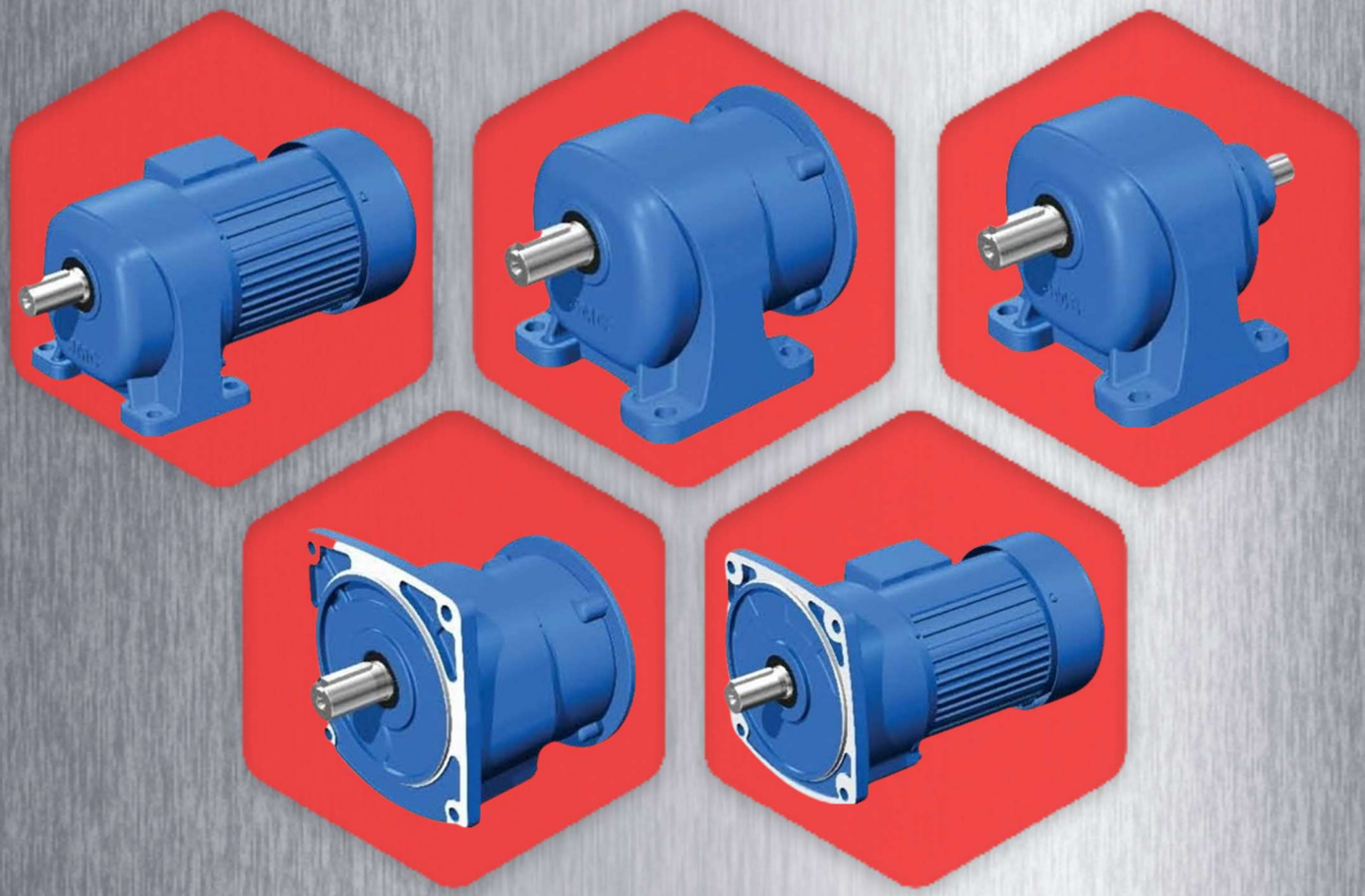
GAEYAH TRANSMISSION



GCL Helical Geared Motor

GCLM018 - 050
GCFM018 - 050
Ratio 05 to 200

About Us.

Gaeyah Transmission an Indian company manufacturing efficient power transmission products to meet the growing aspirations of Indian customers. Gaeyah is mentored by an experienced team of transmission engineers having decades of expertise in various applications and solutions. We promise to deliver, right combination of efficient , affordable and quality products for the light duty industry segment.

Our Vision.

'Gaeyah's vision is to offer affordable power transmission solutions, empowering customers to improve their product performance'

Our Values.

Our work will be guided and informed by our beliefs and commitments to:

Inclusiveness - Respect all Living Being.
Honesty - Upright & Fair.
Commitment - Promise to Persevere.
Innovate - Contemporary Solution.
Passion - Empathize & Listen.

GCLM

GCFM

GCL

GCF

GCLS

GCFS

Features of GCLM Geared Motors

Two types of housings: Aluminum alloy and cast iron; Two kinds of frames: foot mounting andflange mounting. They are good-looking in appearance, suitable for universal mount.

Helical gear with the high-tensile alloy material makes the construction more compact, housing smaller, efficiency higher, output torque larger.

Hardened facing transmission gear that fine finished has the advantages below: seldom distortion, high precision, stable running, low noise, It also can work continually under the dreadful conditions.

With 6 specification for the diameter of output shaft:018, 022, 028, 032, 040, 050

Two or three-stage transmission, large in ratio range, each single frame size with 14 ratios from 5:1 to 200:1.

Using high quality bearing prolongs the use life.

High-performance oil seal prevents the lubricant from leaking back to the inner of motor.

Three-phase motor combined the standard and full-enclosed aluminum motor, which is good inwaterproof, easy in heat dissipation, high in running efficiency.

Modular combination extends the transmission ratio from i=5:1 to 1400:1.

SURFACE PAINTING

Shot blasting firstly and then special antiseptic treatment on aluminum alloy surface (remain the metalline silver white; also, is corrosion resistance to organic solvent, such as gasoline, xylene and so on).
After phosphating, painted with blue coating.

Ordering Specification

GC F - 28 - 030 - Y0.50 - 4P - B5 - B3

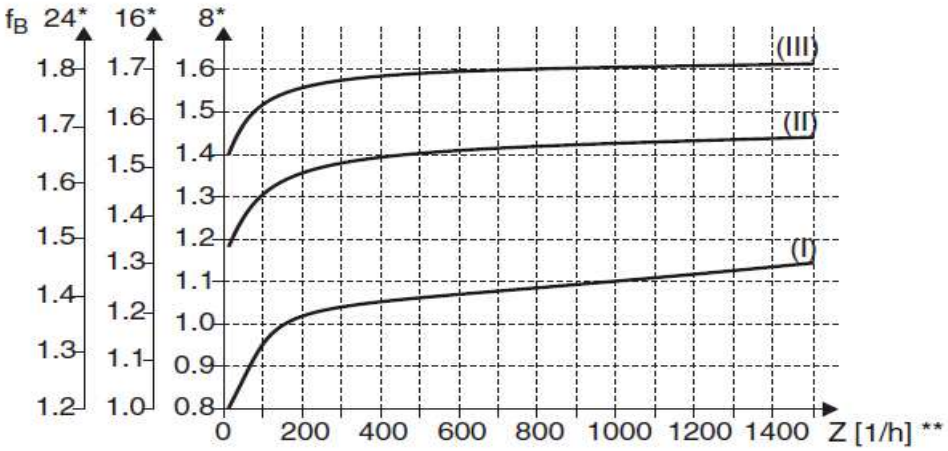
1 2 3 4 5 6 7 8

No	Comments
1	Model code
	Mount mode
2	1) F: Flange mounted 2) L : Foot-mounted 3) S: Input shaft solid
3	Reducer Siz: 18; 22; 28; 32; 40; 50
4	Speed ratio of reducer:
	i = 5, 10, 15, 20, 25, 30, 40· 50, 60, 80, 100, 120, 160, 200
5	1) Y: Three phase motor power BY: Three phase brake motor
	2) V: means single phase motor BV: Single phase brake motor
6	3) 4P: No of poles
7	B5/B14: Motor flange
8	B3: Geared motor mounting Position

Service Factor Consideration

Starting frequency Z. Three load classifications are considered depending on the mass acceleration factor.You can read off the service factor applicable to your application in following Figure. The service factor selected using this diagram must be less than or equal to the service factor as given in the performance parameter table

$$M_a \cdot f_b \leq M_{a\,max}$$



* Daily operating time in hours/day
** Start/stop frequency Z: The cycles include all starting and stopping/braking as well as switching from low to high speed and vice versa.

Service factor f_B

Starting frequency Z:
The cycles include all starting and braking procedures as well as change overs from low to high speed.

Load Classifications:
Uniform load: Permitted mass acceleration factor ≤ 2
Moderate shock load: Permitted mass acceleration factor ≤ 3
Heavy shock load: Permitted mass acceleration factor ≤ 10

For load classifications see the addendum
The mass acceleration factor is calculated as follows:

$$fa = \frac{Jc}{Jm}$$

Fa : Mass acceleration factor
Jc : All the external (application) mass moment of inertia KgM^2
Jm : Mass moment of inertia at the motor end KgM^2

If the mass acceleration factor Fa is > 10 , please call our technical service team
For a good service-life of gear units, the use factor **fs** selected from the catalogue must be equal orslightly higher than the calculated use factor **fs**

Radial and Axial Loads Fr2/Fr1

While determining the resulting radial loads, the type of transmission elements, mounted on the shaft end must be considered. Various transmission elements are corresponding with following transmission element factors f_z:

Transmission element	Transmission element factor Fz	Comments
Gears	1.0	≥17 /kr teeth
	1.2	<17 /kr teeth
Chain sprockets	1.0	≥20/kr teeth
	1.3	<20/kr teeth
	1.4	<13 /kr teeth
Narrow V-belt pulleys	1.8	Influence of the tensile force
Flat belt pulleys	2.5	Influence of the tensile force
Toothed pulleys	2.5	Influenceof the tensileforce

The overhung loads exerted on the motor or gear shaft is then calculated as follows:

$$Fr2 = \frac{Md * 2000 * fz}{d0} \quad [N]$$

Fr2 = Radial loads [N] Output shaft

Md = Torque [Nm]

d0 = Mean diameter of the mounted transmission element [mm]

fz = Transmission element factor

Performance Parameters

Motor Power	Normal ratio		5	10	15	20	25	30	40	50	60	80	100	100	120	160	200
	Size		GCL18								GCL22						
	actual speed ratio		4 .97	10.12	15.16	20.08	24.89	30.46	40.11	50.14	62.17	79.12	98.18	-	122.27	155.62	194.52
0.12kW	n2*	(1/min)	282	138	92	70	56	46	35	28	23	18	14	-	11	9	7
	M2 (Nm)	50Hz	3.9	7.8	11.7	15.4	19.3	23.5	30.9	37.3	45	59.4	75.5	-	91.3	120.9	150.4
		60Hz	3.2	6.5	9.8	12.9	16.1	20.4	25.7	31.1	37.5	49.5	62.9	-	76.1	100.7	125.4
	Fr1 (N)		588	882	980	1180	1270	1370	1470	1570	2160	2450	2450	2450	2450	2450	2450
	Fr2 **(N)**		176														
0.18kW	Size		GCL18					GCL22						GCL28			
	actual speed ratio		4 .97	10.12	15.16	20.08	24.89	30.86	39.56	49.09	62.17	79.12	98.18	104.08	120.88	165	196.43
	n 2*	(1/min)	282	138	92	70	56	45	35	29	23	18	14	13	12	8	7
	M2 (N m)	50Hz	5.9	11.4	17.2	23.6	29.3	35	45.3	56.7	68.1	90.7	93.5	112.8	135	180.3	225.6
		60Hz	4.9	9.5	14.9	19.7	24.4	29.2	37.8	47.3	56.7	75.6	77.9	94	112.5	150.3	188
	Fr1 (N)		588	882	980	1180	1270	1760	1860	1960	2160	2450	2450	2840	3330	3430	3430
	Fr2 (N)		196														
0.37kW	Size		GCL22					GCL28						GCL32			
	actual speed ratio		4.86	9.71	15.27	19.43	24.29	30	38.96	48.29	58.22	79.48	98.51	98.29	121.56	158.48	202.5
	n 2*	(1/min)	288	144	92	72	58	47	36	29	24	18	14	14	12	9	7
	M2 (Nm)	50Hz	11.9	23.1	35.7	47.6	60.5	72.3	93.2	116	138.8	185.3	191.3	231.9	278.5	370.7	427.2
		60Hz	9.9	19.2	29.7	39.6	**50.4**	60.3	77.6	96.6	115.6	154.4	159.4	193.3	232.1	308.9	356
	Fr1 (N)		882	1180	1370	1470	1670	2550	2840	3140	3430	3430	3430	4900	5880	5880	5880
	Fr2 (N)		245														
0.75kW	Size		GC28					GCL32						GCL40			
	actual s p ee d ratio		5.04	10	14.95	20.4	24 .29	30 .67	39.69	49.09	59.54	79.38	98.18	98.9	122.08	155.56	194.44
	n 2*	(1/min)	278	140	94	69	58	46	35	29	24	18	14	14	11	9	7
	M2 (Nm)	50Hz	24.6	48.2	72.9	97.5	122.1	145.7	187.5	235.7	282.9	376.1	387.9	439	527	703	764
		60Hz	20.5	40.2	60.7	81.3	201.8	121.4	156.3	196.4	235.7	313.4	323.2	366	439	585	732
	Fr1 (N)		1270	1760	2160	2350	2450	4020	4210	4610	5490	5880	5880	7060	7060	7060	7060
	Fr2 (N)		294														
1.5kW	Size		GCL32					GCL40						GCL50			
	actual speed ratio		5	10	15	20	25.56	30	**41 .54**	51.27	59.34	83.08	102.55	104.72	116.79	165.88	194.37
	n 2*	(1/min)	280	140	93	70	55	47	34	27	24	17	14	13	12	8	7
	M2 (Nm)	50Hz	48.2	97.5	145.7	193.9	242.1	272	351	439	527	703	724	878	1060	1230	1230
		60Hz	40.2	81.3	121.4	161.6	201.8	226	293	366	439	585	603	732	878	1170	1230
	Fr1 (N)		1760	2450	2840	3230	3820	5100	5880	7060	7060	7060	7060	9800	9800	9800	9800
	Fr2 (N)		343														
2.2kW	Size		GCL40					GCL50									
	actual speed ratio		5 .1 4	1 0.29	14.69	20. 57	25.71	30.8	38.82	50.73	59.27	77.45	100.76				
	n2*	(1/min)	272	136	95	68	54	45	36	28	24	18	14				
	M2 (Nm)	50Hz	67	133	200	266	33 2	399	515	644	773	1029	1230				
		60Hz	56	111	167	221	277	332	429	537	644	858	1080				
	Fr1 (N)		2160	3140	3530	4020	4700	6960	7250	8620	9800	9800	9800				
	Fr2 (N)		392														

GCLM Rating Chart 1440 RPM

Electric Motor 4P/50Hz	Unit Size	Nominal Ratio	Output Torque NM	OH Load Input N	OH Load Output N	GCL	GCF	GCL
0.1Kw/ 0.125Hp	18	5	3	176	770	3.5kg	4kg	4kg
		10	6.1		1140			
		15	9.1		1270			
		20	12		1530			
		25	15		1650			
		30	19		1780			
		40	24		1910			
		50	29		2040			
	22	60	35	176	2800	4.5kg	5kg	5kg
		80	47		3180			
		100	59		3180			
		120	71		3180			
		160	94		3180			
		200	117		3180			
	28	300	157	176	3430	7.5kg	8kg	8kg
0.18Kw/ 0.25Hp	18	5	6.1	196	770	3.5	4	4
		10	11.8		1140			
		15	18.6		1270			
		20	24.5		1450			
		25	*30A*		1550			
	22	30	36.3	196	2280	4.5	5	5
		40	47		2410			
		50	58.8		2540			
		60	70.6		2800			
		80	94.1		3000			
		100	97		3180			
	28	100	117	196	3690	6.5	7	7
		120	140		4320			
		160	187		4450			
		200	234		4450			
	32	300	313	196	5880	10.5	11	11

GCLM Rating Chart 1440 RPM

Electric Motor 4P/50Hz	Unit Size	Nominal Ratio	Output Torque NM	OH Load Input N	OH Load Output N	GCL	GCF	GCL
0.37Kw/ 0.5Hp	22	5	12	245	1140	5kg	5.5kg	5.5kg
		10	25		1530			
		15	36		1780			
		20	48		1910			
		25	61		2050			
	28	30	73	245	3310	7kg	7.5kg	7.5kg
		40	94		3690			
		50	117		4080			
		60	140		4450			
		80	187		4450			
		100	193		4450			
	32	100	234	245	6370	10kg	10.5kg	10.5kg
		120	281		7640			
		160	374		7640			
		200	431		7640			
	40	300	626	245	7060	18.5kg	20kg	
0.75Kw/ 1Hp	28	5	23	294	1650	6.5kg	7kg	7kg
		10	45		2280			
		15	68		2800			
		20	91		3050			
		25	114		3180			
	32	30	136	294	5220	10kg	10.5kg	10.5kg
		40	175		5470			
		50	220		5780			
		60	264		6080			
		80	351		6180			
		100	362		6770			
	40	100	439	294	9170	16.5kg	18kg	-
		120	527		9170			
		160	703		9170			
		200	764		9170			
	50	300	1176	294	9800	48kg	58kg	-

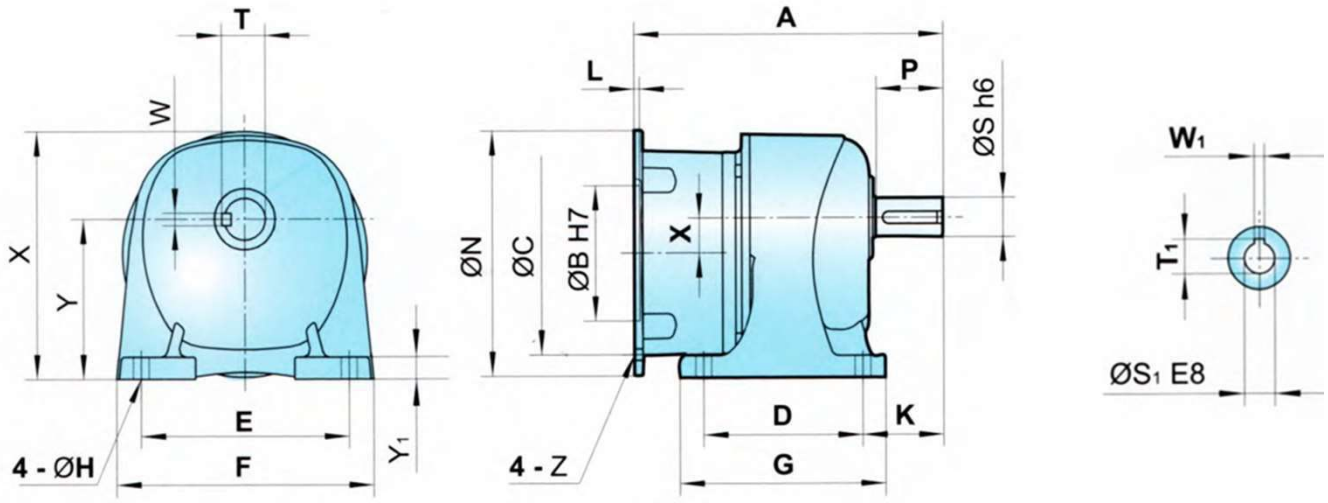
GCLM Rating Chart 1440 RPM

Electric Motor 4P/50Hz	Unit Size	Nominal Ratio	Output Torque NM	OH Load Input	OH Load Output	GCL	GCF	GCL
1.5Kw/ 2Hp	32	5	45	343	2280	11.5kg	12kg	12kg
		10	91		3180			
		15	136		3690			
		20	181		4190			
		25	226		4410			
	40	30	272	343	6600	18.5kg	20kg	
		40	351		6960			
		50	439		6960			
		60	527		7210			
		80	703		7400			
		100	724		7400			
	50	100	878	343	12500	48kg	53kg	-
		120	1060		12500			
		160	1230		12500			
		200	1230		12500			
2.2Kw/ 3Hp	40	5	67	392	2800	18kg	19.5kg	-
		10	133		4080			
		15	200		4580			
		20	266		5220			
		25	332		6110			
	50	30	399	392	9040	48kg	53kg	-
		40	515		9420			
		50	644		10000			
		60	773		10000			
		80	1029		10100			
		100	1230		10100			
3.7Kw/ 5Hp	50	5	112	-	-	48kg	53kg	.-
		8	168					
		10	186					
		15	336					
		20	447					
		25	589					
		30	671	392	9040	50kg	55kg	-
		40	895		9420			
		50	1118		10000			
		60	1118		10000			
		80	1118		10100			
		100	1118		10100			

GCL/ GCF + Variator Rating Chart & Overhung Load

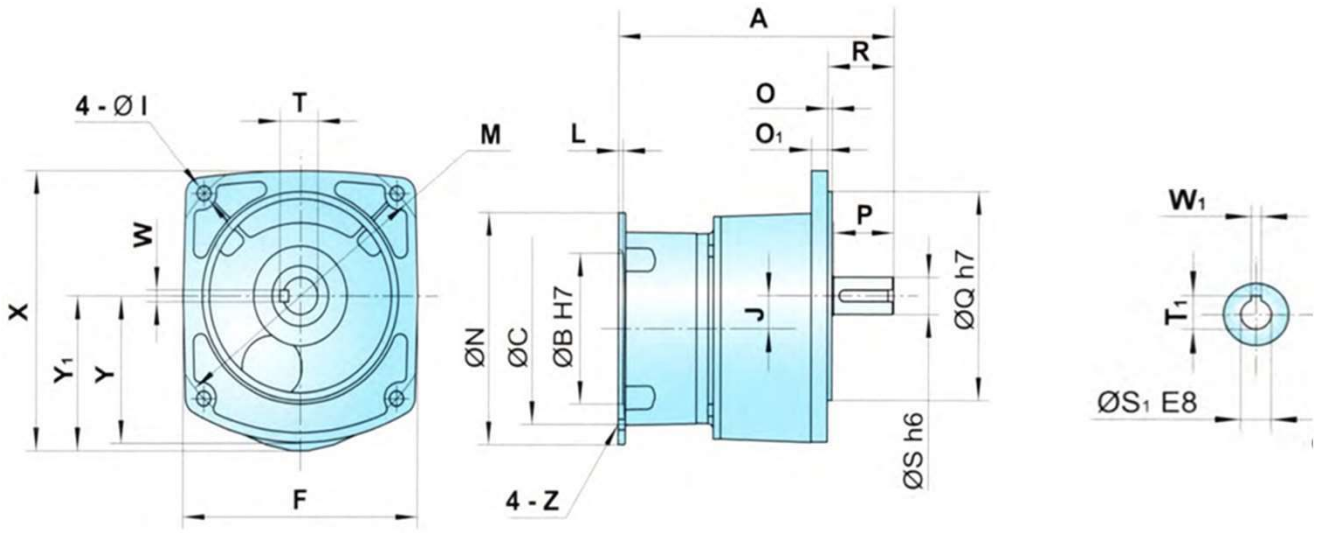
Motor & rev	Model	i	n2 r/min	M2 N .M
0.18kw 4P	U DL0.18-GCL-18	5	34.4 ~176	7.5 ~36.1
		10	16.9 ~86.3	15.3 ~73.6
		15	11.3 ~57.7	23 ~110
		20	8.5 ~43.6	30.4 ~146
		25	6.8 ~35.2	37.7 ~181
	U DL0.18-GCL-22	30	5.5 ~28 .4	46.8 ~224
		40	4.3 ~22.1	59.9 ~288
		50	3.5 ~17.8	74.4 ~357
		60	2.7 ~14.1	64.2 ~452
		80	2.2 ~11.1	120 ~575
		100	1.7 ~8.9	149 ~714
	U DL0.18-GCL-28	100	1.6 ~8.4	158 ~757
		120	1.4 ~7.2	183 ~877
		160	1 ~5.3	250 ~1199
		200	0.9 ~4.5	298~1428
0.37kw 4P	U DL0.37-GCL-22	5	41.2 ~206	13.9 ~63
		10	20.6 ~103	27.9 ~126
		15	13.1 ~65.5	43.8 ~198
		20	10.3 ~51.5	55.8 ~250
		25	8.2 ~41 .2	69.7 ~315
	UDL0.37-GCL-28	30	6.7 ~33.3	86.1 ~389
		40	5.1 ~25.7	112 ~505
		50	4.1 ~20.7	139 ~625
	U DL0.37-G3-28	60	3.4 ~17.2	167 ~755
		80	2.5 ~12.6	228 ~1030
		100	2 ~10.2	283 ~1277
	U DL0.37-GCL-32	100	2 ~10.2	282 ~1274
		120	1.6 ~8.2	349 ~1576
		160	1.3 ~6.3	455 ~2055
		200	1 ~4.9	581 ~2625
0.75kw	UDL0.75-GCL-28	5	39.7 ~198	29.3 ~132
		10	20 ~100	58.2 ~263
		15	13.4 ~66.9	87 ~393
		20	9.8 ~49	119 ~536
		25	8.2 ~41.2	141 ~638
	U DLO.75-GCL-32	30	6.5 ~32.6	178 ~806
		40	5 ~25.2	231 ~1043
		50	4.1 ~20.4	287 ~1290
		60	3.4 ~16.8	346 ~1565
		80	2.5 ~12.6	462 ~2086
		100	2 ~10.2	571 ~2580

GCL Dimensions



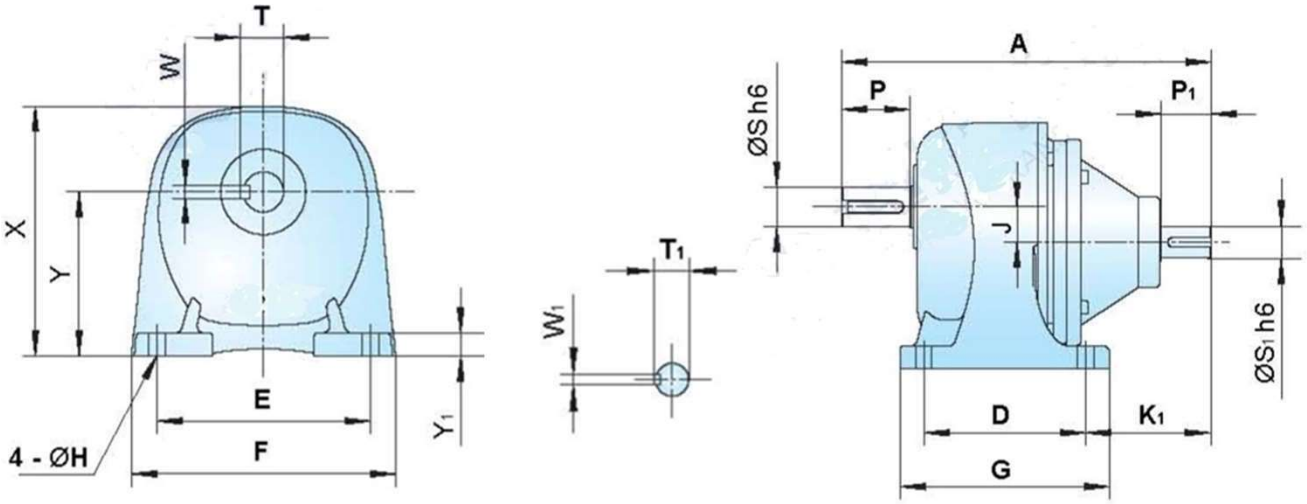
Power kW	Size	Ratio	Primary outline and dimension in mm																						
			A	B	C	D	E	F	G	H	J	K	L	N	P	S	S_1	T	T_1	W	W_1	X	Y	V_1	Z
0.12	GCL18	5,10,15,20 25,30,40,50	147	95	115	40	110	135	65	9	17	45	5	140	30	18	11	21	13	6	4	138 .5	85	10	M8
	GCL22	60,80,100,120,160,200	173	95	115	65	130	154	90	11	19	55	5	140	40	22	11	25	13	6	4	141	90	12	M8
0.18	GCL18	5,10,15,20,25	147	95	115	40	110	135	65	9	17	45	5	140	30	18	11	21	13	6	4	139	85	10	M8
	GCL22	30,40,5,600 80,100	173	95	115	65	130	154	90	11	19	55	5	140	40	22	11	25	13	6	4	141	90	12	M8
	GCL28	100,120,160,200	187	95	115	90	140	175	125	11	24	65	5	140	45	28	11	31	13	8	4	170	110	15	M8
0.37	GCL22	5,10,15,202,5	182	110	130	65	130	154	90	11	19	55	5	160	40	22	14	25	16	6	5	151	90	12	M8
	GCL28	30,40,50,60,80,100	198	110	130	90	140	175	125	11	24	65	5	160	45	28	14	31	16	8	5	170	110	15	M8
	GCL32	100,120,160,200	217	110	130	130	170	208	170	13	29	70	5	160	55	32	14	35	16	10	5	198	130	18	M8
0.75	GCL28	5,10,15,20,25	207	130	165	90	140	175	125	11	24	65	5	200	45	28	19	31	22	8	6	187	110	15	M10
	GCL32	30,40,50,60, 80,100	235	130	165	130	170	208	170	13	29	70	5	200	55	32	19	35	22	10	6	202	130	18	M10
	GCL40	100,120,160,200	261	130	165	150	210	254	196	15	34	90	5	200	65	40	19	43	22	12	8	230	150	20	M10
1.5	GCL32	5,10,15,20,25	252	130	165	130	170	208	170	13	29	70	5	200	55	32	24	35	27	10	8	202	130	18	M10
	GCL40	30,40,50,60, 80,100	294	130	165	150	210	254	196	15	34	90	5	200	65	40	24	43	27	12	8	230	150	20	M10
	GCL50	100,120,160,200	322	130	165	160	230	290	210	18	40	100	5	200	75	50	24	54	27	14	8	265	170	25	M10
2.2	GCL40	5,10,15,20,25	290	180	215	150	210	254	196	15	34	90	6	250	65	40	28	43	31	12	8	230	150	20	M12
	GCL50	30,40,50,60,80,100	334	180	215	160	230	290	210	18	40	100	6	250	75	50	28	54	31	14	8	265	170	25	M12

GCF Dimensions



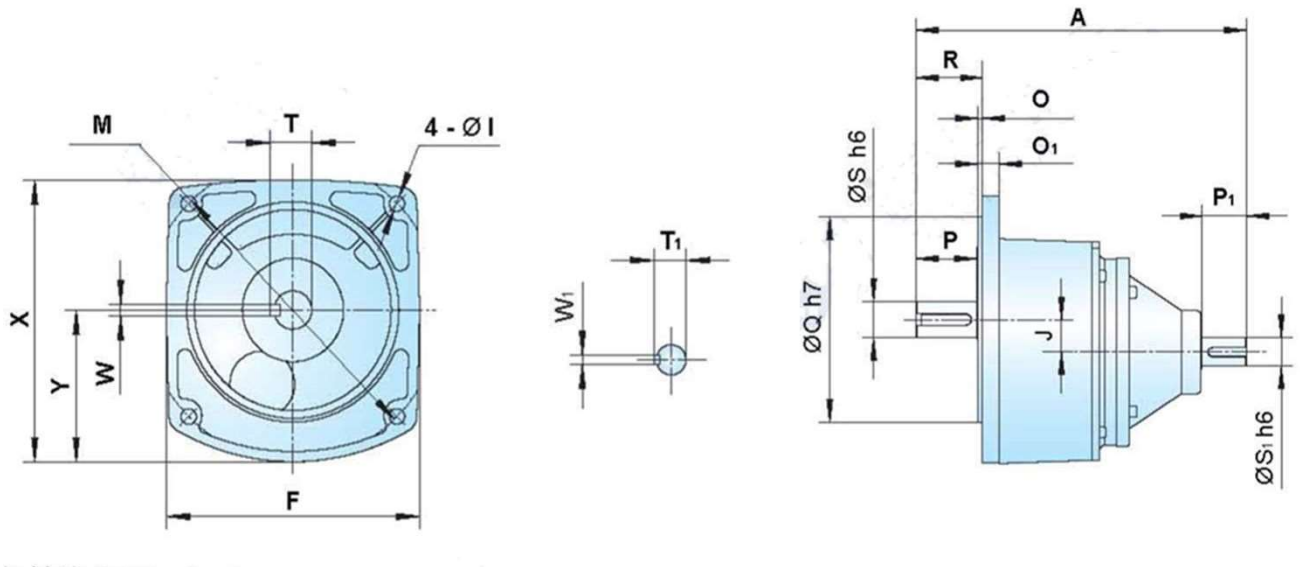
Power kW	Size	Nominal Ratio	Primary outline and dimension in mm																							
			A	B	C	F	I	J	L	M	N	O	O_1	p	Q	R	S	S_1	T	T_1	W	W_1	X	Y	Y_1	Z
0.12	GCF18	5,10,15,20 25,30,40,50	147.0	95	115	154	11	16.5	4.5	170	140	4	10	30	145	35	18	11	20.5	12.8	6.0	4.0	163.5	80.0	86.5	M8
	GCF22	60,80,100,120,160,200	173.0	95	115	164	11	19.0	4.5	185	140	4	12	40	148	47	22	11	24.5	12.8	6.0	4.0	171.5	89.5	89.0	M8
0.18	GCF18	5,10,15,20,25	147.0	95	115	154	11	16.5	4.5	170	140	4	10	30	145	35	18	11	20.5	12.8	6.0	4.0	163.5	80.0	86.5	M8
	GCF22	30,40,5,600 80,100	173.0	95	115	164	11	19.0	4.5	185	140	4	12	40	148	47	22	11	24.5	12.8	6.0	4.0	171.5	89.5	89.0	M8
	GCF28	100,120,160,200	186.5	95	115	186	11	23.5	4.5	215	14 0	4	15	45	170	50	28	11	31.0	12.8	8.0	4.0	1 98.5	105.5	93.5	M8
0.37	GCF22	5,10,15,202,5	181.5	110	130	164	11	19.0	4.5	185	160	4	12	40	148	47	22	14	24.5	16.3	6.0	5.0	201.0	89.5	99.0	M8
	GCF28	30,40,50,60,80,100	198.0	110	130	186	11	23.5	4.5	215	160	4	15	45	170	50	28	14	31.0	16.3	8.0	5.0	198 5	105.5	103.5	M8
	GCF32	100,120,160,200	216.5	110	130	215	13	28.5	4.5	250	200	4	15	55	180	60	32	14	35.0	16.3	10.0	5.0	234.0	126.0	108, 5	M8
0.75	GCF28	5,10,15,20,25	206.5	130	165	185	11	23.5	4.5	215	200	4	15	45	170	50	28	19	31.0	21.8	8.0	6.0	216 5	105 5	123.5	M10
	GCF32	30,40,50,60, 80,100	235.0	130	165	215	13	28.5	4.5	250	200	4	15	55	180	60	32	19	35.0	21 .8	10.0	6.0	236.5	126.0	128.5	M10
	GCF40	100,120,160,200	260.5	130	165	270	18	34.0	4.5	310	200	5	18	65	230	71	40	19	43.0	21.8	12.0	6.0	284.0	149.0	134.0	M10
1.5	GCF32	5,10,15,20,25	252.0	130	165	215	13	28.5	4.5	250	200	4	15	55	180	60	32	24	35.0	27.3	10.0	8.0	236 5	126.0	128.5	M10
	GCF40	30,40,50,60, 80,100	293.5	130	165	270	18	34.0	4.5	310	200	5	18	65	230	71	40	24	43.0	27.3	12.0	8.0	284.0	149.0	134.0	M10
	GCF50	100,120,160,200	321.5	130	165	300	22	40.0	4.5	360	200	5	25	75	270	83	50	24	53.5	27.3	14.0	8.0	323.5	173 5	140.0	M10
2.2	GCF40	5,10,15,20,25	290.0	180	215	270	18	34.0	5.0	310	250	5	18	65	230	71	40	28	43.0	31.3	12.0	8.0	284.0	149.0	134.0	M12
	GCF50	30,40,50,60,80,100	334.0	180	215	300	22	40.0	5.0	360	250	5	25	75	270	83	50	28	53.5	31.3	14.0	8.0	323.5	173 5	140.0	M12

GCLS Dimensions



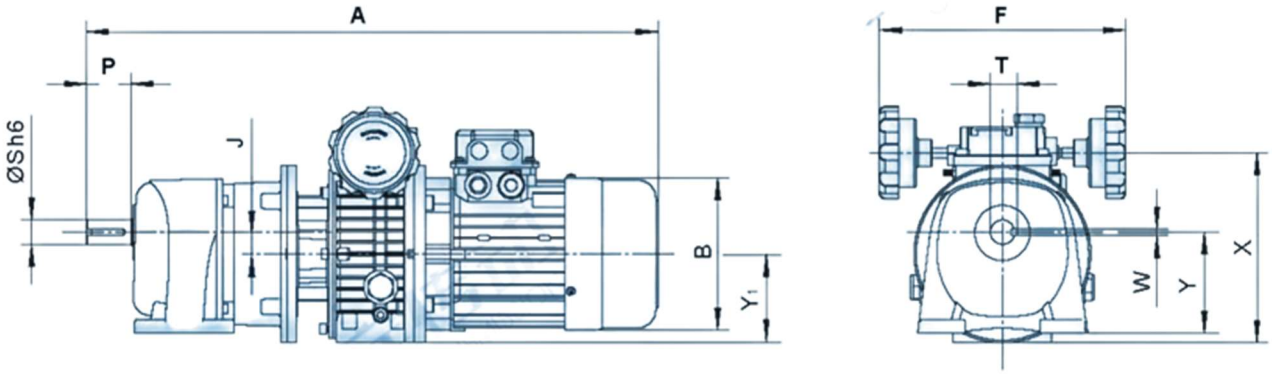
Power kW	Output shaft	Ratio	Primary outline and dimension in mm																	
			A	D	E	F	G	H	J	K2	P	P_1	S	S_1	T	T_1	W	W_1	X	Y	Y_1
0.12	GCLS18	5,10,15,20 25,30,40,50	181.5	40	110	135	65	9	16.5	96.5	30	25	18	12	20.5	13.5	6	4	131	85	10
	GCLS22	60,80,100,120,160,200	207.5	65	130	154	90	11	19	87.5	40	25	22	12	24.5	13.5	6	4	139.5	90	12
0.18	GCLS18	5,10,15,20,25	181.5	40	110	135	65	9	16.5	96.5	30	25	18	12	20.5	13.5	6	4	131	85	10
	GCLS22	30,40,5,600 80,100	207.5	65	130	154	90	11	19	87.5	40	25	22	12	24.5	13.5	6	4	139.5	90	12
	GCLS28	100,120,160,200	220.5	90	140	175	125	11	23.5	65.5	45	25	28	12	31	13.5	8	4	170	110	15
0.37	GCLS22	5,10,15,202,5	219	65	130	154	90	11	19	99	40	30	22	15	24.5	17	6	5	139.5	90	12
	GCLS28	30,40,50,60,80,100	235	90	140	175	125	11	23.5	80	45	30	28	15	31	17	8	5	170	110	15
	GCLS32	100,120,160,200	254	130	170	208	170	13	28.5	54	55	30	32	15	35	17	10	5	198	130	18
0.75	GCLS28	5,10,15,20,25	244.5	90	140	175	125	11	23.5	89.5	45	35	28	20	31	22.5	8	6	170	110	15
	GCLS32	30,40,50,60, 80,100	273.5	130	170	208	170	13	28.5	73.5	55	35	32	20	35	22.5	10	6	198	130	18
	GCLS40	100,120,160,200	295.5	150	210	254	196	15	34	55.5	65	35	40	20	43	22.5	12	6	230	150	20
1.5	GCLS32	5,10,15,20,25	297	130	170	208	170	13	28.5	97	55	40	32	25	35	28	10	8	198	130	18
	GCLS40	30,40,50,60, 80,100	334	150	210	254	196	15	34	94	65	40	40	25	43	28	12	8	230	150	20
	GCLS50	100,120,160,200	362	160	230	290	210	18	40	102	75	40	50	25	53.5	28	14	8	265	170	25
2.2	GCLS40	5,10,15,20,25	330	150	210	254	196	15	34	90	65	45	40	30	43	33	12	8	230	150	20
	GCLS50	30,40,50,60,80,100	374	160	230	290	210	18	40	114	75	45	50	30	53.5	33	14	8	265	170	25

GCFS Dimensions



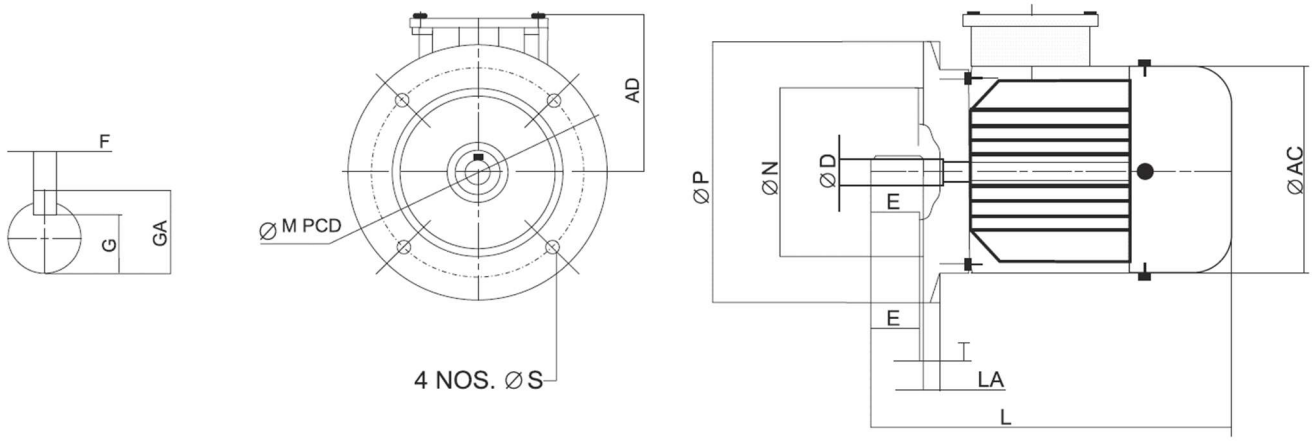
Power kW	Size	Ratio	Primary outline and dimension in mm																		
			A	F	I	J	M	O	O1	P	P_1	Q	R	S	S_1	T	T_1	W	W_1	X	Y
0.12	GCFS18	5,10,15,20 25,30,40,50	181.5	**154**	11	16.5	170	**4**	**10**	**30**	**25**	**145**	35	18	12	**20.5**	13.5	6	4	157.0	**80.0**
	GCFS22	60,80,100,120,160,200	207.5	164	11	19.0	185	4	12	40	25	148	47	22	12	24.5	13.5	6	4	171.5	89.5
0.18	GCFS18	5,10,15,20,25	181.5	154	11	16.5	170	4	10	30	25	145	35	18	12	20.5	13.5	6	4	157.0	80.0
	GCFS22	30,40,5,600 80,100	207.5	164	11	19.0	185	4	12	40	25	148	47	22	12	24.5	13.5	6	4	171.5	89.5
	GCFS28	100,120,160,200	220.5	186	11	23.5	215	4	15	45	25	170	50	28	12	31.0	13.5	8	4	198.5	105.5
0.37	GCFS22	5,10,15,202,5	219.0	164	11	19.0	185	4	12	40	30	148	47	22	15	24.5	17.0	6	5	171.5	89.5
	GCFS28	30,40,50,60,80,100	235.0	186	11	23.5	215	4	15	45	30	170	50	28	15	31.0	17.0	8	5	198.5	105.5
	GCFS32	100,120,160,200	254.0	215	13	28.5	250	4	15	55	30	180	60	32	15	35.0	17.0	10	5	234.0	126.0
0.75	GCFS28	5,10,15,20,25	244.5	185	11	23.5	215	4	15	45	35	170	50	28	20	31.0	22.5	8	6	198.5	105.5
	GCFS32	30,40,50,60, 80,100	273.5	215	13	28.5	250	4	15	55	35	180	60	32	20	35.0	22.5	10	6	234.0	126.0
	GCFS40	100,120,160,200	295.5	270	18	34.0	310	5	18	65	35	230	71	40	20	43.0	22.5	12	6	284.0	149.0
1.5	GCFS32	5,10,15,20,25	297.0	215	13	28.5	250	4	15	55	40	180	60	32	25	35.0	28.0	10	8	234.0	126.0
	GCFS40	30,40,50,60, 80,100	334.0	270	18	34.0	310	5	18	65	40	230	71	40	25	43.0	28.0	12	8	284.0	149.0
	GCFS50	100,120,160,200	362.0	300	22	40.0	360	5	25	75	40	270	83	50	25	53.5	28.0	14	8	323.5	173.5
2.2	GCFS40	5,10,15,20,25	330.0	270	18	34.0	310	5	18	65	45	230	71	40	30	43.0	33.0	12	8	284.0	149.0
	GCFS50	30,40,50,60,80,100	374.0	300	22	40.0	360	5	25	75	45	270	83	50	30	53.5	33.0	14	8	323.5	173.5

GCL/ UDL Dimensions



Power Kw	Size	G3 L S (i1)	UDL (i2)	A	B	F	J	P	S	T	W	X	Y	Y1
0.18	GCL18	5,10 ,15 ,20 ,25	1 .6 ~ 8 .2	459.5	120	220	16.5	30	18	20.5	6	148	85	70
	GCL22	30,40,50,60 80,100	1.4~ 7.0	485.5	120	220	19	40	22	24.5	6	148	90	70
	GCL28	100,120,160,200	1.4~ 7.0	499	120	220	23.5	45	28	31	8	148	110	70
0.37	GCL22	5,10,15,20,25	1.4~ 7.0	494	141	220	19	40	22	24.5	6	170	90	80
	GCL28	30,40,50,60 80,100	1.4~ 7.0	510.5	141	220	23.5	45	28	31	8	170	110	80
	GCL32	100,120,160,200	1.4~ 7.0	583.5	141	220	28.5	55	32	35	10	170	130	80
0.75	GCL28	5,10,15,20,25	1.4~ 7.0	649.5	160	240	23.5	45	28	31	8	207	110	100
	GCL32	30,40,50,60 80,100	1.4~ 7.0	678.5	160	240	28.5	55	32	35	10	207	130	100

GEM Series Gaeyah Electric Motor



Frame Size	B5 Flange Dimensions						Shaft Dimensions						Overall Details		
	ØP	M PCD	ØN	ØS	T	LA	ØD	E	F	GA	G	CT	AD	ACØ	L
63	140	115	95	10	3	9	11	23	4	12.5	8.5	M4	104	118	215
71	160	130	110	10	3.5	9	14	30	5	16	11	M5	110	140	240
80	200	165	130	12	3.5	10	19	40	6	21.5	15.5	M6	120	160	280
90S	200	165	130	12	3.5	10	24	50	8	27	20	M8	130	176	310
90L	200	165	130	12	3.5	10	24	50	8	27	20	M8	130	176	335
100L	250	215	180	15	4	11	28	60	8	31	24	M10	140	199	374
112M	250	215	180	15	4	11	28	60	8	31	24	M10	152	224	380
132S	300	265	230	15	4	12	38	80	10	41	33	M12	180	262	455
132M	300	265	230	15	4	12	38	80	10	41	33	M12	180	262	493

TEFC 4P Motor (1500 RPM Synchronous) IP55/ CLF							
Frame Size	Output Kw	Hp	Speed RPM	Current	Torque	Eff, η%	Power Factor
63	0.09	0.125	1330	0.52	0.07	59.0	0.62
	0.18	0.25	1350	0.66	0.15	62.0	0.65
71	0.25	0.33	1370	0.82	0.18	68.0	0.66
	0.37	0.50	1370	1.12	0.28	69.0	0.73
80	0.55	0.75	1390	1.52	0.40	73.0	0.73
	0.75	1.00	1400	1.92	0.52	76.0	0.74
90S	1.10	1.50	1410	2.62	0.77	78.0	0.79
90L	1.50	2.00	1410	3.52	1.05	79.0	0.81
100L	2.20	3.00	1420	4.90	1.55	81.0	0.81
112M	3.70	5.00	1430	7.85	2.55	83.0	0.83
132S	5.50	7.50	1440	11.00	3.75	86.0	0.88
132M	7.50	10.00	1440	15.50	4.98	86.0	0.89

Synthetic Grease Filling Quantity

Size	GCL18	GCL22	GCL28	GCL32	GCL40	GCL50
Quantity of lubricant (gm)	140	200	400	600	900	1600

Grease Lubricant Specification

Model	Ambient Temperature	ISO	SHELL	MOBIL	BP
GCL	-25^{0}C to +45^{0}C	000-0	Alvania GL 00	Mobilux EP 00	Energrease LS - EP 00
	-25^{0}C to 50^{0}C	00	Tivela GL 00	Glycoyle Grease 00	
UDL	-25^{0}C to +40^{0}C	VG-32	A.T.F.DXRON	A.T.F 220	Autran DX

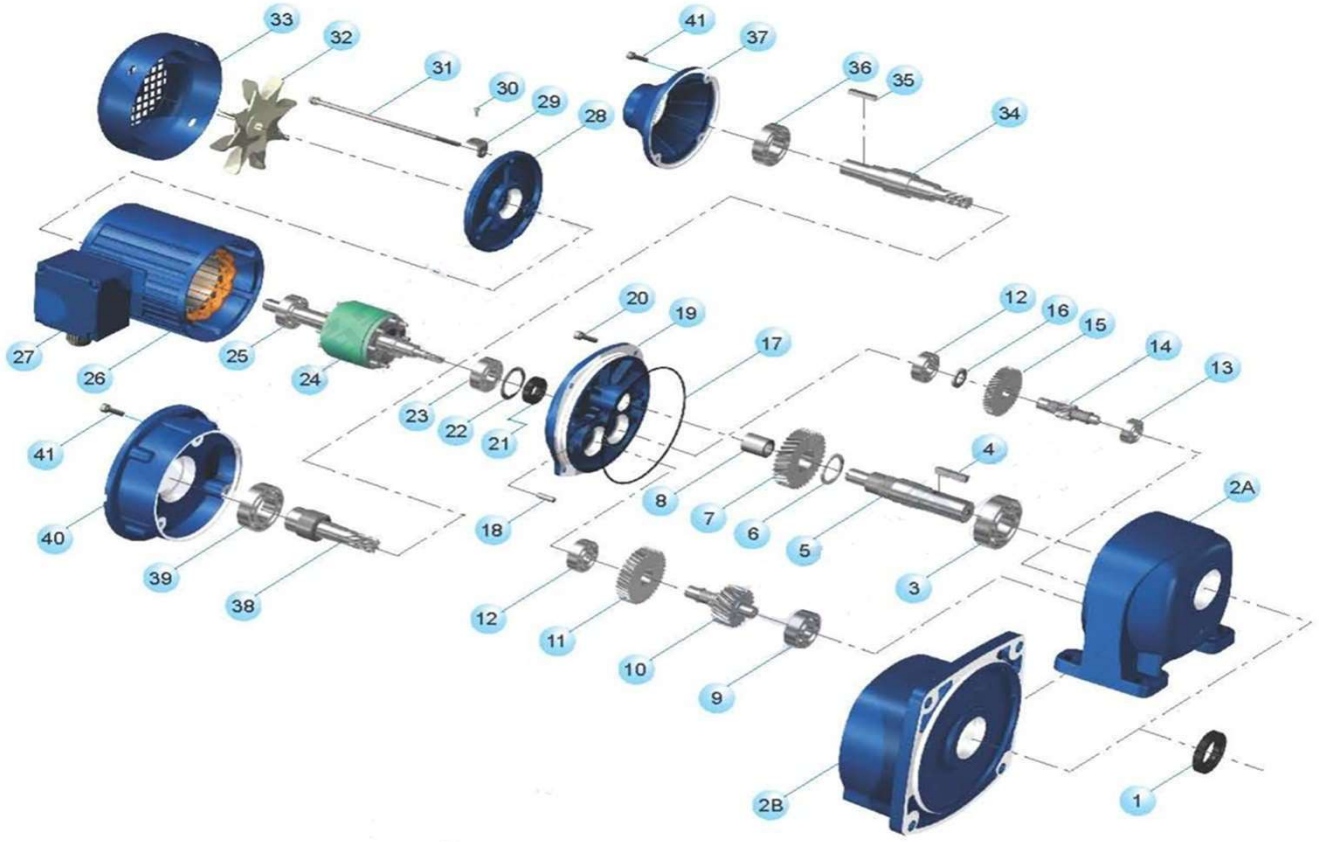
GCL series reducers are supplied with lubricant, synthetic Grease, SHELL Alvania GL00 before delivery, It doesn't need to replace lubricant for first 20,000 hours running, But if works in special application, such as high temperature, long-time running heavy impact load, It should be changed every10,000 -15,000 working hours.

Working Environment

- Ambient temperature between-10°C to 40°C
- Ambient humidity below 85%RH
- The altitude below 1,000m
- No corrosive and explosive gas or liquid or dust
- Mounted in indoor.

Caution: Don not mix synthetic Grease with mineral Grease. If need to change, rinse the gear unit thoroughly before changing

Parts Exploded



No	Part name	No	Part name	No	Part name
1	oilseal-output shaft	14	pinion-2nd stage	28	rear cover-motor
2	foot housing	15	gear-1st stage	29	bracket
3	bearing-output shaft	16	spacer	30	screw-fan cover
4	key-output shaft	17	O- Ring	31	long bolt-motor
5	output shaft	18	pin	32	cooling fan
6	spacer	19	motor flange	33	fan cover-motor
7	gear-3 rd stage	20	inner hexangular screw	34	input shaft gear shaft
8	oiliness bearing	21	oil seal-motor shaft	35	key-input shaft
9	bearingrd-stage pinion	22	spring washer	36	bearing-Input shaft gear shaft
10	pinion-3rc1stage	23	bearing-motor shaft	37	input cover
11	bearing-2nd stage	24	rotor	38	input hole gear shaft
12	bearing-motor flange	25	bearing-motor shaft	39	bearing-input hole gear shaft
13	bearing-2ndstage pinion	26	motor stator	40	flange-input
		27	wire box	41	Inner hexagon screw

Trouble Shooting with Geared Motor

Symptom		Reason	Correction
Noise	Kocking	Pitting on gear surface	Replace pinion or gear
	Continuous	Bad bearing	Replace the bearing
	Periodical	Particle inside	Check gear breakage
	Neigh	Lack of lubrication	Fill with lube-oil
	Intermittent	Contaminated lubricant	Replace lubricant
Vibration	Mounting base	Bad surface mounting	Re-adjust mounting base
	Output shaft moving	Bearing failure	Replace failed bearing
	Coupling	Mis-alighnment	Re-assemble
	Inside gear parts	Gear worned out	Replace worned gears
	Housing vibrate	Bad gear assembly	Re-adjust gear assembly
Leakage	Oil seal leakage	Oil seal too hard	Replace oil seal
		Breather not fitted	Fit breather proper place
		Clogged breather	Clean breather hole
	Housing leakage	Housing blowhole	Replace housing
	Joints leaking	O-ring cracked	Replace the O-ring
Over heating	Shaft	Oil seal too tight	Repalce with quality oil seal
	Housing surface over heat	Over load running	Reduce the load
		Breather not fitted	Fit breather proper place
		Clogged breather	Clean breather hole
	Bearing area	Lack of lubrication	Fill with lube-oil
	Motor running hot	Defectrve motor	Replace the motor

Trouble Shooting with Brake

Defect	Possible cause	Solution
No action	No power inside brake	Check supply power
	Brake disc wornout	Replace brake disc
	Brake slipping	Adjust disc clearance
	Low volt	Use correct voltage
	Power supply issue	Use new power supply
	Dirt inside	Clean the parts
	Wrong voltage	Apply correct voltage
	Connect wire lost	Re-connect wire
	Brake disc locked	Clean the parts
	Brake coil burned-out	Replace brake coil
Over stop	Brake disc worn out	Replace brake disc
	Brake slipping	Adjust disc clearance
	Surface wet/oil	Clean brake disc
	Overloading	Re-design brake unit
	Disc surface twist	Use new parts
	High momentum	System re-design
	Select wrong type	Select unit
	High temperature	Adjust temperature

Gaeyah range of products include...

GWM Series Worm Geared Motor
Upto Size 150

GPM Series Hypoid Geared Motor
Upto Size 110

GEM Series Electric Motor
Upto Size 7.5Kw

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