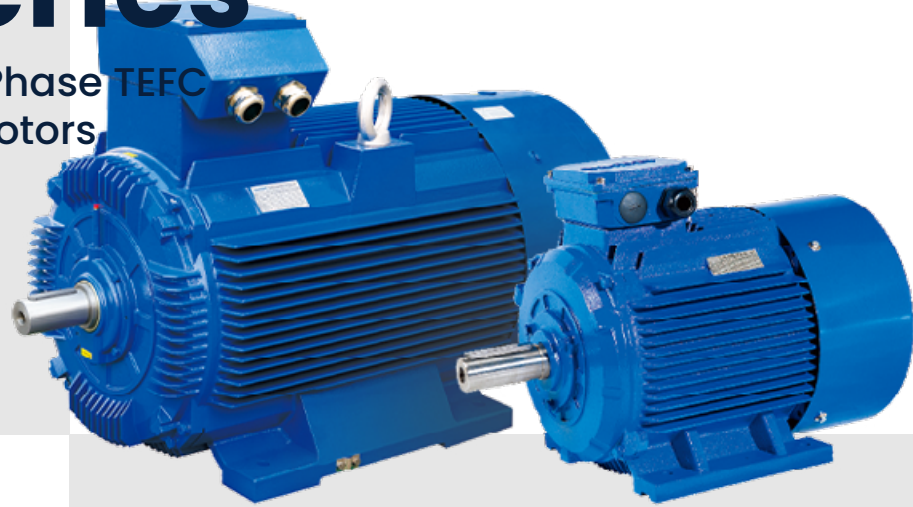


WDS Series

Double Speed Three Phase TEFC
Induction Cast Iron Motors

WDS Series

Double Speed Three Phase TEFC Induction Cast Iron Motors



General Information:

WDS Series are cast iron motors with multi-speed, which is realized by changing the numbers of poles. The motors can have two separated windings or Dahlander connection, which is suitable for various loads. WDS Series are suitable for fan drive with constant power, constant torque, depending on user's option of load and control circuit.

Wonder three phase asynchronous motors are widely applied in general machinery and industries such as pumps & water treatment, road machinery, petroleum, chemical & metallurgy, cement and papermilling.

Technical Characteristics:

- IP55 protection, class F insulation, B-level temperature rise, S1 duty;
- Rated voltage 400V;
- Rated frequency 50Hz;
- Operation ambient temperature: -20°C~40°C;
- Operation altitude ≤1000m.
- Y-connection for motors up to 3kW, Δ-connection for 4kW and above;
- Cooling method: IC411/IC416.

Mounting Arrangements:

Types	Basic Type of Construction	Derived Types of Construction					
WDS 71-280	IM B3 IM 1001	IM V5 IM 1011	IM V6 IM 1031	IM B6 IM 1051	IM B7 IM 1061	IM B8 IM 1071	
	IM B35 IM 2001	IM V15 IM 2011	IM V36 IM 2031	* IM 2051	* IM 2061	* IM 2071	
WDS 71-280	IM B34 IM 2101	* IM 2111	* IM 2131	* IM 2151	* IM 2161	* IM 2171	
	IM B5 IM 3001	IM V1 IM 3011	IM V3 IM 3031				
WDS 71-280	IM B14 IM 3601	IM V18 IM 3611	IM V19 IM 3631				

Basic types of construction may be used in all derived types of construction.
 1) ** means not-defined mounting by IEC 60034-7.
 2) for the types of construction IM V6, IM B6, IM B8 inquiry is necessary.

Technical Specifications (1/6)

Output Power kW	Frame Size	Rated Speed	Efficiency	Power Factor	Current		Torque			Moment of Inertia	Weight
		r/m	η%	cosφ	I _n /A	I _{st} /I _n	T _n /N _m	T _{st} /T _n	T _{max} /T _n	J(kg ^m ²)	kg
3000/1500r/m (2/4 Pole) 400V 50Hz Two Separate Windings											
0.65/0.14	80M1	2860/1450	73.0/57.0	0.85/0.57	1.5/0.58	4.8/3.6	2.18/0.93	1.9/2.0	2.2/2.3	0.0008	16
0.95/0.2	80M2	2850/1440	75.0/60.0	0.87/0.59	2.1/0.7	5.0/3.7	3.19/1.33	2.0/1.8	2.2/2.2	0.0009	17
1.1/0.25	80M3	2860/1440	77.0/60.7	0.87/0.60	2.4/0.85	5.3/3.8	3.7/1.7	2.0/1.8	2.2/2.0	0.0012	19
1.4/0.22	90S	2870/1470	77.0/48.0	0.87/0.63	3/1.1	5.3/3.3	4.6/1.4	1.7/1.0	2.4/2.3	0.0019	24
1.9/0.3	90L	2880/1470	78.0/53.0	0.87/0.68	4/1.1	5.8/3.7	6.3/1.9	1.9/1.0	2.5/2.3	0.0024	27
2.5/0.4	100L	2900/1470	80.0/60.0	0.87/0.67	5.2/1.5	6.5/4.1	8.2/2.6	2.1/1.0	3.0/2.7	0.0041	35
3.5/0.6	112M	2895/1470	83.0/68.0	0.92/0.60	6.6/2.1	7.0/5.8	11.5/3.9	1.7/1.8	2.3/2.8	0.012	43
5.5/1	132S	2900/1470	84.0/64.0	0.88/0.65	10.8/3.5	7.8/5.7	18.1/6.5	2.4/2.0	2.9/2.0	0.016	62
7.4/1.2	132S	2875/1475	85.0/67.0	0.93/0.64	13.5/4.1	7.5/5.9	24.6/7.8	2.1/2.0	2.6/2.8	0.022	70
13/1.9	160M	2940/1470	88.5/79.5	0.92/0.79	23/4.4	7.8/6.4	42/12	2.1/2.1	3.0/2.5	0.054	124
17.5/2.5	160L	2925/1475	89.0/81.0	0.92/0.77	31/5.8	7.1/6.7	57/1.6	2.0/2.5	2.6/2.9	0.057	147
20/2.8	180M	2930/1465	89.0/77.0	0.90/0.77	36/6.9	6.4/5.8	65/18	2.1/1.9	2.4/2.0	0.094	183
25/3.6	180M	2940/1465	90.0/78.0	0.88/0.78	46/8.6	7.5/7.3	81/24	2.6/1.9	2.9/1.9	0.108	186
30/4.1	200L1	2945/1480	91.5/85.0	0.89/0.72	54/10	8.0/7.1	97/26	2.2/2.7	2.8/2.8	0.15	239
38/5.5	200L2	2945/1485	92.5/86.5	0.91/0.74	67/13	7.7/6.8	123/35	2.2/2.6	2.6/2.6	0.19	265
43/6.0	225M	2950/1475	92.5/86.5	0.90/0.78	75/13	7.1/5.8	139/39	2.3/2.7	2.4/2.0	0.26	328
50/7.0	225M	/955/1480	93.0/87.5	0.91/0.78	86/15	7.3/6.1	162/45	2.4/2.9	2.4/2.1	0.29	330
70/10.0	250M	2965/1485	94.0/89.5	0.90/0.76	119/22	9.3/7.1	225/64	2.3/2.5	3.1/2.3	0.67	449
3000/1500r/m (2/4 Pole) 400V 50Hz Dahlander Connection											
0.37/0.08	71M1	2690/1460	64.0/40.0	0.92/0.41	0.9/0.7	3.3/4.3	1.31/0.52	1.8/2.1	1.9/2.2	0.00066	14
0.55/0.12	71M2	2700/1470	67.0/48.5	0.91/0.42	1.3/0.85	3.8/3.4	1.94/0.78	1.4/2.2	1.5/2.2	0.00089	16
0.65/0.13	71M3	2800/1400	69.0/49.0	0.85/0.42	1.6/0.91	4.1/3.5	2.2/0.88	1.5/2.3	1.6/2.4	0.0011	16
0.85/0.2	80M1	2850/1440	77.0/52.5	0.85/0.55	1.9/1.0	5.0/4.1	2.86/1.33	2.1/2.3	2.3/2.6	0.000	17
1.1/0.25	80M2	2855/1450	79.0/55.6	0.84/0.59	2.4/1.1	5.3/4.2	3.7/1.65	2.3/2.5	2.5/2.7	0.00009	19
1.4/0.35	80M3	2845/1440	79.0/66.8	0.85/0.63	3/1.2	5.4/4.4	4.7/2.32	2.3/2.4	2.4/2.6	0.0012	20
1.5/0.37	90S	2860/1460	77.0/66.8	0.87/0.63	3.3/1.27	5.2/3.9	5.2/1	1.8/1.1	2.4/2.1	0.0019	25
2.2/0.45	90L	2860/1460	80.0/73.0	0.88/0.65	4.6/1.4	5.9/4.4	7.3/2.9	2.1/1.2	2.6/2.3	0.0024	30
3/0.6	100L	2880/1470	81.0/74.0	0.89/0.61	6.2/1.9	6.3/4.8	9.9/3.9	2.2/1.4	2.8/2.8	0.0041	39
4.5/1	112M	2875/1450	83.0/80.0	0.93/0.76	8.4/2.4	7.0/6.0	14.9/6.6	1.8/1.9	2.3/2.8	0.012	48
6.2/1.3	132S	2880/1455	84.0/80.0	0.91/0.67	11.8/3.5	7.0/6.5	20.6/8.5	2.0/2.6	2.6/3.3	0.016	65
8.3/1.7	132M	2875/1455	84.0/82.0	0.93/0.71	15.4/4.2	7.4/6.6	27.6/11.2	2.5/2.7	2.7/3.3	0.022	76
10/2.0	160M1	2910/1465	85.0/83.5	0.89/0.73	19/4.8	5.9/6.1	30/43	1.5/2.4	2.3/2.8	0.039	116
16/3.2	160M2	2915/1465	87.5/86.5	0.92/0.76	28.5/7	6.6/6.3	52/21	1.8/2.5	2.4/2.8	0.054	126
19.5/4.5	160L	2930/1465	89.0/88.0	0.89/0.77	36/9.7	7.6/6.4	64/29	2.3/2.5	2.9/2.8	0.057	147
21.5/4.7	180M	2935/1465	90.0/88.0	0.91/0.77	38.0/10	7.0/5.3	70/28	2.1/2.1	2.6/2.3	0.094	171
26/5.2	180M	2940/1470	90.5/89.5	0.89/0.75	47/11	6.9/5.8	85/34	2.3/2.4	2.6/2.4	0.108	182
32/8.0	200L1	2940/1465	90.5/89.5	0.89/0.85	58/16	7.1/6.2	104/52	2.0/2.0	2.5/2.2	0.28	253
145/19	200L2	2950/1475	91.5/91.0	0.89/0.85	69/19	7.4/6.2	126/65	2.0/2.0	2.6/2.3	0.34	265
156/46	200L3	2950/1470	92.5/91.0	0.89/0.77	75/23	7.7/5.6	136/71	2.2/2.1	3.0/2.5	0.19	265
45/13	225M	2955/1475	93.0/91.5	0.92/0.82	76/25	7.4/5.3	145/84	2.0/2.0	2.6/2.1	0.27	330
55/15	225M	2955/1475	93.5/92.5	0.91/0.82	94/29	7.3/5.4	178/97	2.0/2.0	2.6/2.2	0.3	330
75/25	250M	2965/1475	94.5/93.0	0.92/0.82	125/48	8.9/5.5	241/162	2.3/2.0	3.1/2.2	0.36	450

Technical Specifications (4/6)

Output Power	Frame Size	Rated Speed	Efficiency	Power Factor	Current		Torque			Moment of Inertia	Weight
					I_n/A	I_{st}/I_n	T_n/N_m	T_{st}/T_n	T_{max}/T_n		
kW		r/m	$\eta\%$	$\cos\phi$						J(kgm ²)	kg

3000/1500r/m (2/4 Pole) 400V 50Hz Constant Torque & Two Separate Windings

0.58/0.28	80M1	2850/1400	70.0/61.0	0.88/0.63	1.35/1.05	4.4/3.1	1.95/1.92	1.6/1.5	1.9/1.5	0.0015	15
0.7/0.36	80M2	2860/1400	74.0/63.4	0.88/0.64	1.55/1.28	5.0/3.4	2.35/2.46	1.8/1.6	2.2/1.8	0.0016	17
1.1/0.55	90S	2900/1450	74.0/62.0	0.85/0.64	2.5/2	5.1/3.6	3.6/3.6	1.4/1.5	2.3/2.3	0.002	22
1.5/0.75	90L	2900/1450	77.0/70.0	0.87/0.67	3.3/2.4	5.7/4.1	4.9/4.9	1.5/1.5	2.5/2.3	0.003	25
2/1	100L	2900/1460	76.0/67.0	0.89/0.66	4.3/3.3	6.2/4.0	6.5/6.5	1.9/1.4	2.8/2.6	0.0055	40
2.6/1.3	112M	2900/1460	80.0/75.0	0.92/0.72	5.1/3.5	6.4/5.0	8.6/8.5	1.6/1.6	2.3/2.3	0.01	43
4.4/2.2	132S	2925/1450	81.0/74.0	0.86/0.73	9.1/5.9	7.3/4.4	14.4/14.5	2.0/1.3	2.3/2.2	0.021	60
5.6/2.8	132M	2885/1440	82.0/77.0	0.93/0.75	10.6/7	6.7/5.0	18.5/18.6	1.8/1.4	2.1/2.2	0.03	62
12/6	160M	2835/1460	87.5/84.5	0.92/0.80	22/13	7.7/6.0	39/39	2.1/2.3	2.8/2.4	0.09	126
15/7.5	160L	2940/1460	88.5/84.5	0.93/0.78	27/16.5	7.9/6.0	49/49	2.2/2.4	2.9/2.4	0.165	134
18/9	180L	2945/1460	89/84	0.90/0.77	32/20	7.7/5.2	58/59	2.5/2.3	2.8/2.1	0.13	149
23/12	200L1	2960/1475	90.0/89.0	0.89/0.85	42/23	7.8/7.4	74/77	1.7/2.2	2.8/2.5	0.245	222
30/16	200L2	2960/1475	91.0/90.0	0.90/0.87	53/30	8.2/7.3	97/104	1.8/2.2	2.9/2.5	0.39	239
36/18	225M	2960/1480	91.5/91.5	0.91/0.76	63/38	8.0/7.2	116/116	2.5/3.8	2.7/2.5	0.4	266
40/20	225M	2960/1475	92.0/91.5	0.91/0.79	69/41	8.5/6.5	129/129	2.8/3.3	2.8/2.2	0.45	318
50/25	250M	2965/1485	93.0/93.0	0.91/0.76	86/52	8.9/8.5	161/161	2.1/3.5	2.9/2.9	0.6	410

3000/1500r/m (2/4 Pole) 400V 50Hz Constant Torque & Dahlander Connection

0.37/0.25	71M1	2700/1390	64.0/60.0	0.91/0.76	0.95/0.7	3.3/3.1	1.3/1.72	1.9/1.5	2.0/1.6	0.00066	14
0.48/0.31	71M2	2780/1400	68.0/65.0	0.87/0.73	1.2/0.94	3.6/4.0	1.66/2.15	1.4/2.0	1.5/2.1	0.00089	15
0.63/0.5	80M1	2690/1400	66.0/67.0	0.88/0.80	1.6/1.35	3.6/4.2	2.25/3.42	1.8/1.9	1.9/2.1	0.0013	16
0.85/0.65	80M2	2725/1405	70.0/70.0	0.88/0.80	2/1.7	4.0/4.4	2.99/4.43	1.9/2.0	1.9/2.2	0.0016	16
1.3/1	90S	2730/1400	71.0/71.0	0.82/0.76	3.1/2.6	3.9/3.9	4.5/6.8	2.0/1.5	2.2/2.0	0.0032	23
1.9/1.5	90L	2820/1420	74.0/75.0	0.88/0.81	4.4/3.9	5.1/4.4	6.4/10	2.8/2.0	3.0/2.5	0.0043	27
2.5/2.1	100L1	2800/1420	68.0/76.0	0.88/0.85	6/5	4.8/4.4	8.5/14	2.2/1.6	2.5/2.2	0.0069	35
3.4/2.7	100L2	2810/1430	78.0/80.0	0.94/0.76	7.2/5.9	5.3/5.4	11.5/18	2.2/1.9	2.5/2.5	0.0082	39
4/2.6	112M	2865/1430	82.0/77.0	0.93/0.76	7.6/6.5	6.3/6.2	13.3/17.4	1.8/2.3	2.1/2.6	0.012	48
4.7/3.1	132S	2820/1420	79.0/77.0	0.93/0.76	9.2/7.7	5.5/5.7	15.9/20.8	1.8/2.2	2.1/2.4	0.016	62
7.2/4.8	132M	2870/1435	84.0/81.0	0.92/0.74	13.3/11.5	7.1/6.2	24/31.9	2.4/2.5	2.6/2.7	0.022	69
9/6.5	160M	2885/1440	83.0/82.0	0.93/0.77	17.0/15.6	4.6/4.3	4.0/43	1.3/1.7	1.9/1.9	0.039	111
15/10.5	160L	2900/1445	87.0/86.0	0.88/0.79	27/23	5.8/4.9	49/69	1.6/2.1	2.1/2.1	0.057	134
18/12	180M	2940/1455	89.0/89.0	0.89/0.80	33/25	6.8/5.3	59/79	2.1/2.4	2.6/2.2	0.094	188
24/17	180M	2945/1455	90.0/90.0	0.89/0.86	43/34	7.4/5.2	78/111	2.4/2.4	2.8/2.1	0.108	200
32/24	200L1	2940/1470	89.0/90.5	0.84/0.86	58/45	6.8/5.9	104/156	1.8/2.1	2.4/2.1	0.28	233
39/29	200L2	2950/1470	90.5/91.0	0.92/0.88	75/53	6.8/7.0	126/188	1.7/2.2	2.6/2.4	0.34	265
42/32	225M	2955/1475	92.5/93.0	0.84/0.87	71/57	7.1/6.5	136/2.7	1.5/1.9	2.5/2.3	0.49	324
50/40	225M	2965/1480	92.5/93.0	0.93/0.88	87/72	7.4/7.1	161/259	2.1/2.8	3.3/3.0	0.49	330
68/50	250M	2940/1475	93.0/93.0	0.93/0.89	113/87	6.6/6.9	22.0/324	1.5/2.1	2.4/2.5	0.89	450

Technical Specifications (5/6)

Output Power	Frame Size	Rated Speed	Efficiency	Power Factor	Current		Torque			Moment of Inertia	Weight
					I_n/A	I_{st}/I_n	T_n/N_m	T_{st}/T_n	T_{max}/T_n		
kW		r/m	$\eta\%$	$\cos\phi$						J(kgm ²)	kg

1500/750r/m (4/8 Pole) 400V 50Hz Constant Torque & Two Separate Windings

0.28/0.14	80M1	1425/700	60.0/50.0	0.77/0.68	0.9/0.6	4.0/3.0	1.88/1.92	2.2/2.0	2.2/2.0	0.0019	15
0.38/0.19	80M2	1430/705	64.0/52.0	0.77/0.68	1.1/0.8	4.2/3.1	2.55/2.58	2.0/2.0	2.4/2.0	0.0022	16
0.55/0.25	90S	1450/700	62.0/51.0	0.78/0.59	1.9/1.2	4.2/2.3	3.6/3.4	1.3/1.4	2.2/2.1	0.0032	22
0.75/0.37	90L	1450/700	66.0/57.0	0.75/0.57	2.2/1.7	4.1/2.5	4.9/5	1.4/1.5	2.4/2.2	0.0043	27
1.1/0.55	100L1	1460/710	68.0/62.0	0.77/0.61	3.1/2.2	4.2/2.6	7.2/7.4	1.2/1.2	2.3/1.9	0.0069	33
1.5/0.75	100L2	1440/700	72/62.0	0.82/0.60	3.7/2.9	4.6/2.7	9.8/10	1.3/1.2	2.2/1.9	0.0082	34
1.8/0.9	112M	1470/715	77.0/65.0	0.76/0.66	4.4/3	6.5/4.0	11.7/12	1.2/1.6	2.2/2.4	0.018	46
2.5/1.3	132S	1470/730	80.0/69.0	0.79/0.58	5.7/4.7	6.7/4.4	16.2/17	1.6/1.4	2.6/2.7	0.038	64
3.3/1.7	132M	1470/725	81.0/71.0	0.83/0.67	7.1/5.2	8.0/4.8	21.4/22.4	1.8/1.8	2.7/2.2	0.048	76
5.5/2.7	160M	1465/730	85.0/71.0	0.83/0.57	11.5/9.6	5.6/4.0	36/35	1.7/2.0	2.2/2.3	0.089	112
9/4.5	160L	1465/730	86.5/73.5	0.83/0.56	18/16	7.0/4.1	59/59	2.1/2.1	2.7/2.5	0.119	138
14/7	180L	1475/735	88.0/76.0	0.83/0.56	28/24	7.7/4.2	91/91	2.6/2.3	2.9/2.3	0.225	198
18.5/9.4	200L1	1475/730	89.5/82.5	0.85/0.65	35/26	7.3/4.3	120/123	2.2/1.9	2.5/1.8	0.28	243
22/11	200L2	1480/735	90.5/83.0	0.84/0.60	42/32	8.4/4.7	142/143	2.6/2.4	2.9/2.2	0.34	250
28/14	225S	1480/735	90.50/85.5	0.85/0.61	53/39	7.7/4.9	181/182	2.1/2.4	2.7/2.2	0.41	313
34/17	225M	1480/735	92.0/87.0	0.86/0.66	63/43	7.9/4.8	219/221	2.2/2.2	2.7/2.0	0.49	350
50/25	250M	1480/740	92.5/88.0	0.87/0.60	90/68	8.6/6.0	323/323	2.6/3.5	3.0/2.9	0.89	416

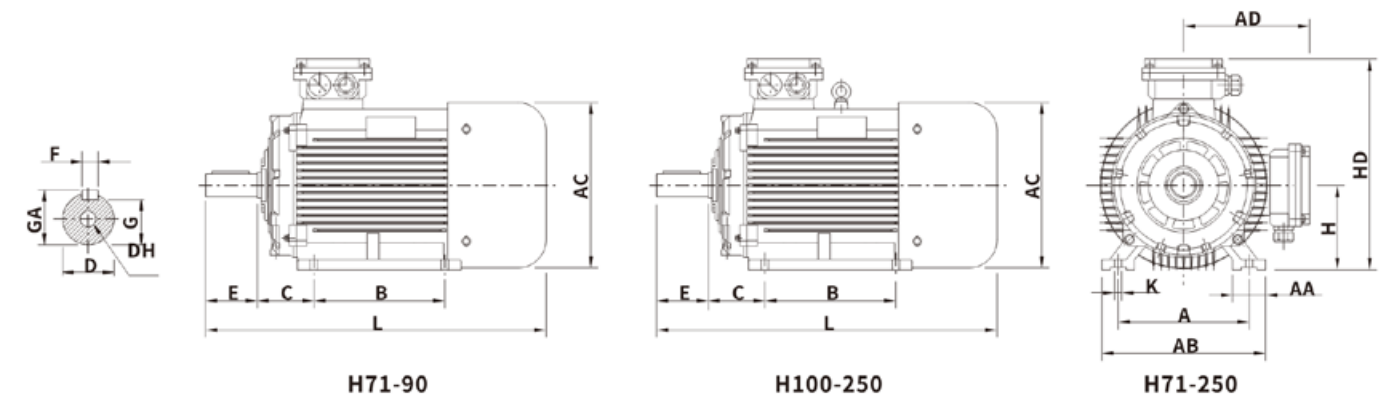
1500/750r/m (4/8 Pole) 400V 50Hz Constant Torque & Dahlander Connection

0.18/0.11	71M1	1380/680	54.0/37.0	0.70/0.53	0.7/0.8	3.2/2.5	1.24/1.54	1.9/2.2	2.0/2.3	0.00066	14
0.3/0.15	71M2	1400/700	60.0/47.0	0.74/0.51	0.9/0.9	3.2/2.6	2.05/2.05	2.0/2.5	2.1/2.6	0.00089	15
0.45/0.25	80M1	1380/700	65.0/48.0	0.87/0.58	1.15/1.3	3.5/2.7	3.12/3.42	1.7/2.1	1.7/2.1	0.0019	16
0.63/0.33	80M2	1380/705	67.0/50.0	0.88/0.56	1.55/1.7	3.5/2.8	4.37/4.48	1.7/2.2	1.7/2.2	0.0022	17
0.7/0.37	90S	1420/700	72.0/50.0	0.80/0.57	1.8/1.9	4.4/2.3	4.7/5.1	1.6/1.6	2.3/2.2	0.0032	24
1.1/0.55	90L	1390/685	70.0/55.0	0.84/0.58	2.6/2.6	4.1/2.3	7.4/7.5	1.4/1.5	2.0/2.1	0.0043	27
1.5/0.75	100L1	1440/710	76.0/62.0	0.85/0.57	3.4/3.2	4.6/2.8	10/10	1.4/1.5	2.2/2.2	0.0069	34
2/0.95	100L2	1440/710	78.0/64.0	0.86/0.55	4.4/4	4.8/2.9	13/12	1.4/1.6	2.2/2.3	0.0082	38
2.5/1.5	112M	1410/705	78.0/67.0	0.90/0.66	5.1/4.9	5.5/4.1	16.9/20.3	1.4/1.5	2.1/2.3	0.018	46
3.8/1.9	132S	1450/730	82.0/70.0	0.86/0.52	7.7/7.6	5.6/3.7	25/24.9	1.4/1.3	2.1/2.7	0.038	67
5/2.5	132M	1455/730	85.0/73.0	0.88/0.52	9.6/9.6	6.9/4.8	32.8/32.7	1.7/2.0	2.4/2.8	0.048	79
8/4.5	160M	1440/730	84.5/79.5	0.86/0.60	16/13.5	4.5/3.4	53/59	1.3/1.4	1.8/1.9	0.089	113
12/7	160L	1445/730	86.5/81	0.87/0.59	23/21	5.0/3.5	79/92	1.5/1.4	1.9/1.9	0.119	136
16/8	180L	1460/730	88.0/78.5	0.86/0.53	31/28	1.9/3.4	105/104	1.4/1.6	1.9/2.1	0.224	191
22/13	200L1	1475/735	87.5/86.0	0.81/0.69	45/32	6.5/5.9	142/169	2.0/2.5	2.6/2.7	0.36	232
25/15	200L2	1475/730	89.0/86.0	0.86/0.67	47/38	7.6/6.0	162/195	2.2/2.6	2.7/2.7	0.42	242
29/17	200L3	1480/735	90.0/88.0	0.91/0.75	52/38	7.2/6.1	188/221	2.2/2.6	2.4/2.4	0.48	257
35/21	225S	1480/735	90.0/89.0	0.90/0.74	63/47	6.7/5.8	227/273	1.7/2.1	2.2/2.3	0.63	315
42/25	225M	1480/735	91.0/89.5	0.91/0.75	74/54	6.8/5.9	272/325	1.8/2.1	2.2/2.2	0.74	352
55/33	250M	1480/740	92.0/90.5	0.90/0.75	97/71	7.3/6.4	355/426	2.1/2.5	2.5/2.5	1.5	455

Technical Specifications (6/6)

Output Power	Frame Size	Rated Speed	Efficiency	Power Factor	Current		Torque			Moment of Inertia	Weight
					I_n/A	I_{st}/I_n	T_n/N_m	T_{st}/T_n	T_{max}/T_n		
3000/1500r/m (2/4 Pole) 400V 50Hz Constant Power & Dahlander Connection											
0.55/0.45	80M1	2860/1420	65/66	0.85/0.74	1.5/1.4	7.0/6.5	1.8/3.0	1.7/1.6	1.8/1.8	0.0015	15
0.75/0.55	80M2	2860/1420	66/68	0.85/0.74	2.0/1.7	7.0/6.5	2.5/3.7	1.8/1.6	1.8/1.8	0.0016	16
1.1/0.85	90S	2850/1430	72/74	0.84/0.77	2.8/2.3	7.0/6.3	3.7/5.7	2.0/17	2.0/2.1	0.002	22
1.8/1.3	90L	2850/1430	74/76	0.84/0.78	4.3/3.3	6.8/7.2	6.0/8.7	2.1/1.9	2.2/2.1	0.003	26
2.4/2.0	100L1	2850/1430	76/78	0.86/0.81	5.6/4.8	7.2/6.4	8.0/13.3	1.8/1.9	2.2/2.0	0.0055	34
3.0/2.4	100L2	2850/1430	78/80	0.89/0.83	6.7/5.6	6.7/5.6	10.1/16.0	1.7/1.6	2.1/2.2	0.0068	39
4.0/3.3	112M	2860/1450	81/82	0.88/0.83	8.6/7.4	7.0/6.4	13.4/21.7	2.0/1.8	2.2/2.3	0.0091	48
5.5/4.5	132S	2860/1450	80/84	0.88/0.84	11.9/9.8	7.1/6.6	18.4/29.6	1.9/1.7	2.0/1.8	0.021	70
8.0/6.5	132S	2880/1450	81/85	0.89/0.85	17.1/13.8	7.1/6.7	26.7/42.8	1.9/1.7	1.9/2.0	0.03	77
11.0/9.0	160M	2920/1460	83/88	0.89/0.85	22.9/18.5	7.2/6.4	36.0/58.9	1.8/1.7	1.9/1.8	0.093	127
14.0/11.0	160L	2920/1460	83/88	0.90/0.86	28.8/22.3	7.0/6.4	45.8/72.0	1.9/1.8	1.9/1.8	0.165	147
18.5/15	180M	2940/1470	85/89	0.90/0.87	36.7/29.4	7.3/6.6	60.1/97.4	1.9/1.8	1.9/1.9	0.136	177
22/18.5	180M	2940/1470	86/89	0.91/0.88	42.7/35.9	7.0/6.4	71.5/120	1.9/1.9	1.7/1.7	0.145	200
30/26	200L	2950/1470	86/90	0.92/0.89	58.3/49.9	7.1/6.9	97.1/169	1.7/1.6	1.7/1.8	0.35	246
37/32	225M	2960/1480	87/90	0.91/0.89	71.1/60.7	7.1/6.8	119/206	1.6/1.4	1.7/1.6	0.41	308
45/37	225M	2960/1480	87/91	0.91/0.89	86.4/69.4	7.2/7.0	145/239	1.7/1.4	1.7/1.8	0.44	330
52/45	250M	2960/1480	88/91	0.92/0.89	98.7/84.4	7.0/6.3	168/290	1.6/1.7	1.9/1.7	0.64	449
72/60	280S	2970/1490	88/91	0.92/0.90	135/111	7.5/6.9	232/387	1.5/1.4	1.8/1.8	1.05	564
82/72	280M	2970/1480	88/91	0.92/0.90	152/134	7.8/7.0	264/461	1.4/1.4	1.7/1.8	1.12	584
1500/750r/m (4/8 Pole) 400V 50Hz Constant Power & Dahlander Connection											
0.75/0.45	90L	1420/700	72/58	0.87/0.63	1.9/1.9	6.5/6.0	5.0/6.1	1.4/1.6	1.7/1.8	0.004	26
1.5/0.85	100L	1410/700	75/68	0.88/0.63	3.5/3.1	6.6/5.7	6.6/5.7	1.4/1.6	1.8/1.7	0.0069	34
2.4/1.5	112M	1410/700	78/72	0.88/0.63	5.3/5.0	6.7/5.8	6.7/5.8	1.7/1.6	1.8/1.9	0.0071	45
3.3/2.2	132S	1440/720	80/75	0.88/0.64	7.1/7.0	6.4/5.9	6.4/5.9	1.7/1.5	1.8/2.0	0.00274	64
4.5/3.0	132M	1440/720	82/78	0.88/0.65	9.4/9.0	6.6/6.0	6.6/6.0	1.7/1.5	1.8/1.9	0.0343	76
7.5/5.0	160M	1450/730	84/83	0.89/0.66	15.2/13.9	6.9/7.0	6.9/7.0	1.7/1.4	1.7/1.9	0.08	113
11/7.0	160L	1450/730	86/85	0.89/0.66	21.8/19.0	6.9/6.0	6.9/6.0	1.6/1.5	1.7/1.9	0.011	133
17.0/11.0	180L	1470/730	87/86	0.92/0.74	32.3/26.7	7.0/6.1	7.0/6.1	1.4/1.5	1.8/1.9	0.167	197
22/14	200L1	1470/740	88/86	0.92/0.74	41.3/33.0	7.1/6.5	7.1/6.5	1.7/1.8	1.8/1.9	0.302	232
26/17	200L2	1470/740	88/87	0.92/0.74	48.8/40.1	7.0/6.2	7.0/6.2	1.7/1.5	1.7/1.8	0.342	246
34/24	225S	1470/740	88/89	0.88/0.77	66.7/53.2	7.0/6.2	7.0/6.2	1.5/1.5	1.7/1.8	0.525	311
42/30	250M	1480/740	89/90	0.91/0.78	78.8/64.9	7.3/6.8	7.3/6.8	1.7/1.6	1.8/1.9	0.807	420
55/40	280S	1480/740	90/91	0.91/0.80	102/83.5	7.4/7.0	7.4/7.0	1.7/1.6	1.8/1.8	1.33	510
67/47	280M	1480/740	90/91	0.92/0.81	123/97.0	7.0/6.9	7.0/6.9	1.7/1.7	1.7/1.8	1.596	643

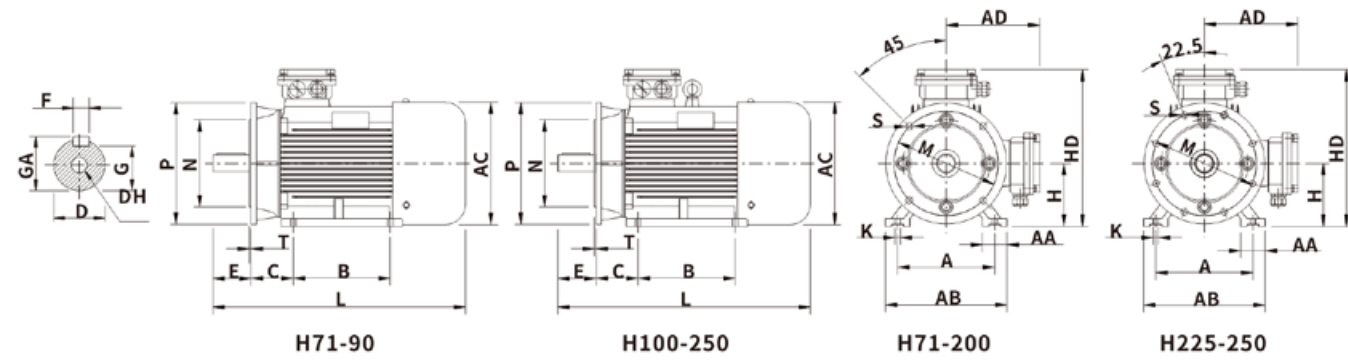
B3 Mounting and Overall Dimensions



Frame Size	Mounting and Overall Dimensions (mm)																
	A	B	C	D	E	F	G	H	K	DH	GA	AA	AB	AC	AD	HD	L
71	112	90	45	14	30	5	11	71	7	M5×13	16	24	150	150	124	195	255
80	125	100	50	19	40	6	15.5	80	10	M6×16	21.5	34	165	175	145	220	295
90S	140	100	56	24	50	8	20	90	10	M8×20	27	36	180	195	155	250	320
90L	140	125	56	24	50	8	20	90	10	M8×20	27	36	180	195	155	250	345
100L	160	140	63	28	60	8	24	100	12	M10×25	31	40	205	215	180	270	385
112M	190	140	70	28	60	8	24	112	12	M10×25	31	45	230	240	190	300	400
132S	216	140	89	38	80	10	33	132	12	M12×30	41	55	270	275	210	345	470
132M	216	178	89	38	80	10	33	132	12	M12×30	41	55	270	275	210	345	510
160M	254	210	108	42	110	12	37	160	15	M16×36	45	65	320	330	255	420	615
160L	254	254	108	42	110	12	37	160	15	M16×36	45	65	320	330	255	420	670
180M	279	241	121	48	110	14	42.5	180	15	M16×36	51.5	70	355	380	280	455	700
180L	279	279	121	48	110	14	42.5	180	15	M16×36	51.5	70	355	380	280	455	740
200L	318	305	133	55	110	16	49	200	19	M20×42	59	70	395	420	305	505	770
225S	356	286	149	60	140	18	53	225	19	M20×40	64	75	435	470	335	560	815
225M	356	311	149	55	110	16	49	225	19	M20×40	59	75	435	470	335	560	820
	356	311	149	60	140	18	53	225	19	M20×40	64	75	435	470	335	560	845
250M	406	349	168	60	140	18	53	250	24	M20×42	64	80	490	510	370	615	910
	406	349	168	65	140	18	58	250	24	M20×42	69	80	490	510	370	615	910

H71-H90 without lifting bolt

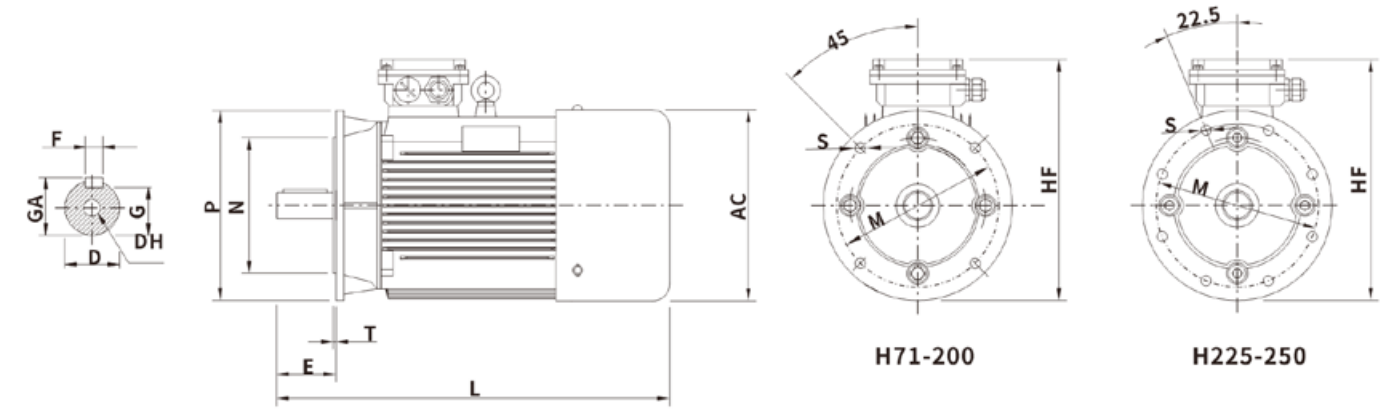
B35 Mounting and Overall Dimensions



Frame Size	Flange Size	Mounting and Overall Dimensions (mm)																					
		A	B	C	D	E	F	G	H	K	M	N	P	S	T	DH	GA	AA	AB	AC	AD	HD	L
71	FF130	112	90	45	14	30	5	11	71	7	130	110	160	4-Φ10	3.5	M5×13	16	24	150	150	124	195	255
80	FF165	125	100	50	19	40	6	15.5	80	10	165	130	200	4-Φ12	3.5	M6×16	21.5	34	165	175	145	220	295
90S	FF165	140	100	56	24	50	8	20	90	10	165	130	200	4-Φ12	3.5	M8×20	27	36	180	195	155	250	320
90L	FF165	140	125	56	24	50	8	20	90	10	165	130	200	4-Φ12	3.5	M8×20	27	36	180	195	155	250	345
100L	FF215	160	140	63	28	60	8	24	100	12	215	180	250	4-Φ15	4	M10×25	31	40	205	215	180	270	385
112M	FF215	190	140	70	28	60	8	24	112	12	215	180	250	4-Φ15	4	M10×25	31	45	230	240	190	300	400
132S	FF265	216	140	89	38	80	10	33	132	12	265	230	300	4-Φ15	4	M12×30	41	55	270	275	210	345	470
132M	FF265	216	178	89	38	80	10	33	132	12	265	230	300	4-Φ15	4	M12×30	41	55	270	275	210	345	510
160M	FF300	254	210	108	42	110	12	37	160	15	300	250	350	4-Φ19	5	M16×36	45	65	320	330	255	420	615
160L	FF300	254	254	108	42	110	12	37	160	15	300	250	350	4-Φ19	5	M16×36	45	65	320	330	255	420	670
180M	FF300	279	241	121	48	110	14	42.5	180	15	300	250	350	4-Φ19	5	M16×36	51.5	70	355	380	280	455	700
180L	FF300	279	279	121	48	110	14	42.5	180	15	300	250	350	4-Φ19	5	M16×36	51.5	70	355	380	280	455	740
200L	FF350	318	305	133	55	110	16	49	200	19	350	300	400	4-Φ19	5	M20×42	59	70	395	420	305	505	770
225S	FF400	356	286	149	60	140	18	53	225	19	400	350	450	8-Φ19	5	M20×40	64	75	435	470	335	560	815
225M	FF400	356	311	149	55	110	16	49	225	19	400	350	450	8-Φ19	5	M20×40	59	75	435	470	335	560	820
	FF400	356	311	149	60	140	18	53	225	19	400	350	450	8-Φ19	5	M20×40	64	75	435	470	335	560	845
250M	FF500	406	349	168	60	140	18	53	250	24	500	450	550	8-Φ19	5	M20×42	64	80	490	510	370	615	910
	FF500	406	349	168	65	140	18	58	250	24	500	450	550	8-Φ19	5	M20×42	69	80	490	510	370	615	910

H71-H90 without lifting bolt
R=0 distance from flange to shaft shoulder

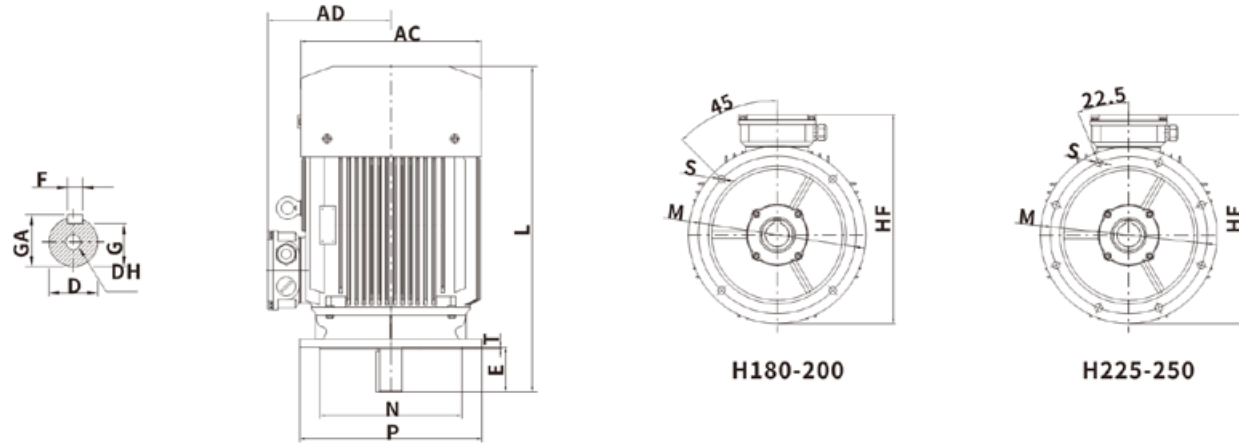
B5 Mounting and Overall Dimensions



Frame Size	Flange Size	Mounting and Overall Dimensions (mm)															
		D	E	F	G	M	N	P	S	T	DH	GA	AC	HF	L		
71	FF130	14	30	5	11	130	110	160	4-Φ10	3.5	M5×13	16	150	195	255		
80	FF165	19	40	6	15.5	165	130	200	4-Φ12	3.5	M6×16	21.5	175	220	295		
90S	FF165	24	50	8	20	165	130	200	4-Φ12	3.5	M8×20	27	195	245	320		
90L	FF165	24	50	8	20	165	130	200	4-Φ12	3.5	M8×20	27	195	245	345		
100L	FF215	28	60	8	24	215	180	250	4-Φ15	4	M10×25	31	215	270	385		
112M	FF215	28	60	8	24	215	180	250	4-Φ15	4	M10×25	31	240	305	400		
132S	FF265	38	80	10	33	265	230	300	4-Φ15	4	M12×30	41	275	345	470		
132M	FF265	38	80	10	33	265	230	300	4-Φ15	4	M12×30	41	275	345	510		
160M	FF300	42	110	12	37	300	250	350	4-Φ19	5	M16×36	45	330	420	615		
160L	FF300	42	110	12	37	300	250	350	4-Φ19	5	M16×36	45	330	420	670		
180M	FF300	48	110	14	42.5	300	250	350	4-Φ19	5	M16×36	51.5	380	455	700		
180L	FF300	48	110	14	42.5	300	250	350	4-Φ19	5	M16×36	51.5	380	455	740		
200L	FF350	55	110	16	49	350	300	400	4-Φ19	5	M20×42	59	420	515	770		
225S	FF400	60	140	18	53	400	350	450	8-Φ19	5	M20×40	64	470	560	815		
225M	FF400	55	110	16	49	400	350	450	8-Φ19	5	M20×40	59	470	560	820		
	FF400	60	140	18	53	400	350	450	8-Φ19	5	M20×40	64	470	560	845		
250M	FF500	60	140	18	53	500	450	550	8-Φ19	5	M20×42	64	510	645	910		
	FF500	65	140	18	58	500	450	550	8-Φ19	5	M20×42	69	510	645	910		

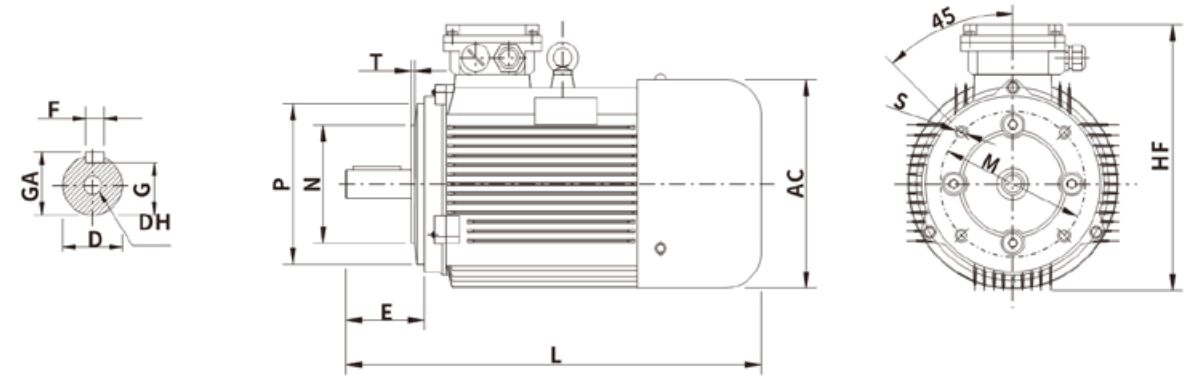
H71-H90 without lifting bolt
R=0 distance from flange to shaft shoulder

VI Mounting and Overall Dimensions



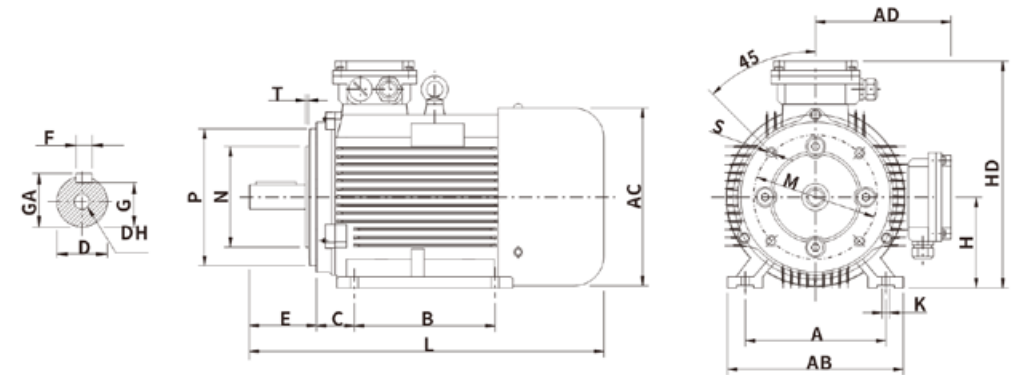
Frame Size	Mounting and Overall Dimensions (mm)														
	D	E	F	G	M	N	P	S	T	DH	GA	AC	AD	HF	L
180M	48	110	14	42.5	300	250	350	4-Φ19	5	M16×36	51.5	380	280	500	700
180L	48	110	14	42.5	300	250	350	4-Φ19	5	M16×36	51.5	380	280	500	740
200L	55	110	16	49	350	300	400	4-Φ19	5	M20×42	59	420	305	550	770
225S	60	140	18	53	400	400	450	8-Φ19	5	M20×40	64	470	335	610	815
225M	55	110	16	49	400	450	450	8-Φ19	5	M20×40	59	470	335	610	820
	60	140	18	53	400	450	450	8-Φ19	5	M20×40	64	470	335	610	845
250M	60	140	18	53	500	550	550	8-Φ19	5	M20×42	64	510	370	650	910
	65	140	18	58	500	550	550	8-Φ19	5	M20×42	59	510	370	650	910

B14 Mounting and Overall Dimensions



Frame Size	Flange Size	Mounting and Overall Dimensions (mm)														
		D	E	F	G	M	N	P	R	S	T	DH	GA	AC	HF	L
71	FT85	14	30	5	11	85	70	105	0±1.0	4-M6	2.5	M5×13	16	150	195	255
80	FT100	19	40	6	15.5	100	80	120	0±1.5	4-M6	3	M6×16	21.5	175	220	295
90S	FT115	24	50	8	20	115	95	140	0±1.5	4-M8	3	M8×20	27	195	245	320
90L	FT115	24	50	8	20	115	95	140	0±1.5	4-M8	3	M8×20	27	195	245	345
100L	FT130	28	60	8	24	130	110	160	0±1.5	4-M8	3.5	M10×25	31	215	270	385
112M	FT130	28	60	8	24	130	110	160	0±1.5	4-M8	3.5	M10×25	31	240	305	400
132S	FT165	38	80	10	33	165	130	200	0±1.5	4-M10	4	M12×30	41	275	345	470
132M	FT165	38	80	10	33	165	130	200	0±1.5	4-M10	4	M12×30	41	275	345	510

B34 Mounting and Overall Dimensions



Frame Size	Flange Size	Mounting and Overall Dimensions (mm)																					
		A	B	C	D	E	F	G	H	K	M	N	P	R	S	T	DH	GA	AB	AC	AD	HD	L
71	FT85	112	90	45	14	30	5	11	71	7	85	70	105	0±1.5	4-M6	2.5	M5×13	16	150	150	124	195	255
80	FT100	125	100	50	19	40	6	15.5	80	10	100	80	120	0±1.5	4-M6	3	M6×16	21.5	165	175	145	220	295
90S	FT115	140	100	56	24	50	8	20	90	10	115	95	140	0±1.5	4-M8	3	M8×20	27	180	195	155	250	320
90L	FT115	140	125	56	24	50	8	20	90	10	115	95	140	0±1.5	4-M8	3	M8×20	27	180	195	155	250	345
100L	FT130	160	140	63	28	60	8	24	100	12	130	110	160	0±2.0	4-M8	3.5	M10×25	31	205	215	180	270	385
112M	FT130	190	140	70	28	60	8	24	112	12	130	110	160	0±2.0	4-M8	3.5	M10×25	31	230	240	190	300	400
132S	FT165	216	140	89	38	80	10	33	132	12	165	130	200	0±2.0	4-M10	4	M12×30	41	270	275	210	345	470
132M	FT165	216	178	89	38	80	10	33	132	12	165	130	200	0±2.0	4-M10	4	M12×30	41	270	275	210	345	510

H71-H90 without lifting bolt

R=0 distance from flange to shaft shoulder

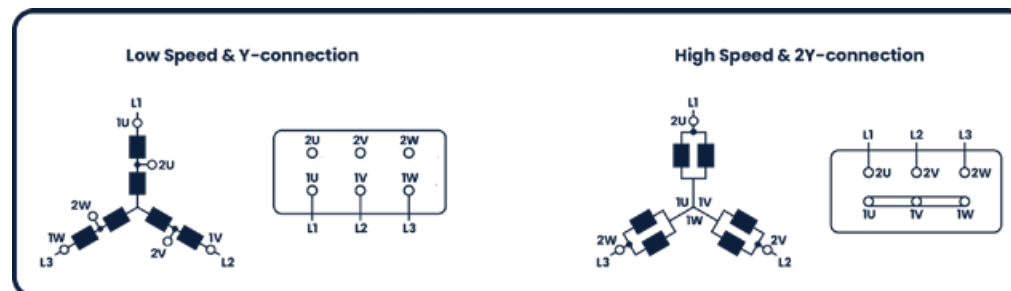
Bearings

Frame Size	Driving End		Non-driving End	
	2 Pole	4, 6, 8 Pole	2 Pole	4, 6, 8 Pole
71	6202 2RS/C3	6202 2RS/C3	6202 2RS/C3	6202 2RS/C3
80	6204 2RS/C3	6204 2RS/C3	6204 2RS/C3	6204 2RS/C3
90	6205 2RS/C3	6205 2RS/C3	6205 2RS/C3	6205 2RS/C3
100	6206 2RS/C3	6206 2RS/C3	6206 2RS/C3	6206 2RS/C3
112	6206 2RS/C3	6206 2RS/C3	6206 2RS/C3	6206 2RS/C3
132	6208 2RS/C3	6208 2RS/C3	6208 2RS/C3	6208 2RS/C3
160	6209 2RS/C3	6209 2RS/C3	6209 2RS/C3	6209 2RS/C3
180	6211/C3	6311/C3	6211/C3	6211/C3
200	6212/C3	6312/C3	6212/C3	6212/C3
225	6312/C3	6313/C3	6312/C3	6312/C3
250	6313/C3	6314/C3	6313/C3	6313/C3

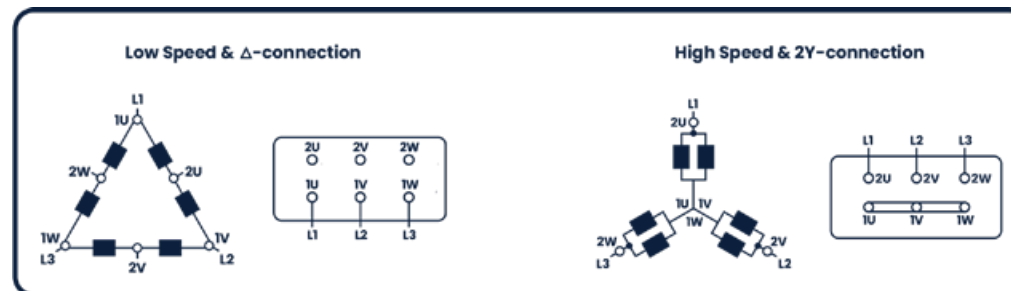
The motors above can be loaded directly.
In case of high radial force, NU bearings are recommended.

Double Speed Motor Connection Diagram

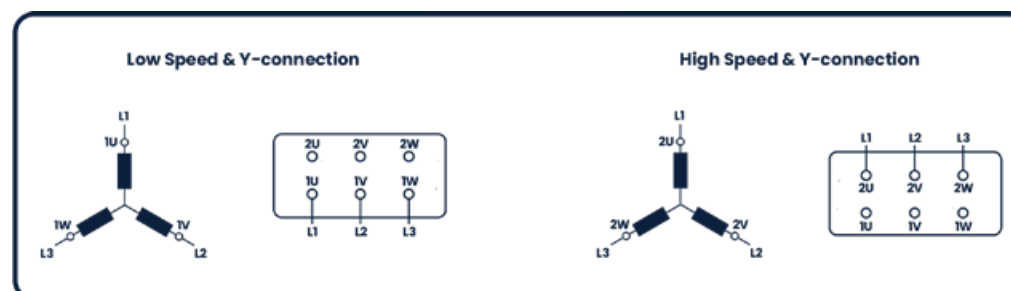
Constant Torque
Dahlander Windings
Connection Diagram



Constant Power
Dahlander Windings
Connection Diagram



Two Separate Windings
Connection Diagram



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