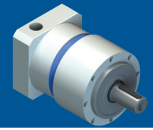


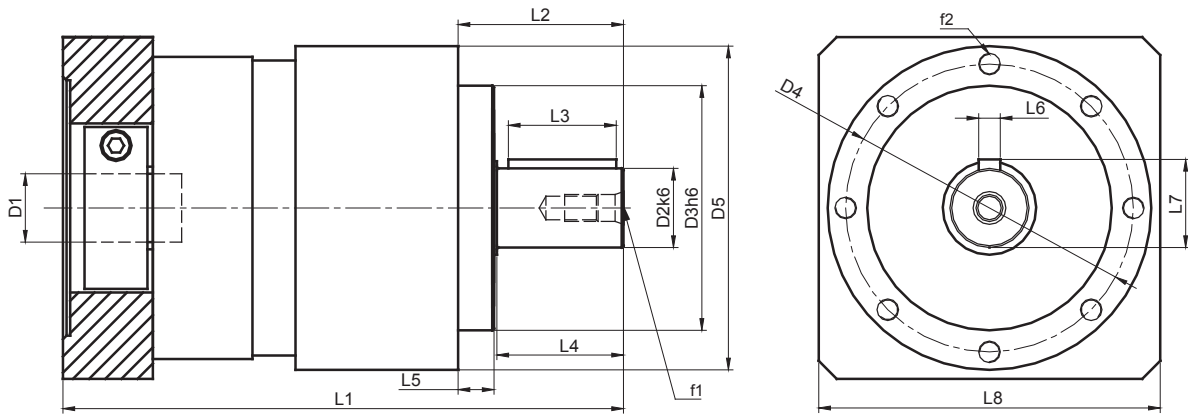


EPL SERIES - EPL-A



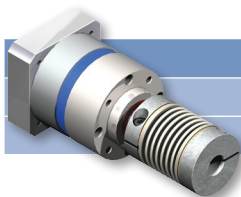
| EPL-A Series | | 50 | | 70 | | 90 | | 120 | | 155 | |
|---|--|--|--------------|--------------|--------------|--------------|---------------|-----|--|-----|--|
| All Ratios Available | | 1stage: 3, 4, 5, 7, 10 2stage: 12,16, 20, 25, 35, 40, 50, 70, 100 3stage: 120, 160, 200, 250, 350, 490, 700, 1000 (Consult GAM for other ratios) | | | | | | | | | |
| Nominal Output Torque (T_{2n}) | Nm (lb-in) | 3:1 | 5 (44) | 20 (177) | 40 (354) | 100 (885) | 230 (2036) | | | | |
| | | 4, 5, 7:1 | 6.5 (58) | 26 (230) | 54 (478) | 120 (1062) | 310 (2744) | | | | |
| | | 10, 100, 1000:1 | 5 (44) | 16 (142) | 40 (354) | 105 (929) | 180 (1593) | | | | |
| | | 12:1 | 14 (124) | 36 (319) | 80 (708) | 170 (1505) | 272 (2407) | | | | |
| | | all other ratios | 16 (142) | 42 (372) | 100 (885) | 210 (1859) | 340 (3009) | | | | |
| Max Acceleration Output Torque (T_{2B}) | Nm (lb-in) | 3:1 | 10 (89) | 36 (319) | 70 (620) | 180 (1593) | 360 (3186) | | | | |
| | | 4, 5, 7:1 | 13 (115) | 44 (389) | 100 (885) | 200 (1770) | 460 (4071) | | | | |
| | | 10, 100, 1000:1 | 10 (89) | 24 (212) | 75 (664) | 180 (1593) | 340 (3009) | | | | |
| | | 12:1 | 17.5 (155) | 45 (398) | 100 (885) | 215 (1903) | 360 (3186) | | | | |
| | | all other ratios | 20 (177) | 52 (460) | 125 (1106) | 255 (2257) | 460 (4071) | | | | |
| Emergency Output Torque (T_{2not}) | Nm (lb-in) | 3:1 | 20 (177) | 72 (637) | 160 (1416) | 200 (1770) | 860 (7612) | | | | |
| | | 4, 5, 7:1 | 26 (230) | 84 (743) | 216 (1912) | 480 (4248) | 1000 (8851) | | | | |
| | | 10, 100, 1000:1 | 20 (177) | 62 (549) | 160 (1416) | 410 (3629) | 800 (7081) | | | | |
| | | 12:1 | 28 (248) | 72 (637) | 160 (1416) | 400 (3540) | 860 (7612) | | | | |
| | | all other ratios | 32 (283) | 84 (743) | 216 (1912) | 480 (4248) | 1000 (8851) | | | | |
| Nominal Speed (n_{1n}) | RPM | - | 3500 | 3500 | 3000 | 2500 | 2500 | | | | |
| Max Speed (n_{1max}) | RPM | - | 6000 | 6000 | 6000 | 5000 | 4500 | | | | |
| Standard Output Backlash (j) | arcmin | 1stage | <16 | <10 | <10 | <8 | <8 | | | | |
| | | 2stage | <20 | <14 | <14 | <12 | <12 | | | | |
| | | 3stage | - | <18 | <18 | <16 | <16 | | | | |
| Allowable Radial Load ($F_{rad} / 1$) | N (lbs) | - | 650 (146) | 1550 (348) | 2400 (540) | 4600 (1034) | 7500 (1686) | | | | |
| Allowable Axial Load (F_{axial}) | N (lbs) | - | 700 (158) | 1450 (326) | 1900 (427) | 4000 (899) | 6000 (1349) | | | | |
| Torsional Stiffness (C_{21}) | Nm/arcmin (lbin/arcmin) | 10,100,1000 | 0.60 (5.3) | 1.3 (11.5) | 3.4 (30.1) | 8.3 (73.5) | 22 (194.7) | | | | |
| | | 7,70,700 | 0.78 (6.9) | 1.7 (15) | 4.8 (42.5) | 13.6 (120.4) | 27 (239) | | | | |
| | | all other ratios | 0.90 (8.0) | 2.4 (21.2) | 7.1 (62.8) | 17.2 (152.2) | 33 (292.1) | | | | |
| Weight (m) | kg (lbs) | 1stage | 0.4 (0.9) | 1 (2.2) | 2.3 (5.1) | 5.8 (12.8) | 10 (22.1) | | | | |
| | | 2stage | 0.5 (1.1) | 1.3 (2.9) | 3.1 (6.8) | 7.9 (17.4) | 12.5 (27.6) | | | | |
| | | 3stage | - | 1.6 (3.5) | 3.9 (8.6) | 10.0 (22.1) | 15 (33.1) | | | | |
| Noise Level (L_{pk}) | dB(A) | - | <64 | <66 | <68 | <70 | <72 | | | | |
| Mass Moment of Inertia (J_1) | kg cm ² (lb-in ²) | 3:1 | 0.06 (0.021) | 0.45 (0.154) | 1.37 (0.468) | 6.54 (2.235) | 12.23 (4.179) | | | | |
| | | 4:1, 12:1, 16:1 | 0.04 (0.014) | 0.38 (0.13) | 1.14 (0.390) | 4.8 (1.640) | 7.65 (2.614) | | | | |
| | | 5:1, 20:1, 25:1 | 0.04 (0.014) | 0.36 (0.123) | 1.05 (0.359) | 4.05 (1.384) | 6.24 (2.132) | | | | |
| | | 7:1, 35:1 | 0.04 (0.014) | 0.35 (0.12) | 0.97 (0.331) | 3.4 (1.162) | 4.7 (1.606) | | | | |
| | | 10:1, 40:1 - 100:1 | 0.04 (0.014) | 0.34 (0.116) | 0.93 (0.318) | 3.1 (1.059) | 3.8 (1.299) | | | | |
| | | 120:1 - 1000:1 | 0 0 | 0.34 (0.116) | 0.93 (0.318) | 3.12 (1.066) | 3.9 (1.333) | | | | |
| Efficiency at Load | 1stage: 94% 2stage: 92% 3stage: 90% | | | | | | | | | | |
| Service Life | > 30,000 hours | | | | | | | | | | |
| Lubrication | Mineral Grease EP0 | | | | | | | | | | |
| Protection Rating | IP 64 | | | | | | | | | | |
| Operating Temperature Range | -20°C to 90°C | | | | | | | | | | |

EPL-A



| EPL-A Series | | 50 | | 70 | | 90 | | 120 | | 155 | |
|-------------------------------|-----------------------|-----------|---------|------------|---------|------------|---------|------------|----------|-------------|----------|
| | | mm | (in) | mm | (in) | mm | (in) | mm | (in) | mm | (in) |
| D1 _{max standard} * | motor shaft diameter | 11 | (0.433) | 14 | (0.551) | 19 | (0.748) | 24 | (0.945) | 28 | (1.102) |
| D1 _{max available} * | motor shaft diameter | 14 | (0.551) | 16 | (0.630) | 24 | (0.945) | 32 | (1.260) | 38 | (1.496) |
| D2 k6 | output shaft diameter | 12 | (0.472) | 16 | (0.630) | 22 | (0.866) | 32 | (1.260) | 40 | (1.575) |
| D3h7 | pilot diameter | 35 | (1.378) | 52 | (2.047) | 68 | (2.677) | 90 | (3.543) | 120 | (4.724) |
| D4 | Bolt Circle | 44 | (1.732) | 62 | (2.441) | 80 | (3.150) | 108 | (4.252) | 140 | (5.512) |
| D5 | Housing Diameter | 50 | (1.968) | 70 | (2.756) | 90 | (3.543) | 118 | (4.646) | 155 | (6.102) |
| f1 | Shaft Thread | M4x8 | | M5x17 | | M8x25 | | M12x37 | | M16x26 | |
| f2 | Mounting Holes | (8x) M4x8 | | (8x) M5x12 | | (8x) M6x14 | | (8x) M8x18 | | (8x) M10x24 | |
| L1 1-STAGE** | gearbox total length | 93 | (3.661) | 130 | (5.118) | 164 | (6.457) | 222 | (8.740) | 300 | (11.811) |
| L1 2-STAGE** | | 109 | (4.291) | 152 | (5.984) | 196 | (7.717) | 263 | (10.354) | 341 | (13.425) |
| L1 3-STAGE** | | - | - | 174 | (6.850) | 229 | (9.016) | 304 | (11.968) | 382 | (15.039) |
| L2 | Shaft length | 24.5 | (0.965) | 36 | (1.417) | 46 | (1.811) | 70 | (2.756) | 94 | (3.701) |
| L3 | Key Length | 16 | (0.630) | 25 | (0.984) | 30 | (1.181) | 50 | (1.968) | 70 | (2.756) |
| L4 | Useable Shaft Length | 18 | (0.709) | 28 | (1.102) | 35 | (1.378) | 58 | (2.283) | 82 | (3.228) |
| L5 | Pilot Height | 4 | (0.157) | 5.5 | (0.217) | 9 | (0.354) | 7 | (0.276) | 5.5 | (0.217) |
| L6 | Key Width | 4 | (0.157) | 5 | (0.197) | 6 | (0.236) | 10 | (0.394) | 12 | (0.472) |
| L7 | Key Height | 13.5 | (0.531) | 18 | (0.709) | 24.5 | (0.965) | 35 | (1.378) | 43 | (1.693) |
| L8** | Adapter Size | 50 | (1.968) | 70 | (2.756) | 90 | (3.543) | 120 | (4.724) | 150 | (5.905) |

* for larger motor shaft diameters, please contact GAM **depending on the motor, value can vary *** longer motor shafts can be accommodated, but overall gearbox length will grow



Recommended Output Coupling (if necessary)

| | KLC-25 | KLC-50 | KLC-125 | KM-270 | KM-400 |
|---------------|--------|--------|---------|---------|---------|
| metal bellows | | | | | |
| elastomer | EKM-20 | EKM-60 | EKM-150 | EKM-300 | EKM-400 |

TYPE CODES FOR EPL SERIES (EPL-A)

Example: EPL - A - 090 - 005 G - [115 - A01] - S111

Gearbox Series

EPL w/ Popular Metric Output Dimensions

Gearbox Style

A= Output Shaft

Gearbox Size

050, 070, 090, 120, 155

Ratio

3, 4, 5, 7, 10, 12, 16, 20, 25, 35, 40, 50, 70, 100, 120, 160, 200, 250, 350, 490, 700, 000=1000

Special Options

Assigned by GAM

Motor Mount Kit

Assigned by GAM

Options Available for This Product

G = Key on output shaft per DIN6885

Tolerances (mm)

| Size | k6 | h6 |
|----------|--------|--------|
| Over 10 | +0.012 | 0 |
| Thru 18 | +0.001 | -0.011 |
| Over 18 | +0.015 | 0 |
| Thru 30 | +0.002 | -0.013 |
| Over 30 | +0.018 | 0 |
| Thru 50 | +0.002 | -0.016 |
| Over 50 | +0.021 | 0 |
| Thru 80 | +0.002 | -0.019 |
| Over 80 | +0.025 | 0 |
| Thru 120 | +0.003 | -0.022 |