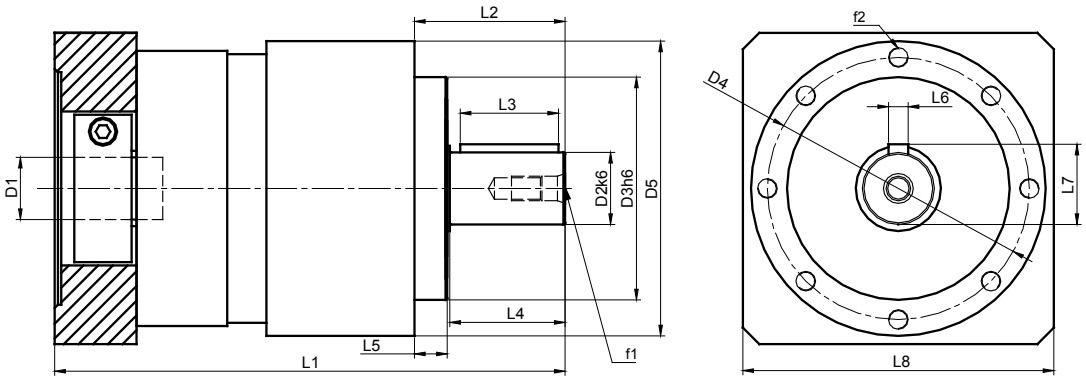
EPL Series - EPL-A

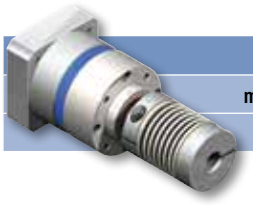
EPL-A Series			50		70		90		120		155	
All Ratios Available			1stage: 3, 4, 5, 7, 10 2stage: 12,16, 20, 25, 35, 40, 50, 70, 100 3stage: 120, 160, 200, 250, 350, 490, 700, 1000 (Consult GAM for other ratios)									
Nominal Output Torque (T_{2n})	Nm (lb-in)	3:1	5	(44)	20	(177)	40	(354)	100	(885)	230	(2036)
		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 (n1n)	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_{t21})	Nm/arcmin (lbin/arc-min)	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_{PA})	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)	32	(1.260)
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)
D3h6	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)	120	(4.724)	155	(6.102)
f1	Shaft Thread	M4x8		M5x10		M8x16		M12x24		M16x32	
f2	Mounting Holes	(8x) M4x6		(8x) M5x10		(8x) M6x12		(8x) M8x16		(8x) M10x20	
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**		128	(5.039)	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)	97	(3.819)
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	(0.197)	5	(0.197)	6	(0.236)	8	(0.315)
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)						
metal bellows	KLC-25	KLC-50	KLC-125	KM-270	KM-400
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

Options Available for This Product
G = Key on output shaft per DIN6885

Motor Mount Kit
Assigned by GAM

Special Options
Assigned by GAM

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