

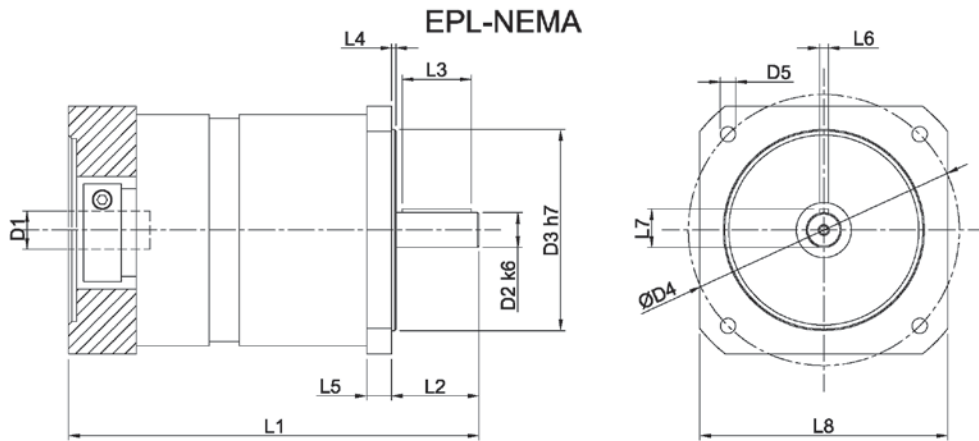


▶ EPL SERIES - EPL-X (NEMA)



NEMA-X Series		17			23			34		42		56	
Stock Ratios		N/A			3, 5, 7, 10, 25, 50, 100					N/A		N/A	
All Ratios Available		3, 4, 5, 7 9, 12, 16, 20, 25, 35, 49 64, 80, 100, 140, 175, 245, 343			1-stage: 3, 4, 5, 7, 10 2-stage: 12, 16, 20, 25, 35, 40, 50, 70, 100 3-stage: 120, 160, 200, 250, 350, 490, 700, 1000								
Nominal Output Torque (T_{2n})	Nm (lb-in)	3, 4, 5, 7:1	6.5	(58)	3, 10, 100, 1000:1	14	(124)	40	(354)	100	(885)	100	(885)
		9:1	3.5	(31)	4, 5, 7:1	26	(230)	50	(443)	120	(1062)	120	(1062)
		all other ratios	16	(142)	all other ratios	36	(319)	64	(566)	165	(1460)	165	(1460)
Max Accel. Torque (T_{2B})	Nm (lb-in)	3, 4, 5, 7:1	13	(115)	3, 10, 100, 1000:1	25	(221)	60	(531)	150	(1328)	150	(1328)
		9:1	8	(71)	4, 5, 7:1	40	(354)	80	(708)	180	(1593)	180	(1593)
		all other ratios	25	(221)	all other ratios	55	(487)	135	(1195)	255	(2257)	255	(2257)
Nominal Speed (n_{1n})	RPM	-	3500	-	-	3500	3000	3000	3000	3000	3000	3000	
Max Input Speed (n_{1max})		6000	-	-	6000	6000	5000	5000					
Standard Output Backlash (j)	arcmin	3:1 - 7:1	< 20	-	3:1 - 10:1	< 10	< 10	< 8	< 8				
		9:1 - 49:1	< 25	-	12:1 - 100:1	< 15	< 14	< 12	< 12				
		64:1 - 343:1	< 30	-	120:1 - 1000:1	< 20	< 18	< 16	< 16				
Allowable Radial Load (F_{rad}) ¹⁾	N (lbs)	-	375	(84)	-	450	(101)	900	(203)	2175	(489)	2175	(489)
Allowable Axial Load (F_{axial})	N (lbs)	-	300	(68)	-	420	(95)	650	(146)	1375	(309)	1375	(309)
Torsional Stiffness (C_{t21})	Nm/arcmin (lb-in/arcmin)	-	-	-	10, 100, 1000:1	1.3	(11.5)	3.4	(30.1)	8.3	(73.5)	8.3	(73.5)
		-	-	-	7, 49, 70, 490, 700:1	1.7	(15)	4.8	(42.5)	13.6	(120.4)	13.6	(120.4)
		-	-	-	all other ratios	2.4	(21.2)	7.1	(62.8)	17.2	(152.2)	17.2	(152.2)
Weight (m)	kg (lbs)	1-stage	0.4	(0.88)	1-stage	1.0	(2.2)	2.3	(5.1)	5.8	(12.8)	6.2	(13.7)
		2-stage	0.5	(1.1)	2-stage	1.3	(2.9)	3.1	(6.8)	7.9	(17.4)	8.3	(18.3)
		3-stage	0.6	(1.32)	3-stage	1.6	(3.5)	3.9	(8.6)	10.0	(22.1)	10.4	(22.9)
Noise Level (L_{pA})	dB(A)	-	< 60	-	< 66	< 68	< 70	< 72					
Mass Moment of Inertia (J_1)	kg cm ² (lb-in ²)	3:1	0.0144	(0.0049)	3:1	0.176	(0.06)	0.542	(0.184)	2.54	(0.864)	2.56	(0.87)
		4:1, 5:1	0.0096	(0.0033)	4:1, 12:1, 16:1	0.173	(0.059)	0.473	(0.161)	1.86	(0.632)	1.88	(0.639)
		9:1	0.0152	(0.0052)	5, 7, 20, 25, 35:1	0.156	(0.053)	0.407	(0.138)	1.51	(0.513)	1.52	(0.517)
		all other ratios	0.0078	(0.0027)	all other ratios	0.137	(0.047)	0.328	(0.112)	1.07	(0.364)	1.07	(0.364)
Efficiency at Load	1-stage: 92% 2-stage: 90% 3-stage: 88%												
Service Life	> 20,000 hours												
Lubrication	Mineral Grease EP0												
Protection Rating	IP 64												
Operating Temperature Range	-20°C to 90°C												

1) Load applied at center of output shaft @100 RPM



NEMA-X Series		17		23		34		42		56	
		mm	(in)	mm	(in)	mm	(in)	mm	(in)	mm	(in)
D1 max standard*	motor shaft diameter	9	(0.354)	14	(0.551)	19	(0.748)	24	(0.945)	24	(0.945)
D1 max available*	motor shaft diameter	-	(-)	16	(0.63)	24	(0.945)	32	(1.26)	32	(1.26)
D2 k6	output shaft diameter	9.525	(0.375)	12.7	(0.5)	19.050	(0.75)	25.4	(1)	25	(0.984)
D3 h7	pilot diameter	21.97	(0.865)	38.1	(1.5)	73	(2.874)	55.55	(2.187)	114.300	(4.5)
D4	bolt circle	43.8	(1.724)	66.7	(2.626)	98.400	(3.874)	125.7	(4.949)	177.800	(7)
D5	mounting holes	3.25	(0.128)	5	(0.197)	5.5	(0.217)	7.1	(0.28)	10.200	(0.402)
L1 1-STAGE**	gearbox total length	98.5	(3.878)	111	(4.37)	147	(5.787)	185	(7.283)	199	(7.835)
L1 2-STAGE**		114	(4.488)	133	(5.236)	180	(7.087)	225.5	(8.878)	239	(9.409)
L1 3-STAGE**		129.5	(5.098)	155	(6.102)	213	(8.386)	266	(10.472)	280	(11.024)
L2	shaft length	22.1	(0.874)	25.3	(1.000)	31.8	(1.252)	38.100	(1.500)	41	(1.614)
L3	key length	-	(-)	19.05	(0.75)	25.4	(1)	31.75	(1.25)	32	(1.26)
L4	pilot height	1.6	(0.063)	1.6	(0.063)	1.7	(0.067)	2.4	(0.094)	4	(0.157)
L5	flange thickness	6.8	(0.268)	5	(0.197)	10	(0.394)	13	(0.512)	20	(0.7874)
L6	key width	-	(-)	3.175	(0.125)	4.78	(0.188)	6.35	(0.25)	8	(0.315)
L7	key height / flat height	9.140	(0.36)	14.22	(0.56)	21.290	(0.838)	28.321	(1.115)	28	(1.102)
L8	flange size	40	(1.575)	65	(2.559)	90	(3.543)	120	(4.724)	120	(5.000)
t1***	allowable motor shaft	25	(0.984)	23	(0.906)	30	(1.181)	40	(1.575)	40	(1.575)

* for larger motor shaft diameters, please contact GAM **depending on the motor, value can vary *** long 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-X (NEMA))

Example: EPL - X23 - 005 G - [115 - A01] - S111

Gearbox Series
EPL w/ NEMA output

Gearbox Style

X17 = NEMA17
X23 = NEMA23
X34 = NEMA34
X42 = NEMA42
X56 = NEMA56

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	h7
Over 6	+0.010	0
Thru 10	+0.001	-0.015
Over 10	+0.012	0
Thru 18	+0.001	-0.018
Over 18	+0.015	0
Thru 30	+0.002	-0.021
Over 30	+0.018	0
Thru 50	+0.002	-0.025
Over 50	+0.021	0
Thru 80	+0.002	-0.030