

YD 系列变极多速三相异步电动机

YD SERIES POLE-CHANGING THREE PHASE INDUCTION MOTOR

机座号 80~280

功率 0.45~82kW

适用于: 要求随负载的性质逐级调速的各种传动机械如机床、矿山、冶金、纺织、印染、化工等行业。

Applications: widely used in such industry which have step changes of rotational speed to meet the requirements of load character, as machine tools, mining, metallurgy, textile, printing and dyeing, chemical industry and agricultural machinery, etc.

特点: 采用改变绕组的接法来变换电机的转速和输出功率, 使其与机械设备的负载特性相匹配, 简化了变速系统, 高效、节能。

Features: simplify speed-changing systems by changing the connection to obtain different output and speed.

变速方案: 双速、三速、四速

Pole-changing mode: double, three or four speed

性能数据 Performance Data

380V 50Hz

型 号 Type	极数 Pole	功 率 kW	满 载 时 Full Load				堵转转矩 额定转矩	堵转电流 额定电流	最大转矩 额定转矩
			额定电流 Current A	转 速 r/min	效 率 Eff. %	功率因数 Power Factor	Locked Rotor Torque Rated Torque	Locked Rotor Current Rated Current	Breakdown Torque Rated Torque
同步转速 1500/3000 r/min									
YD801-4/2	4	0.45	1.4	1420	66	0.74	1.5	6.5	1.8
	2	0.55	1.5	2860	65	0.85	1.7	7	
YD802-4/2	4	0.55	1.7	1420	68	0.74	1.6	6.5	1.8
	2	0.75	2.0	2860	66	0.85	1.8	7	
YD90S-4/2	4	0.85	2.3	1430	74	0.77	1.8	6.5	1.8
	2	1.1	2.8	2850	71	0.85	1.9	7	
YD90L-4/2	4	1.3	3.3	1430	76	0.78	1.8	6.5	1.8
	2	1.8	4.4	2850	73	0.85	2.0	7	
YD100L1-4/ 2	4	2	4.8	1430	78	0.81	1.7	6.5	1.8
	2	2.4	5.6	2850	76	0.86	1.9	7	
YD100L2-4/ 2	4	2.4	5.6	1450	79	0.83	1.6	6.5	1.8
	2	3	6.7	2850	77	0.89	1.7	7	
YD112M-4/2	4	3.3	7.4	1450	82	0.83	1.9	6.5	1.8
	2	4	8.6	2880	79	0.89	2.0	7	
YD132S-4/2	4	4.5	9.8	1450	83	0.84	1.7	6.5	1.8
	2	5.5	11.9	2860	79	0.89	1.8	7	
YD132M-4/2	4	6.5	13.8	1460	84	0.85	1.7	6.5	1.8
	2	8	17.1	2880	80	0.89	1.8	7	
YD160M-4/2	4	9	18.5	1460	87	0.85	1.6	6.5	1.8
	2	11	22.9	2920	82	0.89	1.8	7	

型 号 Type	极数 Pole	功 率 kW	满 载 时 Full Load				堵转转矩 额定转矩	堵转电流 额定电流	最大转矩 额定转矩
			额定电流 Current A	转 速 r/min	效 率 Eff. %	功率因数 Power factor	Locked Rotor Torque Rated Torque	Locked Rotor Current Rated Current	Breakdown Torque Rated Torque
同步转速 1500/3000 r/min									
YD160L-4/2	4	11	22.3	1460	87	0.86	1.7	6.5	1.8
	2	14	28.8	2920	82	0.90	1.9	7	
YD180M-4/2	4	15	29.4	1470	89	0.87	1.8	6.5	1.8
	2	18.5	36.7	2940	85	0.90	1.9	7	
YD180L-4/2	4	18.5	35.9	1470	89	0.88	1.6	6.5	1.8
	2	22	42.7	2940	86	0.91	1.8	7	
YD200L-4/2	4	26	49.9	1470	89	0.89	1.4	6.5	1.8
	2	30	58.3	2950	85	0.92	1.6	7	
YD225S-4/2	4	32	60.7	1470	90	0.89	1.4	6.5	1.8
	2	37	71.1	2950	86	0.92	1.6	7	
YD225M-4/2	4	37	61.4	1480	91	0.89	1.6	6.5	1.8
	2	45	86.4	2970	86	0.92	1.6	7	
YD250M-4/2	4	45	84.4	1480	91	0.89	1.6	6.5	1.8
	2	52	98.7	2970	87	0.92	1.6	7	
YD280S-4/2	4	60	111	1480	91	0.90	1.4	6.5	1.8
	2	72	135	2970	88	0.92	1.5	7	
YD280M-4/2	4	72	134	1480	91	0.90	1.4	6.5	1.8
	2	82	152	2970	88	0.93	1.5	7	
同步转速 1000/1500r/min									
YD90S-6/4	6	0.65	2.3	920	64	0.68	1.6	6	1.8
	4	0.85	2.3	1420	70	0.79	1.4	6.5	
YD90L-6/4	6	0.85	2.8	930	66	0.70	1.6	6	1.8
	4	1.1	3	1440	71	0.79	1.5	6.5	
YD100L1-6/4	6	1.3	3.8	940	74	0.70	1.7	6	1.8
	4	1.8	4.4	1440	77	0.80	1.4	6.5	
YD100L2-6/4	6	1.5	4.3	940	75	0.70	1.6	6	1.8
	4	2.2	5.4	1440	77	0.80	1.4	6.5	
YD112M-6/4	6	2.2	5.7	960	78	0.75	1.8	6	1.8
	4	2.8	6.7	1440	77	0.82	1.5	6.5	
YD132S-6/4	6	3	7.7	970	79	0.75	1.8	6	1.8
	4	4	9.5	1440	78	0.82	1.7	6.5	
YD132M-6/4	6	4	9.8	970	82	0.76	1.6	6	1.8
	4	5.5	12.3	1440	80	0.85	1.4	6.5	
YD160M-6/4	6	6.5	15.1	970	84	0.78	1.5	6	1.8
	4	8	17.6	1460	82	0.84	1.5	6.5	
YD160L-6/4	6	9	20.6	970	85	0.78	1.6	6	1.8
	4	11	23.7	1460	83	0.85	1.7	6.5	

型 号 Type	极数 Pole	功 率 kW	满 载 时 Full Load				堵转转矩	堵转电流	最大转矩
			额定电流 Current A	转 速 r/min	效 率 Eff. %	功率因数 Power factor	额定转矩 Locked Rotor Torque Rated Torque	额定电流 Locked Rotor Current Rated Current	额定转矩 Breakdown Torque Rated Torque
同步转速 1000/1500r/min									
YD180M-6/4	6	11	25.9	980	85	0.76	1.6	6	1.8
	4	14	29.8	1470	84	0.85	1.7	6.5	
YD180L-6/4	6	13	29.4	980	86	0.78	1.7	6	1.8
	4	16	33.6	1470	85	0.85	1.7	6.5	
YD200L-6/4	6	18.5	41.4	980	87	0.78	1.6	6.5	1.8
	4	22	44.9	1470	86.5	0.86	1.5	7	
YD225S-6/4	6	22	44.2	980	88	0.86	1.8	6.5	1.8
	4	28	56.5	1470	86.5	0.87	1.8	7	
YD225M-6/4	6	26	52.2	980	88	0.86	1.8	6.5	1.8
	4	32	63.2	1480	85.5	0.90	1.8	7	
YD250M-6/4	6	32	62.1	980	90	0.87	1.5	6.5	1.8
	4	42	81.1	1480	86.5	0.91	1.3	7	
同步转速 1500/3000r/min									
YD280S-6/4	6	42	81.5	980	90	0.87	1.5	6.5	1.8
	4	55	107	1480	87	0.90	1.3	7	
YD280M-6/4	6	55	107	980	90	0.87	1.6	6.5	1.8
	4	67	132	1480	87	0.89	1.3	7	
同步转速 750/1500r/min									
YD90L-8/4	8	0.45	1.9	700	58	0.63	1.6	5.5	1.8
	4	0.75	1.8	1420	72	0.87	1.4	6.5	
YD100L-8/4	8	0.85	3.1	700	67	0.63	1.6	5.5	1.8
	4	1.5	3.5	1410	74	0.88	1.4	6.5	
YD112M-8/4	8	1.5	5	700	72	0.63	1.7	5.5	1.8
	4	2.4	5.3	1410	78	0.88	1.7	6.5	
YD132S-8/4	8	2.2	7	720	75	0.64	1.5	5.5	1.8
	4	3.3	7.1	1440	80	0.88	1.7	6.5	
YD132M-8/4	8	3	9	720	78	0.65	1.5	5.5	1.8
	4	4.5	9.4	1440	82	0.89	1.6	6.5	
YD160M-8/4	8	5	13.9	730	83	0.66	1.5	5.5	1.8
	4	7.5	15.2	1450	84	0.89	1.6	6.5	
YD160L-8/4	8	7	19	730	85	0.66	1.5	5.5	1.8
	4	11	21.8	1450	86	0.89	1.6	6.5	
YD180L-8/4	8	11	26.7	730	87	0.72	1.5	6	1.8
	4	17	32.6	1470	88	0.91	1.5	7	
YD200L1-8/4	8	14	33	730	87	0.74	1.8	6	1.8
	4	22	41.3	1470	88	0.92	1.7	7	

型 号 Type	极数 Pole	功 率 kW	满 载 时 Full Load				堵转转矩 额定转矩	堵转电流 额定电流	最大转矩 额定转矩
			额定电流 Current A	转 速 r/min	效 率 Eff. %	功率因数 Power Factor	Locked Rotor Torque Rated Torque	Locked Rotor Current Rated Current	Breakdown Torque Rated Torque
同步转速 750/1500r/min									
YD200L2-8/4	8	17	40.1	730	87	0.74	1.5	6	1.8
	4	26	48.8	1470	88	0.92	1.7	7	
YD225M-8/4	8	24	53.2	730	89	0.77	1.5	6	1.8
	4	34	66.7	1480	88	0.88	1.5	7	
YD250M-8/4	8	30	65	730	90	0.78	1.6	6	1.8
	4	42	78.8	1480	89	0.91	1.7	7	
YD280S-8/4	8	40	83.5	740	91	0.80	1.6	6	1.8
	4	55	102	1480	90	0.91	1.7	7	
YD280M-8/4	8	47	96.9	740	91	0.81	1.6	6	1.8
	4	67	123	1480	90	0.92	1.7	7	
同步转速 750/1000r/min									
YD90S-8/6	8	0.35	1.6	700	56	0.60	1.8	5	1.8
	6	0.45	1.4	930	70	0.72	2.0	6	
YD90L-8/6	8	0.45	1.9	700	59	0.60	1.7	5	1.8
	6	0.65	1.9	920	71	0.73	1.8	6	
YD100L-8/6	8	0.75	2.9	710	65	0.60	1.8	5	1.8
	6	1.1	3.1	950	75	0.73	1.9	6	
YD112M-8/6	8	1.3	4.5	710	72	0.61	1.7	5	1.8
	6	1.8	4.8	950	78	0.73	1.9	6	
YD132S-8/6	8	1.8	5.8	730	76	0.62	1.6	5	1.8
	6	2.4	6.2	970	80	0.73	1.9	6	
YD132M-8/6	8	2.6	8.2	730	78	0.62	1.9	5	1.8
	6	3.7	9.2	970	82	0.73	1.9	6	
YD160M-8/6	8	4.5	13.3	730	83	0.62	1.6	5	1.8
	6	6	14.7	980	85	0.73	1.9	6	
YD160L-8/6	8	6	17.5	730	84	0.62	1.6	5	1.8
	6	8	19.7	980	86	0.73	1.9	6	
YD180M-8/6	8	7.5	21.9	730	84	0.62	1.9	5	1.8
	6	10	24.2	980	86	0.73	1.9	6	
YD180L-8/6	8	9	24.8	730	85	0.65	1.8	5	1.8
	6	12	28.3	980	86	0.75	1.8	6	
YD200L1-8/6	8	12	32.6	730	86	0.65	1.8	5	1.8
	6	17	39.1	980	87	0.76	2.0	6	
YD200L2-8/6	8	15	40.3	730	87	0.65	1.8	5	1.8
	6	20	45.4	980	88	0.76	2.0	6	

型 号 Type	极数 Pole	功率 kW	满 载 时 Full Load				堵转转矩	堵转电流	最大转矩
			额定电流 Current A	转 速 r/min	效 率 Eff. %	功率因数 Power Factor	Locked Rotor Torque Rated Torque	Locked Rotor Current Rated Current	Breakdown Torque Rated Torque
同步转速 500/1000r/min									
YD160M-12/6	12	2.6	11.6	480	74	0.46	1.2	4	1.8
	6	5	11.9	970	84	0.76	1.4	6	
YD160L-12/6	12	3.7	16.1	480	76	0.46	1.2	4	1.8
	6	7	15.8	970	85	0.79	1.4	6	
YD180L-12/6	12	5.5	19.6	490	79	0.54	1.3	4	1.8
	6	10	20.5	980	86	0.86	1.3	6	
YD200L1-12/6	12	7.5	24.5	490	83	0.56	1.5	4	1.8
	6	13	26.4	980	87	0.86	1.5	6	
YD200L2-12/6	12	9	28.9	490	83	0.57	1.5	4	1.8
	6	15	30.1	980	87	0.87	1.5	6	
YD225M-12/6	12	12	35.2	490	85	0.61	1.5	4	1.8
	6	20	39.7	980	88	0.87	1.5	6	
YD250M-12/6	12	15	42.1	490	86	0.63	1.5	4	1.8
	6	24	47.1	980	89	0.87	1.5	6	
YD280S-12/6	12	20	54.8	490	88	0.63	1.5	4	1.8
	6	30	58.9	980	89	0.87	1.5	6	
YD280M-12/6	12	24	63.8	490	88	0.65	1.5	4	1.8
	6	37	72.6	980	89	0.87	1.5	6	
同步转速 1000/1500/3000r/min									
YD100L-6/4/2	6	0.75	2.6	950	67	0.65	1.8	5.5	1.8
	4	1.3	3.7	1450	72	0.75	1.6	6	
	2	1.8	4.5	2900	71	0.85	1.6	7	
YD112M-6/4/2	6	1.1	3.5	960	73	0.65	1.7	5.5	1.8
	4	2	5.1	1450	74	0.81	1.4	6	
	2	2.4	5.8	2920	74	0.85	1.6	7	
YD132S-6/4/2	6	1.8	5.1	970	75	0.71	1.4	5.5	1.8
	4	2.6	6.1	1460	78	0.83	1.3	6	
	2	3	7.4	2910	71	0.87	1.7	7	
YD132M1-6/4/ 2	6	2.2	6	970	77	0.72	1.3	5.5	1.8
	4	3.3	7.5	1460	80	0.84	1.3	6	
	2	4	8.8	2910	76	0.91	1.7	7	
YD132M2-6/4/2	6	2.6	6.9	970	80	0.72	1.5	5.5	1.8
	4	4	9	1460	80	0.84	1.4	6	
	2	5	10.8	2910	77	0.91	1.7	7	

型 号 Type	极数 Pole	功 率 kW	满 载 时 Full Load				堵转转矩 额定转矩 Locked Rotor Torque Rated Torque	堵转电流 额定电流 Locked Rotor Current Rated Current	最大转矩 额定转矩 Breakdown Torque Rated Torque
			额定电 流 Curren	转 速 r/min	效 率 Eff. %	功率因数 Power Factor			
同步转速 1000/1500/3000 r/min									
YD160M-6/4/2	6	3.7	9.5	980	82	0.72	1.5	5.5	1.8
	4	5	11.2	1470	81	0.84	1.3	6	
	2	6	13.5	2930	76	0.91	1.4	7	
YD160L-6/4/2	6	4.5	11.4	980	83	0.72	1.5	5.5	1.8
	4	7	15.1	1470	83	0.85	1.2	6	
	2	9	18.8	2930	79	0.92	1.3	7	
同步转速 750/1500/3000 r/min									
YD112M-8/4/2	8	0.65	2.7	700	59	0.63	1.4	4.5	1.8
	4	2	5.1	1450	74	0.81	1.3	6	
	2	2.4	5.8	2920	74	0.85	1.2	7	
YD132S-8/4/2	8	1	3.6	720	69	0.61	1.4	4.5	1.8
	4	2.6	6.1	1460	78	0.83	1.2	6	
	2	3	7.1	2910	74	0.87	1.4	7	
YD132M-8/4/2	8	1.3	4.6	720	71	0.61	1.5	4.5	1.8
	4	3.7	8.4	1460	80	0.84	1.3	6	
	2	4.5	10	2910	75	0.91	1.4	7	
YD160M-8/4/2	8	2.2	7.6	720	75	0.59	1.4	4.5	1.8
	4	5	11.2	1440	81	0.84	1.3	6	
	2	6	13.2	2910	76	0.91	1.4	7	
YD160L-8/4/2	8	2.8	9.2	720	77	0.60	1.3	4.5	1.8
	4	7	15.1	1440	83	0.85	1.2	6	
	2	9	18.8	2910	79	0.92	1.3	7	
同步转速 750/1000/1500 r/min									
YD112M-8/6/4	8	0.85	3.7	710	62	0.56	1.7	5.5	1.8
	6	1	3.1	950	68	0.73	1.3	6.5	
	4	1.5	3.5	1440	75	0.86	1.5	7	
YD132S-8/6/4	8	1.1	4.1	730	68	0.60	1.4	5.5	1.8
	6	1.5	4.2	970	74	0.73	1.3	6.5	
	4	1.8	4	1460	78	0.87	1.3	7	
YD132M1-8/6/4	8	1.5	5.2	730	71	0.62	1.3	5.5	1.8
	6	2	5.4	970	77	0.73	1.5	6.5	
	4	2.2	4.9	1460	79	0.87	1.4	7	
YD132M2-8/6/4	8	1.8	6.1	730	72	0.62	1.5	5.5	1.8
	6	2.6	6.8	970	78	0.74	1.5	6.5	
	4	3	6.5	1460	80	0.87	1.5	7	

型 号 Type	极数 Pole	功率 kW	满 载 时 Full Load				堵转转矩 额定转矩 Locked Rotor Torque Rated Torque	堵转电流 额定电流 Locked Rotor Current Rated Current	最大转矩 额定转矩 Breakdown Torque Rated Torque
			额定电流 Current A	转 速 r/min	效 率 Eff. %	功率因数 Power Factor			
同步转速 750/1000/1500 r/min									
YD160M-8/6/4	8	3.3	10.2	720	79	0.62	1.7	5.5	1.8
	6	4	9.9	960	81	0.76	1.4	6.5	
	4	5.5	11.6	1440	83	0.87	1.5	7	
YD160L-8/6/4	8	4.5	13.8	720	80	0.62	1.6	5.5	1.8
	6	6	14.5	960	83	0.76	1.6	6.5	
	4	7.5	15.6	1440	84	0.87	1.5	7	
YD180L-8/6/4	8	7	20.2	740	81	0.65	1.6	6.5	1.8
	6	9	20.6	980	83	0.80	1.5	7	
	4	12	24.1	1470	84	0.90	1.4	7	
YD200L-8/6/4	8	10	24.8	740	85	0.72	1.6	6.5	1.8
	6	13	28.4	980	86	0.81	1.5	7	
	4	17	33.4	1470	86	0.90	1.4	7	
YD225S-8/6/4	8	14	35.3	740	86	0.70	1.6	6.5	1.8
	6	18.5	39.9	980	87	0.81	1.6	7	
	4	24	46.6	1470	87	0.90	1.4	7	
YD225M-8/6/4	8	17	42.4	740	87	0.70	1.6	6.7	1.8
	6	22	45.2	980	87	0.85	1.6	7	
	4	28	54.3	1470	87	0.90	1.4	7	
YD250M-8/6/4	8	24	55.3	740	88	0.75	1.5	6.5	1.8
	6	26	52.8	980	88	0.85	1.6	7	
	4	34	63.8	1480	88	0.92	1.4	7	
YD280S-8/6/4	8	30	68.3	740	89	0.75	1.5	6.5	1.8
	6	34	67.5	980	89	0.86	1.6	7	
	4	42	77.9	1480	89	0.92	1.4	7	
YD280M-8/6/4	8	34	77.4	740	89	0.75	1.4	6.5	1.8
	6	37	73.4	980	89	0.86	1.5	7	
	4	50	92.8	1480	89	0.92	1.4	7	
同步转速 500/750/1000/1500 r/min									
YD180L-12/8/6/4	12	3.3	2.7	480	72	0.55	1.6	5	1.8
	8	5	5.5	720	79	0.62	1.5	6.5	
	6	6.5	3.7	970	82	0.88	1.3	6.5	
	4	9	8.5	1460	83	0.89	1.3	7	
YD200L1-12/8/6/4	12	4.5	6.5	490	74	0.56	1.3	5	1.8
	8	7	9.6	720	81	0.67	1.3	6.5	
	6	8	6.6	970	83	0.88	1.3	6.5	
	4	11	22.6	1460	84	0.88	1.3	7	

型 号 Type	极数 Pole	功 率 kW	满 载 时 Full Load				堵转转矩	堵转电流	最大转矩
			额定电流 Current t	转 速 r/min	效 率 Eff. %	功率因数 Power Factor	额定转矩 Locked Rotor Torque Rated Torque	额定电流 Locked Rotor Current Rated Current	额定转矩 Breakdown Torque Rated Torque
同步转速 500/750/1000/1500 r/min									
YD200L2-12/8/6/4	12	5.5	9.9	490	75	0.56	1.3	5	1.8
	8	8	22.4	720	81	0.67	1.3	6.5	
	6	10	20.8	970	83	0.88	1.3	6.5	
	4	13	26.7	1460	84	0.88	1.3	7	
YD225M-12/8/6/4	12	7	20.8	490	81	0.63	1.6	5	1.8
	8	11	27.6	730	84	0.72	1.6	6.5	
	6	13	26.4	970	85	0.88	1.5	6.5	
	4	20	39.3	1470	86	0.90	1.3	7	
YD250M-12/8/6/4	12	9	26.5	490	82	0.63	1.6	5	1.8
	8	14	34.3	730	85	0.73	1.6	6.5	
	6	16	32.5	970	85	0.88	1.5	6.5	
	4	26	49.4	1470	87	0.92	1.3	7	
YD280S-12/8/6/4	12	11	32	490	83	0.63	1.6	5	1.8
	8	18.5	43.1	730	87	0.75	1.6	6.5	
	6	20	40.6	970	85	0.88	1.5	6.5	
	4	34	64.5	1480	87	0.92	1.3	7	
YD280M-12/8/6/4	12	13	37.3	490	84	0.63	1.7	5	1.8
	8	22	51.2	730	87	0.75	1.7	6.5	
	6	24	48.8	970	85	0.88	1.6	6.5	
	4	40	75.1	1480	88	0.92	1.5	7	

常用的安装结构型式，以及适用的机座号见下表

Conventional mounting type and suitable frame size are given in following table (with “√”)

机座号 frame	基本安装结构 Basic Type			派生的安装形式 Derived Type								
	B3	B5	B35	V1	V3	V5	V6	B6	B7	B8	V15	V36
80~160	√	√	√	√	√	√	√	√	√	√	√	√
180~225	√	√	√	√	—	—	—	—	—	—	—	—
250~280	√	—	√	√	—	—	—	—	—	—	—	—

注：1. “√”表示可以制造的结构型式

2. YD 系列多速电机 80~180 机座的外形及安装尺寸同 Y 系列电机，200~280 机座的外形及安装尺寸与 Y2 系列电机基本一致。

The mounting dimensions and overall dimensions of frame 80~180 motors is the same as that of the Y series motors, and frame 200~280 motors is the same as that of Y2 series motors.