 7 | 5 | 6 | 8 | 20 | 30 |
| L4 | 1.5 | 1.5 | 3 | 6 | 2.5 | 3 |
| L5 | 25 | 32 | 40 | 60 | 70 | 90 |
| L6 | 2 | 3 | 5 | 5 | 6 | 7 |
| L7 | 6 | 10 | 12 | 18 | 16 | 20 |
| L8 | 58.8 | 77.5 | 99.4 | 127 | 157 | 199.5 |
| L9 | 4 | 4.5 | 6 | 6 | 8 | 7 |
| L10 | 16.5 | 20.5 | 30 | 38 | 48 | 42 |
| L11 | 29 | 35.5 | 40.5 | 42 | 63 | 69.5 |
| C1 ² | 66.67 | 70 | 90 | 115 | 145 | 200 |
| C2 ² | M5x0.8P | M5x0.8P | M6x1.0P | M8x1.25P | M8x1.25P | M12x1.75P |
| C3 ² | ≤8 | ≤14 | ≤19/≤24 | ≤24/≤28 | ≤35 | ≤50 |
| C4 ² | 27 | 41 | 47.75 | 58 | 66 | 82 |
| C5 ² _{F6} | 38.1 | 50 | 70 | 95 | 110 | 114.3 |
| C6 ² | 4 | 8 | 6 | 8 | 6 | 13 |
| C7 ² | 60 | 70 | 94 | 120 | 140 | 182 |
| C8 ² | 38.5 | 50 | 55 | 63 | 80 | 95 |
| C9 ² | 134.3 | 170.5 | 214.4 | 283 | 341.5 | 432.5 |
| B | 5 | 6 | 10 | 12 | 16 | 20 |
| H | 18 | 24.5 | 35 | 43 | 59 | 79.5 |

★ C1~C9 are motor specific dimensions(metric std shown), Size may vary according to the motor flange chosen.

★ Specification subject to change without notice.

PGE Specifications Table

| Specifications | | Stage | Ratio | PGE-50 | PGE-70 | PGE-90 | PGE-120 | PGE-142 | PGE-180 | PGE-220 |
|---|------------------|----------------------|---|---------------------------------------|----------------|----------------|-----------------|-------------------|-------------|-------------|
| Nominal Output Torque T _{2N} | N • m | 1 | 3 | 13.8 | 44.2 | 95.2 | 283 | 482 | 1151 | 1670 |
| | | | 4 | 11.9 | 35.9 | 74.6 | 249 | 490 | 1055 | 1574 |
| | | | 5 | 13.8 | 43.0 | 95.2 | 283 | 473 | 1151 | 1670 |
| | | | 7 | 11.9 | 36.0 | 85.6 | 219 | 400 | 1055 | 1574 |
| | | | 10 | 10.1 | 25.0 | 75.0 | 210 | 320 | 763 | 1184 |
| | | Stage | Ratio | PGE-50 | PGE-70(T) | PGE-90(T) | PGE-120(T) | PGE-142(T) | PGE-180(T) | PGE-220 T |
| | | 2 | 15 | 13.8 | 44.2 | 95.2 | 283 | 482 | 1151 | 1670 |
| | | | 20 | 11.9 | 35.9 | 74.6 | 249 | 490 | 1055 | 1574 |
| | | | 25 | 13.8 | 43.0 | 95.2 | 283 | 473 | 1151 | 1670 |
| | | | 30 | 13.8 | 43.0 | 95.2 | 283 | 473 | 1151 | 1670 |
| | | | 35 | 13.8 | 43.0 | 95.2 | 283 | 473 | 1151 | 1670 |
| | | | 40 | 13.8 | 43.0 | 95.2 | 283 | 473 | 1151 | 1670 |
| | | | 50 | 13.8 | 43.0 | 95.2 | 283 | 473 | 1151 | 1670 |
| | | | 70 | 11.9 | 36.0 | 85.6 | 219 | 400 | 1055 | 1574 |
| | | | 100 | 10.1 | 25.0 | 75.0 | 210 | 320 | 763 | 1184 |
| Emergency Stop Torque T _{2NOT} | N • m | | 3.0 times of Nominal Output Torque (*Max. Output Torque T _{2B} =60% of Emergency Stop Torque) | | | | | | | |
| Nominal Input Speed n _{1N} | rpm | 1,2 | 3-100 | 3000 | 3000 | 3000 | 2500 | 2000 | 2000 | 2000 |
| Max. Input Speed n _{1max} | rpm | 1,2 | 3-100 | 6000 | 6000 | 6000 | 5000 | 4000 | 4000 | 4000 |
| Micro Backlash P0 | arcmin | 1 2 | 3-10 12-100 | - - | - - | - - | ≤ 3 ≤ 5 | ≤ 3 ≤ 5 | ≤ 3 ≤ 5 | ≤ 3 ≤ 5 |
| Precision Backlash P1 | arcmin | 1 2 | 3-10 12-100 | - - | ≤ 6 ≤ 9 | ≤ 6 ≤ 9 | ≤ 5 ≤ 7 | ≤ 5 ≤ 7 | ≤ 5 ≤ 7 | ≤ 5 ≤ 7 |
| Standard Backlash P2 | arcmin | 1 2 | 3-10 12-100 | ≤ 12 ≤ 15 | ≤ 9 ≤ 12 | ≤ 9 ≤ 12 | ≤ 7 ≤ 9 | ≤ 7 ≤ 9 | ≤ 7 ≤ 9 | ≤ 7 ≤ 9 |
| Torsional Rigidity | N • m /arcmin | 1,2 | 3-100 | 1.0 | 2.8 | 7.5 | 15.5 | 30 | 57 | 110 |
| Max. Radial Load F _{2rB} ¹ | N | 1,2 | 3-100 | 350 | 960 | 1630 | 3380 | 6150 | 7260 | 11120 |
| Max. Axial Load F _{2aB} ¹ | N | 1,2 | 3-100 | 320 | 900 | 1420 | 2930 | 5510 | 5550 | 8560 |
| Operating Temp. | °C | | 3-100 | -10 °C ~ +90 °C | | | | | | |
| Service Life | hr | | 3-100 | 20,000 (10,000/ Continuous operation) | | | | | | |
| Efficiency | % | 1 2 | 3-10 12-100 | ≥ 96% ≥ 92% | | | | | | |
| Weight | kg | 1 2 | 3-10 12-100 | 0.7 0.9 | 1.4 2.2/1.7 | 3.0 5.0/3.4 | 7.3 11.5/8.5 | 15.6 20.7/17.2 | 26 36/31 | 56 80/62 |
| Mounting Position | - | 1,2 | 3-100 | Any direction | | | | | | |
| Noise Level ² | dBA/1m | 1,2 | 3-100 | 60 | 62 | 65 | 65 | 70 | 70 | 75 |
| Protection Class | - | 1,2 | 3-100 | IP65 | | | | | | |
| Lubrication | - | 1,2 | 3-100 | Synthetic Lubricant | | | | | | |
| Inertia(J1) | | | | | | | | | | |
| Stage | Ratio | unit | | PGE-50 | PGE-70 | PGE-90 | PGE-120 | PGE-142 | PGE-180 | PGE-220 |
| 1 | 3 | Kg • cm ² | | 0.03 | 0.20 | 0.81 | 2.20 | 7.89 | 25.2 | 77.9 |
| | 4 | | | 0.02 | 0.16 | 0.65 | 1.80 | 5.83 | 19.8 | 56.5 |
| | 5 | | | 0.02 | 0.15 | 0.62 | 1.61 | 5.38 | 18.3 | 53.3 |
| | 7 | | | 0.02 | 0.14 | 0.60 | 1.55 | 5.22 | 17.8 | 53.0 |
| | 10 | | | 0.02 | 0.14 | 0.60 | 1.53 | 5.20 | 17.6 | 52.9 |
| Stage | Ratio | | | PGE-50 | PGE-70(T) | PGE-90(T) | PGE-120(T) | PGE-142(T) | PGE-180(T) | PGE-220 T |
| 2 | 15/20/25 | | | 0.02 | 0.15(0.02) | 0.62(0.15) | 1.61(0.62) | 5.38(1.61) | 18.3(5.38) | 53.9(18.3) |
| | 30/35/40 | | | 0.02 | 0.14(0.02) | 0.60(0.14) | 1.55(0.60) | 5.22(1.55) | 17.8(5.22) | 53.0(17.8) |
| | 50/70/100 | | | 0.02 | 0.14(0.02) | 0.60(0.14) | 1.53(0.60) | 5.20(1.53) | 17.6(5.20) | 52.9(17.6) |
| * 1. Applied to the output shaft center @100rpm. * 2. Measured at 3000rpm with no load * 3. PGL60T - □□ - P1 · PGL90T - □□ - P1, and PGL115T - □□ - P0, are not applicable. ※ The above figures/specifications are subject to change without prior notice. | | | | | | | | | | |

* 1. Applied to the output shaft center @100rpm. * 2. Measured at 3000rpm with no load

* 3. PGL60T - □□ - P1 · PGL90T - □□ - P1, and PGL115T - □□ - P0, are not applicable.

※ The above figures/specifications are subject to change without prior notice.

Products due to human error, natural disasters or other factors lead to poor or damaged, will not be covered under warranty.