

GPH HELICAL GEARED MOTOR
Ratio Up to 58/1
Max. Output Torque :500Nm

About Us:

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

Our Vision:

“Gaeyah’s vision to offer affordable power transmission solutions, thereby empowering Indian customers to improve their product performance”

Our Values:

Inclusiveness: Respect all living being

Honesty: Upright and fair

Commitment: Promise to persevere

Innovate: Contemporary Solutions

Passion: Empathize and Listen



GHP



GHPS



GHF



GHFS

FEATURES OF GHP GEARED MOTORS

Two types of housings: Aluminum alloy and cast iron; Two kinds of frames: foot mounting and flange 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 4 specification for the diameter of output shaft: 020, 025, 030, 035,

Two stage transmission, large in ratio range, each single frame size with 17 ratios from 3.7:1 to 58:1.

Using high quality bearing prolongs the use life. All the units filled with synthetic oil for longer life and high load carrying capacity.

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 fairly good in dust proof, easy in heat dissipation, high in running efficiency.

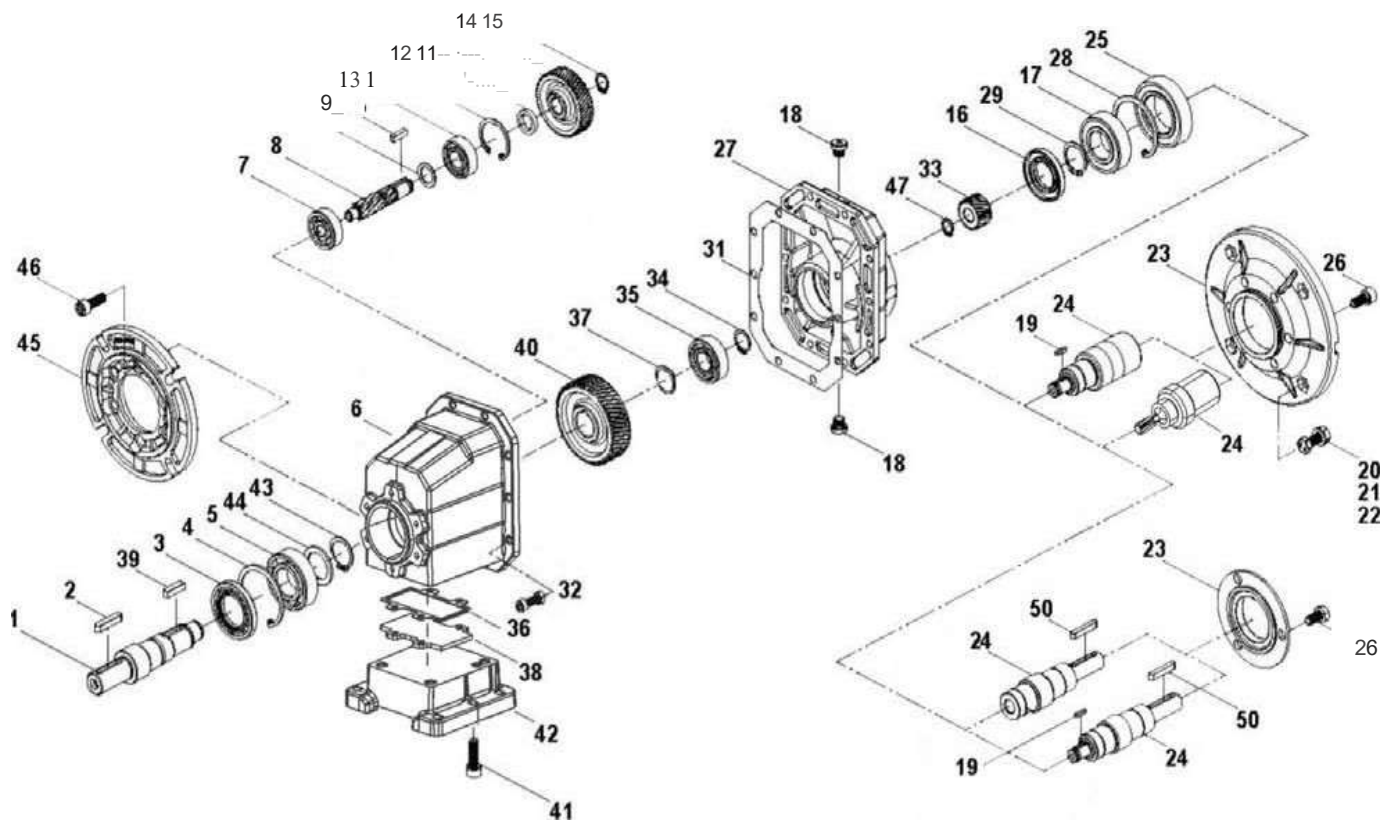
Modular combination extends the transmission ratio from $i=3.7:1$ to 58:1.

SURFACE PAINTING

Shot blasting firstly and then special antiseptic treatment on aluminum alloy surface remain the metalite silver; also, is corrosion resistance to organic solvent, such as gasoline, xylene and so on.

After phosphating, painted with metallic grey coating.

STRUCTURE & PARTS



Part No.	Description	Part No.	Description	Part No.	Description
1	Output shaft	17	Bearing	33	Driving pinion
2	Key	18	Oilpiug	34	Shaft circlip
3	Oil seal	19	Key	35	Bearing
4	Hole circlip	20	Hex head bolt	36	Support seat
5	Bearing	21	Washer	37	Shaft circlip
6	Housing	22	Hex nut	38	Cylindrical pin
7	Bearing	23	Input flange	39	Key
8	Drving gear shaft	24	Input shaft	40	Driven gear
9	Circlips retaining rings	25	Bearing	41	Socket headcap screw
10	Bearing	26	Socket headcap screw	42	Foot
11	Spacer ring	27	Input cover	43	Shaft circlip
12	Hole circlip	28	Hole circlip	44	Washer
13	Key	29	Shaft circlip	45	Output flange
14	Driven gear	30	Hex nut	46	Hex socket screws
15	Shaft circlip	31	Housing gasket	47	Shaft circlip
16	Oil seal	32	Socket headcap screw	50	Key

SUMMARISE

GHP series helical gearbox is a modular construction product, it has 4 types, power from 0.12kw to 4.0kw, ratio from 3.66 to 58.09, Max torque from 120Nm to 500Nm. This product widely used in industries like textile, food, beverage, tobacco, logistics and other industrial fields..

Products characteristics:

Modular construction | High efficiency | Low noise | Fine structure | Durable

MODEL/ INSTRUCTION

GHP	01	28.9	FA	Y0.37	3pH	4P	71	B5	M1
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
1	2	3	4	5	6	7	8	9	10

SI No	Instruction
1	GHP : GH Gearbox Foot mounting GHF : GH Gearbox flange mounting S : Solid input shaft
2	Specification code of gearbox 01,02,03,04
3	Ratio of the gearbox
4	FA, FB : Output flange specification B01, B02, B03, B05, M04 : Foot Specification
5	Y0.18,0.37,0.75,1.1...3.7 Motor kW
6	3, 1 Motor Phase
7	2,4,6,8 Motor Pole
8	Motor frame : 63, 71.80, 90, 100, 112, 132 etc
9	Input Motor Flange : B5, B14
10	Mounting Position: M1. M2. M3, M4, M5, M5

Example:

GHP01 28.5 FA M1

RELEVANT PARAMETERS

Power P

$$P1 = P2/\eta \text{ [kW]}$$

$$P1n \geq P1*fs \text{ [kW]}$$

P1 = Input power

P2 = Output power

P1n = Rated input motor power

fs = Service factor

η = Efficiency

GHP Series helical gearbox has 2 stage, and the efficiency is about 96%.

Rotation speed n

n1 = Gearbox input speed

n2 = Gearbox output speed

For optimizing working condition and improving the life when the gearbox driven by the external device, please use the speed at 1400rpm or lower. High input speed is allowed but the rated torque M2 will be decreased under such case.

Transmission ratio i

Generally, ratio is decimal fraction with 1 radix points tagged in selecting table.

Torque M

$$M2 = [9550 * P1 * \eta] / n2 \text{ [Nm]}$$

$$M2n \geq M2 * fs \text{ [Nm]}$$

M2 = Output torque

M2n = Rated output torque

P1 = Input power

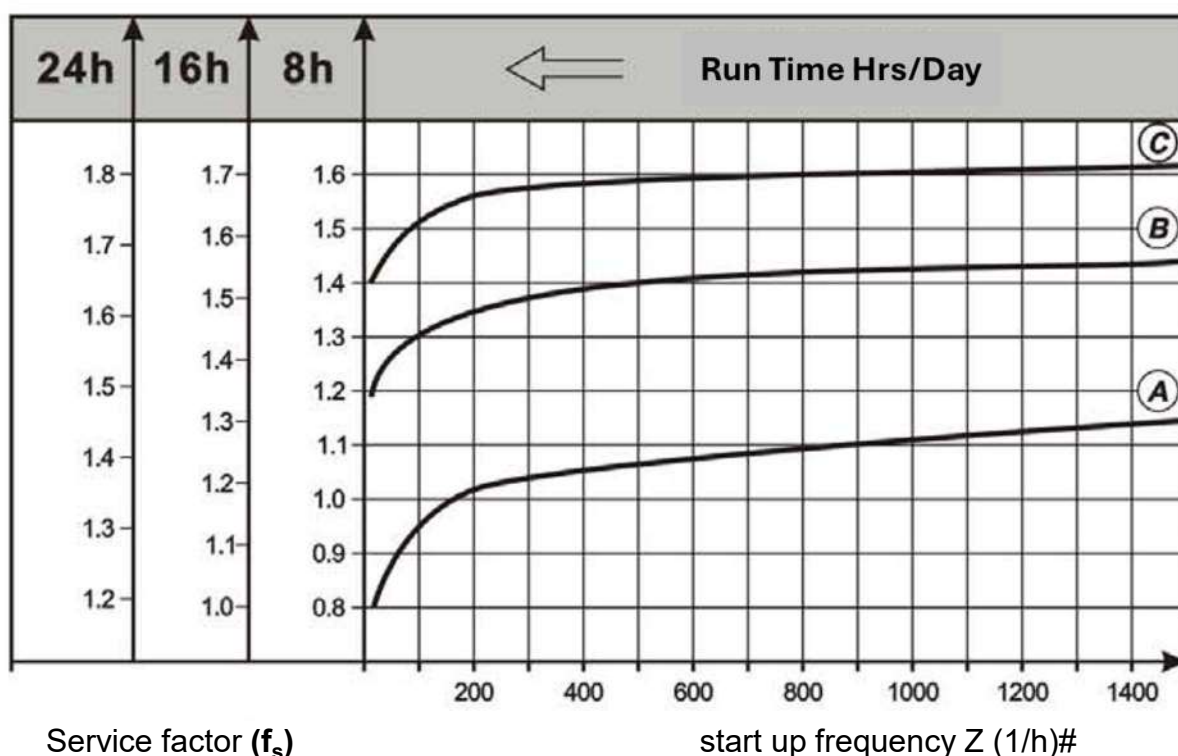
η = Efficiency

fs = Service factor

SERVICE FACOR Fs

Please consider the service factor f_s . when used the gearbox, the service factor is decided by running time and frequency of on-off Z per day.

Confirming the 3 kind of load types according to the inertial accelerating factor, the practical application service factors (f_s) can be read in the below table, the selected f_s from the below table must be less than or equal to the f_s provided in the performance parameter table.



Load classifications

- Ⓐ Uniform shock load, permitted mass acceleration factor ≤ 0.2
- Ⓑ Moderate shock load, permitted mass acceleration factor ≤ 3
- Ⓒ Heavy shock load, permitted mass acceleration factor ≤ 10

Inertial accelerating factor

The Inertial accelerating factor is calculated as follows:

$$fa = Jc/Jm$$

fa = Inertial accelerating factor

Jc = All external massmoments of inertia [kgm^2]

Jm = Mass moment of inertia on the motor end [kgm^2]

If mass acceleration factors **fa** > 10, please call our Technical Service.

To keep the service-life of gearbox, the use factor f_s selected from the catalogue must be equal or slightly higher than the calculated use factor f_s .

RELEVANT PARAMETER

RADIAL LOAD Fr

When 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 **fz**:

Transmission element	Transmissi on element factor Fz	Comments
Gears	1	≥17 teeth
	1.15	<17 teeth
Chain sprockets	1	≥20 teeth
	1.25	<20 teeth
	1.4	<13 teeth
Narrow V-belt pulleys	1.75	Influence of the tensile force
Flat belt pulleys	2.5	Influence of the tensile force
Toothed beltpulleys	2.5	Influence of the tensile force

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

$$Fr = (M * 2000 * fz) / d0 \text{ [N]}$$

Fr = Resulting radial load [N]

M = Torque on the shaft [Nm]

d0 = Average diameter of the mounted transsmission element in [mm]

fz = Transmission element factor

The allowed radial load force on the shaft is calculated with the following formula:

$$FxL \leq (Fr2 * a) / (b+x) \text{ [N]}$$

Fr2 = Permitted overhung load(x = U2) for foot-mounted gear units according to the selection tables in [N]

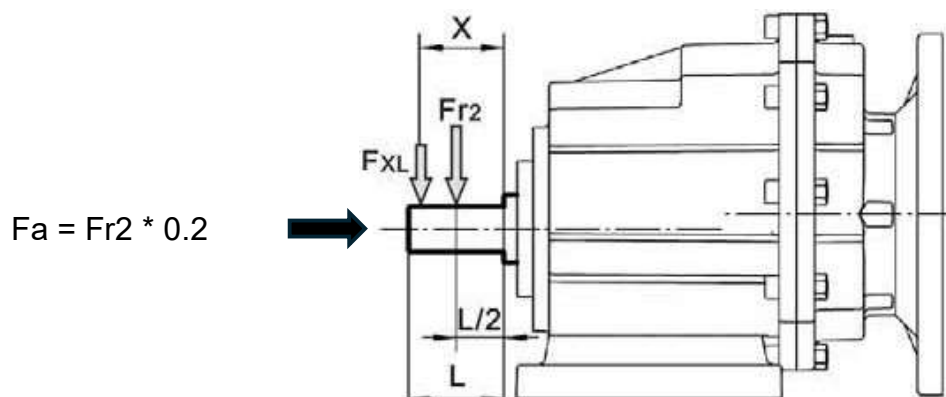
a,b = Gearbox constant for overhung load conversion[mm]

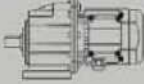


X = Distance from the shaft shoulder to the force application point in (mm)

The values of a, b, Fr2 are given in the following tables:

Distance	GHP01	GHP02	GHP03	GHP04
a	103	116.5	130	147
b	83	91.5	100	112

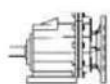
SELECTION TABLE INSTRUCTIONS



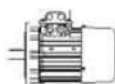
P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	f_s		Page			Page
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	Combination with the IEC in the header row is possible
	Combination with the IEC in the header row is not possible

- P_{1n} Rated input motor power [kW]
- n_2 Output speed [r/min];
- M_{2n} Rated output torque [Nm]
- M_{2max} Permissible output torque [Nm]
- i Gearbox ratio
- f_s Service factor



Gearbox type;



Motor type;

page

Dimension sheet page no;

*

Ratio is divisible.

SELECTION EXAMPLE**Gearbox**

Example: The required torque on driven machine is 400Nm, works for 6 hours per day, Uniform shock load, start-up frequency is 400 times per hour, $D=200\text{mm}$ output flange-mounted, $n_2=30\text{ r/min}$.

see tables, $f_s=1.05$

$$M_{2n} \geq M_2 \cdot f_s = 400 \times 1.05 = 420(\text{Nm})$$

$$i = n_1/n_2 = 1400/30 = 46.67$$

Choose type:

GHP04 - 44.2 - 90B5

Geared motor

Example: The required power on driven machine 1kW, works for 8 hours per day, moderate shock load, start-up continuously, M6 foot-mounted, $n_2=95\text{ r/min}$.5rpm/min.

see tables, $f_s=1.35$

$$i = n_1/n_2 = 1400/95 = 14.74$$

$$P_{1n} \geq P_1 \cdot f_s = P_2/\eta \cdot f_s = 1/0.96 \cdot 1.35 = 1.41[\text{kW}]$$

Choose type:

GHP02- 14.8 - 90B5 - Y1.0 - 4P - 3pH - M6

POSSIBLE GEOMETRIC COMBINATION

GHP01 $n_1=1400r/min$

120NM

n2[r/min]	M2Max [Nm]	Fr2[N]	i	63B5	7185/B14	80B5/B14	90B5/814
26	120	2600	53.3				
31	120	2600	45.9				
35	120	2600	40.1				
39	120	2560	35.5				
49	120	2380	28.5				
59	120	2230	23.6				
71	120	2100	19.8				
78	90	2030	17.9				
96	120	1900	14.6				
101	90	1860	13.80*				
118	120	1770	11.9				
143	120	1660	9.8				
153	80	1630	9.2				
181	80	1540	7.7				
246	70	1390	5.7				
302	70	1290	4.6				
366	70	1210	3.8				

GHP02 $n_1=1400r/min$

200NM

n2[r/min]	M2Max [Nm]	Fr2[N]	i	63B5	7185/B14	80B5/B14	90B5/B14
26	200	4500	54.00*				
30	200	4500	46.46*				
34	200	4500	40.60*				
39	200	4270	35.91*				
48	200	3970	28.88*				
59	200	3730	23.85*				
70	200	3520	20.08*				
82	140	3330	17.1				
95	200	3180	14.81*				
106	140	3060	13.2				
116	200	2970	12.1				
141	200	2780	9.9				
159	120	2670	8.8				
189	120	2520	7.4				
257	100	2280	5.5				
316	100	2120	4.4				
383	80	1990	3.7				

POSSIBLE GEOMETRIC COMBINATION...

GHP03 $n_2=1400\text{r/min}$

300NM


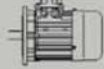

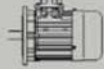
n2[r/min]	M2Max [Nm]	Fr2[N]	i	7185/B14	80B5/B14	90B5/B14	100B5/B14	112B5/B14
24	300	6000	58.0					
28	300	6000	51.3					
32	300	6000	44.2					
36	300	6000	38.6					
40	300	5860	34.2					
46	300	5630	30.6					
56	300	5290	25.0					
64	280	5020	21.8					
81	280	4660	17.3					
93	260	4440	15.3					
113	260	4160	12.6					
136	180	3910	10.9					
177	180	3590	7.9					
222	150	3320	6.3					
255	150	3170	5.5					
311	150	2970	4.5					
374	150	2790	3.7					

GHP04 $n_2=1400\text{r/min}$


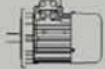
500NM

n2[r/min]	M2Max [Nm]	Fr2[N]	i	80B5/B14	90B5/B14	100B5/B14	112B5/B14
24	500	8000	58.1				
28	500	8000	51.3				
32	500	8000	44.2				
36	500	8000	38.6				
40	500	7950	34.2				
46	500	7790	30.6				
56	500	7200	25.0				
64	480	6810	21.8				
81	480	6310	17.3				
93	460	6020	15.3				
113	460	5640	12.6				
136	440	5300	10.9				
177	260	4860	7.9				
222	260	4510	6.3				
255	230	4300	5.5				
311	230	4030	4.5				
374	200	3780	3.7				


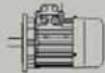
SELECTION CHART...

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{T2} [N]	f_s			Page				
0.12	26	42	53.33	2600	2.9			25				
	31	36	45.89	2600	3.3							
	35	32	40.10	2600	3.8							
	39	28	35.47	2560	4.3							
	49	22	28.50	2380	5.4							
	59	18.5	23.56	2230	6.5							
	71	15.6	19.83	2100	7.7							
	78	14.0	17.86	2030	6.4							
	96	11.5	14.62	1900	10.4							
	101	10.8	13.80*	1860	8.3							
	118	9.4	11.90	1770	12.8							
	143	7.7	9.81	1660	15.6							
	153	7.2	9.17	1630	11.1							
	181	6.1	7.72	1540	13.2							
	246	4.5	5.69	1390	15.7							
	302	3.6	4.63	1290	19.2							
	366	3.0	3.82	1210	23.3							
	16.9	65	53.33	2600	1.8				GHP01 63B5 6326 25	GHF01 63B5 6326 25	GHPS01 63B5 6326 25	
	19.6	56	45.89	2600	2.1							
	22	49	40.10	2600	2.4							
	25	43	35.47	2560	2.8							
	32	35	28.50	2380	3.4							
	38	29	23.56	2230	4.2							
	45	24	19.83	2100	5.0							
	50	22	17.86	2030	4.1							
	62	17.9	14.62	1900	6.7							
	65	16.9	13.80*	1860	5.3							
	76	14.5	11.90	1770	8.2							
	92	12.0	9.81	1660	10.0							
	98	11.2	9.17	1630	7.1							
	117	9.4	7.72	1540	8.5							
	158	7.0	5.69	1390	10.1							
	194	5.7	4.63	1290	12.4							
	236	4.7	3.82	1210	15.0							
	0.18	26	63	53.33	2600							1.9
		31	54	45.89	2600				2.2			
35		47	40.10	2600	2.5							
39		42	35.47	2560	2.9							
49		34	28.50	2380	3.6							
59		28	23.56	2230	4.3							
71		23	19.83	2100	5.1							
78		21	17.86	2030	4.3							
96		17.2	14.62	1900	7.0							
101		16.3	13.80*	1860	5.5							
118		14.0	11.90	1770	8.6							
143		11.6	9.81	1660	10.4							
153		10.8	9.17	1630	7.4							
181		9.1	7.72	1540	8.8							
246		6.7	5.69	1390	10.4							
302		5.5	4.63	1290	12.8							
366		4.5	3.82	1210	15.5							
16.9		98	53.33	2600	1.2	GHP01 71B5/B14 7116 25	GHF01 71B5/B14 7116 25	GHPS01 71B5/B14 7116 25				
19.6		84	45.89	2600	1.4							
22		74	40.10	2600	1.6							
25		65	35.47	2600	1.8							
32		52	28.50	2600	2.3							
38		43	23.56	2580	2.8							
45		36	19.83	2440	3.3							
50		33	17.86	2360	2.7							



SELECTION CHART...

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	f_s			Page					
0.18	26	64	54.00*	4500	3.1	GHP02 63B5	6324	27					
	30	55	46.46*	4500	3.7			GHF02 63B5	6324	27			
	34	48	40.60*	4500	4.2					GHPS02 63B5	6324	27	
	39	42	35.91*	4270	4.7								
	16.7	99	54.00*	4500	2.0	GHP02 71B5/B14	7116	27					
	19.4	85	46.46*	4500	2.3			GHF02 71B5/B14	7116	27			
	22	74	40.60*	4500	2.7					GHPS02 71B5/B14	7116	27	
	25	66	35.91*	4500	3.0								
	31	53	28.88*	4500	3.8								
	0.25	26	87	53.33	2600	1.4	GHP01 71B5/B14	7114	25				
31		75	45.89	2600	1.6	GHF01 71B5/B14			7114	25			
35		66	40.10	2600	1.8					GHPS01 71B5/B14	7114	25	
39		58	35.47	2560	2.1								
49		47	28.50	2380	2.6								
59		39	23.56	2230	3.1								
71		32	19.83	2100	3.7								
78		29	17.86	2030	3.1								
96		24	14.62	1900	5.0								
101		23	13.80*	1860	4.0								
118		19.5	11.90	1770	6.2								
143		16.1	9.81	1660	7.5								
153		15.0	9.17	1630	5.3								
181		12.6	7.72	1540	6.3								
246		9.3	5.69	1390	7.5								
302		7.6	4.63	1290	9.2								
366		6.3	3.82	1210	11.2								
16.9		136	53.33	2600	0.88	GHP01 71B5/B14	7126	25					
19.6		117	45.89	2600	1.0			GHF01 71B5/B14	7126	25			
22		102	40.10	2600	1.2					GHPS01 71B5/B14	7126	25	
25		90	35.47	2600	1.3								
32		73	28.50	2600	1.7								
38		60	23.56	2580	2.0								
45		51	19.83	2440	2.4								
50		45	17.86	2360	2.0								
62		37	14.62	2200	3.2								
65		35	13.80*	2160	2.6								
76		30	11.90	2060	4.0								
92		25	9.81	1930	4.8								
98		23	9.17	1890	3.4								
117		19.7	7.72	1780	4.1								
158		14.5	5.69	1610	4.8								
194		11.8	4.63	1500	5.9								
236		9.7	3.82	1410	7.2								
26		88	54.00*	4500	2.3	GHP02 71B5/B14	7114	27					
30		76	46.46*	4500	2.6			GHF02 71B5/B14	7114	27			
34		66	40.60*	4500	3.0					GHPS02 71B5/B14	7114	27	
39		59	35.91*	4270	3.4								
16.7		138	54.00*	4500	1.5	GHP02 71B5/B14	7126	27					
19.4		118	46.46*	4500	1.7			GHF02 71B5/B14	7126	27			
22		103	40.60*	4500	1.9					GHPS02 71B5/B14	7126	27	
25		91	35.91*	4500	2.2								
31		74	28.88*	4500	2.7								



SELECTION CHART...

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	f_s			Page																																
0.37	26	129	53.33	2600	0.93	GHP01 71B5/B14	7124	25																																
	31	111	45.89	2600	1.1			GHF01 71B5/B14	7124	25																														
	35	97	40.10	2600	1.2					GHPS01 71B5/B14	7124	25																												
	39	86	35.47	2560	1.4							7124																												
	49	69	28.50	2380	1.7																																			
	59	57	23.56	2230	2.1																																			
	71	48	19.83	2100	2.5																																			
	78	43	17.86	2030	2.1																																			
	96	35	14.62	1900	3.4																																			
	101	33	13.80*	1860	2.7																																			
	118	29	11.90	1770	4.2																																			
	143	24	9.81	1660	5.0																																			
	153	22	9.17	1630	3.6																																			
	181	18.7	7.72	1540	4.3																																			
	246	13.8	5.69	1390	5.1																																			
	302	11.2	4.63	1290	6.2																																			
	366	9.3	3.82	1210	7.6																																			
	25	134	35.47	2600	0.90																																			GHP01 80B5/B14
	32	107	28.50	2600	1.1	GHF01 80B5/B14	8016																																	
	38	89	23.56	2580	1.4			GHPS01 80B5/B14	8016																															
	45	75	19.83	2440	1.6					8016																														
	50	67	17.86	2360	1.3																																			
	62	55	14.62	2200	2.2																																			
	65	52	13.80*	2160	1.7																																			
	76	45	11.90	2060	2.7																																			
	92	37	9.81	1930	3.2																																			
	98	35	9.17	1890	2.3																																			
	117	29	7.72	1780	2.7																																			
	26	131	54.00*	4500	1.5	GHP02 71B5/B14	7124																			27														
	30	113	46.46*	4500	1.8			GHF02 71B5/B14	7124																	27														
	34	98	40.60*	4500	2.0					GHPS02 71B5/B14	7124															27														
	39	87	35.91*	4270	2.3							7124																												
	48	70	28.88*	3970	2.9																																			
	59	58	23.85*	3730	3.5																																			
	70	49	20.08*	3520	4.1																																			
	82	41	17.10*	3330	3.4																																			
95	36	14.81*	3180	5.6																																				
16.7	204	54.00*	4500	1.0		GHP02 80B5/B14	8016																27																	
19.4	175	46.46*	4500	1.1				GHF02 80B5/B14	8016														27																	
22	153	40.60*	4500	1.3						GHPS02 80B5/B14	8016												27																	
25	135	35.91*	4500	1.5								8016																												
31	109	28.88*	4500	1.8																																				
38	90	23.85*	4320	2.2																																				
45	76	20.08*	4080	2.6																																				
53	64	17.10*	3860	2.2																																				
68	50	13.21*	3550	2.8																																				
24	141	58.09	6000	2.1		GHP03 71B5/B14	7124																29																	
28	121	50.02	6000	2.5				GHF03 71B5/B14	7124														29																	
32	106	43.75	6000	2.8						GHPS03 71B5/B14	7124												29																	
36	94	38.73	6000	3.2								7124																												
40	84	34.62	5860	3.6																																				
15.5	219	58.09	6000	1.4		GHP03 80B5/B14	8016									29																								
18.0	189	50.02	6000	1.6				GHF03 80B5/B14	8016							29																								
21	165	43.75	6000	1.8						GHPS03 80B5/B14	8016					29																								
23	146	38.73	6000	2.1	8016																																			
26	130	34.62	6000	2.3																																				
32	107	28.30	6000	2.8																																				
41	82	21.78	5820	3.4																																				



SELECTION CHART...

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	fs			Page			
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	61	83	45.89	2210	1.5				GHF01 71B5/B14	25	
	70	72	40.10	2110	1.7						GHPS01 71B5/B14
	79	64	35.47	2030	1.9						
	98	51	28.50	1880	2.3						
	119	42	23.56	1770	2.8						
	141	36	19.83	1670	3.4						
	157	32	17.86	1610	2.8						
	203	25	13.80*	1480	3.6						
	39	128	35.47	2560	0.94	GHP01 80B5/B14	8014	25			
	49	103	28.50	2380	1.2				GHF01 80B5/B14	25	
	59	85	23.56	2230	1.4						GHPS01 80B5/B14
	71	71	19.83	2100	1.7						
	78	64	17.86	2030	1.4						
	96	53	14.62	1900	2.3						
	101	50	13.80*	1860	1.8						
	118	43	11.90	1770	2.8						
	143	35	9.81	1660	3.4						
	153	33	9.17	1630	2.4						
	181	28	7.72	1540	2.9						
	246	20	5.69	1390	3.4						
	302	16.7	4.63	1290	4.2						
	366	13.8	3.82	1210	5.1						
	38	132	23.56	2580	0.91	GHP01 80B5/B14	8026	25			
	45	111	19.83	2440	1.1				GHF01 80B5/B14	25	
	62	82	14.62	2200	1.5						GHPS01 80B5/B14
	65	77	13.80*	2160	1.2						
	76	67	11.90	2060	1.8						
	92	55	9.81	1930	2.2						
	98	51	9.17	1890	1.6						
	117	43	7.72	1780	1.8						
	158	32	5.69	1610	2.2						
	194	26	4.63	1500	2.7						
	236	21	3.82	1410	3.3						
	52	97	54.00*	3880	2.1	GHP02 71B5/B14	7122	27			
	60	84	46.46*	3690	2.4				GHF02 71B5/B14	27	
	69	73	40.60*	3530	2.7						GHPS02 71B5/B14
	78	65	35.91*	3390	3.1						
	97	52	28.88*	3150	3.8						
	26	194	54.00*	4500	1.0	GHP02 80B5/B14	8014	27			
	30	167	46.46*	4500	1.2				GHF02 80B5/B14	27	
	34	146	40.60*	4500	1.4						GHPS02 80B5/B14
39	129	35.91*	4270	1.5							
48	104	28.88*	3970	1.9							
59	86	23.85*	3730	2.3							
70	72	20.08*	3520	2.8							
82	62	17.10	3330	2.3							
95	53	14.81*	3180	3.7							
106	48	13.21	3060	2.9							
22	227	40.60*	4500	0.88	GHP02 80B5/B14				8026	29	
25	201	35.91*	4500	1.0							GHF02 80B5/B14
31	162	28.88*	4500	1.2		GHPS02 80B5/B14	29				
38	134	23.85*	4320	1.5							
45	113	20.08*	4080	1.8							
53	96	17.10	3860	1.5							
61	83	14.81*	3680	2.4							
68	74	13.21	3550	1.9							
103	49	8.78	3090	2.4							



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P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	f_s			Page																			
0.55	24	209	58.09	6000	1.4	GHP03	80B5/B14	8014	29																		
	28	180	50.02	6000	1.7				GHF03	80B5/B14	8014	29															
	32	158	43.75	6000	1.9							GHPS03	80B5/B14	8014	29												
	36	139	38.73	6000	2.2										GHP03	80B5/B14	8026	29									
	40	125	34.62	5860	2.4													GHF03	80B5/B14	8026	29						
	49	102	28.30	5480	2.9																GHPS03	80B5/B14	8026	29			
	64	78	21.78	5020	3.6																			GHP03	80B5/B14	8026	29
	81	62	17.33	4660	4.5																						GHP03
	15.5	325	58.09	6000	0.92	GHF03	80B5/B14	8026	29																		
	18.0	280	50.02	6000	1.1				GHPS03	80B5/B14	8026	29															
	21	245	43.75	6000	1.2							GHP03	80B5/B14	8026	29												
	23	217	38.73	6000	1.4										GHF03	80B5/B14	8026	29									
	26	194	34.62	6000	1.5													GHPS03	80B5/B14	8026	29						
	32	159	28.30	6000	1.9																GHP03	80B5/B14	8026	29			
	41	122	21.78	5820	2.3																			GHP04	80B5/B14	8014	
	52	97	17.33	5400	2.9	GHF04	80B5/B14	8014	31																		
	60	84	15.06	5150	3.1				GHPS04	80B5/B14	8014	31															
	73	69	12.37	4820	3.8							GHP04	80B5/B14	8014	31												
	24	209	58.09	8000	2.4										GHF04	80B5/B14	8014	31									
	28	180	50.02	8000	2.8													GHPS04	80B5/B14	8014	31						
	32	158	43.75	8000	3.2																GHP04	80B5/B14	8026				31
	36	139	38.73	8000	3.6																						GHP04
	40	125	34.62	7950	4.0	GHF04	80B5/B14	8026	31																		
	15.5	325	58.09	8000	1.5				GHPS04	80B5/B14	8026	31															
	18.0	280	50.02	8000	1.8							GHP04	80B5/B14	8026	31												
	21	245	43.75	8000	2.0										GHF04	80B5/B14	8026	31									
	23	217	38.73	8000	2.3													GHPS04	80B5/B14	8026	31						
	26	194	34.62	8000	2.6																GHP04	80B5/B14	8026	31			
	32	159	28.30	8000	3.2																			GHP01	80B5/B14	8012	
	41	122	21.78	7890	3.9	GHF01	80B5/B14	8012	25																		
	61	113	45.89	2210	1.1				GHPS01	80B5/B14	8012	25															
	70	98	40.10	2100	1.2							GHP01	80B5/B14	8024	25												
79	87	35.47	2030	1.4	GHF01										80B5/B14	8024	25										
98	70	28.50	1880	1.7													GHPS01	80B5/B14	8024	25							
119	58	23.56	1770	2.1																GHP01	80B5/B14	90S6	25				
141	49	19.83	1670	2.5																			GHP01				80B5/B14
157	44	17.86	1610	2.1	GHF01	80B5/B14	90S6	25																			
192	36	14.62	1510	3.3				GHPS01	80B5/B14	90S6	25																
203	34	13.80*	1480	2.7							GHP01	80B5/B14	90S6	25													
59	116	23.56	2230	1.0										GHF01	80B5/B14	90S6	25										
71	97	19.83	2100	1.2													GHPS01	80B5/B14	90S6	25							
78	88	17.86	2030	1.0																GHP01	80B5/B14	90S6		25			
96	72	14.62	1900	1.7																				GHP01	80B5/B14	90S6	
101	68	13.80*	1860	1.3	GHF01	80B5/B14	90S6	25																			
118	58	11.90	1770	2.1				GHPS01	80B5/B14	90S6	25																
143	48	9.81	1660	2.5							GHP01	80B5/B14	90S6	25													
153	45	9.17	1630	1.8										GHF01	80B5/B14	90S6	25										
181	38	7.72	1540	2.1													GHPS01	80B5/B14	90S6	25							
246	28	5.69	1390	2.5																GHP01	80B5/B14	90S6	25				
302	23	4.63	1290	3.1																			GHP01				80B5/B14
366	18.8	3.82	1210	3.7	GHF01	80B5/B14	90S6	25																			
62	112	14.62	2200	1.1				GHPS01	80B5/B14	90S6	25																
76	91	11.90	2060	1.3							GHP01	80B5/B14	90S6	25													
92	75	9.81	1930	1.6										GHF01	80B5/B14	90S6	25										
98	70	9.17	1890	1.1													GHPS01	80B5/B14	90S6	25							
																				GHP01	80B5/B14	90S6		25			
																								GHF01	80B5/B14	90S6	





SELECTION CHART...

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	f_s			Page	
0.75	117	59	7.72	1780	1.4	GHP01	90B5/B14	90S6	25
	158	43	5.69	1610	1.6	GHF01	90B5/B14	90S6	25
	194	35	4.63	1500	2.0	GHP01	90B5/B14	90S6	25
	236	29	3.82	1410	2.4	GHP01	90B5/B14	90S6	25
	52	133	54.00*	3880	1.5	GHP02	80B5/B14	8012	27
	60	114	46.46*	3690	1.8	GHF02	80B5/B14	8012	27
	69	100	40.60*	3530	2.0	GHP02	80B5/B14	8012	27
	78	88	35.91*	3390	2.3				
	97	71	28.88*	3150	2.8				
	117	59	23.85*	2980	3.4				
	139	49	20.08*	2790	4.1				
	164	42	17.10*	2650	3.3				
	30	228	46.46*	4500	0.88	GHP02	80B5/B14	8024	27
	34	199	40.60*	4500	1.0	GHF02	80B5/B14	8024	27
	39	176	35.91*	4270	1.1	GHP02	80B5/B14	8024	27
	48	142	28.88*	3970	1.4				
	59	117	23.85*	3730	1.7				
	70	99	20.08*	3520	2.0				
	82	84	17.10	3330	1.7				
	95	73	14.81*	3180	2.7				
	106	65	13.21	3060	2.2				
	116	59	12.05	2970	3.4				
	141	49	9.93	2780	4.1				
	159	43	8.78	2670	2.8				
	189	36	7.39	2520	3.3				
	257	27	5.45	2280	3.7				
	38	182	23.85*	4320	1.1	GHP02	90B5/B14	90S6	27
	45	153	20.08*	4080	1.3	GHF02	90B5/B14	90S6	27
	61	113	14.81*	3680	1.8	GHP02	90B5/B14	90S6	27
	68	101	13.21	3550	1.4				
	75	92	12.05	3440	2.2				
	91	76	9.93	3220	2.6				
	103	67	8.78	3090	1.8				
	122	56	7.39	2920	2.1				
	165	42	5.45	2640	2.4				
	48	143	58.09	5530	2.1	GHP03	80B5/B14	8012	29
	56	123	50.02	5260	2.4	GHF03	80B5/B14	8012	29
	64	107	43.75	5030	2.8	GHP03	80B5/B14	8012	29
	72	95	38.73	4830	3.2				
	81	85	34.62	4650	3.5				
	24	285	58.09	6000	1.1	GHP03	80B5/B14	8024	29
	28	246	50.02	6000	1.2	GHF03	80B5/B14	8024	29
	32	215	43.75	6000	1.4	GHP03	80B5/B14	8024	29
	36	190	38.73	6000	1.6				
	40	170	34.62	5860	1.8				
	49	139	28.30	5480	2.2				
	64	107	21.78	5020	2.6				
	81	85	17.33	4660	3.3				
	93	74	15.06	4440	3.5				
	23	296	38.73	6000	1.0	GHP03	90B5/B14	90S6	29
	26	264	34.62	6000	1.1	GHF03	90B5/B14	90S6	29
	32	216	28.30	6000	1.4	GHP03	90B5/B14	90S6	29
	41	166	21.78	5820	1.7				
	52	132	17.33	5400	2.1				
	60	115	15.06	5150	2.3				







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	88	79	10.28	4530	3.1				GHF03	90S6	29
	113	61	7.93*	4160	3.0				GHPS03	90S6	29
	143	48	6.31	3850	3.7	GHP04	80B5/B14	8024	31		
	164	42	5.48	3670	3.6						
	24	285	58.09	8000	1.8						
	28	246	50.02	8000	2.0						
	32	215	43.75	8000	2.3						
	36	190	38.73	8000	2.6						
	40	170	34.62	7950	2.9						
	49	139	28.30	7430	3.6						
	64	107	21.78	6810	4.5						
	15.5	444	58.09	8000	1.1					GHP04	90B5/B14
	18.0	382	50.02	8000	1.3	GHF04	90B5/B14	90S6	31		
	21	334	43.75	8000	1.5	GHPS04	90B5/B14	90S6	31		
	23	296	38.73	8000	1.7						
	26	264	34.62	8000	1.9						
	32	216	28.30	8000	2.3						
	41	166	21.78	7890	2.9						
	52	132	17.33	7310	3.6						
1.1	98	103	28.50	1880	1.2	GHP01	80B5/B14	8022	25		
	119	85	23.56	1770	1.4				GHF01	8022	25
	141	71	19.83	1670	1.7				GHPS01	8022	25
	157	64	17.86	1610	1.4	GHP01	90B5/B14	90S4	25		
	192	53	14.62	1510	2.3						
	203	50	13.80*	1480	1.8						
	235	43	11.90	1410	2.8						
	285	35	9.81	1320	3.4						
	305	33	9.17	1290	2.4						
	363	28	7.72	1220	2.9						
	492	20	5.69	1100	3.4						
	605	16.7	4.63	1030	4.2						
	733	13.8	3.82	960	5.1						
	96	105	14.62	1900	1.1	GHP01	90B5/B14	90S4	25		
	118	86	11.90	1770	1.4	GHF01	90B5/B14	90S4	25		
	143	71	9.81	1660	1.7	GHPS01	90B5/B14	90S4	25		
	153	66	9.17	1630	1.2						
	181	56	7.72	1540	1.4						
	246	41	5.69	1390	1.7						
	302	33	4.63	1290	2.1						
	366	28	3.82	1210	2.5						
	92	110	9.81	1930	1.1	GHP01	90B5/B14	90L6	25		
	117	87	7.72	1780	0.92						
	158	64	5.69	1610	1.1						
	194	52	4.63	1500	1.3						
	236	43	3.82	1410	1.6						
	52	194	54.00*	3880	1.0	GHP02	80B5/B14	8022	27		
	60	167	46.46*	3690	1.2						
	69	146	40.60*	3530	1.4						
	78	129	35.91*	3390	1.5						
	97	104	28.88*	3150	1.9						
	117	86	23.85*	2960	2.3						
	139	72	20.08*	2790	2.8						
	164	62	17.10	2650	2.3						
	189	53	14.81*	2520	3.7						
	212	48	13.21	2430	2.9						



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P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	f_s			Page			
1.1	48	208	28.88*	3970	0.96						
	59	172	23.85*	3730	1.2				GHP02 90B5/B14	90S4	27
	70	145	20.08*	3520	1.4				GHF02 90B5/B14	90S4	27
	95	107	14.81*	3180	1.9				GHPS02 90B5/B14	90S4	27
	106	95	13.21	3060	1.5						
	116	87	12.05	2970	2.3						
	141	72	9.93	2780	2.8						
	159	63	8.78	2670	1.9						
	189	53	7.39	2520	2.3						
	257	39	5.45	2280	2.5						
	316	32	4.43	2120	3.1						
	383	26	3.66	1990	3.0						
	61	166	14.81*	3680	1.2				GHP02 90B5/B14	90L6	27
	75	135	12.05	3440	1.5				GHF02 90B5/B14	90L6	27
	91	111	9.93	3220	1.8				GHPS02 90B5/B14	90L6	27
	103	98	8.78	3090	1.2						
	122	83	7.39	2920	1.4						
	165	61	5.45	2640	1.6						
	203	50	4.43	2460	2.0						
	246	41	3.66	2310	2.0						
	48	209	58.09	5530	1.4				GHP03 80B5/B14	8022	29
	56	180	50.02	5260	1.7				GHF03 80B5/B14	8022	29
	64	158	43.75	5030	1.9				GHPS03 80B5/B14	8022	29
	72	139	38.73	4830	2.2						
	81	125	34.62	4650	2.4						
	99	102	28.30	4350	2.9						
	129	78	21.78	3990	3.6						
	32	315	43.75	6000	0.95				GHP03 90B5/B14	90S4	29
	36	279	38.73	6000	1.1				GHF03 90B5/B14	90S4	29
	40	249	34.62	5860	1.2				GHPS03 90B5/B14	90S4	29
	49	204	28.30	5480	1.5						
	64	157	21.78	5020	1.8						
	81	125	17.33	4660	2.2						
	93	108	15.06	4440	2.4						
	113	89	12.37	4160	2.9						
	136	74	10.28	3910	3.2						
	177	57	7.93*	3590	3.2						
	222	45	6.31	3320	4.0						
	255	39	5.48	3170	3.8						
	311	32	4.50	2970	4.6						
	374	27	3.74	2790	5.6						
	32	317	28.30	6000	0.95				GHP03 90B5/B14	90L6	29
	41	244	21.78	5820	1.1				GHF03 90B5/B14	90L6	29
	52	194	17.33	5400	1.4				GHPS03 90B5/B14	90L6	29
	60	169	15.06	5150	1.5						
	73	139	12.37	4820	1.9						
	88	115	10.28	4530	2.1						
	113	89	7.93*	4160	2.0						
	143	71	6.31	3850	2.5						
	164	61	5.48	3670	2.4						
	200	50	4.50	3440	3.0						
	241	42	3.74	3230	3.6						
	48	209	58.09	7500	2.4				GHP04 80B5/B14	8022	31
	56	180	50.02	7130	2.8				GHF04 80B5/B14	8022	31
	64	158	43.75	6820	3.2				GHPS04 80B5/B14	8022	31
	72	139	38.73	6550	3.6						
	81	125	34.62	6310	4.0						


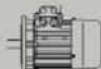
SELECTION CHART...

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	28	360	50.02	8000	1.4						
	32	315	43.75	8000	1.6				GHP04 90B5/B14	90S4	31
	36	279	38.73	8000	1.8				GHF04 90B5/B14	90S4	31
	40	249	34.62	7950	2.0				GHPS04 90B5/B14	90S4	31
	49	204	28.30	7430	2.5						
	64	157	21.78	6810	3.1						
	81	125	17.33	6310	3.8						
	93	108	15.06	6020	4.2						
	21	490	43.75	8000	1.0				GHP04 90B5/B14	90L6	31
	23	434	38.73	8000	1.2				GHF04 90B5/B14	90L6	31
	26	388	34.62	8000	1.3				GHPS04 90B5/B14	90L6	31
	32	317	28.30	8000	1.6						
	41	244	21.78	7890	2.0						
	52	194	17.33	7310	2.5						
	60	169	15.06	6980	2.7						
	73	139	12.37	6540	3.3						
	88	115	10.28	6150	3.8						
	113	89	7.93*	5640	2.9						
	143	71	6.31	5220	3.7						
164	61	5.48	4980	3.7							
1.5	119	116	23.56	1770	1.0			25			
	141	97	19.83	1670	1.2						
	192	72	14.62	1510	1.7				GHP01 90B5/B14	90S2	25
	203	68	13.80*	1480	1.3				GHF01 90B5/B14	90S2	25
	235	58	11.90	1410	2.1				GHPS01 90B5/B14	90S2	25
	285	48	9.81	1320	2.5						
	305	45	9.17	1290	1.8						
	363	38	7.72	1220	2.1						
	492	28	5.69	1100	2.5						
	605	23	4.63	1030	3.1						
	733	18.8	3.82	960	3.7						
	118	117	11.90	1770	1.0				GHP01 90B5/B14	90L4	25
	143	96	9.81	1660	1.2				GHF01 90B5/B14	90L4	25
	153	90	9.17	1630	0.89				GHPS01 90B5/B14	90L4	25
	181	76	7.72	1540	1.1						
	246	56	5.69	1390	1.3						
	302	45	4.63	1290	1.5						
	366	38	3.82	1210	1.9						
	69	199	40.60*	3530	1.0				GHP02 90B5/B14	90S2	27
	79	176	35.91*	3390	1.1				GHF02 90B5/B14	90S2	27
	97	142	28.88*	3150	1.4				GHPS02 90B5/B14	90S2	27
	117	117	23.85*	2960	1.7						
	139	99	20.08*	2790	2.0						
	189	73	14.81*	2520	2.7						
	212	65	13.21	2430	2.2						
	232	59	12.05	2350	3.4						
	282	49	9.93	2210	4.1						
	319	43	8.78	2120	2.8						
	379	36	7.39	2000	3.3						
	514	27	5.45	1810	3.7						
	95	145	14.81*	3180	1.4				GHP02 90B5/B14	90L4	27
	116	118	12.05	2970	1.7				GHF02 90B5/B14	90L4	27
	141	98	9.93	2780	2.1				GHPS02 90B5/B14	90L4	27
	159	86	8.78	2670	1.4						
	189	73	7.39	2520	1.7						
	257	54	5.45	2280	1.9						
	316	44	4.43	2120	2.3						
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

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1.5	48	285	58.09	5530	1.1	GHP03	90B5/B14	90S2	29																					
	56	246	50.02	5260	1.2				GHF03	90B5/B14	90S2	29																		
	64	215	43.75	5030	1.4							GHP03	90B5/B14	90S2	29															
	72	190	38.73	4830	1.6										GHF03	90B5/B14	90S2	29												
	81	170	34.62	4650	1.8													GHP03	90B5/B14	90S2	29									
	99	139	28.30	4350	2.2																GHF03	90B5/B14	90S2	29						
	129	107	21.78	3990	2.6																			GHP03	90B5/B14	90S2	29			
	162	85	17.33	3690	3.3																						GHF03	90B5/B14	90S2	29
	186	74	15.06	3530	3.5																									GHP03
	40	340	34.62	5860	0.88	GHF03	90B5/B14	90L4																						
	49	278	28.30	5480	1.1				GHP03	90B5/B14	90L4																			
	64	214	21.78	5020	1.3							GHF03	90B5/B14	90L4																
	81	170	17.33	4660	1.6										GHP03	90B5/B14	90L4													
	93	148	15.06	4440	1.8													GHF03	90B5/B14	90L4										
	113	122	12.37	4160	2.1																GHP03	90B5/B14	90L4							
	136	101	10.28	3910	2.4																			GHF03	90B5/B14	90L4				
	177	78	7.93*	3590	2.3																						GHP03	90B5/B14	90L4	
	222	62	6.31	3320	2.9																									GHF03
	255	54	5.48	3170	2.8	GHP03	90B5/B14	90L4																						
	311	44	4.50	2970	3.4				GHF03	90B5/B14	90L4																			
	374	37	3.74	2790	4.1							GHP03	90B5/B14	90L4																
	52	265	17.33	5400	1.1										GHF03	100B5/B14	100L6													
	60	230	15.06	5150	1.1													GHP03	100B5/B14	100L6										
	73	189	12.37	4820	1.4																GHF03	100B5/B14	100L6							
	88	157	10.28	4530	1.5																			GHP03	100B5/B14	100L6				
	113	121	7.93*	4160	1.5																						GHF03	100B5/B14	100L6	
	143	96	6.31	3850	1.9																									GHP03
	164	84	5.48	3670	1.8	GHF03	100B5/B14	100L6																						
	200	69	4.50	3440	2.2				GHP03	100B5/B14	100L6																			
	241	57	3.74	3230	2.6							GHF03	100B5/B14	100L6																
	48	285	58.09	7500	1.8										GHP04	90B5/B14	90S2													
	56	246	50.02	7130	2.0													GHF04	90B5/B14	90S2										
	64	215	43.75	6820	2.3																GHP04	90B5/B14	90S2							
	72	190	38.73	6550	2.6																			GHF04	90B5/B14	90S2				
	81	170	34.62	6310	2.9																						GHP04	90B5/B14	90S2	
	99	139	28.30	5900	3.6																									GHF04
	24	571	58.09	8000	0.88	GHP04	90B5/B14	90L4																						
	28	491	50.02	8000	1.0				GHF04	90B5/B14	90L4																			
	32	430	43.75	8000	1.2							GHP04	90B5/B14	90L4																
	36	380	38.73	8000	1.3										GHF04	90B5/B14	90L4													
	40	340	34.62	7950	1.5													GHP04	90B5/B14	90L4										
	49	278	28.30	7430	1.8																GHF04	90B5/B14	90L4							
	64	214	21.78	6810	2.2																			GHP04	90B5/B14	90L4				
	81	170	17.33	6310	2.8																						GHF04	90B5/B14	90L4	
	93	148	15.06	6020	3.1																									GHP04
113	122	12.37	5640	3.8	GHF04	90B5/B14	90L4	31																						
136	101	10.28	5300	4.4				GHP04	90B5/B14	90L4	31																			
177	78	7.93*	4860	3.3							GHF04	90B5/B14	90L4	31																
222	62	6.31	4510	4.2										GHP04	90B5/B14	90L4	31													
255	54	5.48	4300	4.3													GHF04	90B5/B14	90L4	31										
26	529	34.62	8000	0.95																GHP04	100B5/B14	100L6	31							
32	432	28.30	8000	1.2																			GHF04	100B5/B14	100L6	31				
41	333	21.78	7890	1.4																						GHP04	100B5/B14	100L6	31	
52	265	17.33	7310	1.8																									GHF04	100B5/B14
60	230	15.06	6980	2.0	GHP04	100B5/B14	100L6																							
73	189	12.37	6540	2.4				GHF04	100B5/B14	100L6																				
88	157	10.28	6150	2.8							GHP04	100B5/B14	100L6																	
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
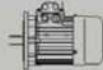
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P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	f_s			Page										
1.5	143	96	6.31	5220	2.7	GHP04	100B5/B14	100L6	31									
	164	84	5.48	4980	2.7		GHF04	100B5/B14	100L6	31								
	200	69	4.50	4660	3.3		GHPS04	100B5/B14	100L6	31								
	241	57	3.74	4390	3.5													
2.2	97	208	28.88*	3150	0.96	GHP02	90B5/B14	90L2	27									
	117	172	23.85*	2960	1.2					GHF02	90B5/B14	90L2	27					
	139	145	20.08*	2790	1.4									GHPS02	90B5/B14	90L2	27	
	189	107	14.81*	2520	1.9													
	212	95	13.21	2430	1.5													
	232	87	12.05	2350	2.3													
	282	72	9.93	2210	2.8													
	319	63	8.78	2120	1.9													
	379	53	7.39	2000	2.3													
	514	39	5.45	1810	2.5													
632	32	4.43	1680	3.1														
765	26	3.66	1580	3.0														
	64	315	43.75	5030	0.95	GHP03	90B5/B14	90L2	29									
	72	279	38.73	4830	1.1					GHF03	90B5/B14	90L2	29					
	81	249	34.62	4650	1.2									GHPS03	90B5/B14	90L2	29	
	99	204	28.30	4350	1.5													
	129	157	21.78	3990	1.8													
	162	125	17.33	3690	2.2													
	186	108	15.06	3530	2.4													
	226	89	12.37	3300	2.9													
	272	74	10.28	3100	3.2													
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	444	45	6.31	2640	4.0													
	511	39	5.48	2520	3.8													
		64	314	21.78	5020									0.89	GHP03	100B5/B14	100LA4	29
		81	250	17.33	4660									1.1				
93		217	15.06	4440	1.2	GHPS03	100B5/B14	100LA4	29									
113		178	12.37	4160	1.5													
136		148	10.28	3910	1.6													
177		114	7.93*	3590	1.6													
222		91	6.31	3320	2.0													
255		79	5.48	3170	1.9													
311		65	4.50	2970	2.3													
374		54	3.74	2790	2.8													
	73	277	12.37	4820	0.94	GHP03	112B5/B14	112M6	29									
	88	230	10.28	4530	1.0					GHF03	112B5/B14	112M6	29					
	113	178	7.93*	4160	1.0									GHPS03	112B5/B14	112M6	29	
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	164	123	5.48	3670	1.2													
	200	101	4.50	3440	1.5													
	241	84	3.74	3230	1.8													
		48	418	58.09	7500									1.2	GHP04	90B5/B14	90L2	31
56		360	50.02	7130	1.4	GHF04	90B5/B14	90L2	31									
64		315	43.75	6820	1.6					GHPS04	90B5/B14	90L2	31					
72		279	38.73	6550	1.8													
81		249	34.62	6310	2.0													
99		204	28.30	5900	2.5													
129		157	21.78	5410	3.1													
162		125	17.33	5010	3.8													
		40	499	34.62	7950					1.0	GHP04	100B5/B14	100LA4	31				
		49	408	28.30	7430					1.2								
	64	314	21.78	6810	1.5					GHPS04					100B5/B14	100LA4	31	
	81	250	17.33	6310	1.9													
	93	217	15.06	6020	2.1													


SELECTION CHART...

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	f_s			Page																					
2.2	113	178	12.37	5640	2.6	GHP04	100B5/B14	100LA4	31																				
	136	148	10.28	5300	3.0					GHF04	100B5/B14	100LA4	31																
	177	114	7.93*	4860	2.3									GHPS04	100B5/B14	100LA4	31												
	222	91	6.31	4510	2.9																								
	255	79	5.48	4300	2.9																								
	311	65	4.50	4030	3.5																								
	374	54	3.74	3780	3.7																								
	41	488	21.78	7890	1.0	GHP04	112B5/B14	112M6	31																				
	52	388	17.33	7310	1.2					GHF04	112B5/B14	112M6	31																
	60	338	15.06	6980	1.4									GHPS04	112B5/B14	112M6	31												
	73	277	12.37	6540	1.7																								
	88	230	10.28	6150	1.9																								
	113	178	7.93*	5640	1.5																								
	143	141	6.31	5220	1.8																								
	164	123	5.48	4980	1.9																								
	200	101	4.50	4660	2.3																								
	241	84	3.74	4390	2.4																								
	3.0	99	278	28.30	4350													1.1	GHP03	100B5/B14	100L2	29							
		129	214	21.78	3990													1.3					GHF03	100B5/B14	100L2	29			
162		170	17.33	3690	1.6	GHPS03	100B5/B14	100L2	29																				
186		148	15.06	3530	1.8																								
226		122	12.37	3300	2.1																								
272		101	10.28	3100	2.4																								
353		78	7.93*	2850	2.3																								
444		62	6.31	2640	2.9																								
511		54	5.48	2520	2.8																								
622		44	4.50	2350	3.4																								
749		37	3.74	2210	4.1																								
93		296	15.06	4440	0.88					GHP03	100B5/B14	100LB4	29																
113		243	12.37	4160	1.1									GHF03	100B5/B14	100LB4	29												
136		202	10.28	3910	1.2													GHPS03	100B5/B14	100LB4	29								
177		156	7.93*	3590	1.2																								
222		124	6.31	3320	1.5																								
255		108	5.48	3170	1.4																								
311		88	4.50	2970	1.7																								
374		73	3.74	2790	2.0																								
81		340	34.62	6310	1.5	GHP04	100B5/B14	100L2	31																				
99		278	28.30	5900	1.8																	GHF04	100B5/B14	100L2	31				
129		214	21.78	5410	2.2																					GHPS04	100B5/B14	100L2	31
162		170	17.33	5010	2.8																								
186		148	15.06	4780	3.1																								
226		122	12.37	4480	3.8																								
272		101	10.28	4210	4.4																								
353		78	7.93*	3860	3.3																								
444		62	6.31	3580	4.2																								
49		556	28.30	7430	0.90					GHP04	100B5/B14	100LB4	31																
64		428	21.78	6810	1.1									GHF04	100B5/B14	100LB4	31												
81		340	17.33	6310	1.4													GHPS04	100B5/B14	100LB4	31								
93		296	15.06	6020	1.6																								
113		243	12.37	5640	1.9																								
136		202	10.28	5300	2.2																								
177		156	7.93*	4860	1.7																								
222		124	6.31	4510	2.1	GHP04	100B5/B14	100LB4	31																				
255		108	5.48	4300	2.1																	GHF04	100B5/B14	100LB4	31				
311		88	4.50	4030	2.6																					GHPS04	100B5/B14	100LB4	31
374		73	3.74	3780	2.7																								

SELECTION CHART...

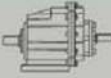

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	f_s			Page																								
4.0	162	227	17.33	3690	1.2	GHP03 112B5/B14	112M2	29																								
	186	197	15.06	3530	1.3				GHF03 112B5/B14	112M2	29																					
	226	162	12.37	3300	1.6							GHPS03 112B5/B14	112M2	29																		
	272	135	10.28	3100	1.8										GHP03 112B5/B14	112M4	29															
	353	104	7.93*	2850	1.7													GHF03 112B5/B14	112M4	29												
	444	83	6.31	2640	2.2																GHPS03 112B5/B14	112M4	29									
	511	72	5.48	2520	2.1																			GHP04 112B5/B14	112M2	31						
	622	59	4.50	2350	2.5																						GHF04 112B5/B14	112M2	31			
	749	49	3.74	2210	3.1																									GHPS04 112B5/B14	112M2	31
	136	269	10.28	3910	0.89																											
	177	208	7.93*	3590	0.87	GHF04 112B5/B14	112M4	31																								
	222	165	6.31	3320	1.1				GHPS04 112B5/B14	112M4	31																					
	255	144	5.48	3170	1.0							GHP04 112B5/B14	112M2	31																		
	311	118	4.50	2970	1.3										GHF04 112B5/B14	112M2	31															
	374	98	3.74	2790	1.5													GHPS04 112B5/B14	112M2	31												
	81	453	34.62	6310	1.1																GHP04 112B5/B14	112M4	31									
	99	371	28.30	5900	1.3																			GHF04 112B5/B14	112M4	31						
	129	285	21.78	5410	1.7																						GHPS04 112B5/B14	112M4	31			
	162	227	17.33	5010	2.1																									GHP04 112B5/B14	112M2	31
	186	197	15.06	4780	2.3																											
	226	162	12.37	4480	2.8	GHPS04 112B5/B14	112M4	31																								
	272	135	10.28	4210	3.3				GHP04 112B5/B14	112M2	31																					
	353	104	7.93*	3860	2.5							GHF04 112B5/B14	112M4	31																		
	444	83	6.31	3580	3.1										GHPS04 112B5/B14	112M4	31															
	511	72	5.48	3410	3.2													GHP04 112B5/B14	112M2	31												
	622	59	4.50	3190	3.9																GHF04 112B5/B14	112M4	31									
	749	49	3.74	3000	4.1																			GHPS04 112B5/B14	112M4	31						
	81	454	17.33	6310	1.1																						GHP04 112B5/B14	112M4	31			
	93	394	15.06	6020	1.2																									GHF04 112B5/B14	112M4	31
	113	324	12.37	5640	1.4																											
	136	269	10.28	5300	1.6	GHP04 112B5/B14	112M2	31																								
	177	208	7.93*	4860	1.3				GHF04 112B5/B14	112M4	31																					
	222	165	6.31	4510	1.6							GHPS04 112B5/B14	112M4	31																		
	255	144	5.48	4300	1.6										GHP04 112B5/B14	112M2	31															
	311	118	4.50	4030	2.0													GHF04 112B5/B14	112M4	31												
	374	98	3.74	3780	2.0																GHPS04 112B5/B14	112M4	31									

GH GEARBOX PERFORMANCE

M_{2max} [Nm]	n_2 [r/min]	i	P_{1n} [kW]	n_1 [r/min]	F_{r2}	F_{r1}		Page		
120	26.3	53.33	0.34	1400	2600	800	GHPS01	26		
120	30.5	45.89	0.40	1400	2600	800			GHFS01	26
120	34.9	40.10	0.46	1400	2600	800				
120	39.5	35.47	0.52	1400	2560	800	GHPS01	26		
120	49.1	28.50	0.64	1400	2380	800				
120	59.4	23.56	0.78	1400	2230	800	GHPS01	26		
120	70.6	19.83	0.92	1400	2100	800				
90	78.4	17.86	0.77	1400	2030	800	GHPS01	26		
120	95.8	14.62	1.25	1400	1900	800				
90	101	13.80	1.00	1400	1860	800	GHPS01	26		
120	118	11.90	1.54	1400	1770	800				
120	143	9.81	1.87	1400	1660	800	GHPS01	26		
80	153	9.17	1.33	1400	1630	800				
80	181	7.72	1.58	1400	1540	800	GHPS01	26		
70	246	5.69	1.88	1400	1390	800				
70	302	4.63	2.31	1400	1290	800	GHPS01	26		
70	366	3.82	2.80	1400	1210	800				

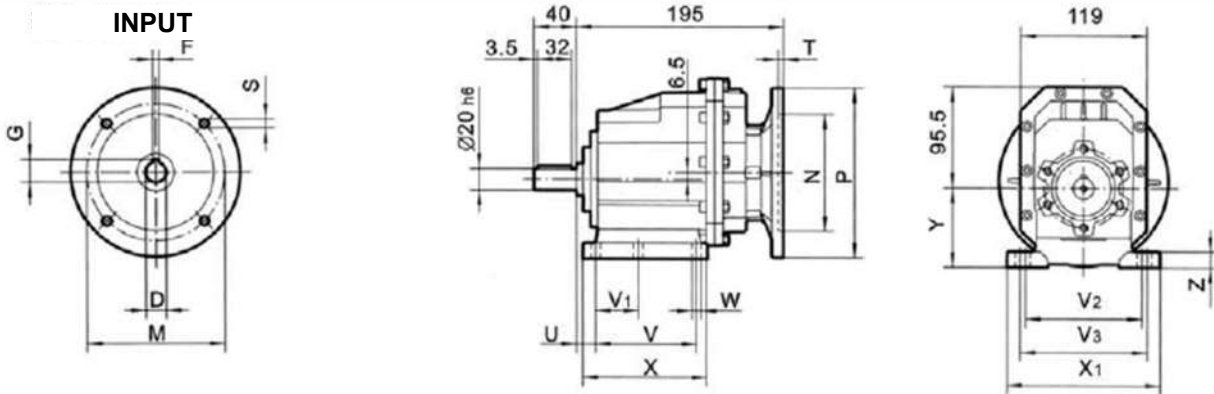
SELECTION CHART...

GH GEARBOX PERFORMANCE

M_{2max} [Nm]	n_2 [r/min]	i	P_{1n} [kW]	n_1 [r/min]	F_{r2}	F_{r1}		Page 		
200	25.9	54.00	0.57	1400	4500	800	GHPS02	28		
200	30.1	46.46	0.66	1400	4500	800		GHFS02	28	
200	34.5	40.60	0.75	1400	4500	800		GHPS02	28	
200	39.0	35.91	0.85	1400	4270	800				
200	48.5	28.88	1.06	1400	3970	800				
200	58.7	23.85	1.28	1400	3730	800				
200	69.7	20.08	1.52	1400	3520	800				
140	81.9	17.10	1.25	1400	3330	800				
200	94.5	14.81	2.06	1400	3180	800				
140	106	13.21	1.62	1400	3060	800				
200	116	12.05	2.53	1400	2970	800				
200	141	9.93	3.08	1400	2780	800				
120	159	8.78	2.09	1400	2670	800				
120	189	7.39	2.48	1400	2520	800				
100	257	5.45	2.80	1400	2280	800				
100	316	4.43	3.45	1400	2120	800				
80	383	3.66	3.34	1400	1990	800				
300	24.1	58.09	0.79	1400	6000	1200		GHPS03	30	
300	28.0	50.02	0.92	1400	6000	1200			GHFS03	30
300	32.0	43.75	1.05	1400	6000	1200			GHPS03	30
300	36.1	38.73	1.18	1400	6000	1200				
300	40.4	34.62	1.32	1400	5860	1200				
300	49.5	28.30	1.62	1400	5480	1200				
280	64.3	21.78	1.96	1400	5020	1200				
280	81	17.33	2.47	1400	4660	1200				
260	93	15.06	2.64	1400	4440	1200				
260	113	12.37	3.21	1400	4160	1200				
240	136	10.28	3.57	1400	3910	1200				
180	177	7.93	3.47	1400	3590	1200				
180	222	6.31	4.36	1400	3320	1200				
150	255	5.48	4.18	1400	3170	1200				
150	311	4.50	5.09	1400	2970	1200				
150	374	3.74	6.12	1400	2790	1200				
500	24.1	58.09	1.31	1400	8000	1200	GHPS04		32	
500	28.0	50.02	1.53	1400	8000	1200			GHFS04	32
500	32.0	43.75	1.75	1400	8000	1200			GHPS04	32
500	36.1	38.73	1.97	1400	8000	1200				
500	40.4	34.62	2.21	1400	7950	1200				
500	49.5	28.30	2.70	1400	7430	1200				
480	64.3	21.78	3.37	1400	6810	1200				
480	81	17.33	4.23	1400	6310	1200				
460	93	15.06	4.66	1400	6020	1200				
460	113	12.37	5.68	1400	5640	1200				
440	136	10.28	6.54	1400	5300	1200				
260	177	7.93	5.01	1400	4860	1200				
260	222	6.31	6.29	1400	4510	1200				
230	255	5.48	6.41	1400	4300	1200				
230	311	4.50	7.80	1400	4030	1200				
200	374	3.74	8.17	1400	3780	1200				

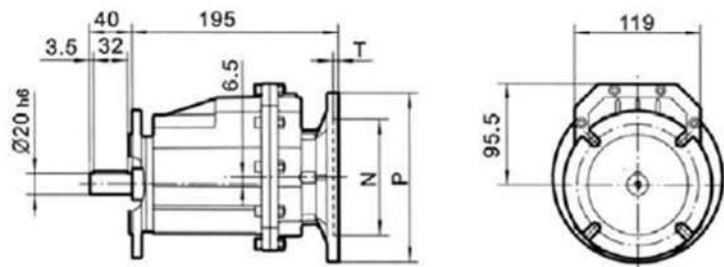
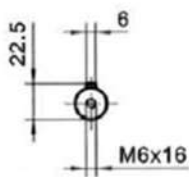
GENERAL ARRANGEMENT AND DIMENSIONS

GHP01 (IEC)



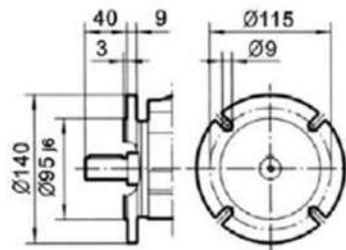
GHF01 (IEC)

OUTPUT



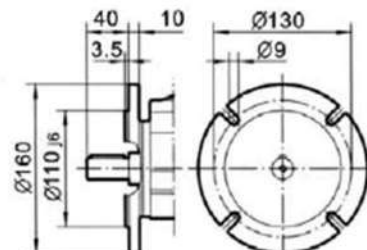
FB

Ø140

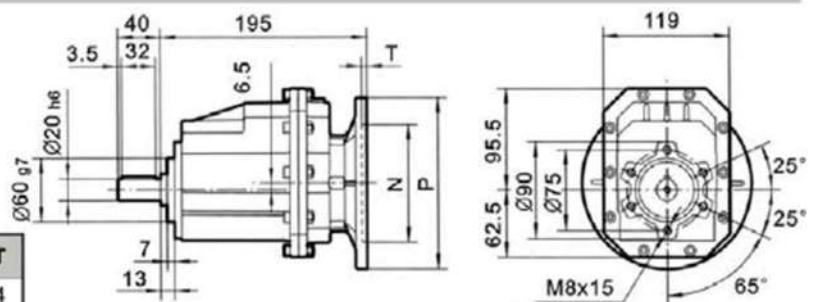


FA

Ø160



GH01 (IEC)

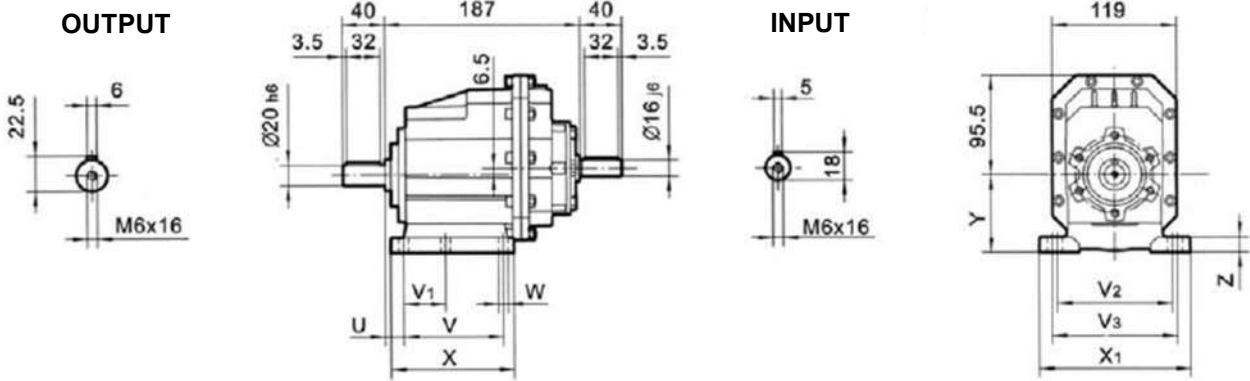


IEC	D _{E8}	F	G	P	M	N	S	T
P63B5	11	4	12.8	140	115	95	9	4
P71B5	14	5	16.3	160	130	110	9	4
P71B14	14	5	16.3	105	85	70	7	4
P80B5	19	6	21.8	200	165	130	11	4
P80B14	19	6	21.8	120	100	80	7	4
P90B5	24	8	27.3	200	165	130	11	4
P90B14	24	8	27.3	140	115	95	9	4

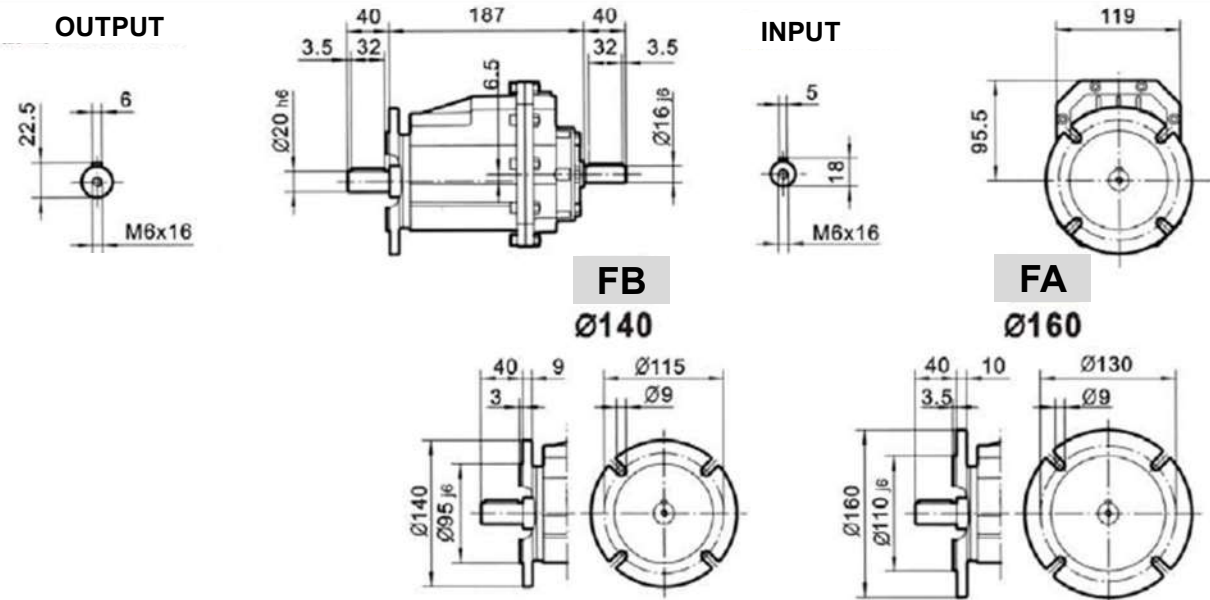
GHP01 Foot Code	u	V	V1	V2	V3	w	X	X1	y	z
B01	18	87	50	110	-	9	118	130	85	15
B02	18	107.5	60	130	-	11	136	155	95	17

GENERAL ARRANGEMENT AND DIMENSIONS...

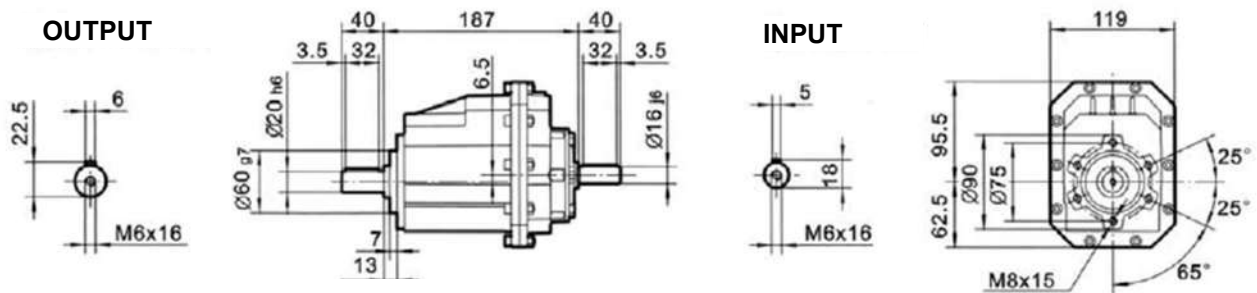
GHPS01



GHFS01



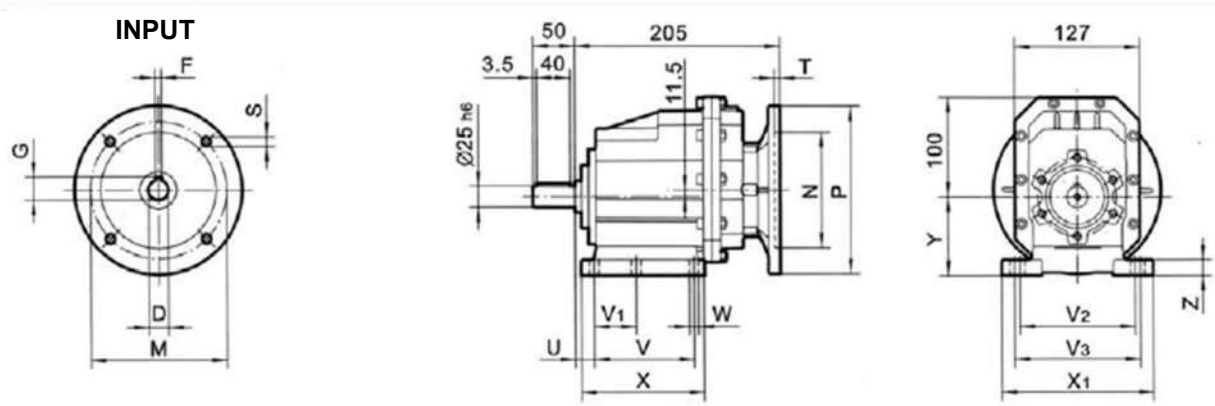
GHS01



GHP01 Foot Code	u	V	V1	V2	V3	w	X	X1	y	z
B01	18	87	50	110	-	9	118	130	85	15
B02	18	107.5	60	130	-	11	136	155	95	17

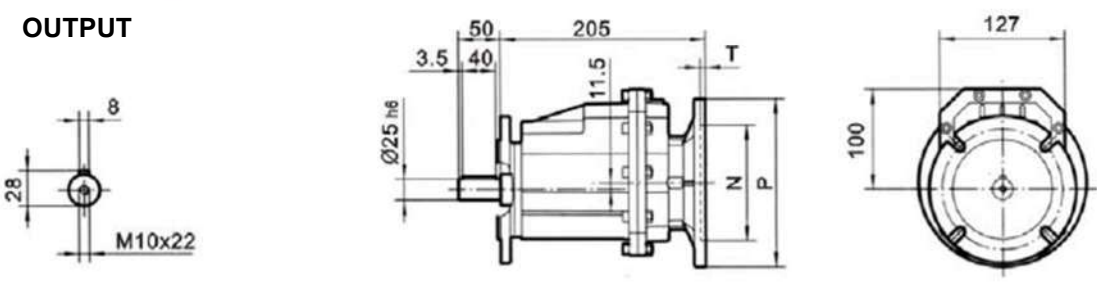
GENERAL ARRANGEMENT AND DIMENSIONS...

GHP02 (IEC)

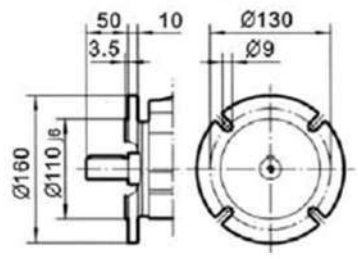


GHPS
OUT

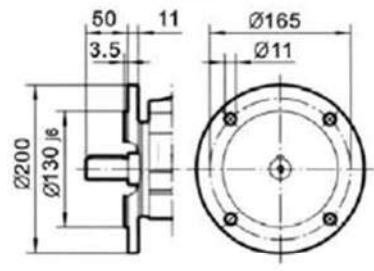
GHF02 (IEC)



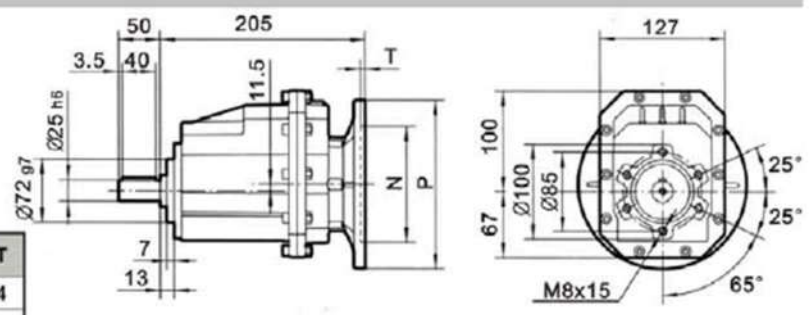
FB Ø160



FA Ø200



GH02 (IEC)



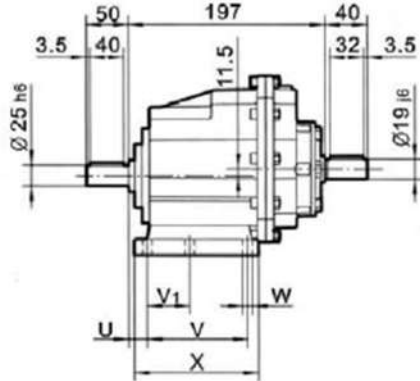
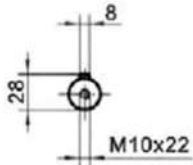
IEC	D _{E8}	F	G	P	M	N	S	T
P63B5	11	4	12.8	140	115	95	9	4
P71B5	14	5	16.3	160	130	110	9	4
P71B14	14	5	16.3	105	85	70	7	4
P80B5	19	6	21.8	200	165	130	11	4
P80B14	19	6	21.8	120	100	80	7	4
P90B5	24	8	27.3	200	165	130	11	4
P90B14	24	8	27.3	140	115	95	9	4

GHP02 Foot Code	u	v	V1	V2	V3	w	X	X1	y	z
B02	18	107.5	60	130	-	11	136	155	100	17
B01	18	87	50	110	-	9	118	130	90	15

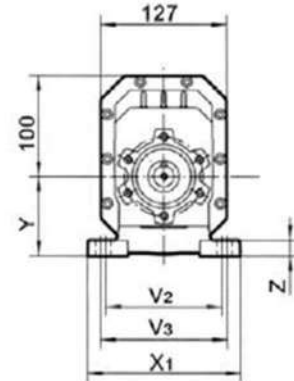
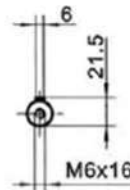
GENERAL ARRANGEMENT AND DIMENSIONS...

GHPS02

OUTPUT

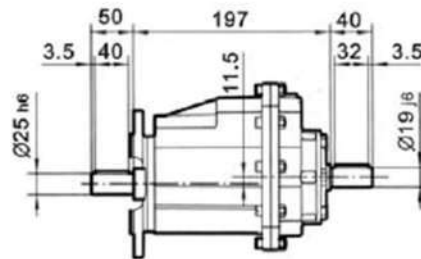
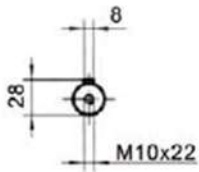


INPUT

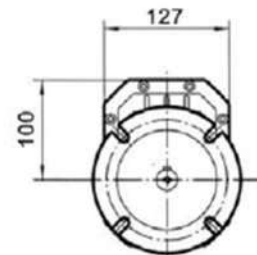
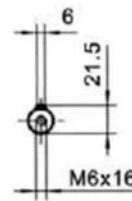


GHFS02

OUTPUT

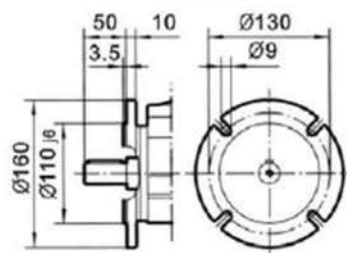


INPUT



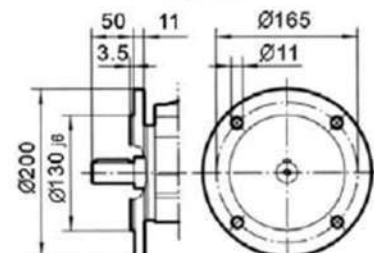
FB

Ø160



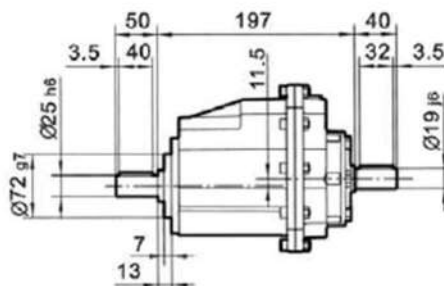
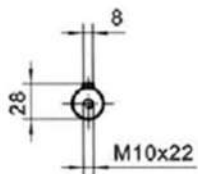
FA

Ø200

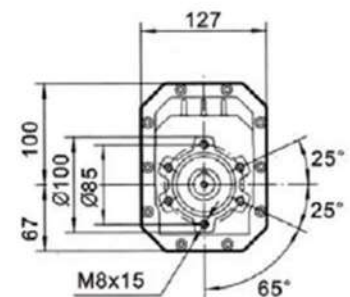
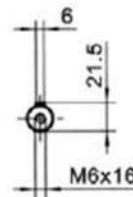


GHS02

OUTPUT



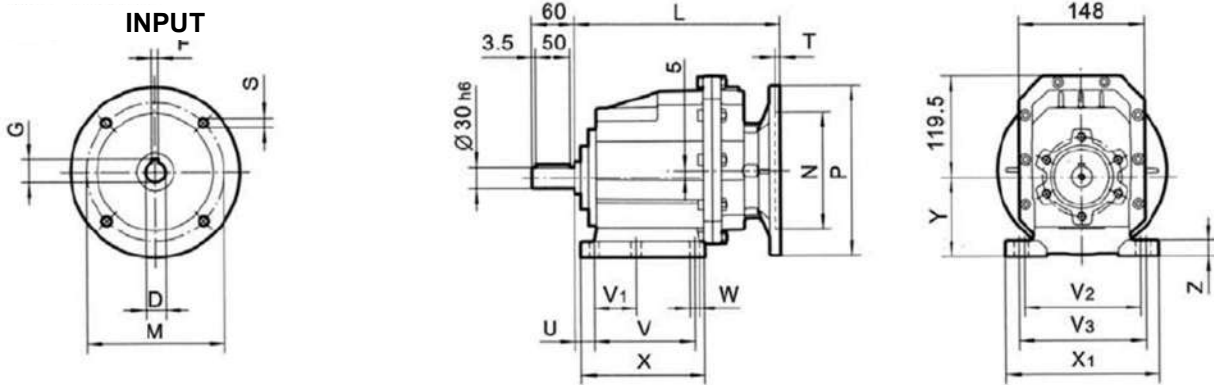
INPUT



GHP02 Foot Code	u	V	V1	V2	V3	w	X	X1	y	z
B02	18	107.5	60	130	-	11	136	155	100	17
B01	18	87	50	110	-	9	118	130	90	15

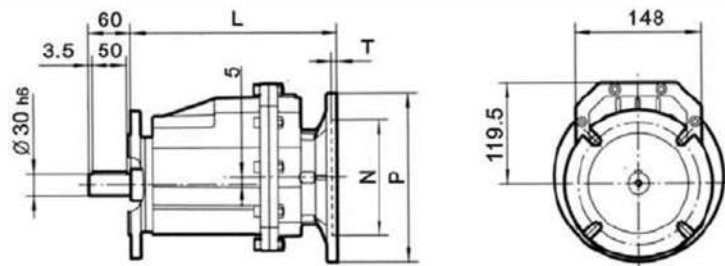
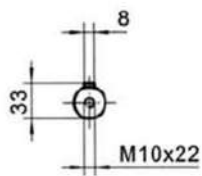
GENERAL ARRANGEMENT AND DIMENSIONS...

GHP03 (IEC)



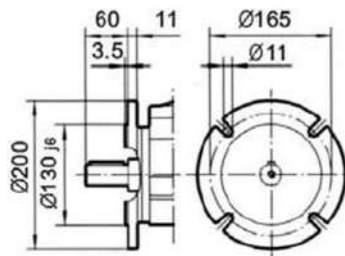
GHF03 (IEC)

OUTPUT



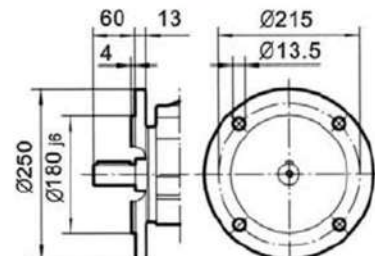
FB

Ø200

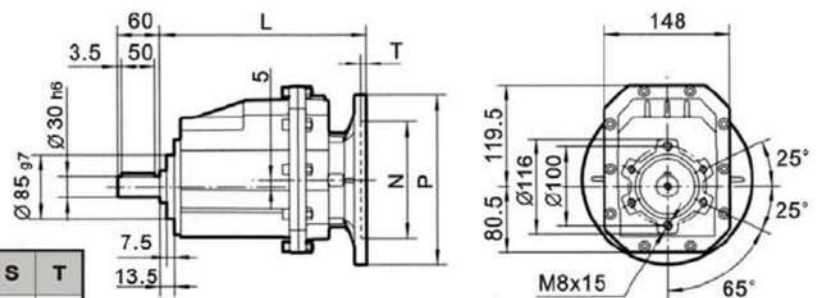


FA

Ø250



GH03 (IEC)



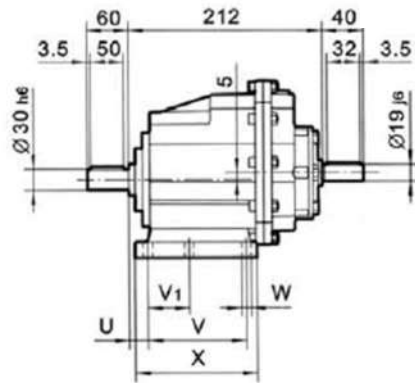
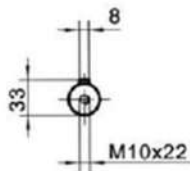
IEC	D _{E8}	F	G	P	L	M	N	S	T
P71B5	14	5	16.3	160	220	130	110	9	4
P80B5	19	6	21.8	200	220	165	130	11	4
P80B14	19	6	21.8	120	220	100	80	7	4
P90B5	24	8	27.3	200	220	165	130	11	4
P90B14	24	8	27.3	140	220	115	95	9	4
P100/112B5	28	8	31.3	250	237	215	180	13.5	4.5
P100/112B14	28	8	31.3	160	237	130	110	9	4.5

GHP03 Foot Code	u	V	V1	V2	V3	w	X	X1	y	z
B03	18	130	70	160	-	11	156	190	110	20
M04	32	110	-	170	185	14	150	230	110	20

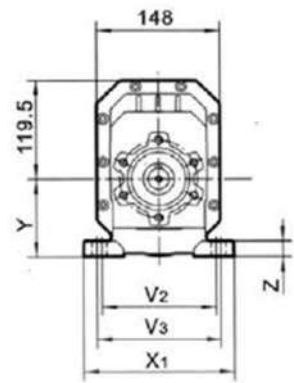
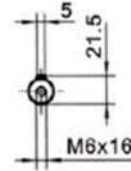
GENERAL ARRANGEMENT AND DIMENSIONS...

GHPS03

OUTPUT

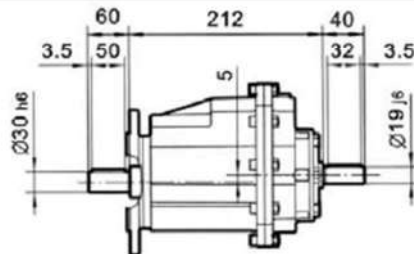
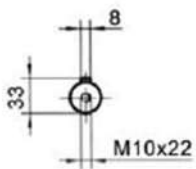


INPUT

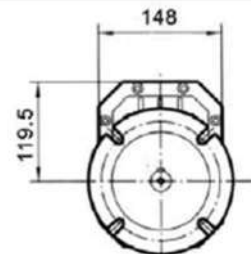
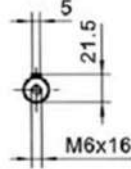


GHFS03

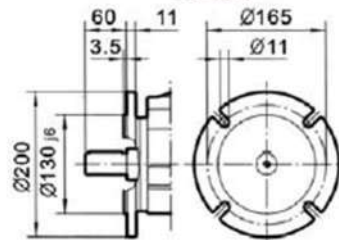
OUTPUT



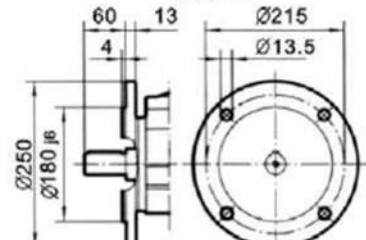
INPUT



FB Ø200

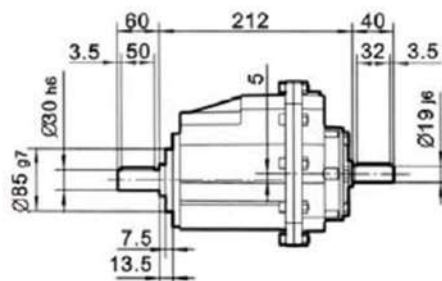
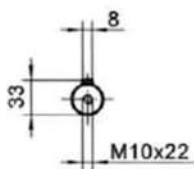


FA Ø250

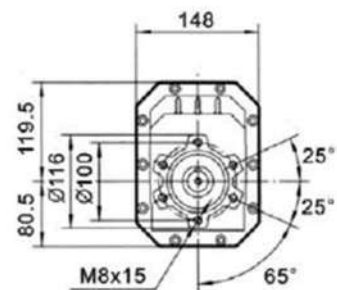
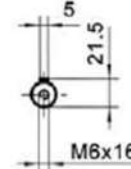


GHF03

OUTPUT



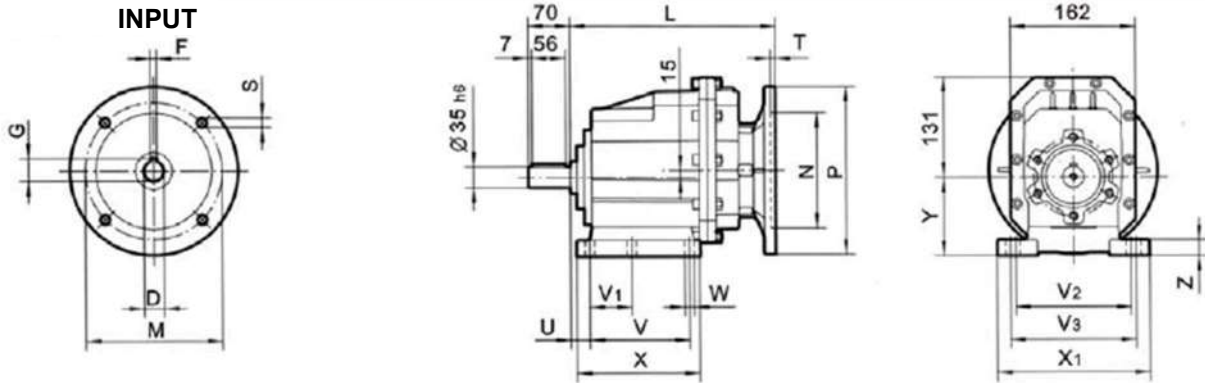
INPUT



GHP03 Foot Code	u	V	V1	V2	V3	w	X	X1	y	z
B03	18	130	70	160	-	11	156	190	110	20
M04	32	110	-	170	185	14	150	230	110	20

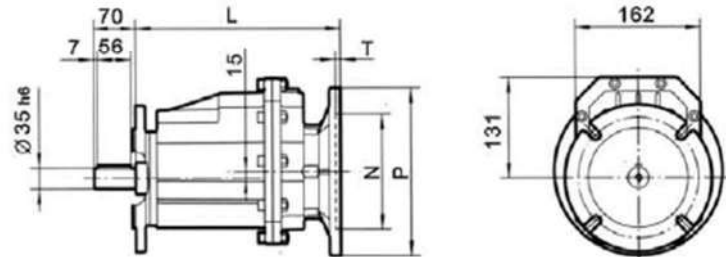
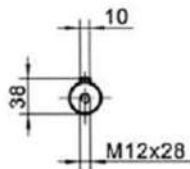
GENERAL ARRANGEMENT AND DIMENSIONS...

GHP04 (IEC)



GHF04 (IEC)

OUTPUT

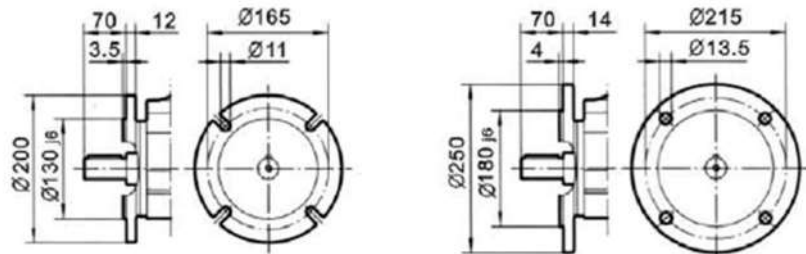


FB

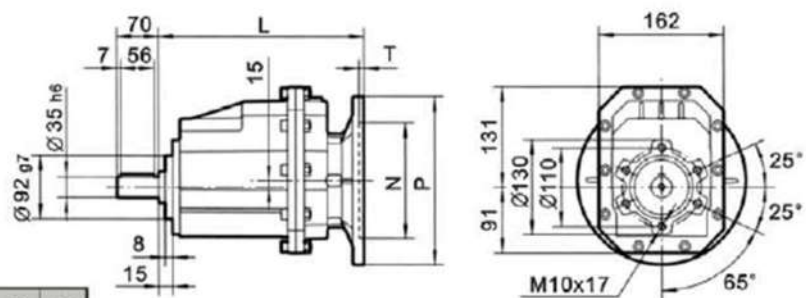
Ø200

FA

Ø250



GH04 (IEC)

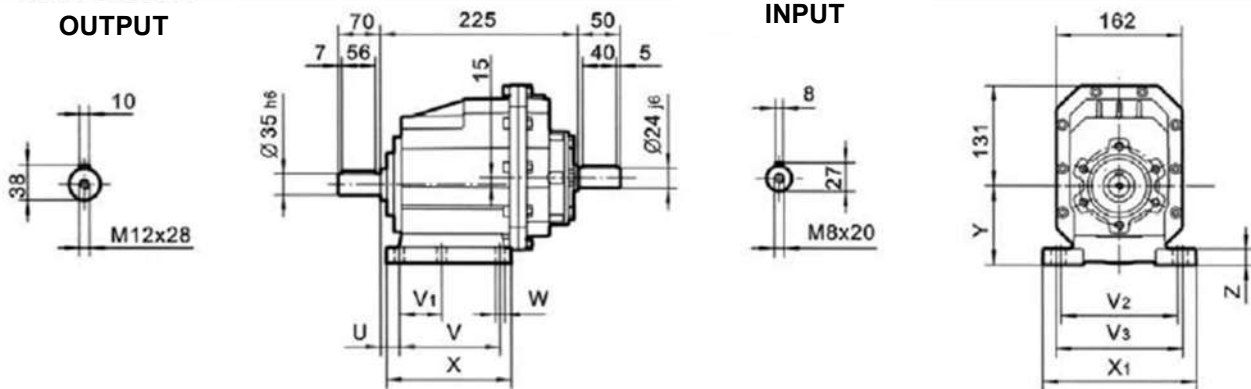


IEC	D _{E8}	F	G	P	L	M	N	S	T
P80B5	19	6	21.8	200	233	165	130	11	4
P80B14	19	6	21.8	120	233	100	80	7	4
P90B5	24	8	27.3	200	233	165	130	11	4
P90B14	24	8	27.3	140	233	115	95	9	4
P100/H12B5	28	8	31.3	250	250	215	180	13.5	4.5
P100/H12B14	28	8	31.3	160	250	130	110	9	4.5

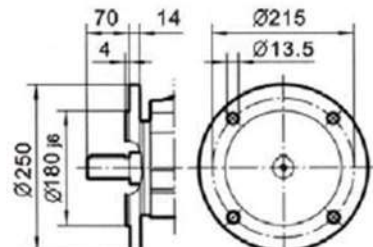
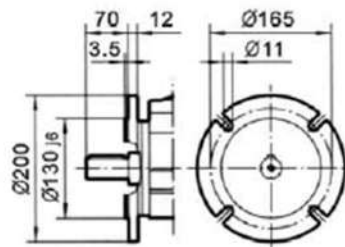
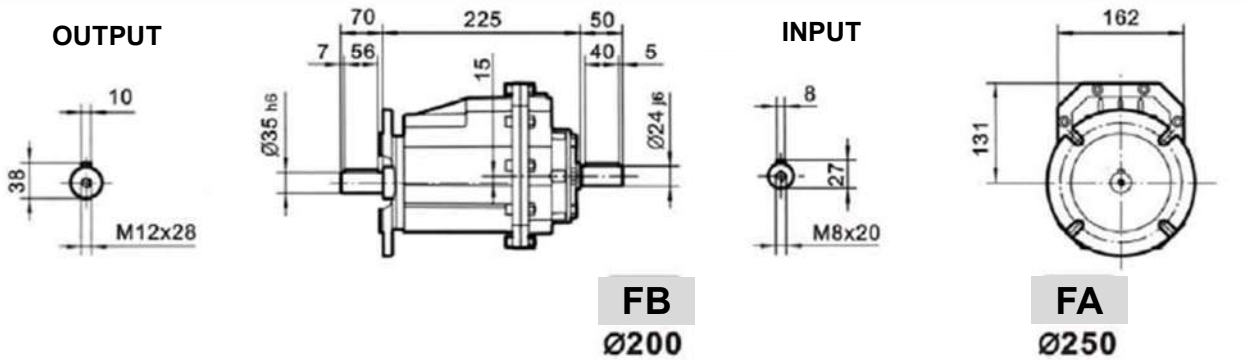
GHP04 Foot Code	u	V	V1	V2	Y3	w	X	X1	y	z
B03	21	130	70	160	-	11	156	190	120	20
B05	19.5	149.5	-	180	-	14	185	215	130	20

GENERAL ARRANGEMENT AND DIMENSIONS...

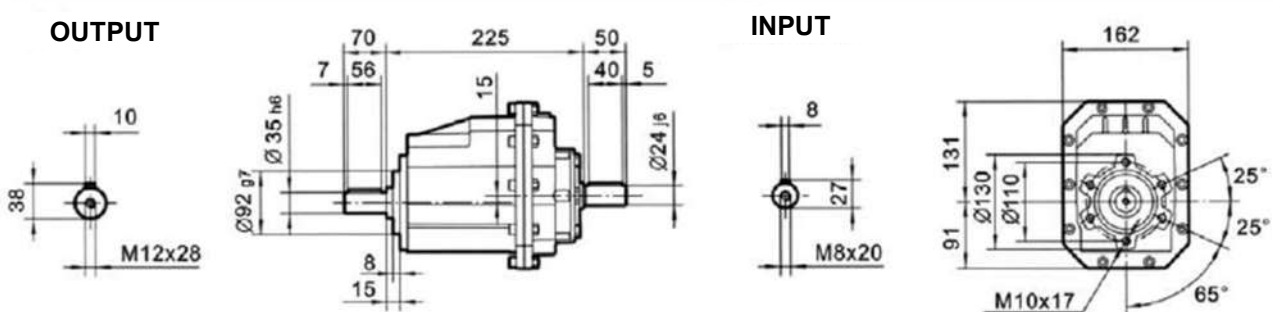
GHPS04



GHFS04

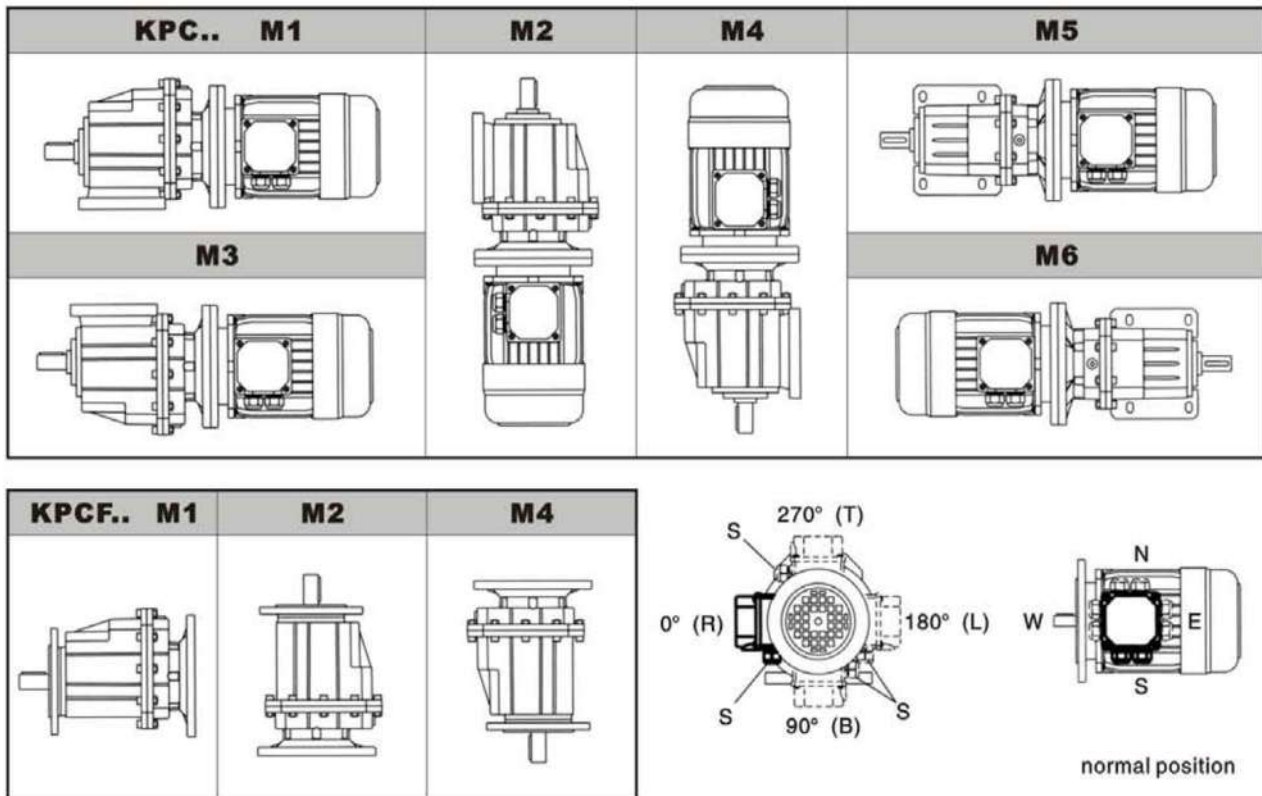


GHF04



GHP04 Foot Code	u	v	V1	V2	Y3	w	X	X1	y	z
B03	21	130	70	160	-	11	156	190	120	20
B05	19.5	149.5	-	180	-	14	185	215	130	20

MOUNTING POSITION



General information

The lubricant was filled according to the specified mounting position (M1) if there is no special requirement. So please mark the mounting position when ordering. You must adapt the oil quantity after the mounting position was changed (see Oil quantity).

LUBRICATION

TYPES OF LUBRICATING OIL

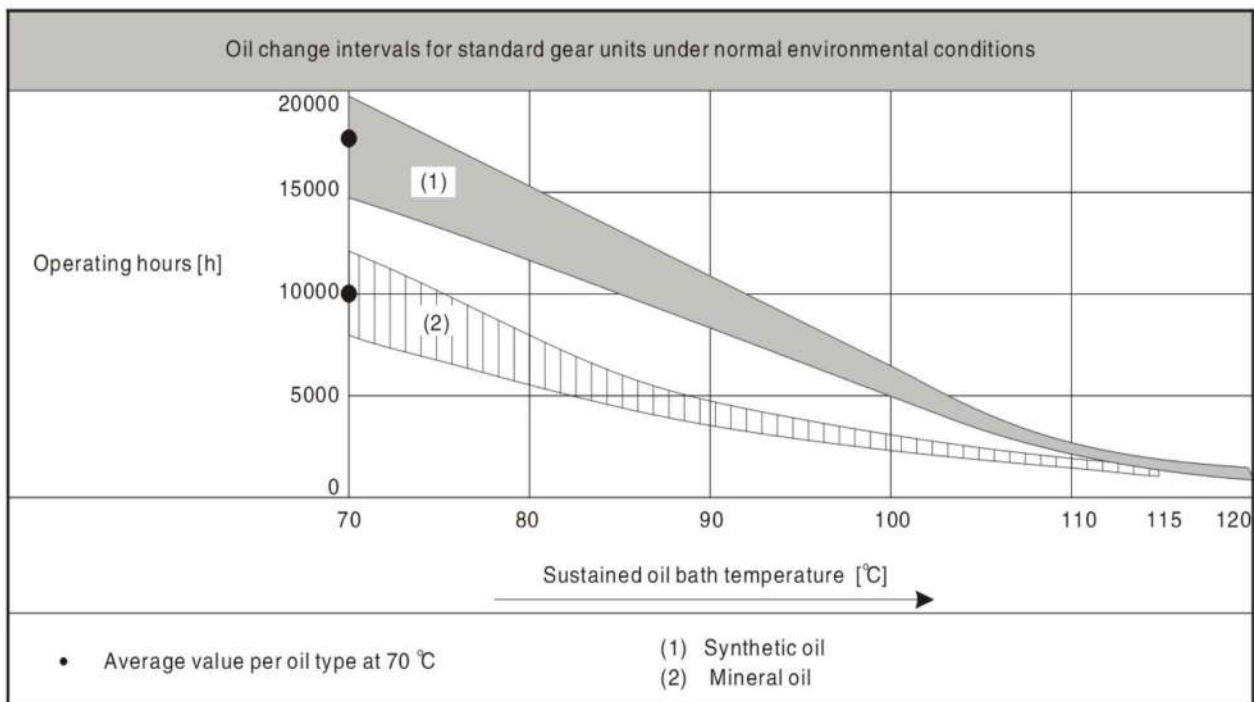
						Lubricant Type
	℃ -50 0 +50 +100	ISO	SHELL	MOBIL	BP	
GHP	标准 Standard -10 +40	VG 220	Shell Omala 220	Mobilgear 630	BP Energol GR-XP 220	Mineral oil
	-20 +25	VG 150 VG 100	shell Omala 100	Mobilgear 627	BP Energol GR-XP 100	
	-30 +10	VG 68-46 VG 32	Shell Tellus T 32	Mobil D.T.E 13M		
	-40 -20	VG 22 VG 15	Shell Tellus T 15	Mobil D.T.E 11M	BP Energol HLP-HM 15	Synthetic oil
-40 +80	VG 220	Shell Omala HD 220	Mobil SHC 630			
-40 +40	VG 150	Shell Omala HD 150	Mobil SHC 629			
	-40 +10	VG 32		Mobil SHC 624		

Gear units	Fill quantity in liters					
	M1	M2	M3	M4	MS	M6
GHP01	0.4	0.6	0.4	0.3	0.3	0.3
GHP02	0.5	0.7	0.5	0.4	0.4	0.4
GHP03	0.8	1.1	0.8	0.6	0.6	0.6
GHP04	1.2	1.6	1.0	1.0	0.9	0.9

The fill quantity in the table is referenced, the exact value relating to the ratio. All GPH Series helical gearbox are filled with life lubrication before delivery, do not need to change it in general.

OIL FILLING & WORKING AMBIENCE

'GHP' series Gaeyah Helical geared motors are supplied filled with lubricant, synthetic oil, before delivery. No need to replace lubricant for the first 20,000 hours running. However, under special working conditions like high temperature, long-time running heavy impact load, Oil should be changed every 10,000-15,000 working hours.



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

- Ambient temperature between -10°C to 45°C
- Ambient humidity below 85%RH
- The altitude below 1,000m
- No corrosive and explosive gas or liquid or dust
- Mounted in indoor.

INSTALLATION INSTRUCTIONS

Preparation before installation

- 1) Check if the data on the nameplates of the gearmotor matches the voltage supply system.
- 2) For standard gearbox, the ambient temperature must be in accordance with the corresponding lubricant table.
- 3) The drive must not be assembled in conditions such as oil, gas, vapors, acids, radiation and so on.
- 4) Output shaft and flange surfaces must thoroughly clean to ensure they are free of anti corrosion agents, contamination or similar, Use a commercially available solvent. Do not let the solvent come into contact with the sealing lip of the oil seals, or will damage the material!
- 5) The supporting structure must have the following characteristics: level, vibration damping and torsionally rigid.

The installation of the gearbox

- 1) Do not tighten the feet and mounting flanges against one another and ensure that you comply with the permitted radial load and axial load.
- 2) Never used hammer to knock belt pulley, coupling and pinion into the output shaft when the assembly is needed, otherwise the bearing, shaft and housing will be damaged.
- 3) Prior to startup, check that if the oil level is as specified for the mounting position, if the oil checking and drain screw and the breather valves are free accessible.

MALFUNCTION ANALYSIS & CORRECTION

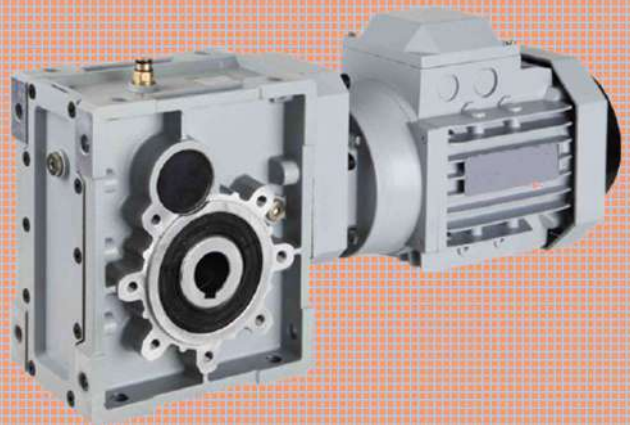
Defect reason		Analysis	Solution method
noise	knocking	gear surface damaged	contact manufacturer.replace gear set
	continual cacophony	bearing damaged	replace the damaged bearing
	periodical cacophony	particle on the gear surface	check gear surface
	neigh	lackof lubricant	fill with lubricant
	intermittent cacophony	dirty lubricant	replace the new lubricant
shake or play	fixed foundation shake	deflective mount on the surface	re-adjust fixed pedestal
	output shaft shake	bearing damaged	replace the damaged bearing
	inner gear parts shake	gear damaged	replace the damaged gear
	housing shake	defective gear assembly	re-adjustthe gear set
leakage	oil seal leakage	oil seal vulcanize	replacethe damaged oil seal
	housing leakage	housing with the sand hole	replace housing with the sand hole
	combined surface leakage	a-ring damaged	replace the damaged o-ring
	oil seal damaged	over-tighten oil seal	replace over-tighten oil seal
	over-heat housing	over-load	re-calculate load
over-heating	lack of lubricant	low lubricant	fill with lubricant
	over-heat motor	1 . The temperature of environment is too high	1.take measure to reduce the temperature
		2.Air circulation is bad.	2.clean out the wind pass- age, and check the motor if cooling fan has been damaged
		3.pressure is too high or too low.	3.adjust electricalsource pressure
the motor can't work or rotate	electrical source haven't been switched on	check if the switch is contacted well, if the fuse wise is broken or the motor down-lead is broken.	
	wrong control connection outside	correct it on the right connection	
	over loading	reduce the load	
speed of the output shaft is too low	wrong ratio	check the rotation ratio of the cooling fan and output shaft by hand	
	electrical source pressure too low	adjust electrical source pressure	
	over-load	reduce load	
Geared motor rotor output shaft does not rotate		Inner gear set damaged	please contact the manufacture to replace the gear set

GAEYAH RANGE OF PRODUCTS INCLUDE:



GWM Series Worm
Geared Motor
Upto Size 150

GPM Series Hypoid
Geared Motor
Upto Size 90



GEM Series Electric
Motor
Upto Size 5.5kW



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