BONENG

C Helical Gearmotor

Modified date 01/2023
Selection Sample C05.0009–EN

Boneng Transmission

www.motiontech.com.au

Boneng Transmission enhances reliable, accurate, efficient and intelligent operation in the industry

Controller/ Drive/ Motor/ Gearmotor/ Gearbox

Note：

- The structure scheme,appearance diagram and other attached diagrams in sample are examples,there is no strict proportion requirement.(The unmarked dimension units are mm).
- The marked weight is average value,it has no constraint force.

⚠You must conform to the following instructions:

- To prevent accidents,all the rotation parts are added with protective covers according to the safety regulations of the nation and region.
- Before debugging,you should carefully read instruction book.
- Gearbox is on running–permission status when delivered,you should add lubrication oil before putting it into running.
- The marked oil quantity in sample is only reference value,actual oil filling quantity should be the same with the mark on oil immersion lens.
- Lubrication oil viscosity should be selected according to working situation and application environment temperature of gearmotor.
- You can only apply lubrication oil of internationlly famous brand.

Contents

1 Type Designation

C 3 08 H A – C32 – D1 0 1 –

Series

Stages
2–stage/ 3–stage

Size

Mounting Mode
H=Horizontal foot–mounted
F=Flange–mounted
S=Short flange–mounted

Output Mode
A=Unidirectional output shaft

Nominal Ratio Code

Mounting Positions
D1/D2/D3/D4/D5/D6

Accessories and Specific Configuration
0=None
6=Oil compensating tank

Oil Code
0=Without oil filling(Please select this option when you do not need lubricating oil);
1=With mineral oil VG220(Please select this option when the ambient temperature is –20℃~+40℃， and you need lubricating oil);
5=With synthetic lubricating oil VG220(It is recommended to select this option when you need lubricating oil and the ambient temperature is below 0℃);

Note[1)] Motor Type/Frame Size/Poles/Power Code

Power kW	4-pole Type	Power kW	4-pole Type	Power kW	4-pole Type	Power kW	4-pole Type
0.12	MA063M4A12	1.1	MA090M4B11	11	MA160M4C11	55	MA250M4C55
0.18	MA063M4A18	1.5	MA090M4B15	15	MA160L4C15	75	MA280S4C75
0.25	MA071M4A25	2.2	MA100M4B22	18.5	MA180M4C18	90	MA280M4C90
0.37	MA071M4A37	3	MA100M4B30	22	MA180L4C22		
0.55	MA080M4A55	4	MA112L4B40	30	MA200M4C30		
0.75	MA080M4A75	5.5	MA132L4B55	37	MA225M4C37		
		7.5	MA132L4B75	45	MA225M4C45		

MA 132M 4 B55 A C 6 – A 0 B 1 0– 0 1 1

Cable Entry Position
1 / 2 / 3 / 4

Terminal Box Position
1 / 2 / 3 / 4

Motor mounting Position 0

Motor protection
0=standard configuration(IP55/F) 1=with rain cover 4=IP65/with metal joint
5=IP65/with metal joint and rain cover J=with metal joint K=with metal joint and rain cover

Thermal Protection and Heating Protection
0=Without thermal protection and heating Protection 2=Thermal switch 5=Thermistor and heating belt
1=Thermistor 3= PT100 temperature sensor 6=Thermal switch and heating belt
4=Heating belt 7= PT100 temperature sensor and heating belt

Brake
N=Without brake
A=Brake 220–240VAC
D=Brake with release handle 220–240VAC
G=Brake with self–lock device 220–240VAC
K=Brake with micro switch 220–240VAC

Encoder
0=No encoder 1=high–performance HTL encoder(1024P) 2=standard encoder accessories
3=economic HTL encoder(1024P) 4=high–performance TTL encoder(1024P)

Cooling
A=Self–fan cooling
F=Driven fan

Frequency/Voltage Code
6=60Hz 460V△ G=60Hz 230VY J=60Hz 575VY
8=60Hz 460VY H=60Hz 230V△ K=60Hz 575V△
Note: Alternative code of 3kW and below:8,G,J;
Alternative code of 4kW and above:6,H,K.。

Frame Material
L=Die–casting aluminum frame(standard configuration of 100 and below)
C=Grey cast iron frame(standard configuration of 112 and above)

Mounting Mode A

Power Code[1)]

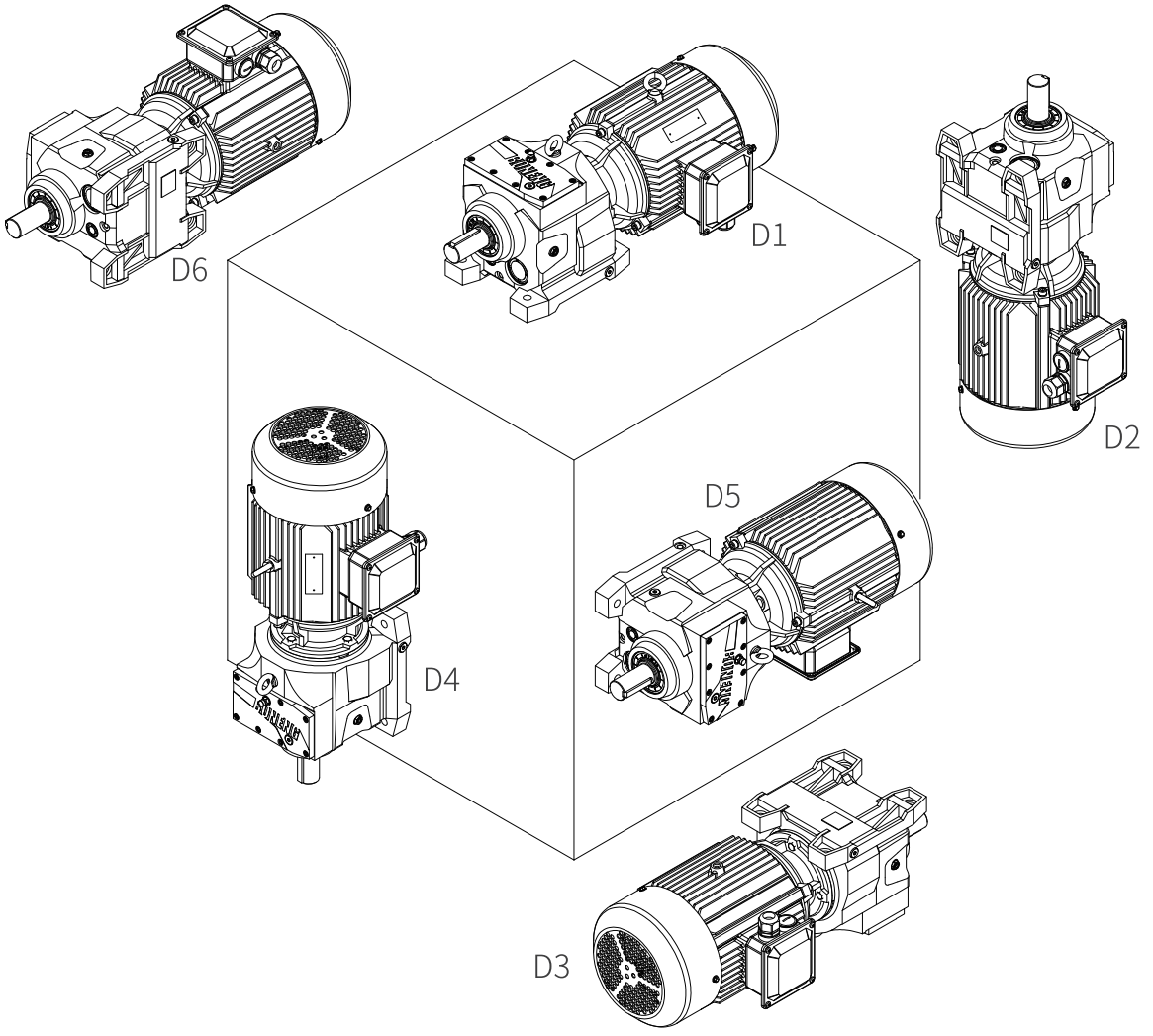
Motor Poles[1)]
4=4–pole

Frame Size[1)]

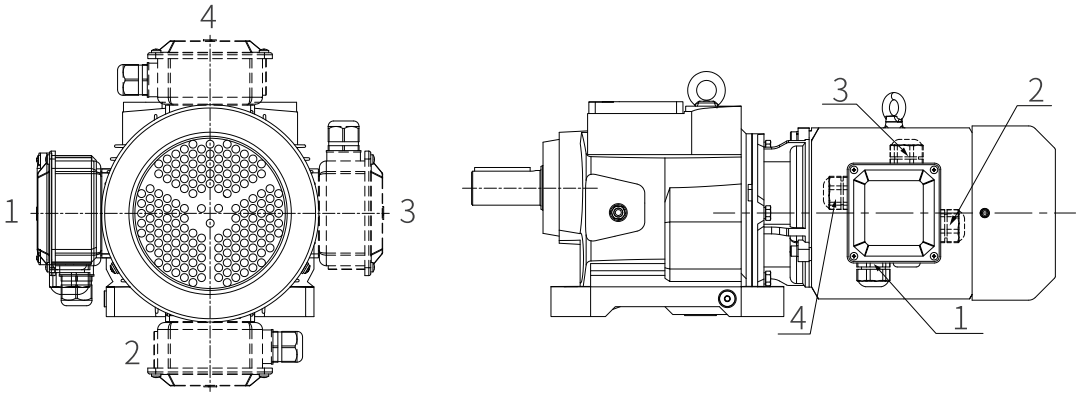
Motor Type[1)]
MA=NEMA efficiency three–phase asynchronous motor

◆**Example of product type with input flange or input shaft:** C308HA–C32–D101–AE300
◆**Example of product type with input flange and motor type:** C308HA–C32–D101–AP132–MA132M4B55FC6–A0N10–011
◆**Combi–type Designation:** C308HA/C205–D28–D100–MA080M4A75AL6–A0N00–011

2 Mounting Positions



Motor terminal box and cable entry position (View :Motor afterbody)



Assembly colour of gearmotor (**RAL5015**)

3 Type Selection and Example

<table>
<tr><th>Step</th><th>Description</th><th>Symbol</th><th colspan="4">Parameters Calculation and Guideline</th></tr>
<tr><td rowspan="5">1</td><td rowspan="5">Driven Machine Factor</td><td rowspan="5">f_1</td><td rowspan="2">Load Characteristic</td><td colspan="3">Operating hours per day (h)</td></tr>
<tr><td>≤2</td><td>2~10</td><td>10~24</td></tr>
<tr><td>Uniform</td><td>1.00(1.00)</td><td>1.00(1.25)</td><td>1.25(1.50)</td></tr>
<tr><td>Moderate</td><td>1.00(1.25)</td><td>1.25(1.50)</td><td>1.50(1.75)</td></tr>
<tr><td>Heavy</td><td>1.25(1.50)</td><td>1.50(1.75)</td><td>1.75(2.00)</td></tr>
<tr><td colspan="5">Note: Apply values in the brackets when starts per hour are 10 times or more.</td></tr>
<tr><td>2</td><td>Input Speed</td><td>n_1</td><td colspan="4">≤1800rpm Consult us if higher speed required.</td></tr>
<tr><td>3</td><td>Calculation of the Ratio</td><td>i</td><td colspan="4">$i=n_1/n_2$</td></tr>
<tr><td>4</td><td>Transmission Efficienc</td><td>η</td><td colspan="4">C2.. 2–stage： 96%　C3.. 3–stage： 94%</td></tr>
<tr><td>5</td><td>Calculation of the input power of the gearunit on basis of the torque and power required by the driven machine.</td><td>P_1</td><td colspan="4">$P_1=T_2 \cdot n_1/(9550 \cdot i \cdot \eta)$ or $P_1=P_2/\eta$</td></tr>
<tr><td>6</td><td>Determination of gearunit type referring to the table of transmission capacity after calculation,For directly–connected motor, require to refer to directly–connected motor power table.</td><td>T_{2N}、P_{1N}</td><td colspan="4">$T_{2N} \geqslant T_2 \cdot f_1$ or $P_{1N} \geqslant P_1 \cdot f_1$</td></tr>
<tr><td>7</td><td>Check the radial and axial forces on the shafts.</td><td>Fr_1/Fr_2 Fa_1/Fa_2</td><td colspan="4">See the table of Radial Force on Output Shaft (Fr2) on P15</td></tr>
<tr><td>8</td><td>Determination of Lubrication system</td><td>/</td><td colspan="4">Generally Splash Lubrication</td></tr>
<tr><td>9</td><td>Determination of Cooling Syste</td><td>/</td><td colspan="4">Generally Air Cooling</td></tr>
<tr><td>10</td><td>Determination of every item included in the Type Designation</td><td>/</td><td colspan="4">For details about Type Designation, see P01</td></tr>
<tr><td>11</td><td>Normal ambient conditions</td><td>/</td><td colspan="4">Ambient temperature –20 to 40℃, ample space, good ventilation,altitude not exceeding 1000m and common plant dust.</td></tr>
<tr><td>12</td><td>Special ambient conditions</td><td>/</td><td colspan="4">For higher or lower temperature, dusty sites,chemical reaction (acids,alkaline, etc), or open field (sunlight, ice, rain,etc), please consult us!</td></tr>
</table>

n_2： The output speed required by the driven machine.
T_2： The output torque required by the driven machine.
P_2： The output power required by the driven machine.
T_{2N}： The rated output torque of gearmotor.
P_{1N}： The rated input power of gearmotor.

Example

◆ **Known Criteria:**

1、Load characteristics by the driven machine: Moderate, working 6 hours/d and starting 5 times/h;

2、Normal motor: 4–pole 460V 60Hz, speed n_1=1740r/min;

3、The power required P_2=1.6kW, speed n_2=32.3 r/min;

4、Mounting mode: flange–mounted,mounting position D1, motor terminal box 1, cable entry position 1.

◆ **Selection steps:**

1、By referring to the table of Load Characteristic, we get the driven machine factor f_1=1.25;

2、Calculation of the Ratio i_N:
$i=n_1/n_2=1740/32.3=53.9$, nominal ratio i_N=56;

3、Calculation of the input power and determination of the motor power (transmission efficiency η =94%):
$P_1 \geqslant P_2/\eta = 1.6/0.94 = 1.7$kW, so 2.2kW motor is selected.
Refer to the directly–connected motor power table, it can be directly–connected;

4、Determination of the nominal power of the geared motor P_{1N}:
$P_{1N} \geqslant P_2 \cdot f_1/\eta = 1.6 \times 1.25/0.94 = 2.13$kW;

5、The type selected:
C307FA–C56–D100–MA100M4B22AL8–A0N00–011

4 Transmission Capacity

4.1 F Transmission capacity

C...(iN=3.15–280)

Nominal Input Speed	Nominal Output Speed	Nominal Ratio Code	Nominal Ratio	Rated Output Torque	Exact Ratio	Rated Intput Power	Rated Output Torque	Exact Ratio	Rated Intput Power	Rated Output Torque	Exact Ratio	Rated Intput Power
n_1 (r/min)	n_{2N} (r/min)	Code	i_N	T_{2N} (N.m)	iex	P_{1N} (kW)	T_{2N} (N.m)	iex	P_{1N} (kW)	T_{2N} (N.m)	iex	P_{1N} (kW)
				C200 C300			C201 C301			C203 C303		
1740	552	B32	3.15	35	3.13	2.04						
	490	B36	3.55	35	3.43	1.86	50	3.37	2.71			
	435	B40	4	35	3.93	1.62	50	3.87	2.36	130	4.04	5.9
	387	B45	4.5	40	4.68	1.56	50	4.40	2.07	140	4.56	5.6
	348	B50	5	40	4.90	1.49	50	4.78	1.91	150	5.07	5.4
	311	B56	5.6	40	5.53	1.32	60	5.76	1.90	160	5.81	5.0
	276	B63	6.3	40	6.26	1.16	60	6.44	1.70	170	6.32	4.90
	245	B71	7.1	40	6.86	1.06	60	6.84	1.60	190	7.10	4.88
	218	B80	8	50	7.86	1.16	65	7.75	1.53	190	8.02	4.32
	193	B90	9	50	9.36	0.97	70	9.15	1.39	190	8.90	3.89
	174	C10	10	50	9.80	0.93	80	10.2	1.44	200	10.2	3.57
	155	C11	11.2	55	11.1	0.91	80	11.4	1.28	200	11.2	3.25
	139	C13	12.5	55	12.2	0.82	80	12.1	1.21	200	12.6	2.88
	124	C14	14	55	14.3	0.70	90	14.4	1.14	200	13.5	2.70
	108.8	C16	16	55	15.6	0.64	90	16.5	0.99	200	15.3	2.38
	96.7	C18	18	55	17.8	0.56	90	18.8	0.87	200	17.3	2.11
	87.0	C20	20	55	20.2	0.50	90	20.4	0.80	200	19.7	1.85
	77.7	C22	22.4	55	22.2	0.45	90	22.2	0.74	200	22.2	1.64
	69.6	C25	25	50	25.0	0.36	95	24.6	0.70	200	25.2	1.45
	62.1	C28	28	50	28.6	0.32	95	27.5	0.63	200	26.9	1.36
	55.2	C32	31.5	50	31.1	0.29	95	32.3	0.54	200	30.3	1.20
	49.0	C36	35.5	50	35.4	0.26	85	35.4	0.44	200	34.5	1.06
	43.5	C40	40	50	40.6	0.22	85	38.4	0.40	200	39.1	0.93
	38.7	C45	45	50	45.9	0.20	85	46.3	0.33	200	44.2	0.82
	34.8	C50	50	50	50.5	0.18	85	51.8	0.30	200	47.6	0.77
	31.1	C56	56	50	55.8	0.16	85	55.0	0.28	200	55.7	0.65
	27.6	C63	63	50	63.5	0.14	85	60.8	0.25	200	63.2	0.58
	24.5	C71	71	50	68.7	0.13	85	71.3	0.22	200	69.6	0.52
	21.8	C80	80				85	81.0	0.19	200	76.1	0.48
	19.3	C90	90				85	87.4	0.18	200	83.2	0.44
	17.4	D10	100									
	15.5	D11	112									
	13.9	D13	125									
	12.4	D14	140									
	10.9	D16	160									
	9.7	D18	180									
	8.70	D20	200									
	7.77	D22	224									
	6.96	D25	250									
	6.21	D28	280									

Note:(1) Above the red line are two–stage transmission gearmotor models,model name C2...; Below the red line are three–stage transmission gearmotor models,model name C3...;
(2) Actual output speed of the gearmotor: Actual input speed (n_1)/Exact ration (iex);
(3) Rated input power corresponding to actual input speed of the gearmotor: $P_{1N}=T_{2N}*n_1/(9550*iex)$,the rated output torque T_{2N} in the formula remains unchanged.

Rated Output Torque T_{2N} (N.m)	Exact Ratio i	Rated Intput Power P_{1N} (kW)	Rated Output Torque T_{2N} (N.m)	Exact Ratio i	Rated Intput Power P_{1N} (kW)	Rated Output Torque T_{2N} (N.m)	Exact Ratio i	Rated Intput Power P_{1N} (kW)	Rated Output Torque T_{2N} (N.m)	Exact Ratio i	Rated Intput Power P_{1N} (kW)
C204 C304			C205 C305			C206 C306			C207 C307		
180	4.16	7.9							700	3.89	32.8
180	4.67	7.0	360	4.47	14.7	420	4.54	16.9	700	4.43	28.8
200	5.27	6.9	360	5.13	12.8	420	5.20	14.7	700	4.92	25.9
220	5.85	6.9	380	5.83	11.9	430	5.55	14.1	700	5.64	22.6
220	6.70	6.0	380	6.52	10.6	430	6.40	12.2	700	6.34	20.1
220	7.37	5.4	380	7.25	9.5	480	7.33	11.9	700	7.14	17.9
235	8.20	5.2	380	7.98	8.7	480	7.82	11.2	700	8.13	15.7
250	9.21	4.95	390	9.06	7.8	480	8.59	10.2	700	9.01	14.2
250	10.4	4.38	390	9.66	7.4	480	9.85	8.9	700	10.3	12.3
250	11.5	3.95	430	10.8	7.3	480	10.5	8.3	750	11.6	11.8
270	13.2	3.72	430	12.0	6.5	520	12.5	7.6	800	12.6	11.5
270	14.5	3.38	430	15.0	5.2	520	13.9	6.8	800	14.5	10.1
300	16.4	3.34	430	16.4	4.77	550	15.3	6.5	800	15.4	9.4
300	17.5	3.12	430	18.7	4.19	550	17.4	5.8	800	17.7	8.2
300	19.3	2.83	430	19.9	3.95	550	19.0	5.3	900	20.7	7.9
300	21.8	2.51	470	22.4	3.82	600	21.6	5.1	900	23.2	7.1
300	24.9	2.20	470	25.2	3.40	650	24.3	4.87	900	26.5	6.2
300	28.1	1.94	470	28.4	3.01	650	27.3	4.34	900	28.3	5.8
300	31.8	1.72	470	31.5	2.72	650	30.8	3.84	900	32.4	5.1
300	34.3	1.60	480	36.1	2.42	650	34.2	3.46	900	36.9	4.45
300	38.2	1.43	480	39.7	2.20	650	39.2	3.02	900	38.0	4.31
300	43.0	1.27	480	47.1	1.86	650	43.0	2.75	900	43.6	3.76
300	49.0	1.11	480	52.3	1.67	650	48.3	2.45	900	49.5	3.31
300	55.4	0.99	480	59.9	1.46	650	54.6	2.17	900	55.4	2.96
300	62.8	0.87	480	65.8	1.33	650	60.6	1.96	900	61.7	2.66
300	67.6	0.81	480	74.2	1.18	650	69.4	1.71	900	67.8	2.42
300	79.1	0.69	480	79.3	1.10	650	76.3	1.55	900	77.0	2.13
300	89.7	0.61	480	92.2	0.95	650	86.0	1.38	900	95.8	1.71
300	98.9	0.55	480	103.7	0.84	650	91.9	1.29	900	101.8	1.61
300	108.1	0.51	480	113.3	0.77	650	106.8	1.11	900	117.7	1.39
300	118.2	0.46	480	124.2	0.70	650	120.2	0.99	900	124.5	1.32
			480	135.0	0.65	650	131.2	0.90	900	140.0	1.17
						650	144.0	0.82	900	148.9	1.10
									900	168.2	0.97

C Transmission capacity

C...(iN=3.15–280)

Nominal Input Speed	Nominal Output Speed	Nominal Ratio Code	Nominal Ratio	Rated Output Torque	Exact Ratio	Rated Intput Power	Rated Output Torque	Exact Ratio	Rated Intput Power	Rated Output Torque	Exact Ratio	Rated Intput Power
n_1 (r/min)	n_{2N} (r/min)	Code	i_N	T_{2N} (N.m)	iex	P_{1N} (kW)	T_{2N} (N.m)	iex	P_{1N} (kW)	T_{2N} (N.m)	iex	P_{1N} (kW)
				C208 C308			C209 C309			C210 C310		
1740	552	B32	3.15									
	490	B36	3.55									
	435	B40	4				1900	3.99	87	3300	3.87	155
	387	B45	4.5	1300	4.50	53	1900	4.37	79	3300	4.33	139
	348	B50	5	1300	5.11	46.3	1900	5.16	67	3300	5.11	118
	311	B56	5.6	1300	5.47	43.3	1900	5.78	60	3300	5.54	109
	276	B63	6.3	1300	6.46	36.7	1900	6.18	56	3800	6.47	107
	245	B71	7.1	1300	7.27	32.6	2200	7.06	57	4100	7.17	104
	218	B80	8	1300	7.97	29.7	2200	7.85	51	4300	7.60	103
	193	B90	9	1300	9.20	25.7	2200	8.91	45.0	4300	8.64	91
	174	C10	10	1300	10.4	22.8	2200	10.1	39.5	4300	9.67	81
	155	C11	11.2	1300	11.3	20.9	2300	11.4	36.9	4300	10.7	73
	139	C13	12.5	1300	12.7	18.6	2300	12.1	34.5	4300	12.5	63
	124	C14	14	1300	13.9	17.0	2500	13.9	32.8	4400	13.8	58
	108.8	C16	16	1500	16.1	17.0	2500	15.4	29.5	4400	14.6	55
	96.7	C18	18	1500	17.2	15.9	2650	17.5	27.6	4400	16.6	48.2
	87.0	C20	20	1500	20.0	13.7	2650	19.6	24.6	4400	18.6	43.0
	77.7	C22	22.4	1500	22.1	12.4	2850	22.4	23.2	4500	20.7	39.6
	69.6	C25	25	1700	25.4	12.2	2850	23.9	21.8	4500	24.3	33.7
	62.1	C28	28	1800	28.6	11.5	3000	27.9	19.6	4500	26.6	30.8
	55.2	C32	31.5	1800	31.7	10.3	3200	32.3	18.1	4500	31.5	26.1
	49.0	C36	35.5	1800	36.4	9.0	3200	35.2	16.6	4500	35.2	23.3
	43.5	C40	40	1800	41.0	8.0	3200	39.6	14.7	4500	37.6	21.8
	38.7	C45	45	1800	44.0	7.4	3200	43.4	13.4	4500	43.1	19.0
	34.8	C50	50	1800	50.1	6.5	3200	50.1	11.6	4500	47.9	17.1
	31.1	C56	56	1800	55.6	5.9	3200	53.5	10.9	4500	54.3	15.1
	27.6	C63	63	1800	63.8	5.1	3200	63.4	9.2	4500	67.9	12.1
	24.5	C71	71	1800	71.7	4.57	3200	69.1	8.4	4500	72.5	11.3
	21.8	C80	80	1800	80.2	4.09	3200	77.8	7.5	4500	82.9	9.9
	19.3	C90	90	1800	89.3	3.67	3200	85.2	6.8	4500	92.2	8.9
	17.4	D10	100	1800	97.8	3.35	3200	98.5	5.9	4500	104.5	7.8
	15.5	D11	112	1800	106.4	3.08	3200	105.0	5.6	4500	117.2	7.0
	13.9	D13	125	1800	119.6	2.74	3200	121.3	4.81	4500	133.8	6.1
	12.4	D14	140	1800	131.0	2.50	3200	137.9	4.23	4500	142.6	5.8
	10.9	D16	160	1800	153.8	2.13	3200	153.2	3.81	4500	163.8	5.0
	9.7	D18	180	1800	170.9	1.92	3200	172.3	3.38	4500	184.3	4.45
	8.70	D20	200	1800	188.0	1.74	3200	189.6	3.08	4500	203.5	4.03
	7.77	D22	224				3200	207.1	2.81	4500	228.9	3.58
	6.96	D25	250				3200	239.9	2.43			
	6.21	D28	280				3200	264.6	2.20			

Note:(1) Above the red line are two–stage transmission gearmotor models,model name C2...; Below the red line are three–stage transmission gearmotor models,model name C3...;
(2) Actual output speed of the gearmotor: Actual input speed (n_1)/Exact ration (iex);
(3) Rated input power corresponding to actual input speed of the gearmotor: $P_{1N}=T_{2N}*n_1/(9550*iex)$,the rated output torque T_{2N} in the formula remains unchanged.

Rated Output Torque T_{2N} (N.m)	Exact Ratio iex	Rated Intput Power P_{1N} (kW)	Rated Output Torque T_{2N} (N.m)	Exact Ratio iex	Rated Intput Power P_{1N} (kW)	Rated Output Torque T_{2N} (N.m)	Exact Ratio iex	Rated Intput Power P_{1N} (kW)	Rated Output Torque T_{2N} (N.m)	Exact Ratio iex	Rated Intput Power P_{1N} (kW)
C212 C312			C213 C313			C214 C314			C216 C316		
			5000	4.07	224	10000	4.00	456			
4300	4.37	179	5000	4.74	192	10000	4.47	408	16000	4.42	659
4300	4.89	160	5300	5.26	183	10000	4.97	366	16000	4.99	584
4300	5.77	136	5300	5.87	165	10000	5.60	325	16000	5.76	506
4600	6.26	134	5600	6.48	157	10000	6.45	282	16000	6.57	443
5100	7.31	127	6000	7.03	155	10000	7.12	256	16000	7.04	414
5600	8.10	126	8000	8.08	180	13000	7.89	300	17000	7.61	407
5800	8.59	123	8000	9.15	159	13000	8.74	271	17000	8.80	352
5800	9.8	108	8000	10.5	138	13000	9.77	242	17000	10.1	306
5800	10.8	98	8000	11.7	124	13000	10.9	218	17000	11.6	268
5800	12.6	84	8000	13.0	112	13000	12.2	193	17000	12.4	250
5800	14.0	76	8000	14.1	104	13000	14.1	168	17000	13.4	232
5800	16.9	63	8000	16.2	90	13000	15.6	152	18000	15.5	212
5800	18.9	56	8000	18.3	80	13000	17.3	137	18000	17.3	190
5800	19.1	55	8000	20.4	71	13000	19.2	123	18000	19.5	168
5800	20.9	51	8000	22.6	65	13000	21.8	109	18000	21.5	152
6000	24.7	44.3	8000	25.1	58	13000	24.2	98	18000	24.2	135
6300	27.7	41.5	8000	29.4	49.7	13000	29.5	80	18000	27.2	120
6300	30.1	38.2	8200	32.5	45.9	14000	32.7	78	18000	30.3	108
6300	35.5	32.3	8200	35.1	42.5	14000	36.5	70	18000	34.2	96
6300	39.8	28.8	8200	39.3	38.0	14000	40.3	63	18000	39.4	83
6300	42.5	27.0	8200	46.4	32.2	14000	43.7	58	18000	43.4	76
6300	48.6	23.6	8200	50.3	29.7	14000	50.3	51	18000	48.1	68
6300	54.1	21.2	8200	58.7	25.4	14000	55.3	46.1	18000	53.5	61
6300	61.3	18.7	8200	65.1	23.0	14000	64.5	39.6	18000	60.8	54
6300	73.5	15.6	8000	69.0	21.1	14000	71.6	35.6	18000	69.2	47.4
6300	84.0	13.7	8000	78.5	18.6	14000	79.8	32.0	18000	76.3	43.0
6300	93.4	12.3	8000	87.8	16.6	13500	88.1	27.9	18000	84.5	38.8
6300	105.9	10.8	8000	97.5	15.0	13500	95.6	25.7	18000	94.1	34.9
6300	118.7	9.7	8200	114.1	13.1	13500	109.9	22.4	18000	106.7	30.7
6300	135.5	8.5	8200	122.7	12.2	13500	124.5	19.8	18000	118.6	27.7
6300	144.4	7.9	8200	137.9	10.8	13500	138.6	17.7	18000	134.7	24.4
6300	166.0	6.9	8200	158.7	9.4	13500	153.4	16.0	18000	154.6	21.2
6300	186.7	6.1	8200	176.6	8.5	13500	179.1	13.7	18000	174.8	18.8
6300	206.3	5.6	8200	207.7	7.2	13500	190.0	12.9	18000	191.9	17.1
6300	231.9	4.95	8200	225.4	6.6	14000	215.5	11.8	18000	212.0	16.0
6300	252.4	4.55				14000	245.9	10.7			
6300	274.2	4.19									

4.2 C.../C... Combi-type transmission capacity

C.../C... (iN=100-18000)

Nominal Input Speed	Nominal Output Speed	Nominal Ratio Code	Nominal Ratio	Rated Output Torque	Exact Ratio	Rated Intput Power	Rated Output Torque	Exact Ratio	Rated Intput Power
n_{1N} (r/min)	n_{2N} (r/min)	Code	i_N	T_{2N} (N • m)	iex	P_{1N} (kW)	T_{2N} (N • m)	iex	P_{1N} (kW)
				C203/C201			C204/C203		
	17.40	D10	100	200	97.7	0.37	270	105.9	0.46
	15.54	D11	112	200	115.3	0.32	270	117.5	0.42
	13.92	D13	125	200	128.5	0.28	270	134.6	0.37
	12.43	D14	140	200	143.6	0.25	270	147.8	0.33
	10.88	D16	160	200	152.5	0.24	270	166.3	0.30
				C203/C301					
	9.67	D18	180	200	181.4	0.20	270	178.2	0.28
							C204/C303		
	8.70	D20	200	200	207.9	0.18	270	202.0	0.24
	7.77	D22	224	200	236.9	0.15	270	228.4	0.22
				C303/C201			C304/C203		
	6.96	D25	250	200	236.0	0.15	300	243.5	0.22
	6.21	D28	280	200	267.4	0.14	300	275.1	0.20
	5.52	D32	315	200	315.7		300	305.3	0.18
	4.90	D36	355	200	351.9		300	349.9	0.16
	4.35	D40	400	200	393.3		300	384.2	0.14
	3.87	D45	450	200	417.5		300	432.2	0.13
				C303/C301					
	3.48	D50	500	200	496.8		300	463.1	
							C304/C303		
	3.11	D56	560	200	569.3		300	524.8	
	2.76	D63	630	200	648.6		300	593.4	
	2.45	D71	710	200	703.8		300	675.7	
	2.18	D80	800	200	765.9		300	761.5	
	1.93	D90	900	200	848.7		300	864.4	
1740	1.74	E10	1000	200	948.8		300	922.7	
	1.55	E11	1120	200	1114		300	1039	
	1.39	E13	1250	200	1221		300	1183	
	1.24	E14	1400	200	1325		300	1341	
	1.09	E16	1600	200	1597		300	1516	
	0.97	E18	1800	200	1787		300	1633	
	0.87	E20	2000	200	1898		300	1911	
	0.78	E22	2240	200	3843		300	2168	
	0.70	E25	2500	200	2427		300	2455	
	0.62	E28	2800	200	2926		300	2776	
	0.55	E32	3150	200	3274		300	2989	
	0.49	E36	3550	200	3476		300	3498	
	0.44	E40	4000	200	3843		300	3969	
	0.39	E45	4500	200	4506		300	4371	
	0.35	E50	5000	200	5119		300	4779	
	0.31	E56	5600	200	5524		300	5225	
	0.28	E63	6300				300	6243	
	0.25	E71	7100				300	6826	
	0.22	E80	8000				300	7463	
	0.19	E90	9000						
	0.17	F10	10000						
	0.16	F11	11200						
	0.14	F13	12500						
	0.12	F14	14000						
	0.11	F16	16000						
	0.10	F18	18000						

Rated Output Torque	Exact Ratio	Rated Intput Power	Rated Output Torque	Exact Ratio	Rated Intput Power	Rated Output Torque	Exact Ratio	Rated Intput Power
T_{2N} (N • m)	iex	P_{1N} (kW)	T_{2N} (N • m)	iex	P_{1N} (kW)	T_{2N} (N • m)	iex	P_{1N} (kW)
C205/C203			C206/C203			C307/C203		
430	96.2	0.81	520	100.3	0.95	800	101.1	1.44
430	106.8	0.73	520	111.3	0.85	800	112.1	1.30
430	122.4	0.64	520	127.5	0.74	800	128.5	1.13
430	134.4	0.58	520	140.0	0.68	800	141.1	1.03
430	151.2	0.52	520	157.5	0.60	800	158.8	0.92
430	162.0	0.48	520	168.8	0.56	800	170.1	0.86
C205/C303			C206/C303			C307/C303		
430	183.6	0.43	520	191.3	0.50	800	192.8	0.76
430	207.6	0.38	520	216.3	0.44	800	218.0	0.67
C305/C203			C306/C203			C307/C203		
480	256.3	0.34	650	242.8	0.49	900	262.0	0.63
480	289.5	0.30	650	274.3	0.43	900	295.9	0.55
480	321.3	0.27	650	304.4	0.39	900	328.4	0.50
480	368.2	0.24	650	348.8	0.34	900	376.4	0.44
480	404.3	0.22	650	383.0	0.31	900	413.3	0.40
480	454.9	0.19	650	430.9	0.27	900	464.9	0.35
480	487.4	0.18	650	461.7	0.26	900	498.2	0.33
C305/C303			C306/C303			C307/C303		
480	552.3	0.16	650	523.3	0.23	900	564.6	0.29
480	624.5	0.14	650	591.7	0.20	900	638.4	0.26
480	711.2	0.12	650	673.7	0.18	900	726.9	0.23
480	801.4		650	759.2	0.16	900	819.2	0.20
480	909.7		650	861.8	0.14	900	929.9	0.18
480	971.1		650	920.0		900	992.6	0.17
480	1094		650	1036		900	1118	0.15
480	1245		650	1180		900	1273	0.13
480	1412		650	1337		900	1443	
480	1596		650	1512		900	1631	
480	1718		650	1628		900	1756	
480	2011		650	1905		900	2055	
480	2282		650	2161		900	2332	
480	2573		570	2369		900	2412	
480	2908		570	2679		900	2727	
480	3132		570	2885		900	2937	
480	3665		570	3375		900	3437	
480	4159		570	3830		900	3899	
480	4580		570	4218		900	4294	
480	5007		570	4612		900	4695	
480	5475		570	5042		900	5133	
480	6417		570	5979		900	6668	
480	7016		570	6537		800	7290	
480	7671		570	7147		800	7971	

C.../C... Combi–type transmission capacity

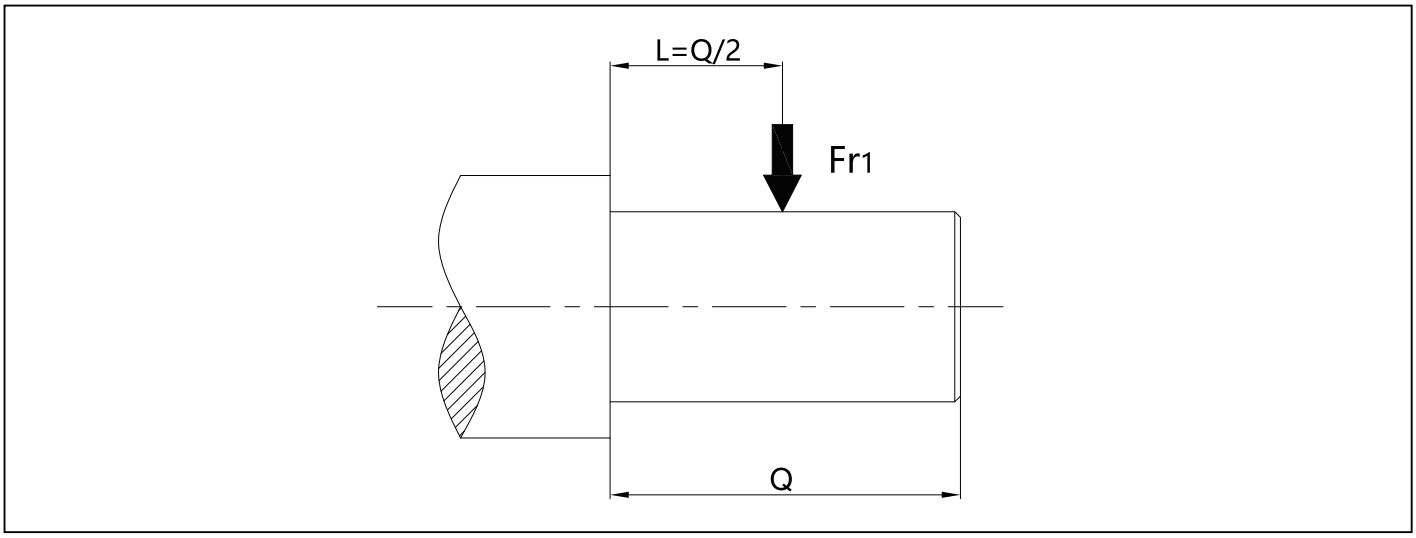
C.../C... (iN=100–18000)

Nominal Input Speed	Nominal Output Speed	Nominal Ratio Code	Nominal Ratio	Rated Output Torque	Exact Ratio	Rated Intput Power	Rated Output Torque	Exact Ratio	Rated Intput Power	Rated Output Torque	Exact Ratio	Rated Intput Power
n_{1N} (r/min)	n_{2N} (r/min)	Code	i_N	T_{2N} (N • m)	iex	P_{1N} (kW)	T_{2N} (N • m)	iex	P_{1N} (kW)	T_{2N} (N • m)	iex	P_{1N} (kW)
				C208/C205			C209/C205			C210/C207		
	17.40	D10	100	1300	101.3	2.34	2300	96.6	4.34	4300	101.6	7.71
	15.54	D11	112	1300	115.1	2.06	2300	109.6	3.82	4300	112.6	6.96
	13.92	D13	125	1300	122.7	1.93	2300	116.9	3.59	4300	128.8	6.09
	12.43	D14	140	1300	137.2	1.73	2300	130.7	3.21	4300	145.0	5.40
										C210/C307		
	10.88	D16	160	1300	152.4	1.55	2300	145.2	2.89	4300	157.5	4.97
	9.67	D18	180	1300	190.5	1.24	2300	181.5	2.31	4300	181.3	4.32
	8.70	D20	200	1300	208.3	1.14	2300	198.4	2.11	4300	192.5	4.07
	7.77	D22	224	1300	237.5	1.00	2300	226.3	1.85	4300	221.3	3.54
				C308/C205			C309/C205			C310/C207		
	6.96	D25	250	1800	263.9	1.24	3200	255.2	2.28	4500	251.3	3.26
	6.21	D28	280	1800	290.5	1.13	3200	280.9	2.08	4500	286.2	2.87
	5.52	D32	315	1800	329.8	0.99	3200	318.9	1.83	4500	317.2	2.59
	4.90	D36	355	1800	351.6	0.93	3200	340.0	1.71	4500	362.6	2.26
	4.35	D40	400	1800	393.1	0.83	3200	380.2	1.53	4500	408.3	2.01
										C310/C307		
	3.87	D45	450	1800	436.8	0.75	3200	422.4	1.38	4500	443.5	1.85
	3.48	D50	500	1800	546.0	0.60	3200	528.0	1.10	4500	510.4	1.61
	3.11	D56	560	1800	597.0	0.55	3200	577.3	1.01	4500	542.1	1.51
	2.76	D63	630	1800	680.7	0.48	3200	658.2	0.89	4500	623.0	1.32
	2.45	D71	710	1800	724.4	0.45	3200	700.5	0.83	4500	728.6	1.13
				C308/C305			C309/C305					
	2.18	D80	800	1800	815.4	0.40	3200	788.5	0.74	4500	816.6	1.00
	1.93	D90	900	1800	917.3	0.36	3200	887.0	0.66	4500	932.8	0.88
1740	1.74	E10	1000	1800	1034	0.32	3200	1000	0.58	4500	996.2	0.82
	1.55	E11	1120	1800	1147	0.29	3200	1109	0.53	4500	1140	0.72
	1.39	E13	1250	1800	1314	0.25	3200	1271	0.46	4500	1299	0.63
	1.24	E14	1400	1800	1445	0.23	3200	1397	0.42	4500	1338	0.61
	1.09	E16	1600	1800	1714	0.19	3200	1658	0.35	4500	1535	0.53
	0.97	E18	1800	1800	1904	0.17	3200	1841	0.32	4500	1742	0.47
	0.87	E20	2000	1800	2180	0.15	3200	2108	0.28	4500	1950	0.42
	0.78	E22	2240	1800	2395	0.14	3200	2316	0.25	4500	2172	0.38
	0.70	E25	2500	1800	2533		3200	2517	0.23	4500	2580	0.32
	0.62	E28	2800	1800	3005		3200	2986	0.20	4500	2960	0.28
	0.55	E32	3150	1800	3337		3200	3316	0.18	4500	3361	0.24
	0.49	E36	3550	1800	3822		3200	3798	0.15	4500	3762	0.22
	0.44	E40	4000	1800	4198		3200	4172	0.14	4500	4189	0.20
	0.39	E45	4500	1800	4734		3200	4704	0.12	4500	4604	0.18
	0.35	E50	5000	1800	5059		3200	5028		4500	5228	0.16
	0.31	E56	5600	1800	5882		3200	5845		4500	6505	0.13
	0.28	E63	6300	1800	6626		3200	6322		4500	*6912	
	0.25	E71	7100	1500	7081		2800	6756		4500	7099	
	0.22	E80	8000	1500	8233		2800	7855		4500	8833	
	0.19	E90	9000	1500	9260		2800	8835		4500	9386	
	0.17	F10	10000	1500	10118		2800	9653		4500	10852	
	0.16	F11	11200	1500	11091		2800	10582		4500	11479	
	0.14	F13	12500	1500	12056		2800	11502		4500	12908	
	0.12	F14	14000							4500	13729	
	0.11	F16	16000							4500	15508	
	0.10	F18	18000									

Rated Output Torque	Exact Ratio	Rated Intput Power	Rated Output Torque	Exact Ratio	Rated Intput Power	Rated Output Torque	Exact Ratio	Rated Intput Power
T_{2N} (N • m)	iex	P_{1N} (kW)	T_{2N} (N • m)	iex	P_{1N} (kW)	T_{2N} (N • m)	iex	P_{1N} (kW)
C213/C207			C214/C208			C216/C210		
7300	105.7	12.58	14000	97.2	26.2	16000	94.2	30.9
7300	117.1	11.36	14000	112.2	22.7	16000	107.1	27.2
7300	133.9	9.93	14000	126.9	20.1	16000	119.9	24.3
7300	150.8	8.82	14000	137.9	18.5	16000	132.7	22.0
C213/C307								
7300	163.8	8.12	14000	154.9	16.5	16000	155.0	18.8
7300	188.5	7.06	14000	169.6	15.0	16000	171.1	17.0
7300	200.2	6.64	14000	196.4	13.0	16000	181.0	16.1
7300	230.1	5.78	14000	209.8	12.2	16000	205.8	14.2
C313/C207			C314/C207			C316/C209		
8200	250.6	5.96	14000	260.6	9.8	18000	241.5	13.6
8200	285.4	5.24	14000	296.7	8.6	18000	268.5	12.2
8200	316.3	4.72	14000	328.9	7.8	18000	304.7	10.8
8200	361.5	4.13	14000	376.0	6.8	18000	345.4	9.5
8200	407.2	3.67	14000	423.4	6.02	18000	389.9	8.4
C313/C307			C314/C307					
8200	442.3	3.38	14000	459.9	5.55	18000	413.8	7.9
8200	509.0	2.94	14000	529.3	4.82	18000	475.4	6.9
8200	540.5	2.76	14000	562.1	4.54	18000	526.7	6.2
8200	621.3	2.40	14000	646.1	3.95	18000	598.5	5.48
8200	726.6	2.06	14000	755.6	3.38	18000	670.3	4.89
8200	814.3	1.83	14000	846.8	3.01	18000	766.1	4.28
8200	930.2	1.61	14000	967.3	2.64	18000	817.4	4.01
						C316/C309		
8200	993.3	1.50	14000	1033	2.47	18000	954.2	3.44
8200	1137	1.31	14000	1183	2.16	18000	1105	2.97
8200	1295	1.15	14000	1347	1.89	18000	1204	2.72
8200	1334	1.12	14000	1387	1.84	18000	1354	2.42
8200	1530	0.98	14000	1591	1.60	18000	1484	2.21
8200	1737	0.86	14000	1807	1.41	18000	1713	1.91
8200	1945	0.77	14000	2022	1.26	18000	1830	1.79
8200	2166	0.69	14000	2252	1.13	18000	2168	1.51
8200	2474	0.60	14000	2451	1.04	18000	2408	1.36
8200	2838	0.53	14000	2812	0.91	18000	2639	1.24
8200	3222	0.46	14000	3193	0.80	18000	3046	1.08
8200	3607	0.41	14000	3573	0.71	18000	3253	1.01
8200	4017	0.37	14000	3980	0.64	18000	3855	0.85
8200	4414	0.34	14000	4373	0.58	18000	4201	0.78
8200	5013	0.30	14000	4967	0.51	18000	4730	0.69
8200	6237	0.24	14000	6179	0.41	18000	5180	0.63
8200	*6627	0.23	14000	*6566	0.39	18000	5839	0.56
8000	6761	0.22	13500	6784	0.36	17000	6574	0.47
8000	8411	0.17	13500	8440	0.29	17000	7199	0.43
8000	8938	0.16	13500	8969	0.27	17000	8323	0.37
8000	10334	0.14	13500	10369	0.24	17000	8873	0.35
8000	10931	0.13	13500	10968	0.22	17000	10250	0.30
8000	12292		13500	12334	0.20	17000	11653	0.27
8000	13073		13500	13118	0.19	17000	12945	0.24
8000	14768		13500	14818	0.17	17000	14559	0.21
						17000	16021	0.19

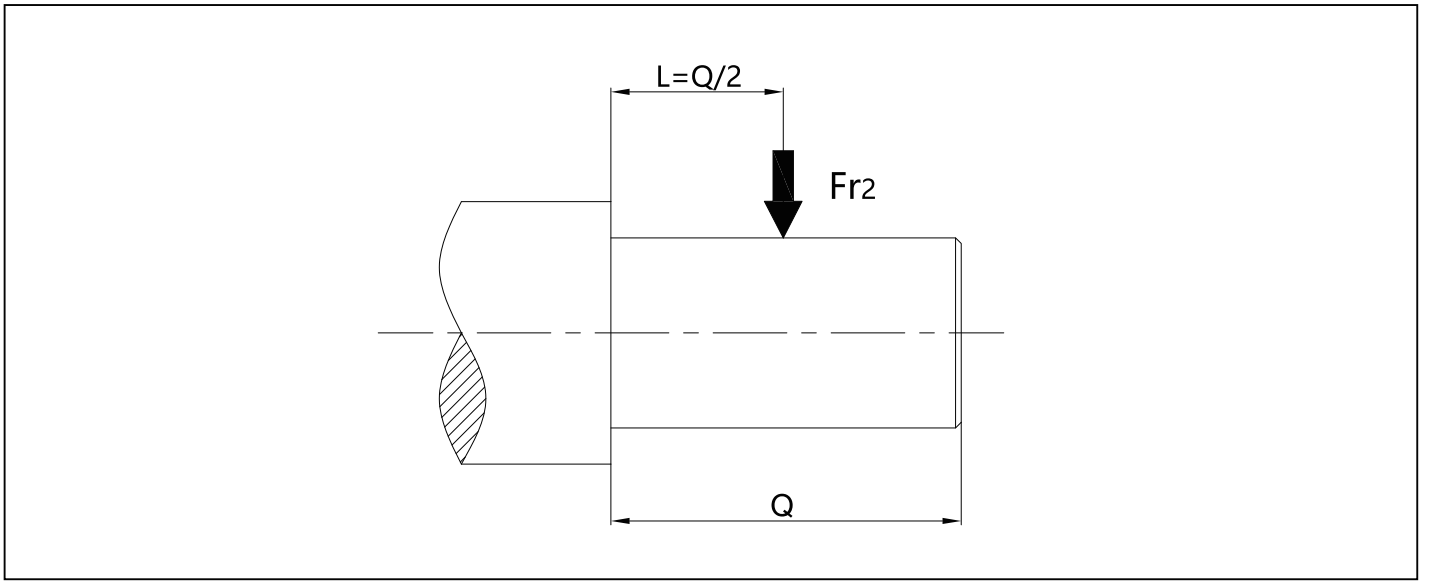
5 Permissble Radial Force

5.1 Radial force on input shaft (Fr1) (N)



	Fr1 (N)													
	C200 C300	C201 C301	C203 C303	C204 C304	C205 C305	C206 C306	C207 C307	C208 C308	C209 C309	C210 C310	C212 C312	C213 C313	C214 C314	C216 C316
AE2	/	/	803	803	803	803	803	803	/	/	/	/	/	/
AE3	/	/	/	1504	1504	1504	1504	1504	1504	1504	1504	/	/	/
AE4	/	/	/	/	/	/	2188	2188	2188	2188	2188	2188	2188	2188
AE5	/	/	/	/	/	/	/	4207	4207	4207	4207	4207	4207	4207
AE6	/	/	/	/	/	/	/	/	5664	5664	5664	5664	5664	5664
AE7	/	/	/	/	/	/	/	/	/	/	/	9957	9957	9957
AE8	/	/	/	/	/	/	/	/	/	/	/	12546	12546	12546

5.2 Radial force on output shaft (Fr2) (N)

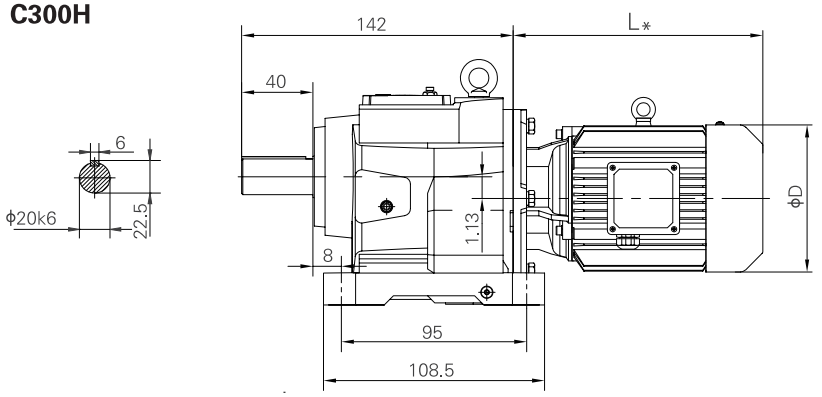


n_{2N} (r/min)	Fr2 (N)													
	C200 C300	C201 C301	C203 C303	C204 C304	C205 C305	C206 C306	C207 C307	C208 C308	C209 C309	C210 C310	C212 C312	C213 C313	C214 C314	C216 C316
355~500	210	350	/	/	/	/	/	/	/	/	/	/	/	/
250~355	246	410	684	2052	3102	4689	6096	8082	8865	10170	17770	31050	44370	/
224~250	256	427	711	2223	3344	5031	6540	8505	9450	11160	18989	32310	47800	/
200~224	324	540	900	2358	3505	5211	6774	8802	9810	11520	19718	33750	52560	/
180~224	557	929	1548	2448	3584	5247	6821	9180	10170	12420	20879	35100	48735	/
160~180	557	929	1548	2502	3663	5364	6973	9450	10710	11995	17262	24840	44910	67575
125~160	590	983	1638	2601	3859	5724	5841	9720	10890	11160	17674	27990	51600	74250
112~125	586	977	1629	2772	4073	5985	6066	10260	11430	12420	19695	31230	55710	79830
100~112	609	1015	1692	2840	4174	6134	6206	10490	11700	12960	20492	32400	57060	82125
90~100	651	1085	1809	2907	4273	6282	6651	10890	12240	13860	21915	34650	56430	91215
80~90	774	1291	2151	3033	4433	6480	6858	11340	12600	14400	22337	34650	60300	98010
71~80	833	1388	2313	3177	4537	6480	7182	11700	12960	14740	24022	39150	60300	100260
63~71	833	1388	2313	3258	4585	6453	7425	11970	13320	15570	24689	39150	58140	108000
56~63	1251	2084	3474	3543	4936	6876	9090	12510	14318	17280	27718	44460	58140	108000
45~56	1225	2041	3402	3645	5075	7065	9009	12510	14136	18090	29678	48690	56430	108000
40~45	1335	2225	3708	4221	5461	7065	8928	14400	16272	19395	30531	48060	56430	108000
35.5~40	1471	2452	4086	4167	5314	6777	8928	15120	16740	20700	31541	48060	56430	108000
31.5~35.5	1575	2624	4374	4437	5351	6453	8928	15210	17820	22050	32553	48060	56430	108000
28~31.5	1604	2673	4455	4635	5469	6453	8928	15210	17820	22950	33211	48060	56430	108000
25~28	1604	2673	4455	4815	5574	6453	8928	12150	17820	23940	33920	48060	56430	108000
22.4~25	1604	2673	4455	4878	5611	6453	8928	13680	17820	25200	34801	48060	56430	108000
≤22.4	1604	2673	4455	4878	5611	6453	8928	14220	17820	26280	35539	48060	56430	108000

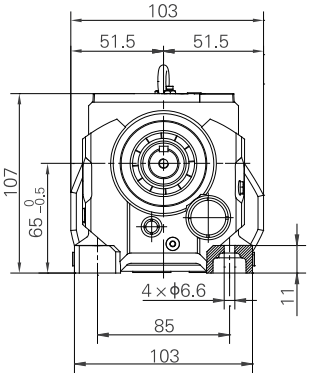
6 Dimensions

C200/C300 Dimensions

C200H
C300H

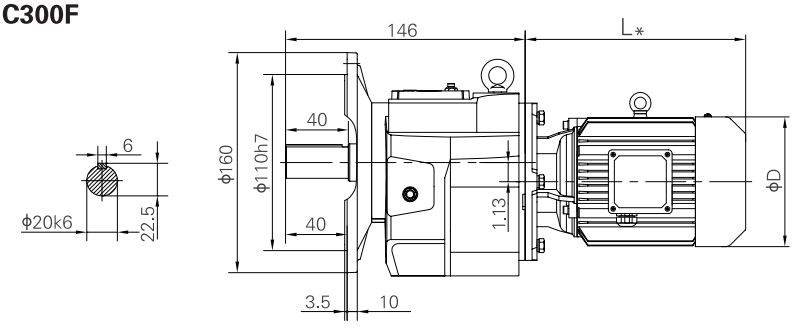


Horizontal foot–mounted

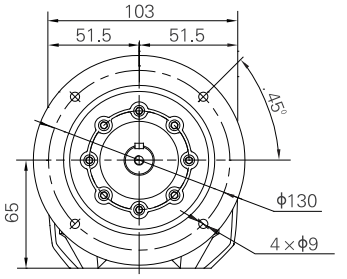


Weight: 4kg (Without motor and oil)

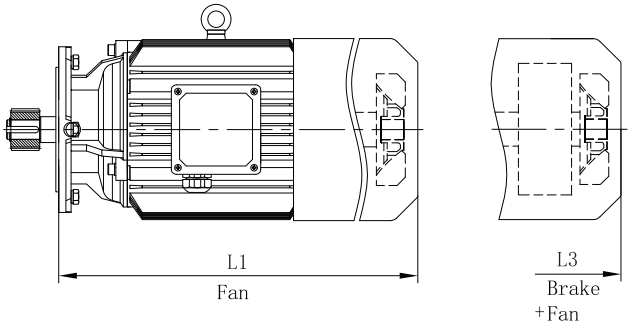
C200F
C300F



Flange–mounted



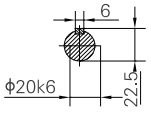
Weight: 5kg (Without motor and oil)

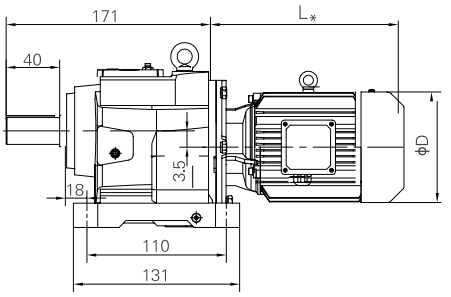


4-pole power (kW)	Range of Ratio	Directly connected motor dimension table		Directly connected motor weight table / kg
		L1	D	M1
0.18	3.15-50	198	124	8
0.37	3.15-25	211	139	10

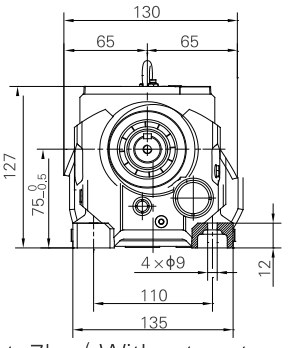
C201/C301 Dimensions

C201H
C301H



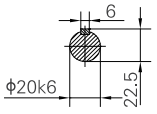


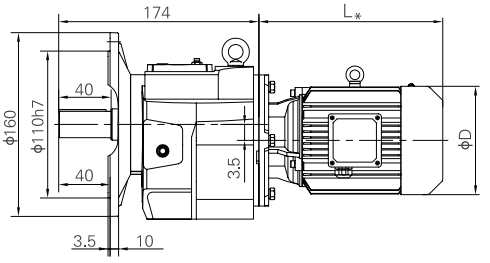
Horizontal foot–mounted



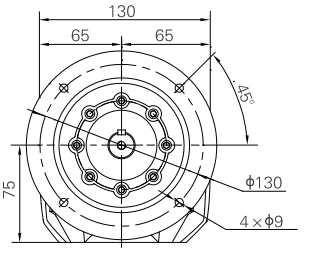
Weight: 7kg (Without motor and oil)

C201F
C301F



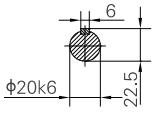


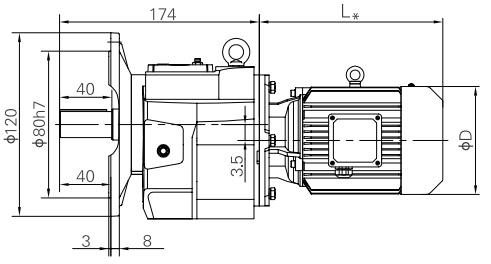
Flange–mounted



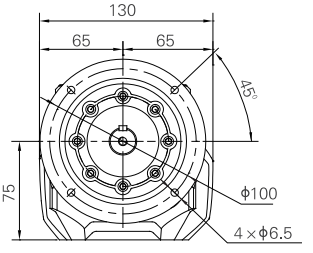
Weight: 8kg (Without motor and oil)

C201S
C301S

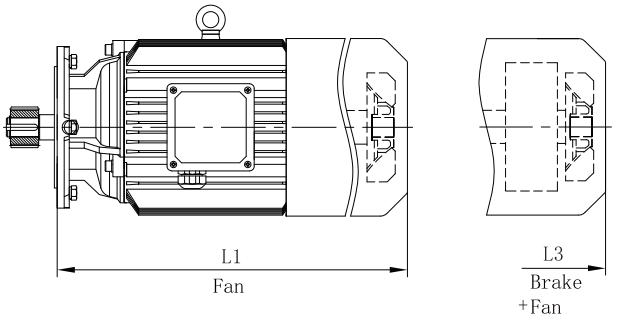




Short flange–mounted



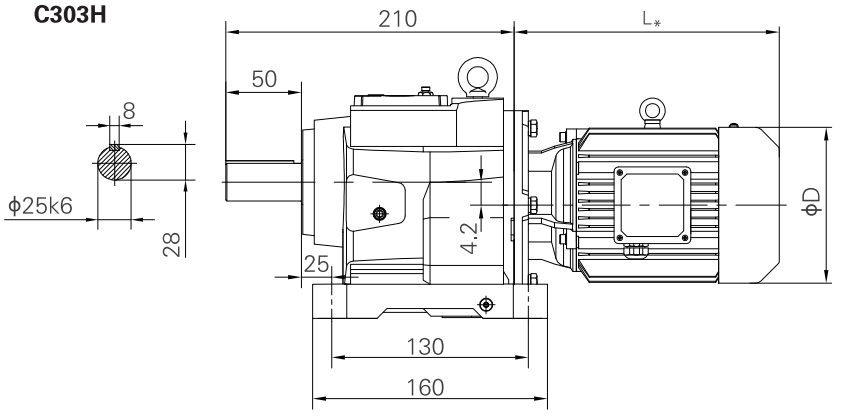
Weight: 8kg (Without motor and oil)



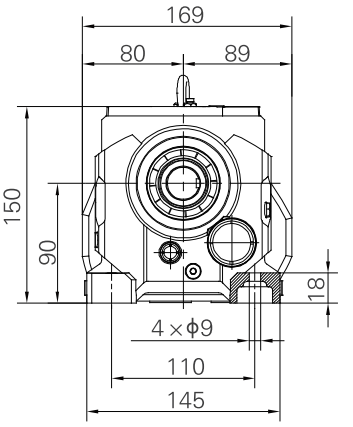
4-pole power (kW)	Range of Ratio	Directly connected motor dimension table		Directly connected motor weight table / kg
		L1	D	M1
0.12	3.55-90	206	124	7
0.18	3.55-90	206	124	8
0.37	3.55-40	218	139	10

C203/C303 Dimensions

C203H
C303H

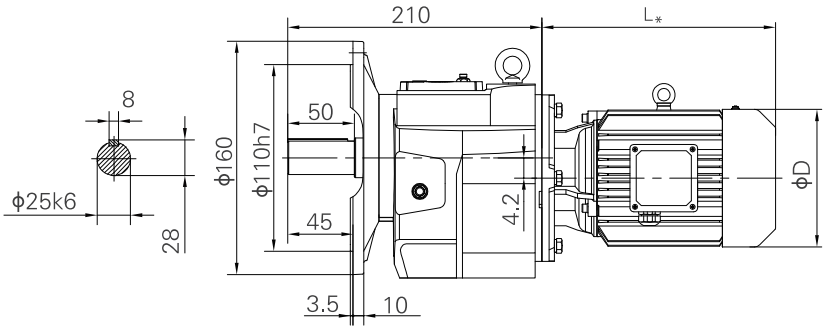


Horizontal foot–mounted

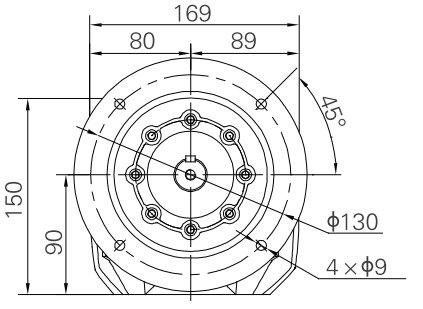


Weight: 8kg (Without motor and oil)

C203F
C303F

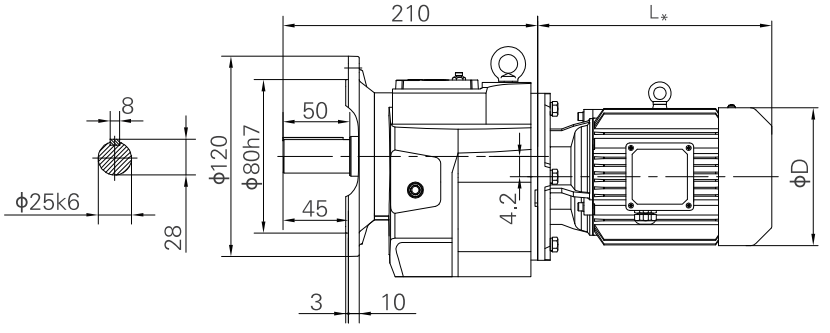


Flange–mounted

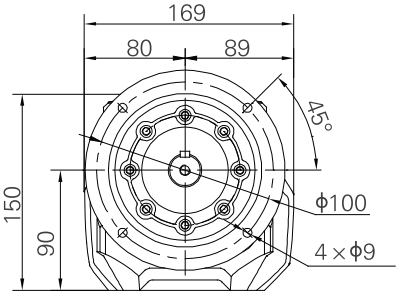


Weight: 9kg (Without motor and oil)

C203S
C303S

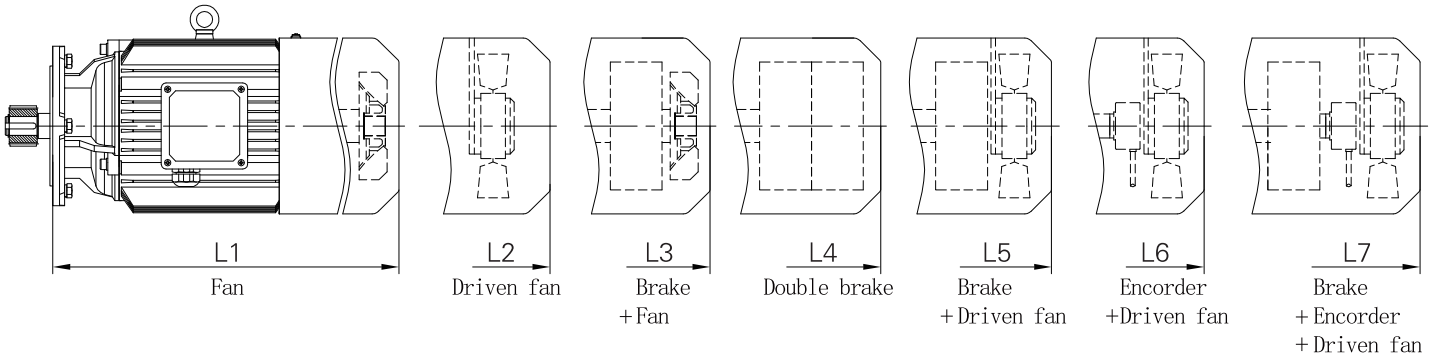


Short flange–mounted



Weight: 9kg (Without motor and oil)

Corresponding motor dimension table for C203/C303



Directly connected motor dimension table

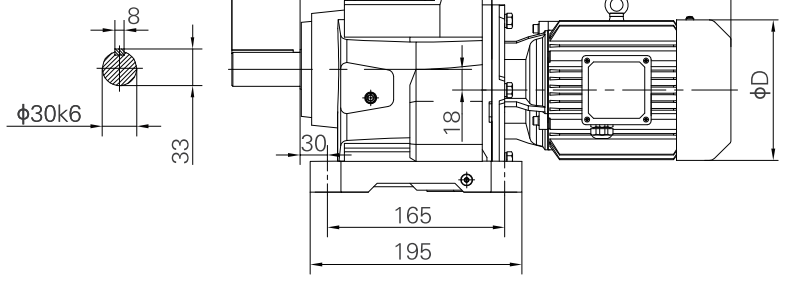
4-pole power (kW)	Range of Ratio	MA						D
		L1	L2	L3	L5	L6	L7	
0.12	4-90	206	261	241	296	/	/	124
0.18	4-90	206	261	241	296	/	/	124
0.25	4-90	223	273	263	318	318	358	139
0.37	4-90	223	273	263	318	318	358	139
0.55	4-71	299	344	359	404	404	449	162
0.75	4-50	299	344	359	404	404	449	162
1.1	4-35.5	347	392	402	452	452	497	176
1.5	4-25	347	392	402	452	452	497	176
2.2	4-18	394	449	469	529	529	574	202
3	4-12.5	394	449	469	529	529	574	202

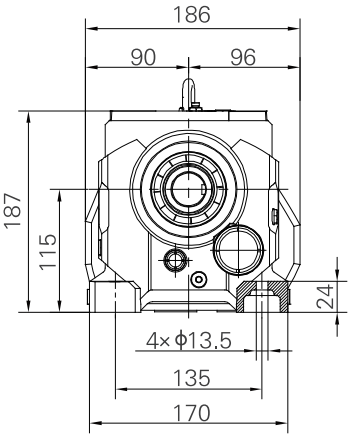
Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MA						
		M1	M2	M3	M5	M6	M7	
0.12	4-90	7	7.5	8.5	9	/	/	
0.18	4-90	8	8.5	9.5	10	/	/	
0.25	4-90	9	10	10.5	11.5	10.5	12.5	
0.37	4-90	10	11	11.5	12.5	11.5	13.5	
0.55	4-71	15	16	19	20	16.5	21	
0.75	4-50	16	17	20	21	17.5	22	
1.1	4-35.5	21	22	25	26	22.5	27	
1.5	4-25	23	24	27	28	24.5	29	
2.2	4-18	36	37	44	45	38	45	
3	4-12.5	36	37	44	45	38	45	

C204/C304 Dimensions

C204H
C304H

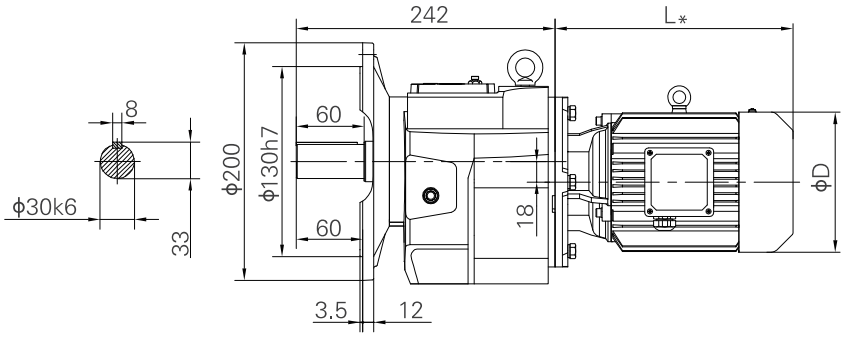


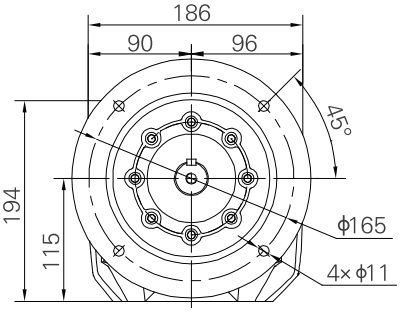


Horizontal foot–mounted

Weight: 14kg (Without motor and oil)

C204F
C304F

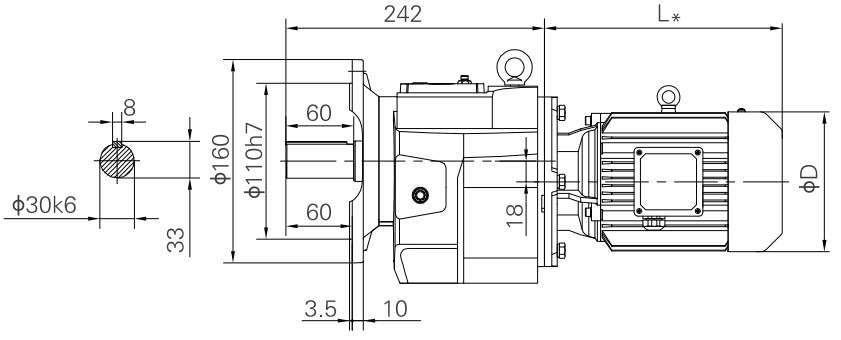


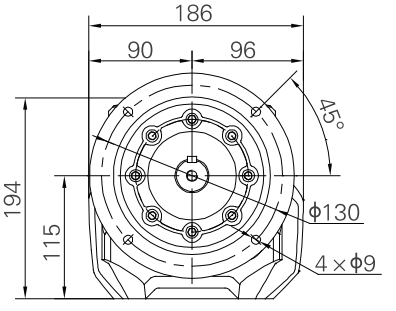


Flange–mounted

Weight: 15kg (Without motor and oil)

C204S
C304S

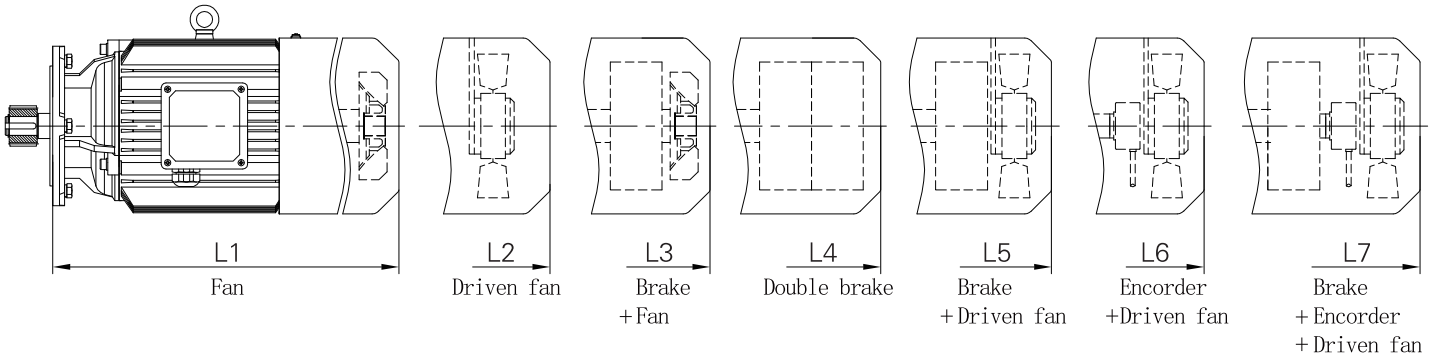




Short flange–mounted

Weight: 14 kg (Without motor and oil)

Corresponding motor dimension table for C204/C304



Directly connected motor dimension table

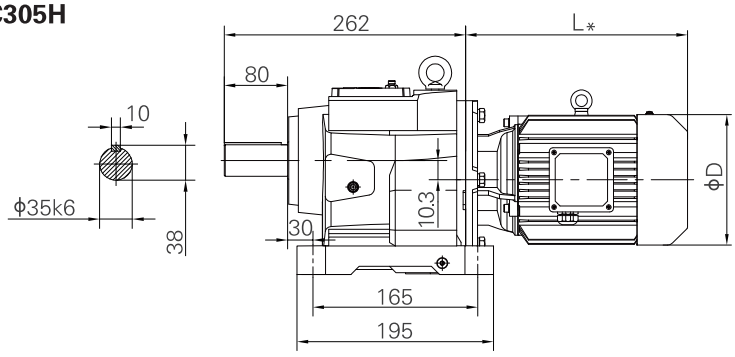
4-pole power (kW)	Range of Ratio	MA						D
		L1	L2	L3	L5	L6	L7	
0.12	4-125	207	262	242	297	/	/	124
0.18	4-125	207	262	242	297	/	/	124
0.25	4-125	224	274	264	319	319	359	139
0.37	4-125	224	274	264	319	319	359	139
0.55	4-100	300	345	360	405	405	450	162
0.75	4-71	300	345	360	405	405	450	162
1.1	4-50	348	393	403	453	453	498	176
1.5	4-35.5	348	393	403	453	453	498	176
2.2	4-25	395	450	470	530	530	575	202
3	4-18	395	450	470	530	530	575	202
4	4-11.2	459	519	534	599	599	639	220

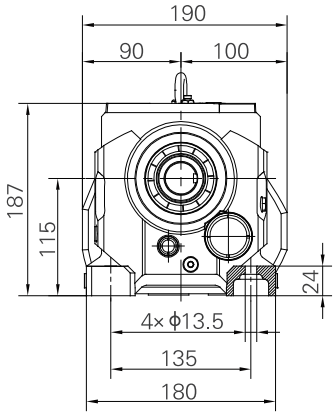
Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MA						
		M1	M2	M3	M5	M6	M7	
0.12	4-125	7	7.5	8.5	9	/	/	
0.18	4-125	8	8.5	9.5	10	/	/	
0.25	4-125	9	10	10.5	11.5	10.5	12.5	
0.37	4-125	10	11	11.5	12.5	11.5	13.5	
0.55	4-100	15	16	19	20	16.5	21	
0.75	4-71	16	17	20	21	17.5	22	
1.1	4-50	21	22	25	26	22.5	27	
1.5	4-35.5	23	24	27	28	24.5	29	
2.2	4-25	36	37	44	45	38	45	
3	4-18	36	37	44	45	38	45	
4	4-11.2	56	57	64	65	58	66	

C205/C305 Dimensions

C205H
C305H

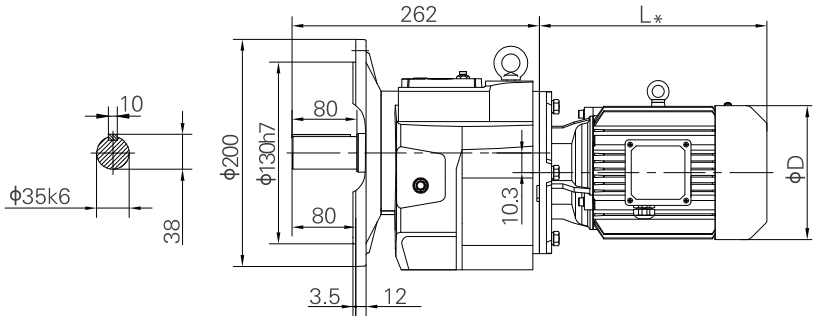


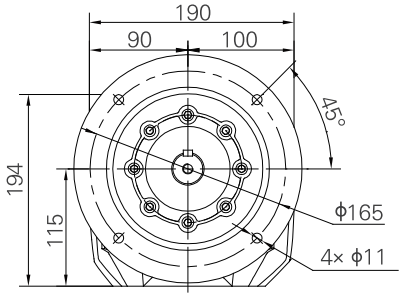


Horizontal foot–mounted

Weight: 18kg (Without motor and oil)

C205F
C305F

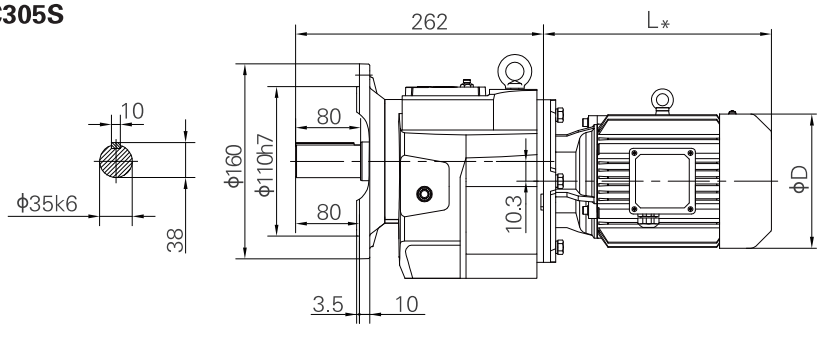


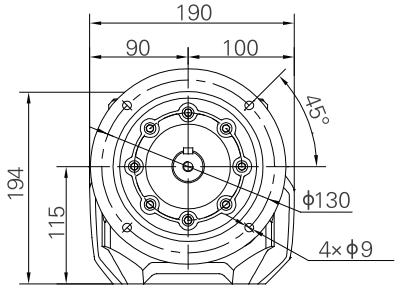


Flange–mounted

Weight: 20kg (Without motor and oil)

C205S
C305S

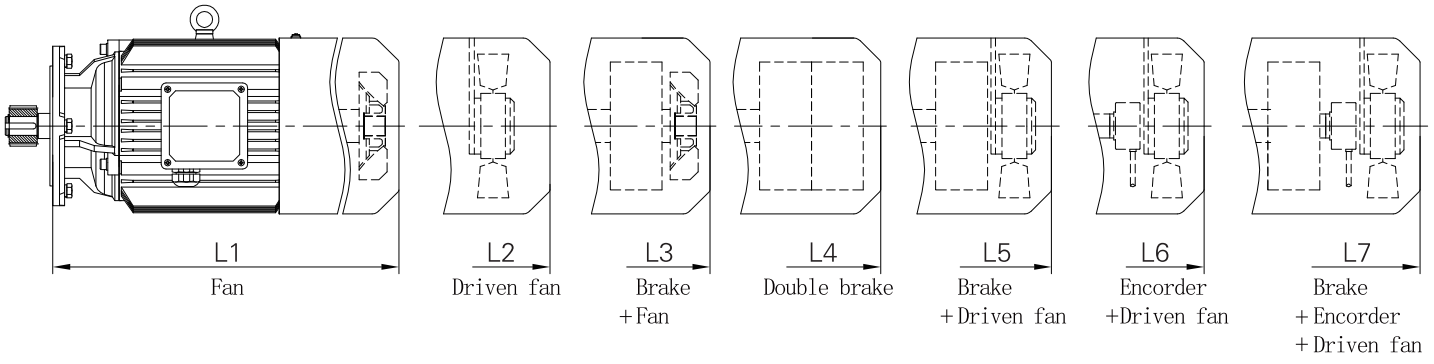




Short flange–mounted

Weight: 19kg (Without motor and oil)

Corresponding motor dimension table for C205/C305



Directly connected motor dimension table

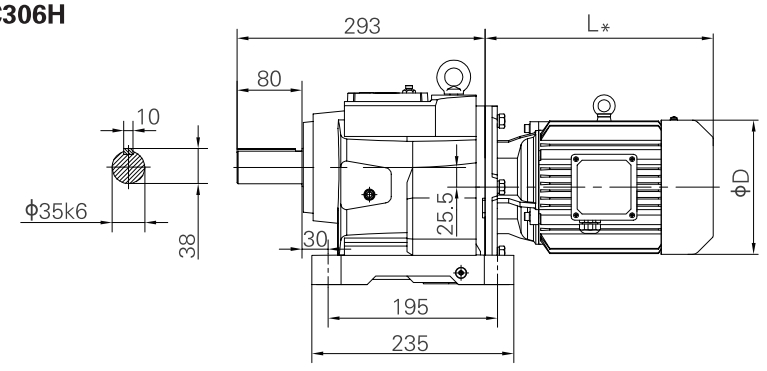
4-pole power (kW)	Range of Ratio	MA						D
		L1	L2	L3	L5	L6	L7	
0.18	4.5-140	207	262	242	297	/	/	124
0.25	4.5-140	224	274	264	319	319	359	139
0.37	4.5-140	224	274	264	319	319	359	139
0.55	4.5-140	300	345	360	405	405	450	162
0.75	4.5-112	300	345	360	405	405	450	162
1.1	4.5-80	348	393	403	453	453	498	176
1.5	4.5-56	348	393	403	453	453	498	176
2.2	4.5-40	395	450	470	530	530	575	202
3	4.5-28	395	450	470	530	530	575	202
4	4.5-22.4	459	519	534	599	599	639	220

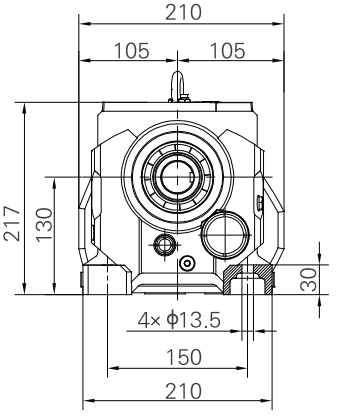
Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MA						
		M1	M2	M3	M5	M6	M7	
0.18	4.5-140	8	8.5	9.5	10	/	/	
0.25	4.5-140	9	10	10.5	11.5	10.5	12.5	
0.37	4.5-140	10	11	11.5	12.5	11.5	13.5	
0.55	4.5-140	15	16	19	20	16.5	21	
0.75	4.5-112	16	17	20	21	17.5	22	
1.1	4.5-80	21	22	25	26	22.5	27	
1.5	4.5-56	23	24	27	28	24.5	29	
2.2	4.5-40	36	37	44	45	38	45	
3	4.5-28	36	37	44	45	38	45	
4	4.5-22.4	56	57	64	65	58	66	

C206/C306 Dimensions

C206H
C306H

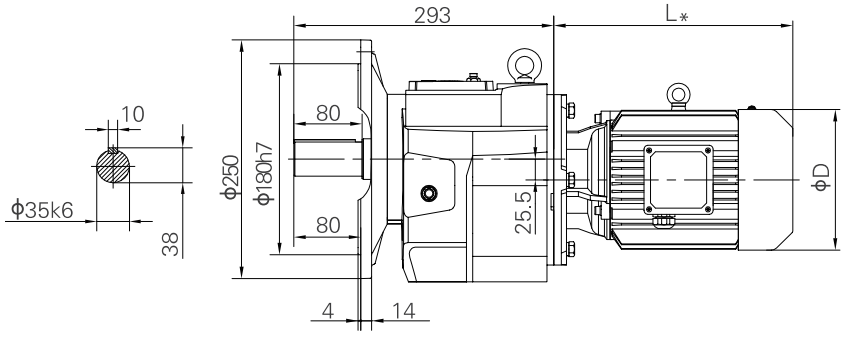


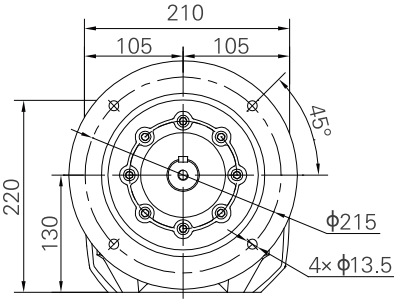


Horizontal foot–mounted

Weight: 25kg (Without motor and oil)

C206F
C306F

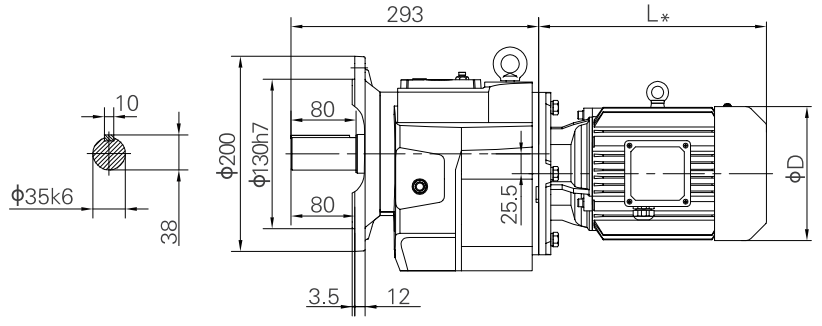


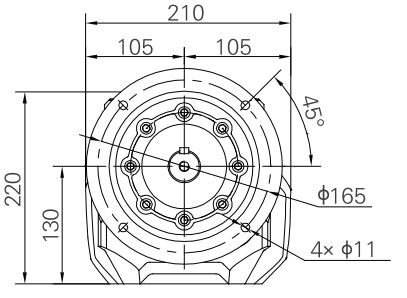


Flange–mounted

Weight: 27kg (Without motor and oil)

C206S
C306S

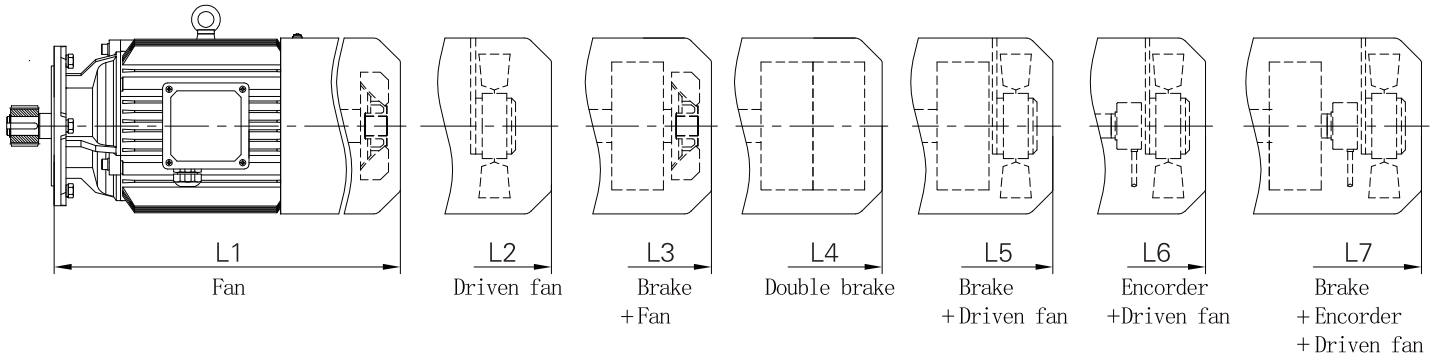




Short flange–mounted

Weight: 36kg (Without motor and oil)

Corresponding motor dimension table for C206/C306



Directly connected motor dimension table

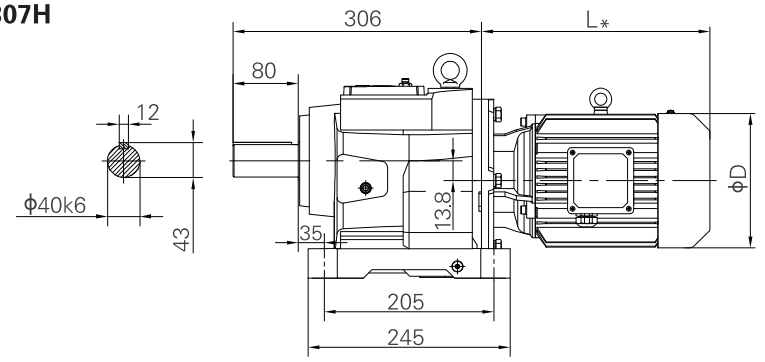
4-pole power (kW)	Range of Ratio	MA						D
		L1	L2	L3	L5	L6	L7	
0.25	112-160	224	274	264	319	319	359	139
0.37	71-160	224	274	264	319	319	359	139
0.55	50-160	300	345	360	405	405	450	162
0.75	35.5-160	300	345	360	405	405	450	162
1.1	20-100	348	393	403	453	453	498	176
1.5	14-80	348	393	403	453	453	498	176
2.2	9-56	395	450	470	530	530	575	202
3	5.6-40	395	450	470	530	530	575	202
4	4.5-28	459	519	534	599	599	639	220
5.5	4.5-11.2	508	573	588	658	658	688	259
7.5	4.5-11.2	508	573	588	658	658	688	259

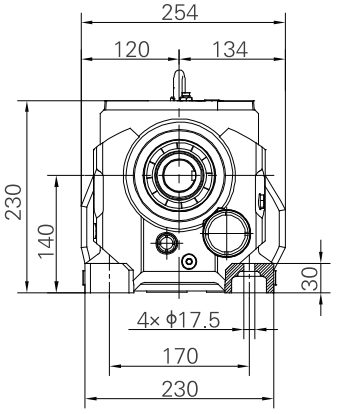
Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MA						
		M1	M2	M3	M5	M6	M7	
0.25	112-160	9	10	10.5	11.5	10.5	12.5	
0.37	71-160	10	11	11.5	12.5	11.5	13.5	
0.55	50-160	15	16	19	20	16.5	21	
0.75	35.5-160	16	17	20	21	17.5	22	
1.1	20-100	21	22	25	26	22.5	27	
1.5	14-80	23	24	27	28	24.5	29	
2.2	9-56	36	37	44	45	38	45	
3	5.6-40	36	37	44	45	38	45	
4	4.5-28	56	57	64	65	58	66	
5.5	4.5-11.2	77	79	88	90	80	91	
7.5	4.5-11.2	88	90	99	101	91	102	

C207/C307 Dimensions

C207H
C307H

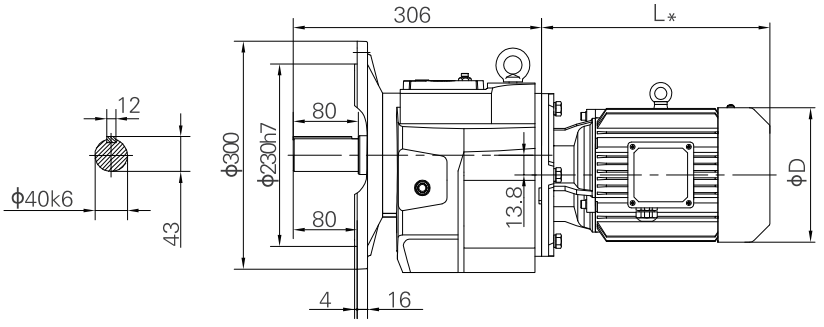


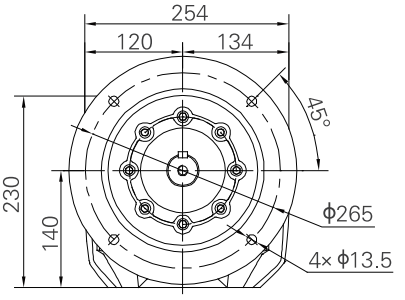


Horizontal foot–mounted

Weight: 33kg (Without motor and oil)

C207F
C307F

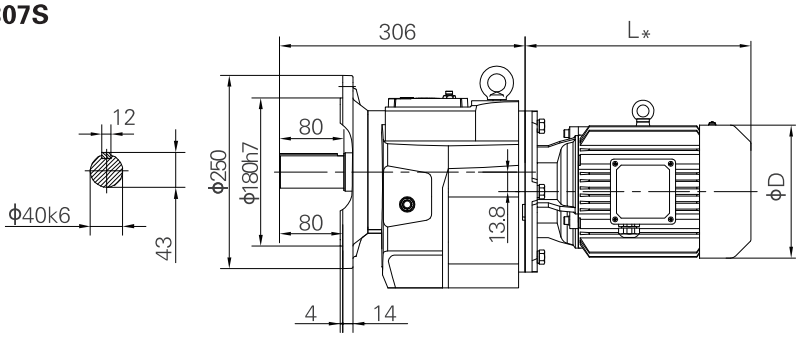


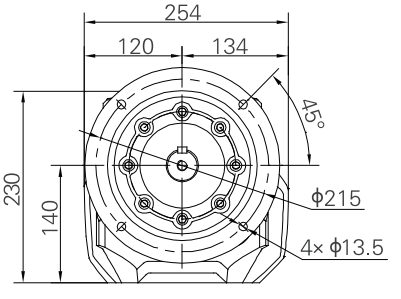


Flange–mounted

Weight: 36kg (Without motor and oil)

C207S
C307S

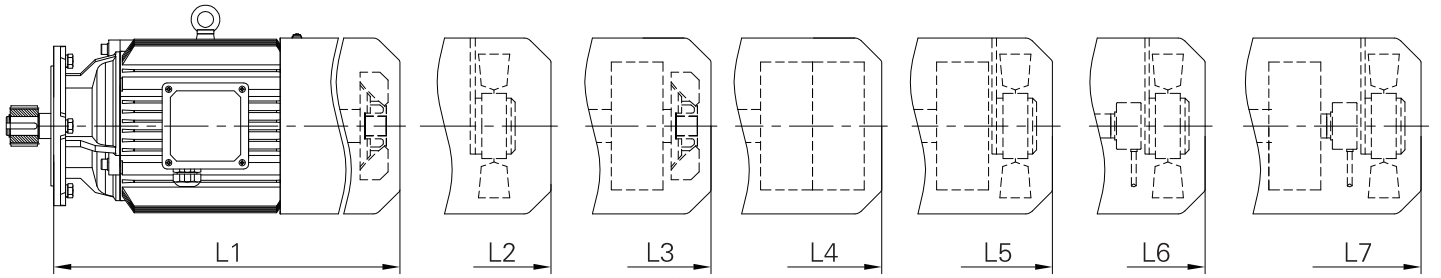




Short flange–mounted

Weight: 34kg (Without motor and oil)

Corresponding motor dimension table for C207/C307



Directly connected motor dimension table

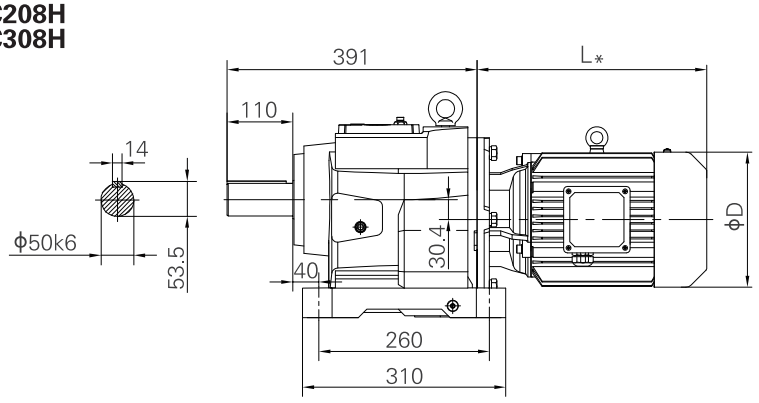
4-pole power (kW)	Range of Ratio	MA						D
		L1	L2	L3	L5	L6	L7	
0.25	140-180	216	266	256	311	311	351	139
0.37	90-180	216	266	256	311	311	351	139
0.55	71-180	292	337	352	397	397	442	162
0.75	50-180	292	337	352	397	397	442	162
1.1	31.5-100	340	385	395	445	445	490	176
1.5	22.4-100	340	385	395	445	445	490	176
2.2	14-80	387	442	462	522	522	567	202
3	9-56	387	442	462	522	522	567	202
4	7.1-40	451	511	526	591	591	631	220
5.5	5-28	497	562	577	647	647	677	259
7.5	4-18	497	562	577	647	647	677	259
11	4-12.5	551	601	646	701	701	736	314
15	4-8	581	631	676	731	731	766	314

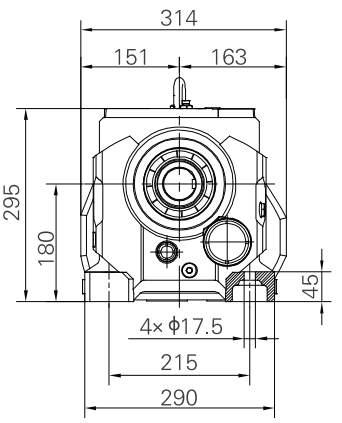
Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MA						
		M1	M2	M3	M5	M6	M7	
0.25	140-180	9	10	10.5	11.5	10.5	12.5	
0.37	90-180	10	11	11.5	12.5	11.5	13.5	
0.55	71-180	15	16	19	20	16.5	21	
0.75	50-180	16	17	20	21	17.5	22	
1.1	31.5-100	21	22	25	26	22.5	27	
1.5	22.4-100	23	24	27	28	24.5	29	
2.2	14-80	36	37	44	45	38	45	
3	9-56	36	37	44	45	38	45	
4	7.1-40	56	57	64	65	58	66	
5.5	5-28	77	79	88	90	80	91	
7.5	4-18	88	90	99	101	91	102	
11	4-12.5	129	131	150	151	132	152	
15	4-8	161	163	182	183	164	184	

C208/C308 Dimensions

C208H
C308H

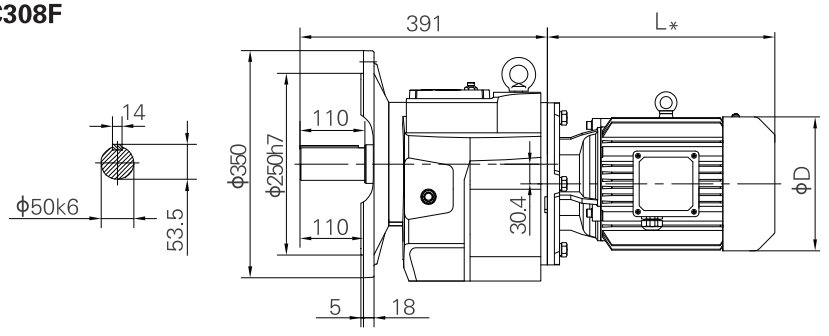


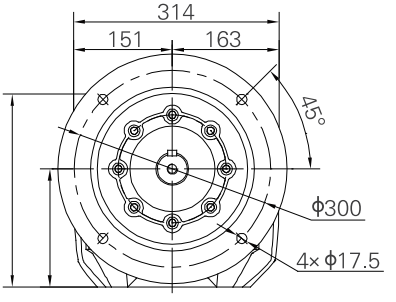


Horizontal foot–mounted

Weight: 60kg (Without motor and oil)

C208F
C308F

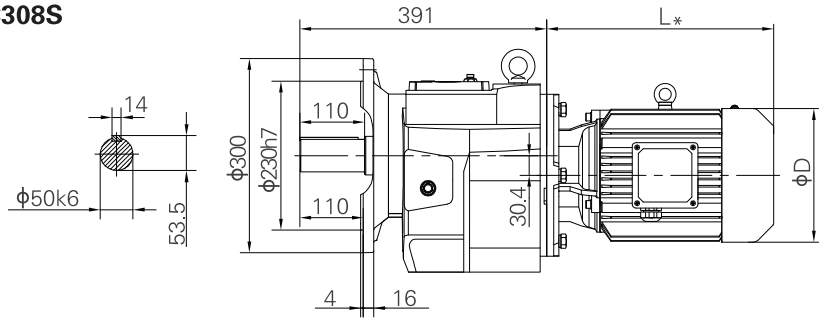


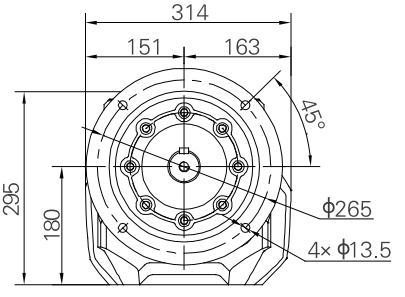


Flange–mounted

Weight: 66kg (Without motor and oil)

C208S
C308S

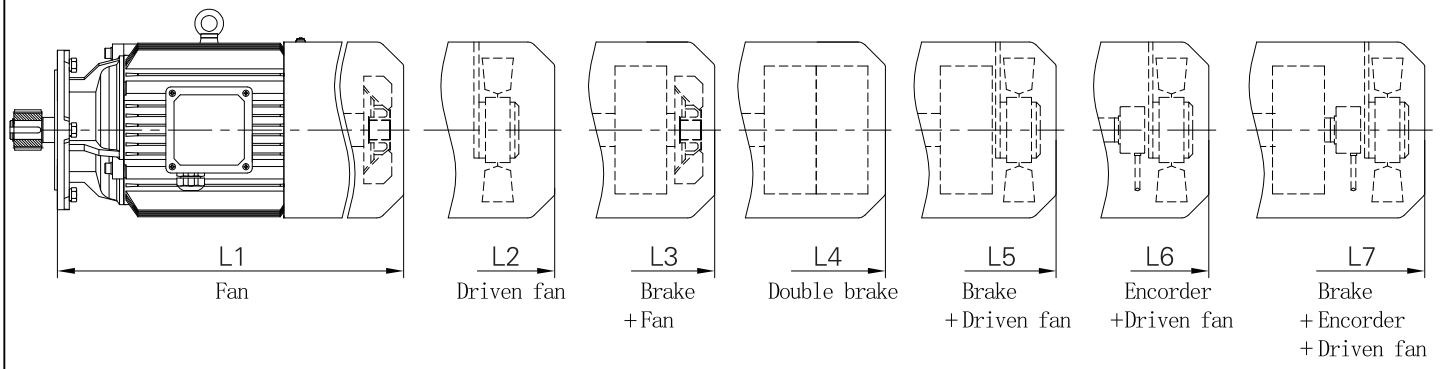




Short flange–mounted

Weight: 64kg (Without motor and oil)

Corresponding motor dimension table for C208/C308



Directly connected motor dimension table

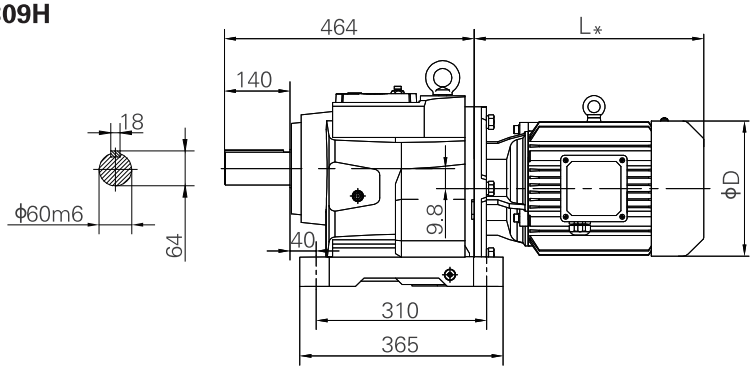
4-pole power (kW)	Range of Ratio	MA						D
		L1	L2	L3	L5	L6	L7	
0.55	140-200	283	328	343	388	388	433	162
0.75	100-200	283	328	343	388	388	433	162
1.1	63-160	331	376	386	436	436	481	176
1.5	50-160	331	376	386	436	436	481	176
2.2	31.5-160	378	433	453	513	513	558	202
3	20-112	378	433	453	513	513	558	202
4	12.5-80	442	502	517	582	582	622	220
5.5	9-56	489	554	569	639	639	669	259
7.5	7.1-45	489	554	569	639	639	669	259
11	4.5-28	550	600	645	700	700	735	314
15	4.5-18	580	630	675	730	730	765	314
18.5	4.5-12.5	621	666	731	776	776	816	356
22	4.5-10	669	714	779	824	824	864	356

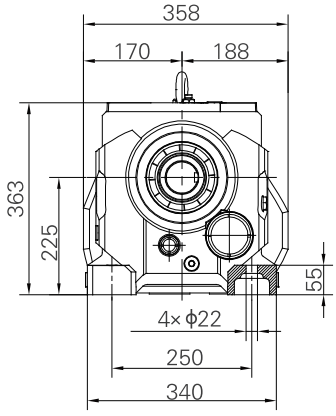
Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MA						
		M1	M2	M3	M5	M6	M7	
0.55	140-200	15	16	19	20	16.5	21	
0.75	100-200	16	17	20	21	17.5	22	
1.1	63-160	21	22	25	26	22.5	27	
1.5	50-160	23	24	27	28	24.5	29	
2.2	31.5-160	36	37	44	45	38	45	
3	20-112	36	37	44	45	38	45	
4	12.5-80	56	57	64	65	58	66	
5.5	9-56	77	79	88	90	80	91	
7.5	7.1-45	88	90	99	101	91	102	
11	4.5-28	129	131	150	151	132	152	
15	4.5-18	161	163	182	183	164	184	
18.5	4.5-12.5	200	202	232	233	203	235	
22	4.5-10	220	222	252	253	223	255	

C209/C309 Dimensions

C209H
C309H

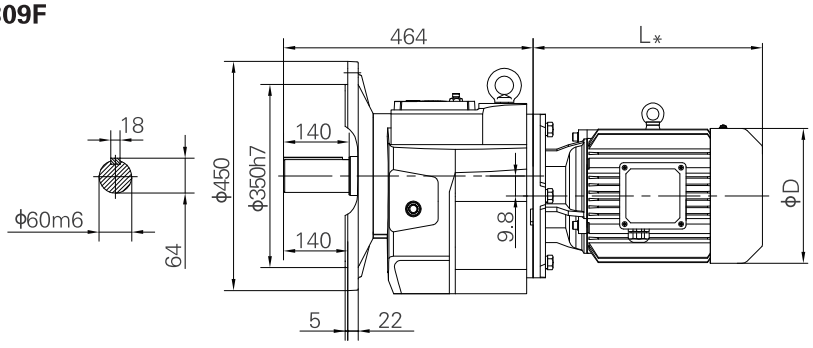


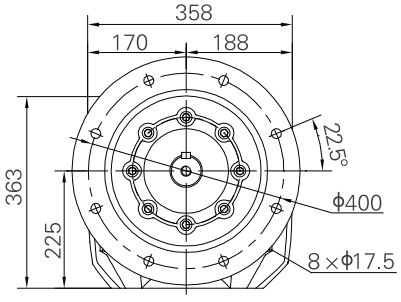


Horizontal foot–mounted

Weight: 110kg (Without motor and oil)

C209F
C309F

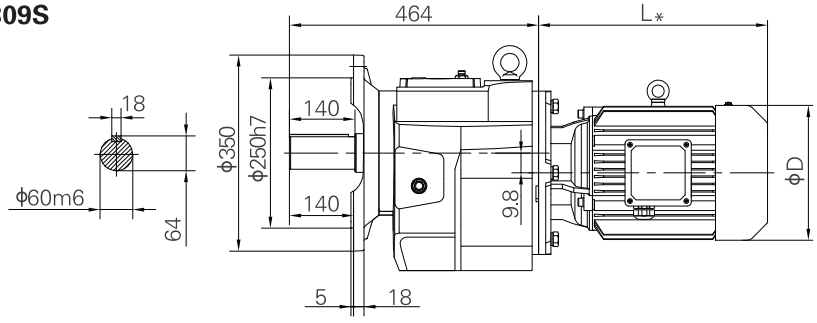


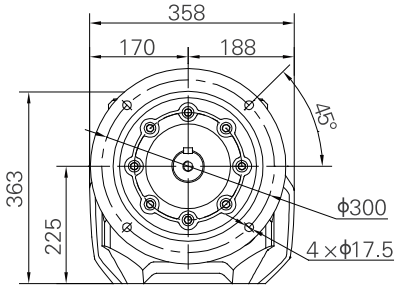


Flange–mounted

Weight: 120kg (Without motor and oil)

C209S
C309S

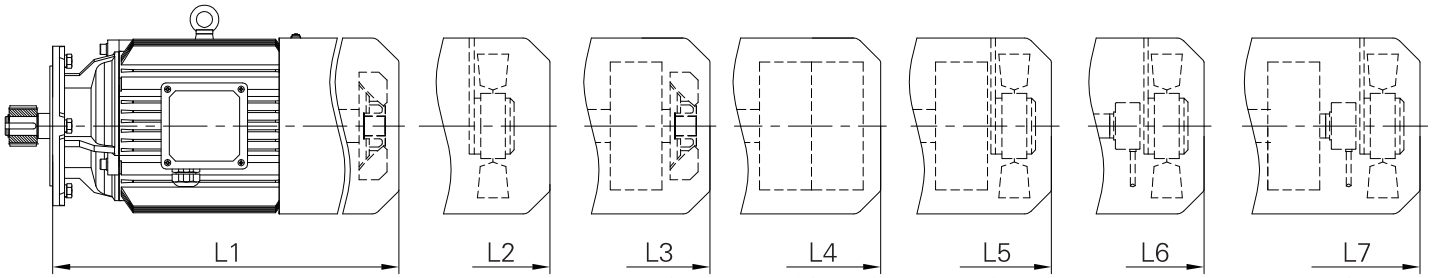




Short flange–mounted

Weight: 115kg (Without motor and oil)

Corresponding motor dimension table for C209/C309



Directly connected motor dimension table

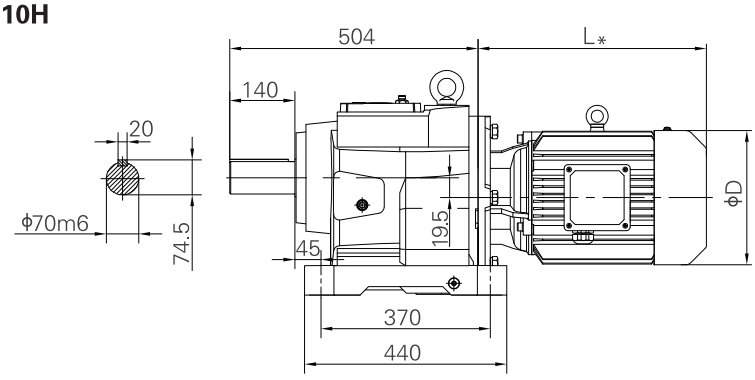
4-pole power (kW)	Range of Ratio	MA						D
		L1	L2	L3	L5	L6	L7	
0.55	250-280	280	325	340	385	385	430	162
0.75	180-280	280	325	340	385	385	430	162
1.1	125-224	328	373	383	433	433	478	176
1.5	90-224	328	373	383	433	433	478	176
2.2	63-224	374	429	449	509	509	554	202
3	45-200	374	429	449	509	509	554	202
4	31.5-140	438	498	513	578	578	618	220
5.5	20-112	488	553	568	638	638	668	259
7.5	12.5-80	488	553	568	638	638	668	259
11	8-56	544	594	639	694	694	729	314
15	5-40	574	624	669	724	724	759	314
18.5	4-31.5	615	660	725	770	770	810	356
22	4-25	663	708	773	818	818	858	356
30	4-16	705	725	820	845	845	890	398

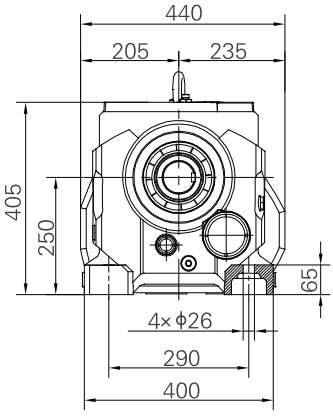
Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MA						
		M1	M2	M3	M5	M6	M7	
0.55	250-280	15	16	19	20	16.5	21	
0.75	180-280	16	17	20	21	17.5	22	
1.1	125-224	21	22	25	26	22.5	27	
1.5	90-224	23	24	27	28	24.5	29	
2.2	63-224	36	37	44	45	38	45	
3	45-200	36	37	44	45	38	45	
4	31.5-140	56	57	64	65	58	66	
5.5	20-112	77	79	88	90	80	91	
7.5	12.5-80	88	90	99	101	91	102	
11	8-56	129	131	150	151	132	152	
15	5-40	161	163	182	183	164	184	
18.5	4-31.5	200	202	232	233	203	235	
22	4-25	220	222	252	253	223	255	
30	4-16	280	280	330	328	281	330	

C210/C310 Dimensions

C210H
C310H

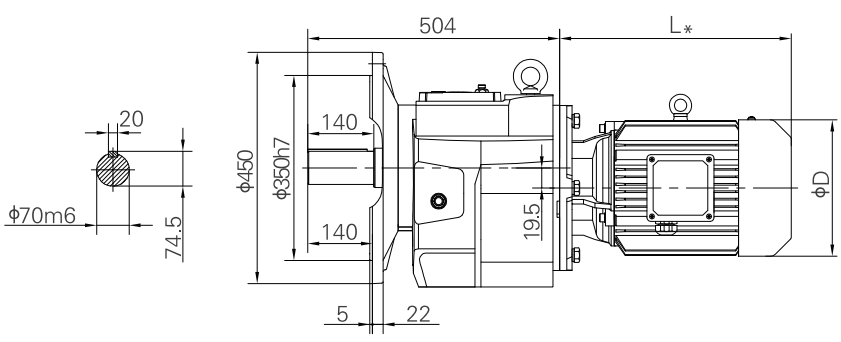


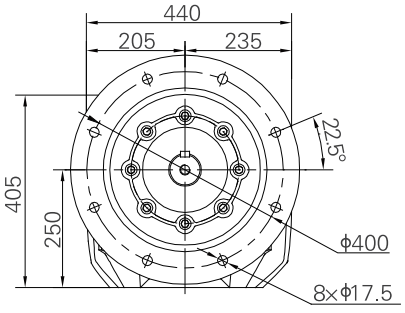


Horizontal foot–mounted

Weight: 150kg (Without motor and oil)

C210F
C310F

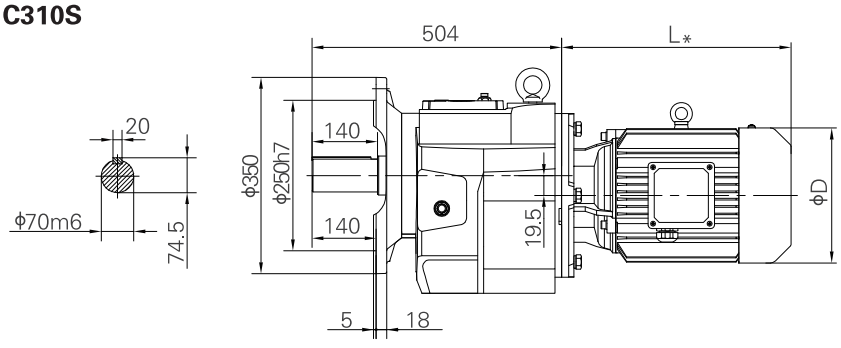


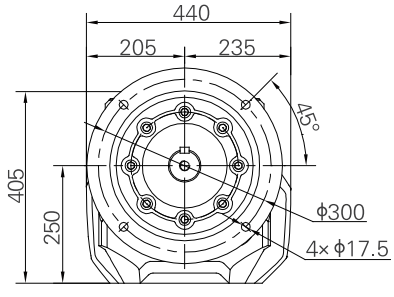


Flange–mounted

Weight: 165kg (Without motor and oil)

C210S
C310S

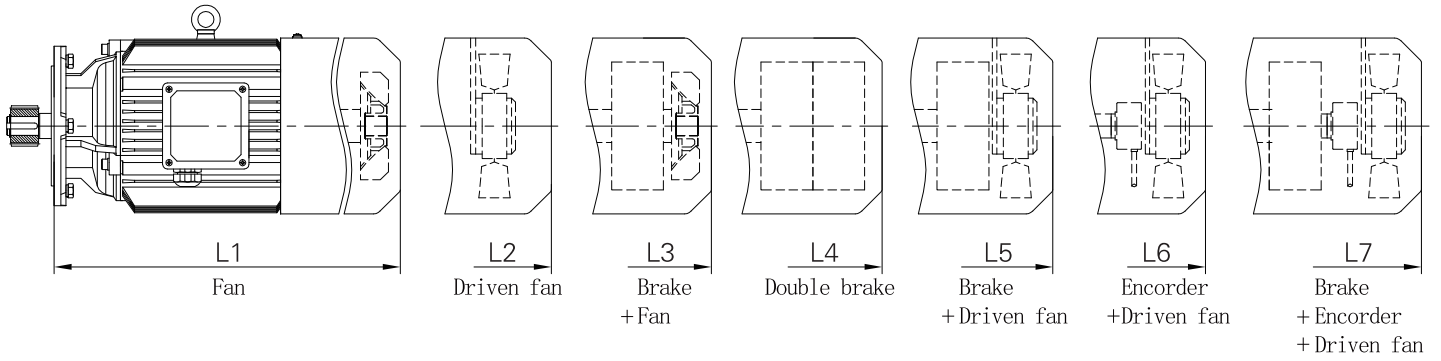




Short flange–mounted

Weight: 158kg (Without motor and oil)

Corresponding motor dimension table for C210/C310



Directly connected motor dimension table

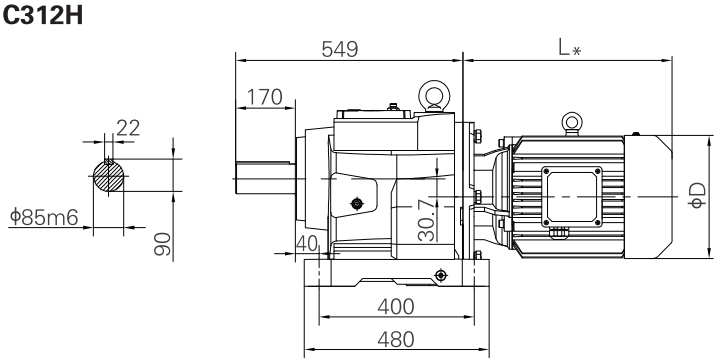
4-pole power (kW)	Range of Ratio	MA						D
		L1	L2	L3	L5	L6	L7	
1.5	112-224	325	370	380	430	430	475	176
2.2	80-224	370	425	445	505	505	550	202
3	63-224	370	425	445	505	505	550	202
4	45-200	434	494	509	574	574	614	220
5.5	31.5-140	477	542	557	627	627	657	259
7.5	25-100	477	542	557	627	627	657	259
11	18-71	533	583	628	683	683	718	314
15	12.5-56	563	613	658	713	713	748	314
18.5	10-45	604	649	714	759	759	799	356
22	7.1-40	652	697	762	807	807	847	356
30	4.5-28	705	725	820	845	845	890	398
37	4-22.4	746	781	861	901	901	941	446
45	4-20	746	781	861	901	901	941	446

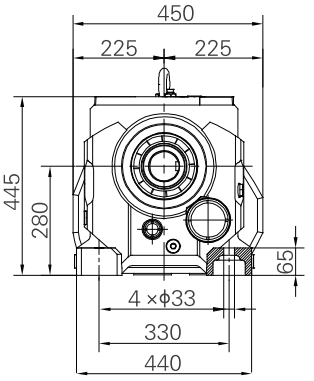
Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MA						
		M1	M2	M3	M5	M6	M7	
1.5	112-224	23	24	27	28	24.5	29	
2.2	80-224	36	37	44	45	38	45	
3	63-224	36	37	44	45	38	45	
4	45-200	56	57	64	65	58	66	
5.5	31.5-140	77	79	88	90	80	91	
7.5	25-100	88	90	99	101	91	102	
11	18-71	129	131	150	151	132	152	
15	12.5-56	161	163	182	183	164	184	
18.5	10-45	200	202	232	233	203	235	
22	7.1-40	220	222	252	253	223	255	
30	4.5-28	280	280	330	328	281	330	
37	4-22.4	345	347	395	396	349	398	
45	4-20	365	367	415	416	369	418	

C212/C312 Dimensions

C212H
C312H

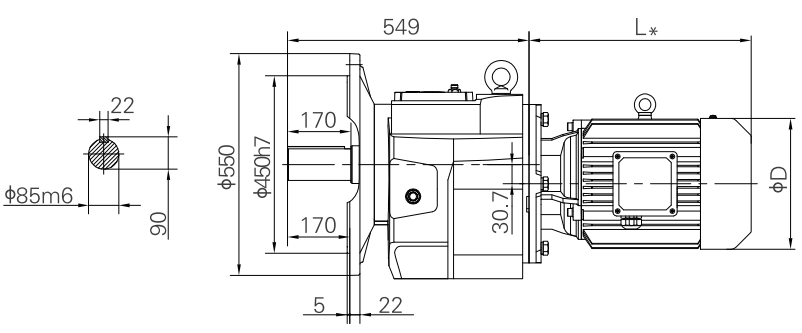


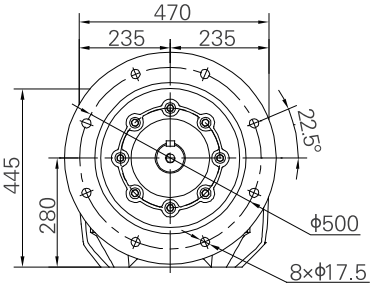


Horizontal foot–mounted

Weight: 175kg (Without motor and oil)

C212F
C312F

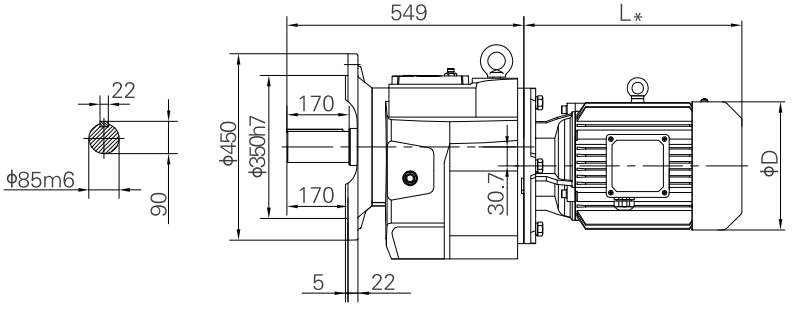


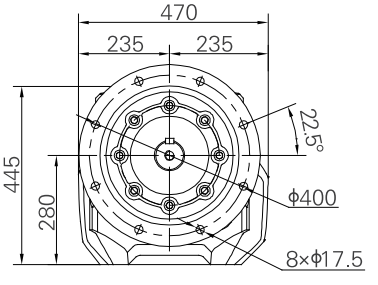


Flange–mounted

Weight: 205kg (Without motor and oil)

C212S
C312S

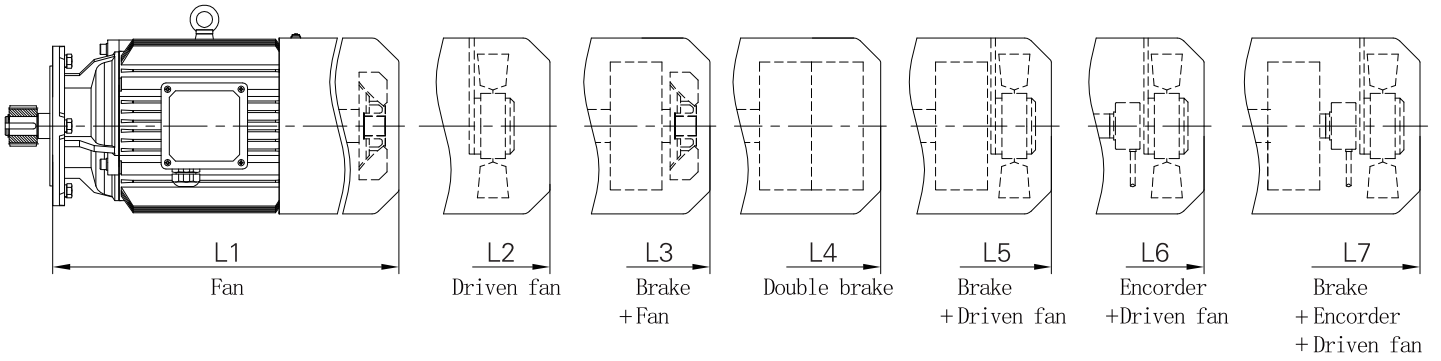




Short flange–mounted

Weight: 195kg (Without motor and oil)

Corresponding motor dimension table for C212/C312



Directly connected motor dimension table

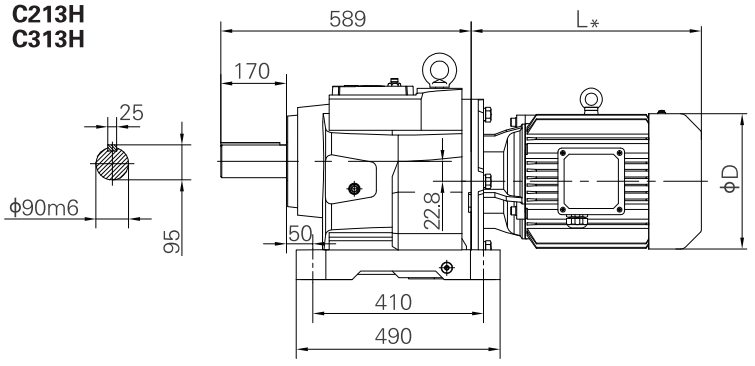
4-pole power (kW)	Range of Ratio	MA						D
		L1	L2	L3	L5	L6	L7	
1.5	160-280	325	370	380	430	430	475	176
2.2	112-280	370	425	445	505	505	550	202
3	80-280	370	425	445	505	505	550	202
4	63-280	434	494	509	574	574	614	220
5.5	50-140	477	542	557	627	627	657	259
7.5	35.5-140	477	542	557	627	627	657	259
11	20-100	533	583	628	683	683	718	314
15	16-71	563	613	658	713	713	748	314
18.5	12.5-63	604	649	714	759	759	799	356
22	11.2-56	652	697	762	807	807	847	356
30	5.6-40	705	725	820	845	845	890	398
37	4.5-31.5	746	781	861	901	901	941	446
45	4.5-25	746	781	861	901	901	941	446

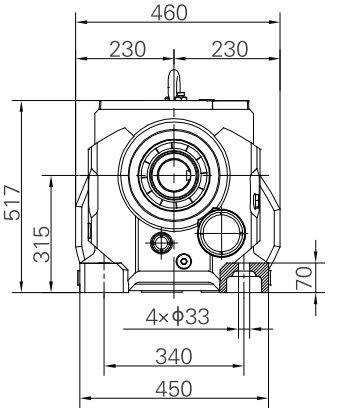
Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MA						
		M1	M2	M3	M5	M6	M7	
1.5	160-280	23	24	27	28	24.5	29	
2.2	112-280	36	37	44	45	38	45	
3	80-280	36	37	44	45	38	45	
4	63-280	56	57	64	65	58	66	
5.5	50-140	77	79	88	90	80	91	
7.5	35.5-140	88	90	99	101	91	102	
11	20-100	129	131	150	151	132	152	
15	16-71	161	163	182	183	164	184	
18.5	12.5-63	200	202	232	233	203	235	
22	11.2-56	220	222	252	253	223	255	
30	5.6-40	280	280	330	328	281	330	
37	4.5-31.5	345	347	395	396	349	398	
45	4.5-25	365	367	415	416	369	418	

C213/C313 Dimensions

C213H
C313H

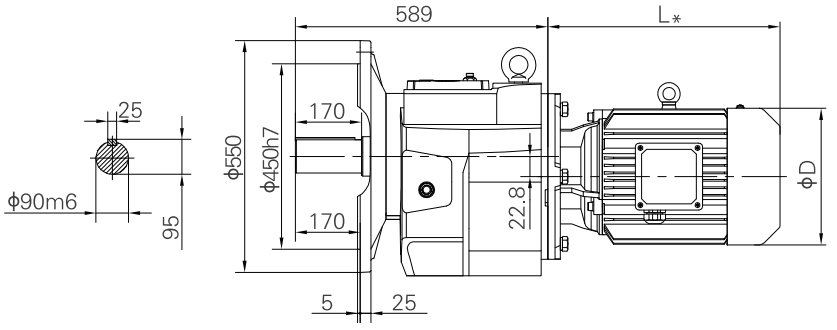


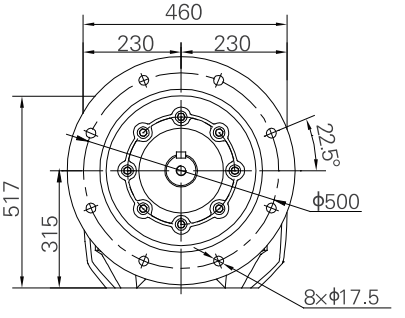


Horizontal foot–mounted

Weight: 255kg (Without motor and oil)

C213F
C313F

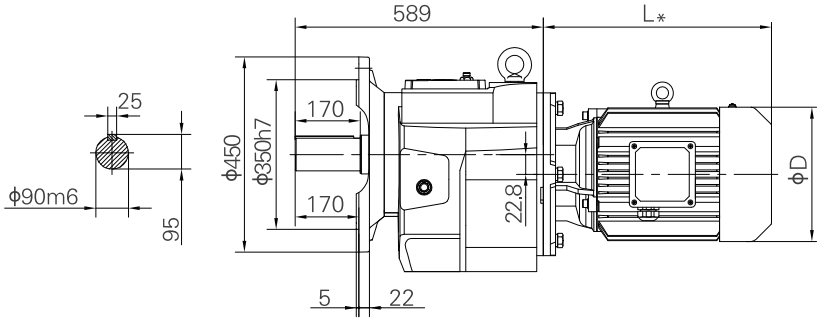


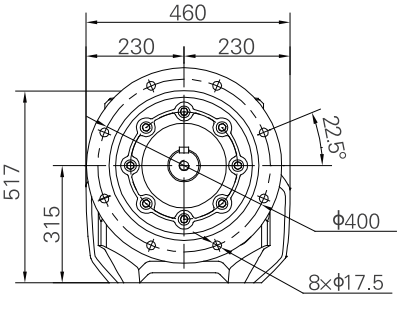


Flange–mounted

Weight: 278kg (Without motor and oil)

C213S
C313S

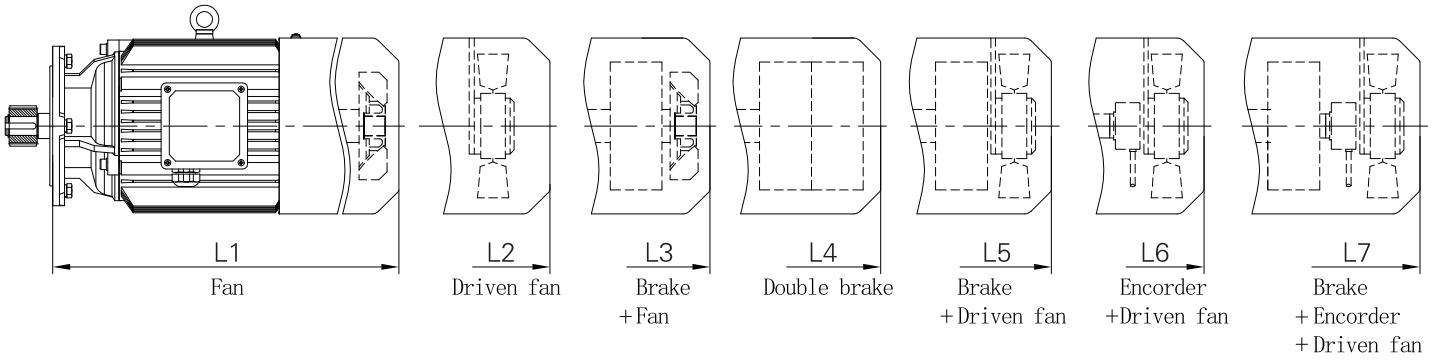




Short flange–mounted

Weight: 262kg (Without motor and oil)

Corresponding motor dimension table for C213/C313



Directly connected motor dimension table

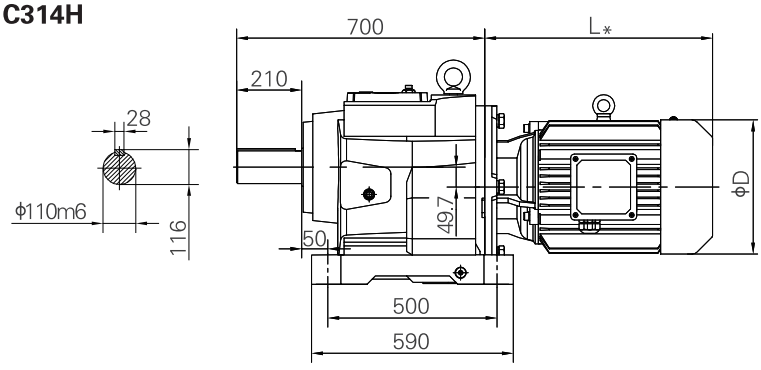
4-pole power (kW)	Range of Ratio	MA						D
		L1	L2	L3	L5	L6	L7	
2.2	160-224	359	414	434	494	494	539	202
3	112-224	359	414	434	494	494	539	202
4	80-224	423	483	498	563	563	603	220
5.5	56-125	467	532	547	617	617	647	259
7.5	45-125	467	532	547	617	617	647	259
11	28-125	517	567	612	667	667	702	314
15	22.4-100	547	597	642	697	697	732	314
18.5	18-80	588	633	698	743	743	783	356
22	14-63	636	681	746	791	791	831	356
30	10-50	684	704	799	824	824	869	398
37	9-40	725	760	840	880	880	920	446
45	4-31.5	725	760	840	880	880	920	446
55	4-25	841	866	981	1021	1021	1041	485

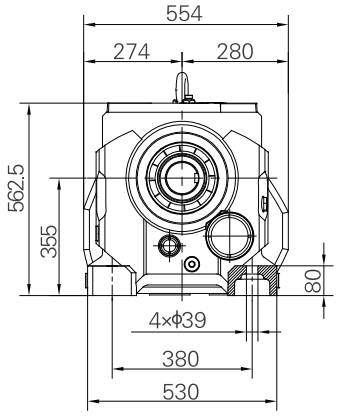
Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MA						
		M1	M2	M3	M5	M6	M7	
2.2	160-224	36	37	44	45	38	45	
3	112-224	36	37	44	45	38	45	
4	80-224	56	57	64	65	58	66	
5.5	56-125	77	79	88	90	80	91	
7.5	45-125	88	90	99	101	91	102	
11	28-125	129	131	150	151	132	152	
15	22.4-100	161	163	182	183	164	184	
18.5	18-80	200	202	232	233	203	235	
22	14-63	220	222	252	253	223	255	
30	10-50	280	280	330	328	281	330	
37	9-40	345	347	395	396	349	398	
45	4-31.5	365	367	415	416	369	418	
55	4-25	470	471	575	570	470	572	

C214/C314 Dimensions

C214H
C314H

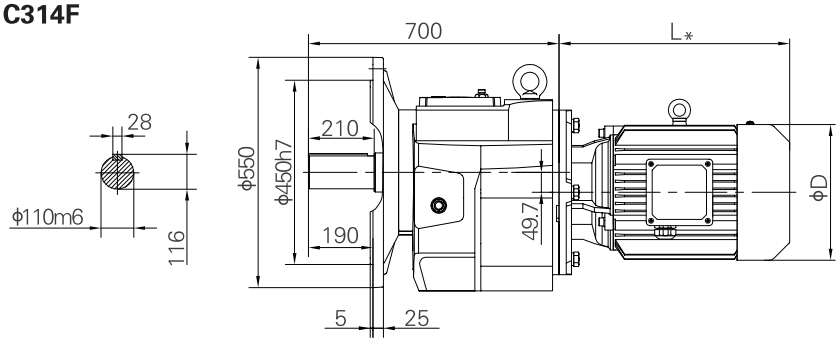


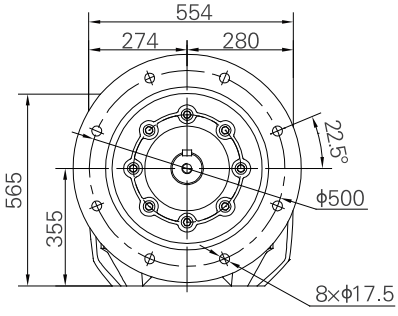


Horizontal foot–mounted

Weight: 365kg (Without motor and oil)

C214F
C314F

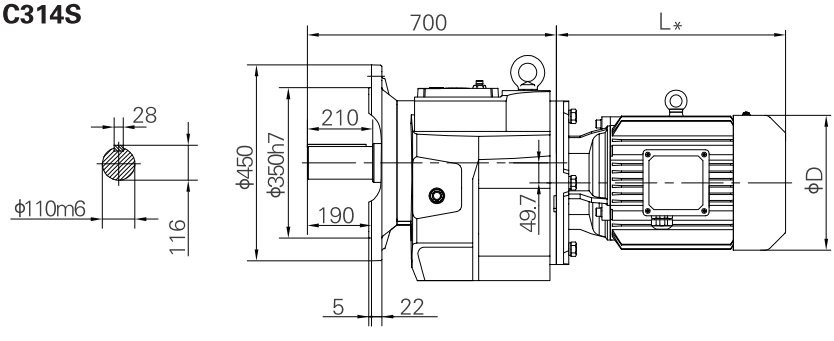


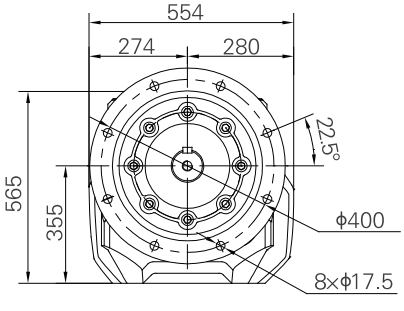


Flange–mounted

Weight: 395kg (Without motor and oil)

C214S
C314S

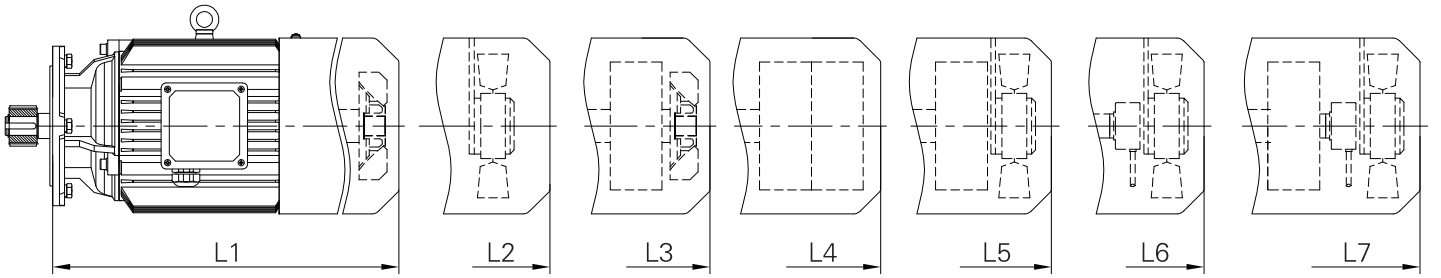




Short flange–mounted

Weight: 380kg (Without motor and oil)

Corresponding motor dimension table for C214/C314



Directly connected motor dimension table

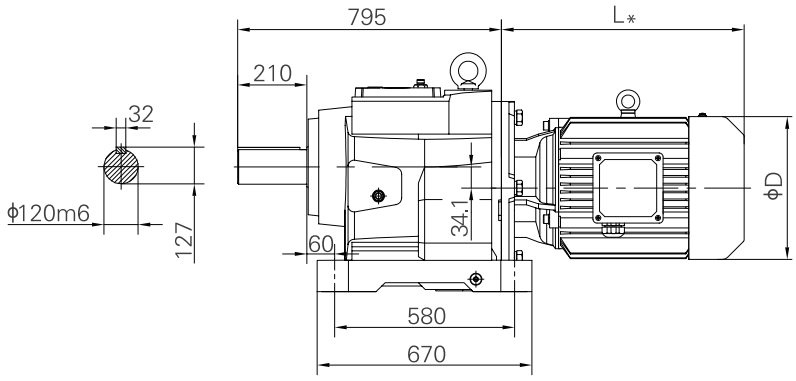
4-pole power (kW)	Range of Ratio	MA						D
		L1	L2	L3	L5	L6	L7	
2.2	250	359	414	434	494	494	539	202
3	180-250	359	414	434	494	494	539	202
4	140-280	423	483	498	563	563	603	220
5.5	100-200	467	532	547	617	617	647	259
7.5	71-200	467	532	547	617	617	647	259
11	50-200	517	567	612	667	667	702	314
15	35.5-160	547	597	642	697	697	732	314
18.5	28-140	588	633	698	743	743	783	356
22	25-112	636	681	746	791	791	831	356
30	18-80	684	704	799	824	824	869	398
37	14-71	725	760	840	880	880	920	446
45	12.5-56	725	760	840	880	880	920	446
55	10-45	841	866	981	1021	1021	1041	485
75	5.6-31.5	886	916	1026	1066	1066	1106	547
90	4.5-25	937	967	1077	1117	1117	1157	547

Directly connected motor weight table / kg

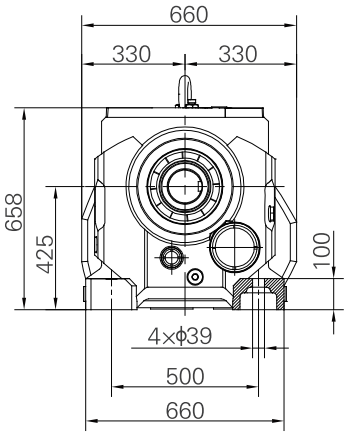
4-pole power (kW)	Range of Ratio	MA						
		M1	M2	M3	M5	M6	M7	
2.2	250	36	37	44	45	38	45	
3	180-250	36	37	44	45	38	45	
4	140-280	56	57	64	65	58	66	
5.5	100-200	77	79	88	90	80	91	
7.5	71-200	88	90	99	101	91	102	
11	50-200	129	131	150	151	132	152	
15	35.5-160	161	163	182	183	164	184	
18.5	28-140	200	202	232	233	203	235	
22	25-112	220	222	252	253	223	255	
30	18-80	280	280	330	328	281	330	
37	14-71	345	347	395	396	349	398	
45	12.5-56	365	367	415	416	369	418	
55	10-45	470	471	575	570	470	572	
75	5.6-31.5	630	632	735	733	633	735	
90	4.5-25	710	712	815	813	713	815	

C216/C316 Dimensions

C216H
C316H

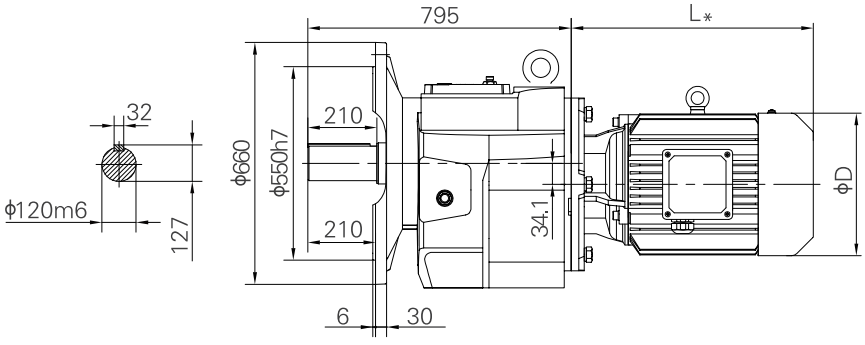


Horizontal foot–mounted

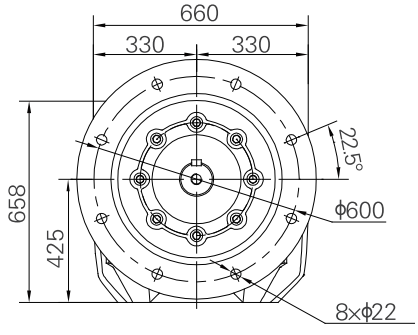


Weight: 615kg (Without motor and oil)

C216F
C316F

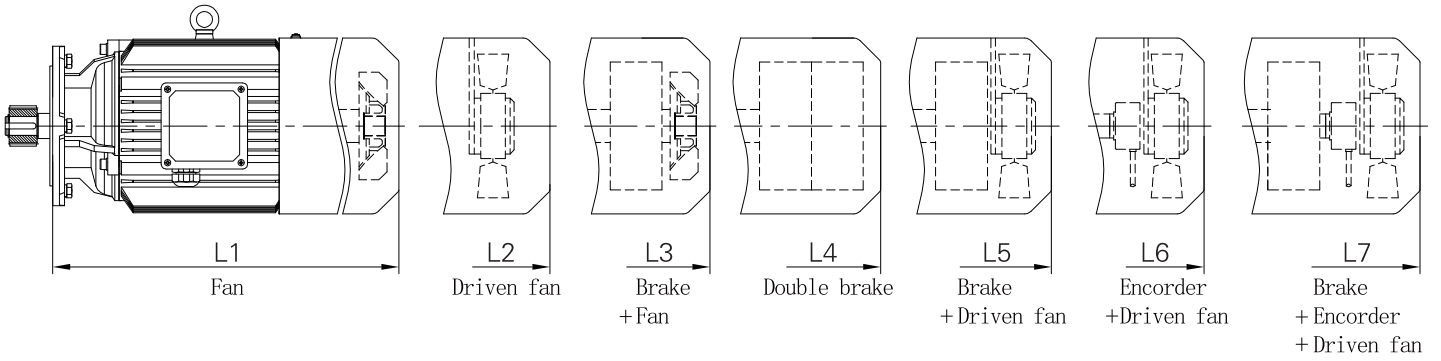


Flange–mounted



Weight: 645kg (Without motor and oil)

Corresponding motor dimension table for C216/C316



Directly connected motor dimension table

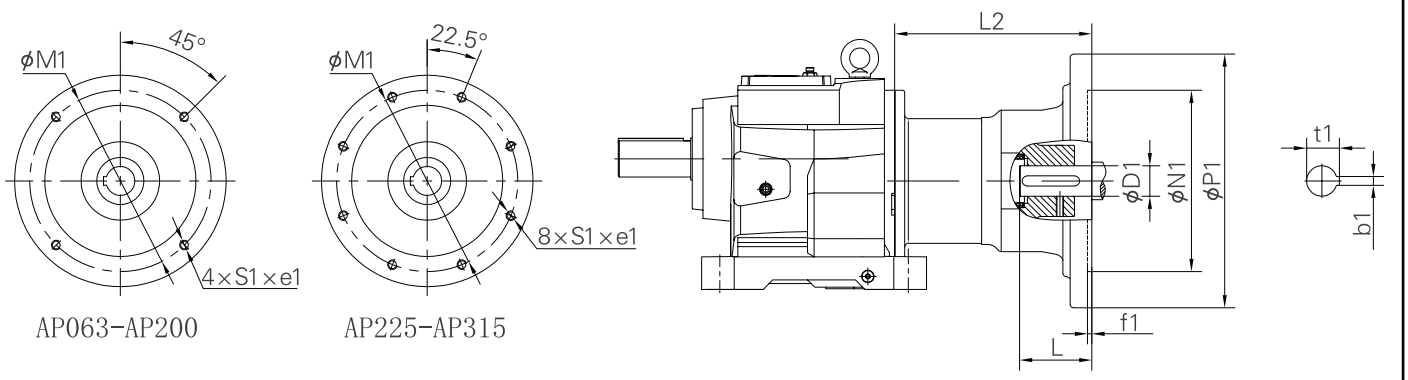
4-pole power (kW)	Range of Ratio	MA						D
		L1	L2	L3	L5	L6	L7	
7.5	100-224	467	532	547	617	617	647	259
11	71-224	502	552	597	652	652	687	314
15	50-224	532	582	627	682	682	717	314
18.5	40-180	573	618	683	728	728	768	356
22	35.5-160	621	666	731	776	776	816	356
30	25-112	674	694	789	814	814	859	398
37	20-90	715	750	830	870	870	910	446
45	16-80	715	750	830	870	870	910	446
55	12.5-63	831	856	971	1011	1011	1031	485
75	9-45	876	906	1016	1056	1056	1096	547
90	7.1-35.5	927	957	1067	1107	1107	1147	547

Directly connected motor weight table / kg

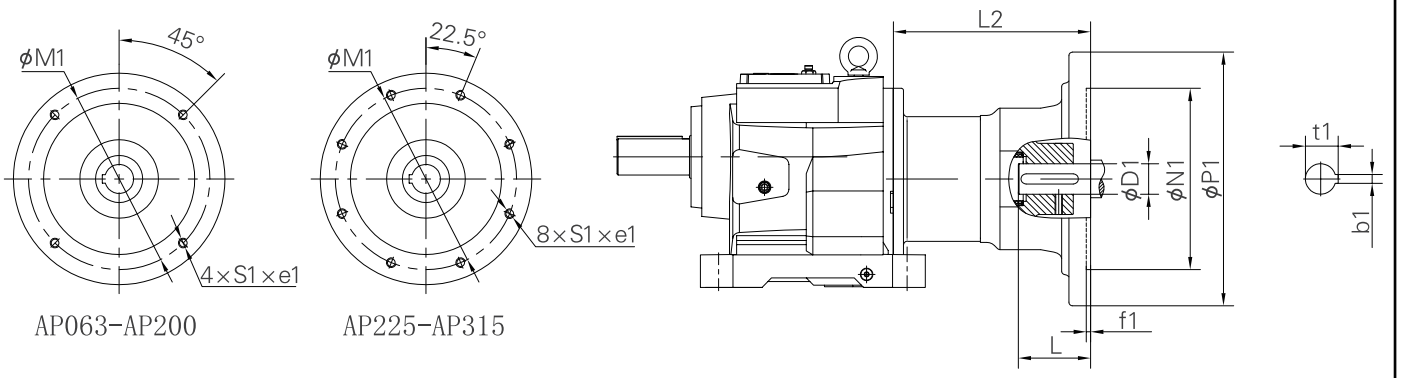
4-pole power (kW)	Range of Ratio	MA						
		M1	M2	M3	M5	M6	M7	
7.5	100-224	88	90	99	101	91	102	
11	71-224	129	131	150	151	132	152	
15	50-224	161	163	182	183	164	184	
18.5	40-180	200	202	232	233	203	235	
22	35.5-160	220	222	252	253	223	255	
30	25-112	280	280	330	328	281	330	
37	20-90	345	347	395	396	349	398	
45	16-80	365	367	415	416	369	418	
55	12.5-63	470	471	575	570	470	572	
75	9-45	630	632	735	733	633	735	
90	7.1-35.5	710	712	815	813	713	815	

7 Input Flange and Input Shaft

7.1 C series dimensions of AP input flange



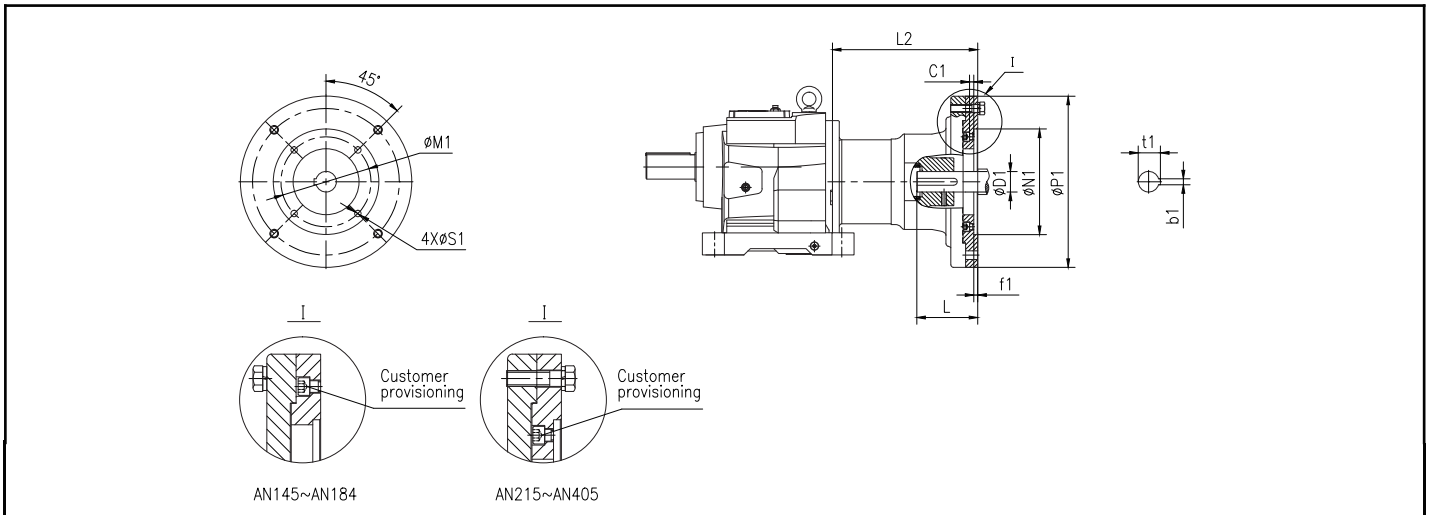
Size	Flange	Range of Ratio	e1	D1	N1	M1	P1	f1	b1	t1	L	S1	L2	Weight(kg)
C203 C303	AP063	4-90	14	11H7	95H7	115	140	4	4	12.8	23	M8	59	4.8
	AP071	4-90	14	14H7	110H7	130	160	4	5	16.3	30	M8	59	4.8
	AP080	4-71	18	19H7	130H7	165	200	4	6	21.8	40	M10	74	7.6
C204 C304	AP063	4-125	14	11H7	95H7	115	140	4	4	12.8	23	M8	61	5.1
	AP071	4-125	14	14H7	110H7	130	160	4	5	16.3	30	M8	61	5.1
	AP080	4-100	18	19H7	130H7	165	200	4	6	21.8	40	M10	76	8.6
	AP090	4-50	18	24H7	130H7	165	200	4	8	27.3	50	M10	81	9.2
	AP100	4-25	28	28H7	180H7	215	250	5	8	31.3	60	M12	191	14.1
	AP112	4-11.2	28	28H7	180H7	215	250	5	8	31.3	60	M12	191	14.1
C205 C305	AP063	4.5-140	14	11H7	95H7	115	140	4	4	12.8	23	M8	61	5.1
	AP071	4.5-140	14	14H7	110H7	130	160	4	5	16.3	30	M8	61	5.1
	AP080	4.5-140	18	19H7	130H7	165	200	4	6	21.8	40	M10	76	8.6
	AP090	4.5-80	18	24H7	130H7	165	200	4	8	27.3	50	M10	81	9.2
	AP100	4.5-40	28	28H7	180H7	215	250	5	8	31.3	60	M12	191	14.1
	AP112	4.5-22.4	28	28H7	180H7	215	250	5	8	31.3	60	M12	191	14.1
C206 C306	AP063	4.5-160	14	11H7	95H7	115	140	4	4	12.8	23	M8	61	5.1
	AP071	4.5-160	14	14H7	110H7	130	160	4	5	16.3	30	M8	61	5.1
	AP080	4.5-160	18	19H7	130H7	165	200	4	6	21.8	40	M10	76	8.6
	AP090	4.5-100	18	24H7	130H7	165	200	4	8	27.3	50	M10	81	9.2
	AP100	4.5-56	28	28H7	180H7	215	250	5	8	31.3	60	M12	191	14.1
	AP112	4.5-31.5	28	28H7	180H7	215	250	5	8	31.3	60	M12	191	14.1
C207 C307	AP071	4-180	14	14H7	110H7	130	160	4	5	16.3	30	M8	53	6.7
	AP080	4-180	18	19H7	130H7	165	200	4	6	21.8	40	M10	68	10.3
	AP090	4-100	18	24H7	130H7	165	200	4	8	27.3	50	M10	73	11.1
	AP100	4-71	28	28H7	180H7	215	250	5	8	31.3	60	M12	181	15.5
	AP112	4-40	28	28H7	180H7	215	250	5	8	31.3	60	M12	181	15.5
	AP132	4-28	28	38H7	230H7	265	300	5	10	41.3	80	M12	210	22.3
C208 C308	AP080	20-200	18	19H7	130H7	165	200	4	6	21.8	40	M10	65	10.4
	AP090	4.5-200	18	24H7	130H7	165	200	4	8	27.3	50	M10	66	12.1
	AP100	4.5-125	28	28H7	180H7	215	250	5	8	31.3	60	M12	171	18.2
	AP112	4.5-80	28	28H7	180H7	215	250	5	8	31.3	60	M12	171	18.2
	AP132	4.5-56	28	38H7	230H7	265	300	5	10	41.3	80	M12	203	24.9
	AP160	4.5-28	40	42H7	250H7	300	350	6	12	45.3	110	M16	272	46.4
	AP180	4.5-12.5	40	48H7	250H7	300	350	6	14	51.8	110	M16	272	46.4



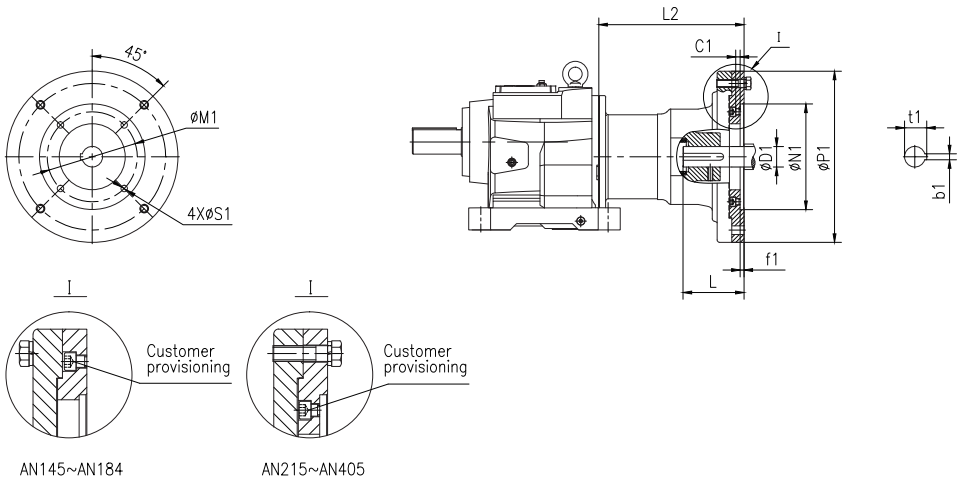
AP063-AP200　　AP225-AP315

Size	Flange	Range of Ratio	e1	D1	N1	M1	P1	f1	b1	t1	L	S1	L2	Weight(kg)
C209 C309	AP090	4-224	18	24H7	130H7	165	200	4	8	27.3	50	M10	61	14.7
	AP100	4-224	28	28H7	180H7	215	250	5	8	31.3	60	M12	172	21.5
	AP112	4-125	28	28H7	180H7	215	250	5	8	31.3	60	M12	172	21.5
	AP132	4-125	28	38H7	230H7	265	300	5	10	41.3	80	M12	202	28.3
	AP160	4-56	40	42H7	250H7	300	350	6	12	45.3	110	M16	270	49.9
	AP180	4-31.5	40	48H7	250H7	300	350	6	14	51.8	110	M16	270	49.9
	AP200	4-16	40	55H7	300H7	350	400	6	16	59.3	110	M16	327	72.8
C210 C310	AP100	4-224	28	28H7	180H7	215	250	5	8	31.3	60	M12	162	25.6
	AP112	4-200	28	28H7	180H7	215	250	5	8	31.3	60	M12	162	25.6
	AP132	4-140	28	38H7	230H7	265	300	5	10	41.3	80	M12	189	33.7
	AP160	4-71	40	42H7	250H7	300	350	6	12	45.3	110	M16	257	52.3
	AP180	4-45	40	48H7	250H7	300	350	6	14	51.8	110	M16	257	52.3
	AP200	4-28	40	55H7	300H7	350	400	6	16	59.3	110	M16	327	77.4
	AP225	4-22.4	30	60H7	350H7	400	450	6	18	64.4	140	M16	354	85.1
C212 C312	AP100	4.5-280	28	28H7	180H7	215	250	5	8	31.3	60	M12	162	25.6
	AP112	4.5-280	28	28H7	180H7	215	250	5	8	31.3	60	M12	162	25.6
	AP132	4.5-140	28	38H7	230H7	265	300	5	10	41.3	80	M12	189	33.7
	AP160	4.5-100	40	42H7	250H7	300	350	6	12	45.3	110	M16	257	52.3
	AP180	4.5-63	40	48H7	250H7	300	350	6	14	51.8	110	M16	257	52.3
	AP200	4.5-40	40	55H7	300H7	350	400	6	16	59.3	110	M16	327	77.4
	AP225	4.5-31.5	30	60H7	350H7	400	450	6	18	64.4	140	M16	354	85.1
C213 C313	AP132	4-125	28	38H7	230H7	265	300	5	10	41.3	80	M12	175	46.4
	AP160	4-125	40	42H7	250H7	300	350	6	12	45.3	110	M16	243	66.9
	AP180	4-80	40	48H7	250H7	300	350	6	14	51.8	110	M16	243	66.9
	AP200	4-50	40	55H7	300H7	350	400	6	16	59.3	110	M16	316	89.8
	AP225	4-40	30	60H7	350H7	400	450	6	18	64.4	140	M16	343	97.5
	AP250	4-20	32	65H7	450H7	500	550	7	18	69.4	140	M16	361	131.3
C214 C314	AP132	4-200	28	38H7	230H7	265	300	5	10	41.3	80	M12	175	46.4
	AP160	4-200	40	42H7	250H7	300	350	6	12	45.3	110	M16	243	66.9
	AP180	4-140	40	48H7	250H7	300	350	6	14	51.8	110	M16	243	66.9
	AP200	4-80	40	55H7	300H7	350	400	6	16	59.3	110	M16	316	89.8
	AP225	4-71	30	60H7	350H7	400	450	6	18	64.4	140	M16	343	97.5
	AP250	4-45	32	65H7	450H7	500	550	7	18	69.4	140	M16	361	131.3
	AP280	4-31.5	32	75H7	450H7	500	550	7	20	79.9	140	M16	361	131.3
C216 C316	AP160	18-224	40	42H7	250H7	300	350	6	12	45.3	110	M16	233	90.9
	AP180	18-180	40	48H7	250H7	300	350	6	14	51.8	110	M16	233	90.9
	AP200	4.5-112	40	55H7	300H7	350	400	6	16	59.3	110	M16	298	109.4
	AP225	4.5-90	30	60H7	350H7	400	450	6	18	64.4	140	M16	325	117.1
	AP250	4.5-63	32	65H7	450H7	500	550	7	18	69.4	140	M16	343	147.8
	AP280	4.5-45	32	75H7	450H7	500	550	7	20	79.9	140	M16	343	147.8
	AP315	4.5-31.5	35	80H7	550H7	600	660	7	22	85.4	170	M20	447	262.5

7.2 C series dimensions of AN input flange

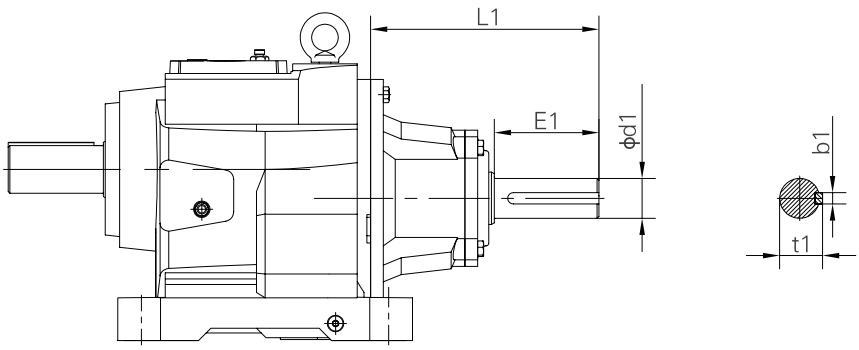


Size	Flange	NEMA Motor Frame	Power (HP)	IEC Standard Power	c1	D1	N1	M1	P1	f1	b1	t1	L	S1	L2
C203 C303	AN145	143TC	1/1.5	0.75/1.1	6	22.225H7	114.3H7	149.2	200	5	4.76	24.7	58.04	11	92
		145TC	2	1.5											
C204 C304	AN145	143TC	1/1.5	0.75/1.1	6	22.225H7	114.3H7	149.2	200	5	4.76	24.7	58.04	11	94
		145TC	2	1.5											
	AN184	182TC	3	2.2	8	28.575H7	215.9H7	184.2	250	8	6.35	31.7	73.03	13.5	220.5
		184TC	5	4											
C205 C305	AN145	143TC	1/1.5	0.75/1.1	6	22.225H7	114.3H7	149.2	200	5	4.76	24.7	58.04	11	94
		145TC	2	1.5											
	AN184	182TC	3	2.2	8	28.575H7	215.9H7	184.2	250	8	6.35	31.7	73.03	13.5	220.5
		184TC	5	4											
C206 C306	AN145	143TC	1/1.5	0.75/1.1	6	22.225H7	114.3H7	149.2	200	5	4.76	24.7	58.04	11	94
		145TC	2	1.5											
	AN184	182TC	3	2.2	8	28.575H7	215.9H7	184.2	250	8	6.35	31.7	73.03	13.5	220.5
		184TC	5	4											
	AN215	213TC	7.5	5.5	9	34.925H7	215.9H7	184.15	300	8	7.94	38.7	85.73	13.5	245
		215TC	10	7.5											
C207 C307	AN145	143TC	1/1.5	0.75/1.1	6	22.225H7	114.3H7	149.2	200	5	4.76	24.7	58.04	11	86
		145TC	2	1.5											
	AN184	182TC	3	2.2	8	28.575H7	215.9H7	184.2	250	8	6.35	31.7	73.03	13.5	210.5
		184TC	5	4											
	AN215	213TC	7.5	5.5	9	34.925H7	215.9H7	184.15	300	8	7.94	38.7	85.73	13.5	235
		215TC	10	7.5											
C208 C308	AN145	143TC	1/1.5	0.75/1.1	6	22.225H7	114.3H7	149.2	200	5	4.76	24.7	58.04	11	83
		145TC	2	1.5											
	AN184	182TC	3	2.2	8	28.575H7	215.9H7	184.2	250	8	6.35	31.7	73.03	13.5	200.5
		184TC	5	4											
	AN215	213TC	7.5	5.5	9	34.925H7	215.9H7	184.15	300	8	7.94	38.7	85.73	13.5	228
		215TC	10	7.5											
	AN256	254TC	15	11	9	41.275H7	215.9H7	184.15	350	8	9.53	45.8	101.6	13.5	297
		256TC	20	15											
C209 C309	AN184	182TC	3	2.2	8	28.575H7	215.9H7	184.2	250	8	6.35	31.7	73.03	13.5	201.5
		184TC	5	4											
	AN215	213TC	7.5	5.5	9	34.925H7	215.9H7	184.15	300	8	7.94	38.7	85.73	13.5	227
		215TC	10	7.5											
	AN256	254TC	15	11	9	41.275H7	215.9H7	184.15	350	8	9.53	45.8	101.6	13.5	296
		256TC	20	15											
	AN286	284TC	25	18.5	9	47.625H7	266.7H7	228.6	400	8	12.7	53.4	117.48	13.5	352
		286TC	30	22											
C210 C310	AN184	182TC	3	2.2	8	28.575H7	215.9H7	184.2	250	8	6.35	31.7	73.03	13.5	191.5
		184TC	5	4											
	AN215	213TC	7.5	5.5	9	34.925H7	215.9H7	184.15	300	8	7.94	38.7	85.73	13.5	214
		215TC	10	7.5											
	AN256	254TC	15	11	9	41.275H7	215.9H7	184.15	350	8	9.53	45.8	101.6	13.5	283
		256TC	20	15											
	AN286	284TC	25	18.5	9	47.625H7	266.7H7	228.6	400	8	12.7	53.4	117.48	13.5	252
		286TC	30	22											
	AN326	324TC	40	30	9.5	53.975H7	317.5H7	279.4	450	8	12.7	60	133.35	17.5	384
		326TC	50	37											
	AN365	364TC	60	45	24.5	60.325H7	317.5H7	279.4	450	8	15.88	67.6	149.23	17.5	399
		365TC	75	55											



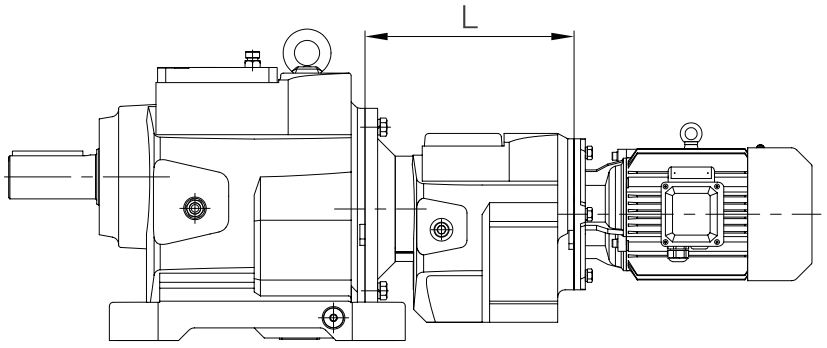
Size	Flange	NEMA Motor Frame	Power (HP)	IEC Standard Power (KW)	c1	D1	N1	M1	P1	f1	b1	t1	L	S1	L2
C212 C312	AN184	182TC	3	2.2	8	28.575H7	215.9H7	184.2	250	8	6.35	31.7	73.03	13.5	191.5
		184TC	5	4											
	AN215	213TC	7.5	5.5	9	34.925H7	215.9H7	184.15	300	8	7.94	38.7	85.73	13.5	214
		215TC	10	7.5											
	AN256	254TC	15	11	9	41.275H7	215.9H7	184.15	350	8	9.53	45.8	101.6	13.5	283
		256TC	20	15											
	AN286	284TC	25	18.5	9	47.625H7	266.7H7	228.6	400	8	12.7	53.4	117.48	13.5	252
		286TC	30	22											
	AN326	324TC	40	30	9.5	53.975H7	317.5H7	279.4	450	8	12.7	60	133.35	17.5	384
		326TC	50	37											
	AN365	364TC	60	45	24.5	60.325H7	317.5H7	279.4	450	8	15.88	67.6	149.23	17.5	399
		365TC	75	55											
C213 C313	AN215	213TC	7.5	5.5	9	34.925H7	215.9H7	184.15	300	8	7.94	38.7	85.73	13.5	200
		215TC	10	7.5											
	AN256	254TC	15	11	9	41.275H7	215.9H7	184.15	350	8	9.53	45.8	101.6	13.5	269
		256TC	20	15											
	AN286	284TC	25	18.5	9	47.625H7	266.7H7	228.6	400	8	12.7	53.4	117.48	13.5	341
		286TC	30	22											
	AN326	324TC	40	30	9.5	53.975H7	317.5H7	279.4	450	8	12.7	60	133.35	17.5	373
		326TC	50	37											
	AN365	364TC	60	45	24.5	60.325H7	317.5H7	279.4	450	8	15.88	67.6	149.23	17.5	388
		365TC	75	55											
	AN405	405TC	100	75	64.5	73.025H7	317.5H7	279.4	450	8	19.05	81.9	184.15	17.5	433
C214 C314	AN215	213TC	7.5	5.5	9	34.925H7	215.9H7	184.15	300	8	7.94	38.7	85.73	13.5	200
		215TC	10	7.5											
	AN256	254TC	15	11	9	41.275H7	215.9H7	184.15	350	8	9.53	45.8	101.6	13.5	269
		256TC	20	15											
	AN286	284TC	25	18.5	9	47.625H7	266.7H7	228.6	400	8	12.7	53.4	117.48	13.5	341
		286TC	30	22											
	AN326	324TC	40	30	9.5	53.975H7	317.5H7	279.4	450	8	12.7	60	133.35	17.5	373
		326TC	50	37											
	AN365	364TC	60	45	24.5	60.325H7	317.5H7	279.4	450	8	15.88	67.6	149.23	17.5	388
		365TC	75	55											
	AN405	405TC	100	75	64.5	73.025H7	317.5H7	279.4	450	8	19.05	81.9	184.15	17.5	433
C216 C316	AN256	254TC	15	11	9	41.275H7	215.9H7	184.15	350	8	9.53	45.8	101.6	13.5	259
		256TC	20	15											
	AN286	284TC	25	18.5	9	47.625H7	266.7H7	228.6	400	8	12.7	53.4	117.48	13.5	323
		286TC	30	22											
	AN326	324TC	40	30	9.5	53.975H7	317.5H7	279.4	450	8	12.7	60	133.35	17.5	355
		326TC	50	37											
	AN365	364TC	60	45	24.5	60.325H7	317.5H7	279.4	450	8	15.88	67.6	149.23	17.5	370
		365TC	75	55											
	AN405	405TC	100	75	64.5	73.025H7	317.5H7	279.4	450	8	19.05	81.9	184.15	17.5	415

7.3 C series dimensions of AE input shaft



Size	Input Shaft	Range of Power	Range of Ratio	d1	E1	L1	b1	t1	Weight(kg)
C203 C303	AE200	0.12-0.75kW	4-90	19k6	40	117	6	21.5	2.5
C204	AE200	0.12-0.75kW	4-125	19k6	40	119	6	21.5	3.4
C304	AE300	1.1-4kW	4-35.5	28k6	60	175	8	31	6.1
C205	AE200	0.12-0.75kW	4.5-140	19k6	40	119	6	21.5	3.4
C305	AE300	1.1-4kW	4.5-56	28k6	60	175	8	31	6.1
C206	AE200	0.12-0.75kW	4.5-160	19k6	40	119	6	21.5	3.4
C306	AE300	1.1-4kW	4.5-71	28k6	60	175	8	31	6.1
C207 C307	AE200	0.12-0.75kW	4-180	19k6	40	111	6	21.5	4.9
	AE300	1.1-4kW	4-90	28k6	60	165	8	31	7.5
	AE400	5.5-7.5kW	4-18	38k6	80	211	10	41	10.5
C208 C308	AE200	0.12-0.75kW	20-200	19k6	40	108	6	21.5	7.2
	AE300	1.1-4kW	4.5-160	28k6	60	155	8	31	10.2
	AE400	5.5-11kW	4.5-45	38k6	80	204	10	41	13.1
	AE500	15-22kW	4.5-18	42k6	110	266	12	45	23.3
C209 C309	AE300	1.1-4kW	4-224	28k6	60	156	8	31	10.2
	AE400	5.5-11kW	4-71	38k6	80	203	10	41	13.1
	AE500	15-22kW	4-40	42k6	110	265	12	45	23.3
	AE600	30-45KW	4-16	48k6	110	309	14	51.5	40.9
C210 C310	AE300	1.1-4kW	4-224	28k6	60	146	8	31	17.6
	AE400	5.5-11kW	4-100	38k6	80	190	10	41	21.9
	AE500	15-22kW	4-56	42k6	110	252	12	45	29.2
	AE600	30-45KW	4-28	48k6	110	309	14	51.5	45.5
C212 C312	AE300	1.1-4kW	4.5-280	28k6	60	146	8	31	17.6
	AE400	5.5-11kW	4.5-140	38k6	80	190	10	41	21.9
	AE500	15-22kW	4.5-71	42k6	110	252	12	45	29.2
	AE600	30-45KW	4.5-40	48k6	110	309	14	51.5	45.5
C213 C313	AE400	5.5-11kW	4-125	38k6	80	176	10	41	34.6
	AE500	15-22kW	4-100	42k6	110	238	12	45	43.8
	AE600	30-45KW	4-50	48k6	110	298	14	51.5	57.9
	AE700	55-90KW	4-20	55m6	110	297	16	59	64.6
	AE800	110-132KW	4-11.2	70m6	140	377	20	74.5	87.8
C214 C314	AE400	5.5-11kW	4-200	38k6	80	176	10	41	34.6
	AE500	15-22kW	4-160	42k6	110	238	12	45	43.8
	AE600	30-45KW	4-80	48k6	110	298	14	51.5	57.9
	AE700	55-90KW	4-45	55m6	110	297	16	59	64.6
	AE800	110-200KW	4-18	70m6	140	377	20	74.5	87.8
C216 C316	AE500	15-22KW	18-224	42k6	110	228	12	45	67.8
	AE600	30-45KW	4.5-112	48k6	110	280	14	51.5	77.5
	AE700	55-90KW	4.5-63	55m6	110	279	16	59	81.1
	AE800	110-200KW	4.5-31.5	70m6	140	361	20	74.5	104.8

8 Combi–type Dimensions

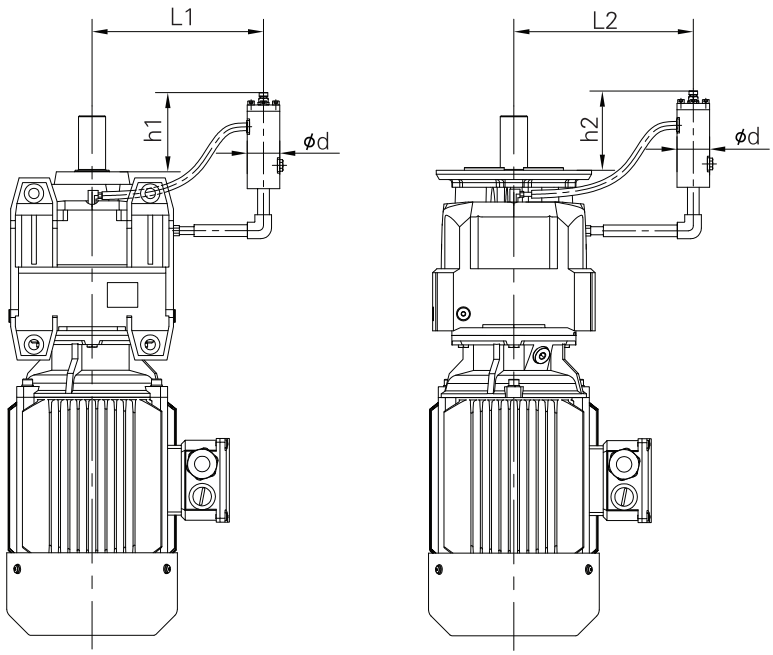


Type	C203/C201 C203/C301 C303/C201 C303/C301	C204/C203 C204/C303 C304/C203 C304/C303	C205/C203 C205/C303 C305/C203 C305/C303	C206/C203 C206/C303 C306/C203 C306/C303	C207/C203 C207/C303 C307/C203 C307/C303	C208/C205 C208/C305 C308/C205 C308/C305	C209/C205 C209/C305 C309/C205 C309/C305
L	134	170	170	170	162	182	183
Range of Motor Power (kW)	0.12-0.37	0.12-0.55	0.12-1.1	0.12-1.1	0.12-1.5	0.12-3	0.12-4
Type	C210/C207 C210/C307 C310/C207 C310/C307	C213/C207 C213/C307 C313/C207 C313/C307	C314/C207 C314/C307	C214/C208 C214/C308	C316/C209 C316/C309	C216/C210 C216/C310	
L	226	226	226	258	321	361	
Range of Motor Power (kW)	0.12-7.5	0.12-15	0.12-15	0.55-22	0.55-18.5	1.5-37	

9 Accessories and Specific Configuration

9.1 Oil compensating tank (code 6)

Oil compensating tank for vertical mounting positions D2 of C...H/C...F/C...S.



Size	L1	L2	h1	h2	d
C203 C303	150	150	80	70	42
C204 C304	160	160	80	80	42
C205 C305	160	160	80	80	42
C206 C306	180	180	75	75	42
C207 C307	225	225	150	150	80
C208 C308	250	250	130	130	80
C209 C309	330	330	120	120	80
C210 C310	370	370	160	160	120
C212 C312	380	380	170	170	120
C213 C313	390	390	160	160	120
C214 C314	440	440	130	130	120
C216 C316	470	470	140	140	120

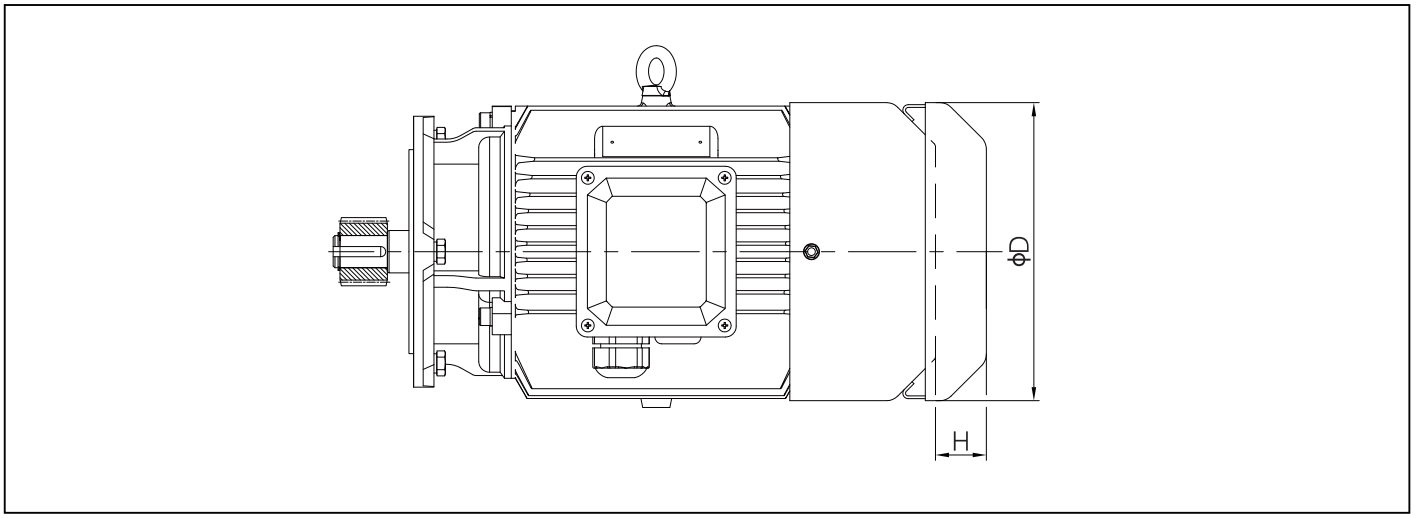
Note: In case of an upward output shaft ,normal lubrication system would fail to feed the overhead rolling bearings,To ensure an adequate supply of lubricants,the oil level has to be increased accordingly.As shown above (D2) ,an oil compensating tank with breather is attached for this purpose.

10 oil

Mounting position / Size	D1	D2	D3	D4	D5	D6
C200H C300H	0.2	0.2	0.2	0.3	0.2	0.2
C201H C301H	0.4	0.4	0.4	0.5	0.4	0.4
C203H C303H	0.4	1	1.1	1.2	0.9	1.1
C204H C304H	0.8	1.7	1.6	1.8	1.6	1.6
C205H C305H	0.9	1.9	1.8	2.1	1.8	1.8
C206H C306H	1.3	2.8	3.1	3.5	2	2.2
C207H C307H	1.4	4.1	3.8	4.9	2.7	4.1
C208H C308H	2.6	7.1	7.5	8.1	6.6	7.2
C209H C309H	4.9	12.1	12.1	13.8	11.7	12.5
C210H C310H	6.5	16.8	17.4	19.7	13.7	17.1
C212H C312H	7.8	20.2	20.9	23.6	16.4	20.5
C213H C313H	11	29	30.5	32.5	26	26
C214H C314H	16	47.5	49	53	40.5	42
C216H C316H	28	84	80	90	68	71

Mounting position / Size	D1/D3 D5/D6	D2	D4
C200F/C200S C300F/C300S	0.2	0.2	0.3
C201F/C201S C301F/C301S	0.4	0.4	0.5
C203F/C203S C303F/C303S	0.5	1	1.2
C204F/C204S C304F/C304S	0.8	1.7	1.8
C205F/C205S C305F/C305S	0.9	1.9	1.9
C206F/C206S C306F/C306S	1.4	2.9	3.3
C207F/C207S C307F/C307S	1.4	3.9	4.3
C208F/C208S C308F/C308S	2.7	7.1	7.9
C209F/C209S C309F/C309S	5.4	12.2	14
C210F/C210S C310F/C310S	6.8	16.4	19.7
C212F/C212S C312F/C312S	8.2	19.7	23.6
C213F/C213S C313F/C313S	10.5	28	33
C214F/C214S C314F/C314S	17	48	53
C216F/C216S C316F/C316S	28	84	90

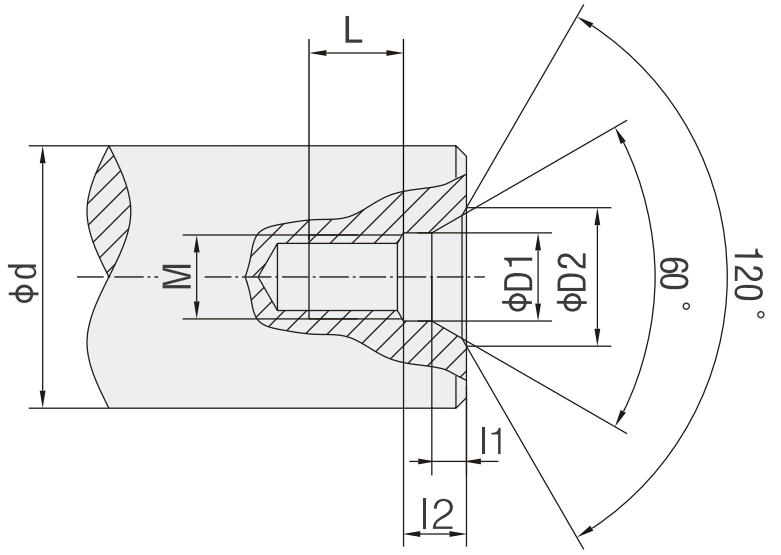
11 Motor Rainproof Cover Dimensions



Frame Size	H63	H71	H80	H90	H100	H112	H132	H160	H180	H200	H225	H250	H280
D	124	139	159	176	199	220	259	314	356	398	446	485	547
H	25	30	30	35	40	40	40	60	60	70	70	80	80

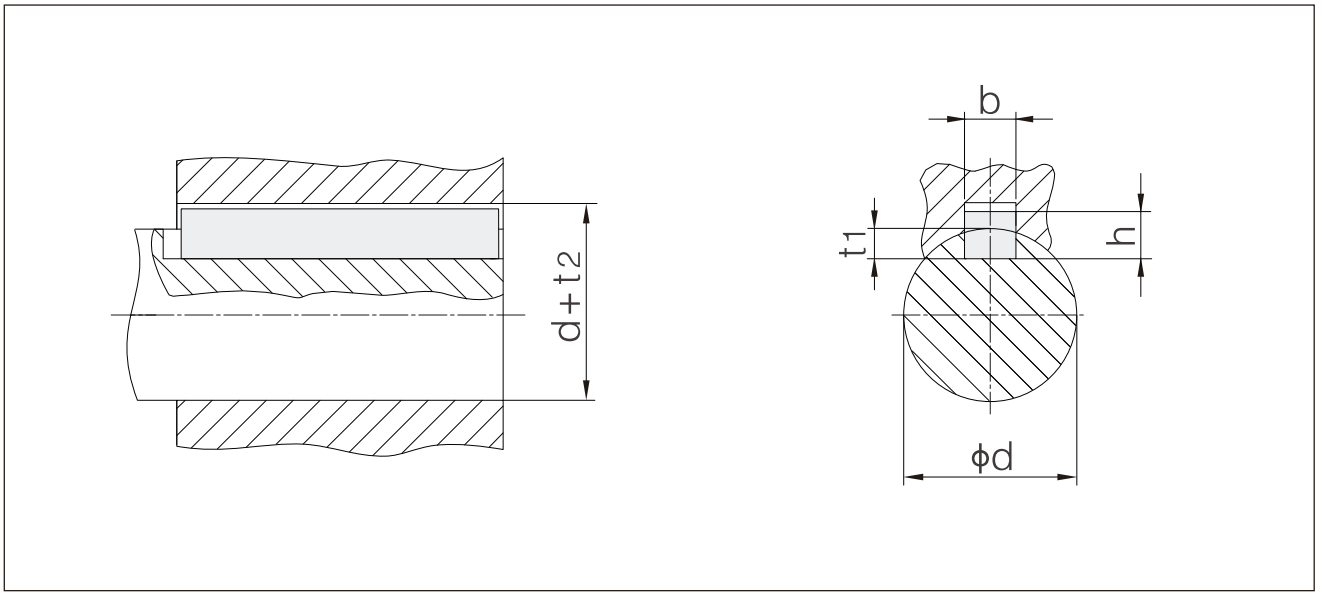
12 Shaft End Centre Hole

Type C screw central hole in shaft end



d	M	L	l2	l1	D1	D2
7＜d≤10	M3	10	2.6	1.8	3.2	5.8
10＜d≤13	M4	10	3.2	2.1	4.3	7.4
13＜d≤16	M5	10	4	2.4	5.3	8.8
16＜d≤21	M6	12	5	2.8	6.4	10.5
21＜d≤24	M8	12	6	3.3	8.4	13.2
24＜d≤30	M10	15	7.5	3.8	10.5	16.3
30＜d≤38	M12	20	9.5	4.4	13	19.8
38＜d≤50	M16	25	12	5.2	17	25.3
50＜d≤85	M20	30	15	6.4	21	31.3
85＜d≤130	M24	35	18	8	25	38
130＜d≤225	M30	45	18	11	31	48

13 Dimension of Parallel Key and Keyway



d	b	h	t_1	$d+t_2$
8＜d≤10	3	3	1.8	d+1.4
10＜d≤12	4	4	2.5	d+1.8
12＜d≤17	5	5	3	d+2.3
17＜d≤22	6	6	3.5	d+2.8
22＜d≤30	8	7	4	d+3.3
30＜d≤38	10	8	5	d+3.3
38＜d≤44	12	8	5	d+3.3
44＜d≤50	14	9	5.5	d+3.8
50＜d≤58	16	10	6	d+4.3
58＜d≤65	18	11	7	d+4.4
65＜d≤75	20	12	7.5	d+4.9
75＜d≤85	22	14	9	d+5.4
85＜d≤95	25	14	9	d+5.4
95＜d≤110	28	16	10	d+6.4
110＜d≤130	32	18	11	d+7.4
130＜d≤150	36	20	12	d+8.4
150＜d≤170	40	22	13	d+9.4
170＜d≤200	45	25	15	d+10.4
200＜d≤230	50	28	17	d+11.4
230＜d≤260	56	32	20	d+12.4

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