

三相永磁同步高效节能电机

Three-phase Permanent Magnet Synchronous High Efficiency Motor





欧瑞京电机有限公司是由近百年电机技术积累的荷兰 PEJA 集团在华投资建设的合资公司，占地面积 65 亩，拥有现代化厂房 30000 平米。公司成立于 2010 年 4 月 6 日，注册资本 10000 万元人民币，总投资约 2 亿元。现有员工 400 多人。

工厂聚焦于各类高效节能电机及特种电机、高压电机等领域，产品线涵盖永磁同步电机，大中小型 IEC 高效、NEMA 高效、超高效电动机及变频、高压、船用、矿山、水泥、港机、冶金、造纸等特种应用电机，电机中心高范围 H56mm~H800mm，功率范围 0.18~6000KW，为各行业客户提供一站式电机技术服务和采购服务。永磁电机因其突出的节能效果已为越来越多的行业所认可，目前已广泛应用于拉丝机、塑机、橡胶、纺织，空压机、水泵、造纸、冶金、粉碎、水泥等领域。

工厂立足于依靠科技进步和人才战略，引入业内资深技术人员和管理团队，现有中高级工程师技术人员 40 余人，占员工总数 10%。

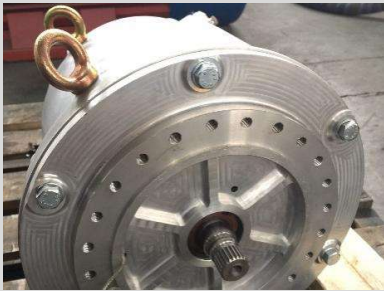
公司的使命为：让传动更高效。

Wuxi Original Mechanical & Electrical Co.(OMEC) is a Joint Venture invested by PEJA group from the Netherlands in 2010, with the total investment of 200M RMB. OMEC China covers an area of 40000 m2, and has more than 400 staff.

OMEC focus on various kinds of high efficiency motors, medium & high voltage motor, and special application motor, including applications for frequency drive, marine & offshore, mining, harbor crane, cement, metallurgical, paper making, etc. We offer one-stop purchase and technology service with our wide range products from frame sizes H56~H800, the rating from 0.18kw~6000kw, and experienced engineering team, know-how manufacturing.

PM motors are more and more popular in various application, like drawbench, plastic, rubber, textile, compressor, pump, metallurgy, crushing, cement etc., due to its outstanding energy saving.

OMEC build up the vision as 'Drive the world more efficiently', with the strong support from our R&D team and experienced management team.



永磁汽车电机
PM motor for Vehicle



纺织/印染永磁自启动电机
PM motor with self starting cage
for Textile/printing machine



永磁拉丝机电机
PM motor for drawbench



低速直驱
PM motor with Low speed and
large torque



通用型永磁电机
PM motor for general purpose



1.5KW 永磁风力发电机
PM motor for wind generator

概述 Overview

超过 IE4 效率标准的 OMP 系列超高效节能永磁同步电机，采用高性能稀土永磁材料和变频技术，无编码器矢量控制运行，内插磁钢结构，具有节能省电，高效、运行可靠、安装互换性好的优点。

OMP series high efficiency energy-saving permanent magnet synchronous motor(IE4 and higher) adopts high performance rare earth permanent magnetic material and frequency inverter technique with vector control, which has the advantages of energy saving, reliable operation and good compatible.

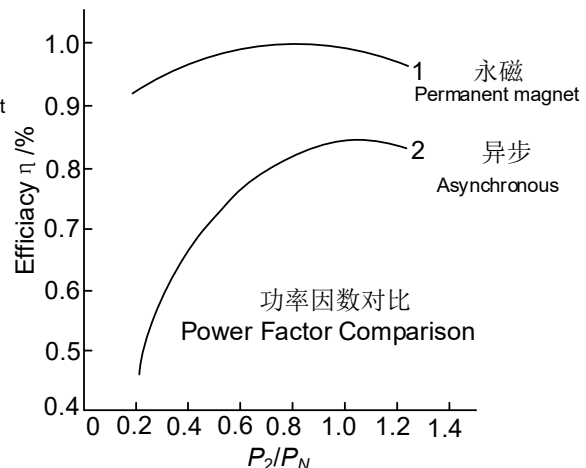
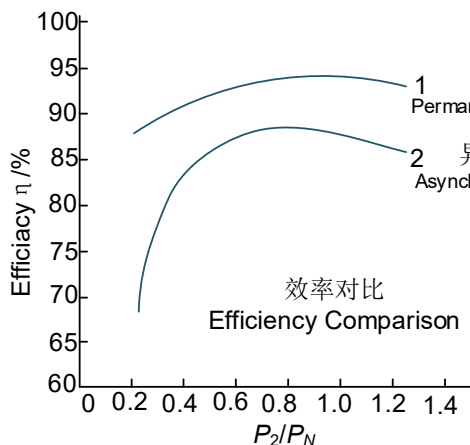
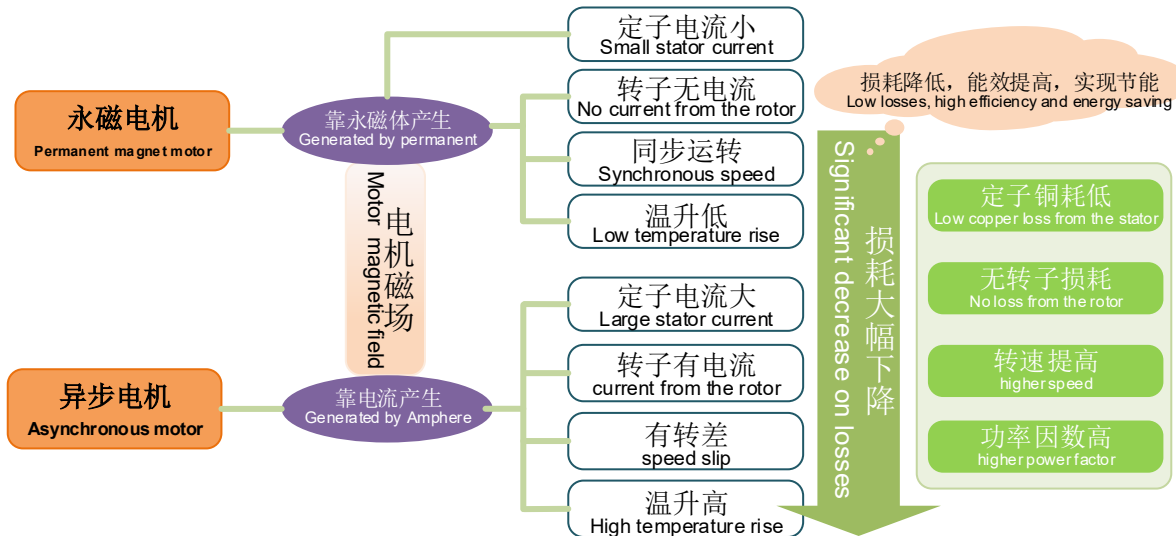


主要特点 Main features

1. 该系列产品的效率指标符合 GB 30253-2013《永磁同步电动机能效限定值及能效等级》的 1 级标准，达到国际标准 IEC60034-2014 中 IE4/IE5 效率
The efficiency conforms to Grade 1 of GB 30253-2013 Energy Efficiency Limit Value and IE4/IE5 efficiency of international standard IEC60034-2014.
2. 该系列产品基本转速为 750~3000rpm, 功率由 1.5kW~450kW, SF=1.2, 可衍生出转速范围 80~10000rpm 的变频永磁同步电动机以及自启动永磁电机。
The basic design is 750~3000rpm with rated power of 1.5kW~450kW, providing service factor of 1.2, which also available on request for rotation speed of 80~10000rpm and self-starting PM motor

永磁电机与异步电机的特性对比

Comparison of PM motor and Asynchronous motor



永磁同步电动机的可靠性和稳定性 Reliability and stability of PMSM

1. 电机采用高性能的钕铁硼永磁材料

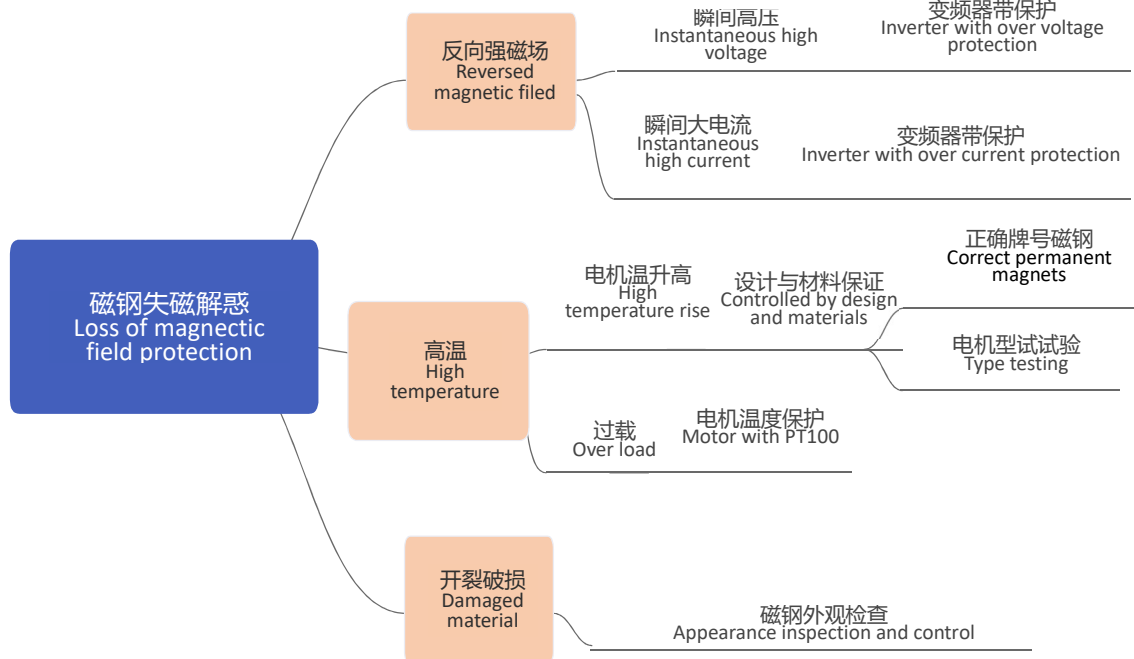
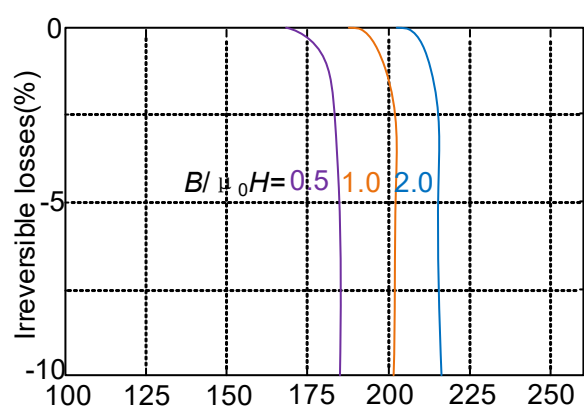
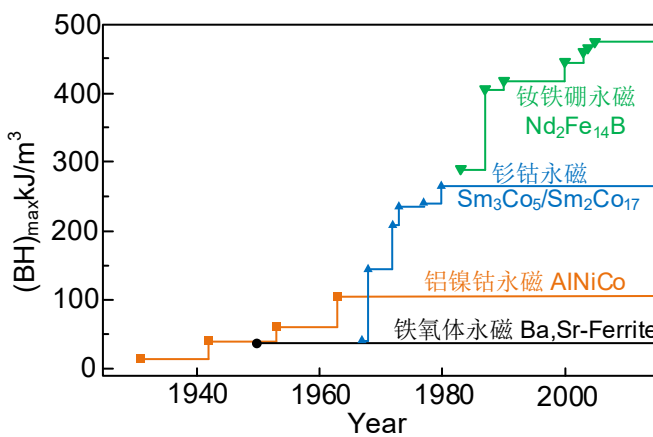
The motor adopts high performance NdFeB permanent magnet.

2. 选用耐温较高的磁钢牌号（耐温可达 155 度、200 度），确保电机即使适度过载或较高环境温度时仍能稳定使用而不会退磁（电机温升为 B 级）。【注：特殊应用选型请联系我们】

It selects the high temperature resistant magnet material to ensure the stable use of electric motor even under the condition of service factor and higher ambient temperature (The temperature rise of the motor is B class).

3. 电机与变频器均带热保护元件。

The motor and frequency converter are both equipped with thermal protection components.



永磁与异步 KPI 对比

特点 Characteristic	异步电机 Asynchronous motor	永磁电机 Permanent magnet motor
效率 Efficiency	低 Low~High	最高 Super High
功率因数 Power factor	低，无功电流大，加大了电网负荷，有时需增加电补偿器。 Low PF, and with large inactive current. PF compensator capacitor could be needed.	最高，无转子感应电流，电网中不需安装补偿器 Highest PF, no need for PF compensator.
控制特性 Control characteristics	差 Poor	好 Good
体积 Volume	大 Large	小，正常缩小两个中心高，重量轻，约相当于同功率异步电机重量的 60%。 Small, usually two frame sizes of reduction, light weight, equivalent to 60% of the weight of the asynchronous motor with same rating.
启动性能 Start performance	工频电直接启，起动电流大，对电网有冲击，不允许多次启停 Direct one line starting, large starting current, has impact to the electricity grid, and frequent starts are not allowed.	变频，恒转矩启动，允许多次启停 Frequency drive, constant torque start, frequent starts are allowed.
转子结构 Rotator structure	简单，鼠笼 Simple, squirrel cage	复杂，内贴或表贴磁钢 Complex, in-slot or surface sticking of magnetic steel.
总成本 Total cost	初期投入少，后期用电多，总成本高 Low purchase cost but with large amount of electricity consumption in the later stage, high total cost.	初期投入贵，后期比异步省电，总成本低，运行 200 天可回差价。 Relative higher purchase cost however with lower total cost from the saving on electricity during operation. The return of price difference is about 100 operation days.

举例说明(按 0.5 元/度计算, 22KW 永磁电机运行 200 天可节电 1900 元, 相当于 200 天收回电机采购价差)
Example (The 22KW PM motor can save 1900 RMB on electricity during 200 operation days, calculated by 0.5RMB/ kwh, which is equivalent to the return of 200 days on purchase price difference.)

型号 Type	功率 Power	频率 Frequency	电压 Voltage	电流 Current	效率% Efficiency			功率因数 PF			以数量 1 台, 连续运行 200 天节电 (度) Saving on electricity for 1pc of 22kw PM motor during operation for 100 days (KWH)
					恒转矩转速 Constant torque speed			负荷 (%) Load (%)			
					3000	2100	900	100	50	25	
OMP22-160	22	100	370	38.3	94.4	94	90.3	0.95	0.95	0.95	1899
IE2-180M-2	22	50	380	41.1	91.3	89.5	79.4	0.89	0.89	0.89	
IE3-180M-2	22	50	380	40.5	92.7	91.2	83	0.89	0.89	0.89	873

以上纯属效率提升带来的节电效益, 不包括变频降速带来的节能, 以风机负载为例的变频节电详见下图
The above are the saving brought by efficiency improvement, excluding the additional saving from the extreme low efficiency by frequency drive on low speed operation of an asynchronous motor. See the figure below for the example of ventilator application.

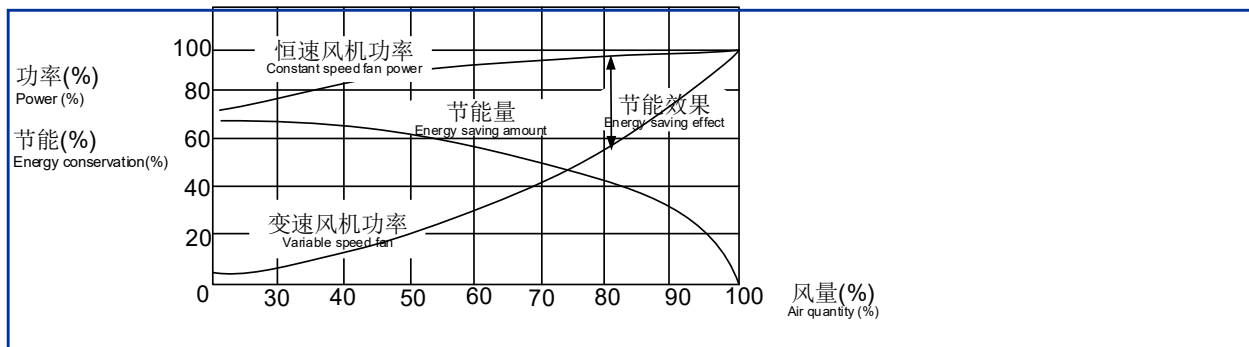
转速 n% RPM (n%)	风量(Q%) Fluid Load (Q%)	频率 Frequency	风压 F% Wind pressure	轴功率 P% Shaft power (P%)
100	100	50	100	100
90	90	45	81	72.9
80	80	40	64	51.2
70	70	35	49	34.3
60	60	30	36	21.6
50	50	25	25	12.5

显然, 变频控制系统的节能效果是十分突出的, 请见下图的比较曲线。

当风机效率一定, 调节风量微小的变化时, 转速可成比例下降, 则风机的轴功率成立方关系下降。在满足工艺要求的前提下, 若风机转速有富余 10%, 将可节省电耗 27.1%, 若风机的转速富余 20%, 将可节省电耗 48.8%。由此可见, 风机、水泵类负载, 其节电效果将是非常明显。

Obviously, there is significant energy saving for variable air volume control system. See Figure as below.

The rotation speed declines in proportion with a certain fan volume adjustment and the shaft power declines with cubic relation. On the premise of the engineering requirements, it can save the electricity consumption of about 27.1% if the fan rotation speed is 10% higher, and it can save the electricity consumption of about 48.8% if fan rotation speed is 20% higher. There are significant energy savings fan and pump applications.



主要规格及技术数据 Main Specifications & Technical Data

额定转速 3000rpm (符合 IE4, 根据需求可生产 IE5)

Nominal speed 3000rpm (IE4 efficiency) **IE5 on request.**

机座号 Frame size	额定功率 kW Rated power	额定电流 (A) Rated current (A)	效率(%) Efficiency (%)	功率因数 Power factor cos ϕ	额定频率(Hz) Rated frequency (Hz)	轴伸尺寸 Shaft end dimensions	轴承 Bearing at DE	轴承 Bearing at NDE
80M1	1.5	2.7	86.5	0.96	200	D24X50	6205 2RZ	6204 2RZ
80M2	2.2	4.0	88	0.96	200	D24X50	6205 2RZ	6204 2RZ
90L	3	5.3	89.1	0.96	200	D28X60	6206 2RZC3	6205 2RZ
90L	4	7.0	90	0.96	200	D28X60	6206 2RZC3	6205 2RZ
100L1	5.5	9.6	90.9	0.96	200	D38X80	6208 2RZC3	6206 2RZC3
100L2	7.5	12.9	91.7	0.96	200	D38X80	6208 2RZC3	6206 2RZC3
112M	11	18.8	92.6	0.96	200	D42X110	6209 2RZC3	6306 2RZC3
132M1	18.5	31.4	93.3	0.96	200	D48X110	6212 2RZC3	6308 2RZC3
132M1	22	37.0	94	0.96	200	D48X110	6212 2RZC3	6308 2RZC3
160L	30	50.2	94.5	0.96	200	D55X110	6212 2RZC3	6308 2RZC3
160L	37	61.8	94.8	0.96	200	D55X110	6212 2RZC3	6309 2RZC3
180L	45	75.0	95	0.96	200	D55X110	6213 C3	6311 C3
180L	55	91.3	95.3	0.96	200	D60X140	6213 C3	6311 C3
180L2	75	124	95.6	0.96	200	D60X140	6215 C3	6312 C3
225L	90	149	95.8	0.96	200	D60X140	6215 C3	6312 C3
225L	110	181	96	0.96	200	D65X140	6216 C3	6313 C3
225L	132	217	96.2	0.96	200	D65X140	6216 C3	6313 C3
225L	160	263	96.3	0.96	200	D65X140	6216 C3	6313 C3
250M	200	328	96.5	0.96	200	D65X140	6217 C3	6314 C3
280M	220	361	96.5	0.96	200	D75X140	6317 C3	6317 C3
280M	250	410	96.5	0.96	200	D75X140	6317 C3	6317 C3
315S	280	459	96.5	0.96	200	D75X140	6317 C3	6317 C3
315M	315	517	96.5	0.96	200	D75X140	6317 C3	6317 C3
315L1	355	582	96.5	0.96	200	D75X140	6317 C3	6317 C3
315L2	400	656	96.5	0.96	200	D80X170	6317 C3	6317 C3
355M1	450	738	96.5	0.96	150	D80X170	6317 C3	6317 C3
355M2	500	820	96.5	0.96	150	D80X170	6317 C3	6317 C3
355L	560	918	96.5	0.96	150	D80X170	6317 C3	6317 C3
355L1	630	1033	96.5	0.96	150	D80X170	6317 C3	6317 C3
355L2	710	1164	96.5	0.96	150	D80X170	6317 C3	6317 C3

主要规格及技术数据 Main Specifications & Technical Data

额定转速 1500rpm (符合 IE4, 根据需求可生产 IE5)

Nominal speed 1500rpm (IE4 efficiency) **IE5 on request.**

机座号 Frame size	额定功率 kW Rated power	额定电流 (A) Rated current (A)	效率(%) Efficiency (%)	功率因数 Power factor cosΦ	额定频率(Hz) Rated frequency (Hz)	轴伸尺寸 Shaft end dimensions	轴承 Bearing at DE	轴承 Bearing at NDE
80M1	1.1	2.0	87.2	0.96	100	D24X50	6205 2RZ	6204 2RZ
80M2	1.5	2.7	88.2	0.96	100	D24X50	6205 2RZ	6204 2RZ
90S	2.2	3.9	89.5	0.96	100	D28X60	6206 2RZC3	6205 2RZ
90L	3	5.3	90.4	0.96	100	D28X60	6206 2RZC3	6205 2RZ
100L1	4	6.9	91.1	0.96	100	D28X60	6208 2RZC3	6206 2RZC3
112M	5.5	9.5	91.9	0.96	100	D38X80	6208 2RZC3	6206 2RZC3
112M	7.5	12.8	92.6	0.96	100	D38X80	6209 2RZC3	6306 2RZC3
132M1	11	18.7	93.3	0.96	100	D42X110	6212 2RZC3	6308 2RZC3
132M1	15	25.3	93.9	0.96	100	D42X110	6212 2RZC3	6308 2RZC3
132M2	18.5	31.1	94.2	0.96	100	D48X110	6212 2RZC3	6308 2RZC3
160L	22	36.8	94.5	0.96	100	D48X110	6212 2RZC3	6309 2RZC3
160L	30	50.0	94.9	0.96	100	D48X110	6213 C3	6311 C3
180L	37	61.5	95.2	0.96	100	D60X140	6213 C3	6311 C3
180L1	45	74.7	95.4	0.96	100	D60X140	6215 C3	6312 C3
180L2	55	91.0	95.7	0.96	100	D65X140	6215 C3	6312 C3
225M	75	124	96	0.96	100	D75X140	6216 C3	6313 C3
225M	75	124	96	0.96	100	D75X140	6216 C3	6313 C3
	90	148	96.1	0.96	100	D75X140	6216 C3	6313 C3
250M	110	181	96.3	0.96	100	D80X170	6217 C3	6314 C3
280M	132	217	96.4	0.96	100	D80X170	6317 C3	6317 C3
280M	160	262	96.6	0.96	100	D80X170	6317 C3	6317 C3
315S	200	327	96.7	0.96	100	D80X170	6322 C3	6319 C3
315M	220	360	96.7	0.96	100	D95X170	6322 C3	6319 C3
315L1	250	409	96.7	0.96	100	D95X170	6322 C3	6319 C3
315L2	280	458	96.7	0.96	100	D95X170	6322 C3	6319 C3
355M1	315	516	96.7	0.96	75	D110X210	6224 C3	6320 C3
355M2	355	581	96.7	0.96	75	D110X210	6224 C3	6320 C3
355L	400	655	96.7	0.96	75	D110X210	6224 C3	6320 C3
355L1	450	737	96.7	0.96	75	D110X210	6224 C3	6320 C3
355L2	500	818	96.7	0.96	75	D110X210	6224 C3	6320 C3

主要规格及技术数据 Main Specifications & Technical Data

额定转速 1000rpm (符合 IE4, 根据需求可生产 IE5)

Nominal speed 1000rpm (IE4 efficiency) **IE5 on request.**

机座号 Frame size	额定功率 kW Rated power	额定电流 (A) Rated current (A)	效率(%) Efficiency (%)	功率因数 Power factor cosΦ	额定频率(Hz) Rated frequency (Hz)	轴伸尺寸 Shaft end dimensions	轴承 Bearing at DE	轴承 Bearing at NDE
80M1	0.75	1.4	82.7	0.96	66.7	D24X50	6205 2RZ	6204 2RZ
80M2	1.1	2.1	84.5	0.96	66.7	D24X50	6205 2RZ	6204 2RZ
90S	1.5	2.8	85.9	0.96	66.7	D28X60	6206 2RZC3	6205 2RZ
90L	2.2	4.0	87.4	0.96	66.7	D28X60	6206 2RZC3	6205 2RZ
100L1	3	5.4	88.6	0.96	66.7	D38X80	6208 2RZC3	6206 2RZC3
112M	4	7.1	89.5	0.96	66.7	D38X80	6209 2RZC3	6306 2RZC3
132M1	5.5	9.6	90.5	0.96	66.7	D38X80	6212 2RZC3	6308 2RZC3
132M2	7.5	13.0	91.3	0.96	66.7	D42X110	6212 2RZC3	6308 2RZC3
132M2	11	18.9	92.3	0.96	66.7	D42X110	6212 2RZC3	6308 2RZC3
160L	15	25.6	92.9	0.96	66.7	D48X110	6212 2RZC3	6309 2RZC3
180L	18.5	31.3	93.4	0.96	66.7	D55X110	6213 C3	6311 C3
180L	22	37.2	93.7	0.96	66.7	D55X110	6213 C3	6311 C3
180L1	30	50.4	94.2	0.96	66.7	D60X140	6215 C3	6312 C3
225L	37	62.0	94.5	0.96	66.7	D65X140	6215 C3	6312 C3
225M	45	75.1	94.8	0.96	66.7	D75X140	6216 C3	6313 C3
225M	55	91.5	95.1	0.96	66.7	D75X140	6216 C3	6313 C3
250M	75	124	95.4	0.96	66.7	D80X170	6217 C3	6314 C3
280M	90	149	95.6	0.96	66.7	D80X170	6317 C3	6317 C3
280M	110	182	95.8	0.96	66.7	D80X170	6317 C3	6317 C3
315M	132	218	96	0.96	66.7	D80X170	6322 C3	6319 C3
315M	160	263	96.2	0.96	66.7	D95X170	6322 C3	6319 C3
315L1	185	304	96.2	0.96	66.7	D95X170	6322 C3	6319 C3
315L2	200	329	96.3	0.96	66.7	D95X170	6322 C3	6319 C3
355M1	220	362	96.3	0.96	50	D95X170	6224 C3	6320 C3
355M2	250	410	96.5	0.96	50	D95X170	6224 C3	6320 C3
355L	280	459	96.5	0.96	50	D95X170	6224 C3	6320 C3
355L1	315	516	96.6	0.96	50	D110X210	6224 C3	6320 C3
355L2	355	582	96.6	0.96	50	D110X210	6224 C3	6320 C3

主要规格及技术数据 Main Specifications & Technical Data

额定转速 750rpm (符合 IE4, 根据需求可生产 IE5)

Nominal speed 750rpm (IE4 efficiency) **IE5 on request.**

机座号 Frame size	额定功率 kW Rated power	额定电流 (A) Rated current (A)	效率(%) Efficiency (%)	功率因数 Power factor cosΦ	额定频率(Hz) Rated frequency (Hz)	轴伸尺寸 Shaft end dimensions	轴承 Bearing at DE	轴承 Bearing at NDE
80M1	0.55	1.1	77	0.96	50	D24X50	6205 2RZ	6204 2RZ
80M2	0.75	1.5	78.4	0.96	50	D24X50	6205 2RZ	6204 2RZ
90L	1.1	2.2	80.8	0.96	50	D28X60	6206 2RZC3	6205 2RZ
90L	1.5	2.9	82.6	0.96	50	D28X60	6206 2RZC3	6205 2RZ
100L1	2.2	4.1	84.5	0.96	50	D38X80	6208 2RZC3	6206 2RZC3
100L2	2.2	4.1	85.9	0.96	50	D38X80	6208 2RZC3	6206 2RZC3
112M	3	5.5	85.9	0.96	50	D38X80	6209 2RZC3	6306 2RZC3
132M1	4	7.3	87.1	0.96	50	D42X110	6212 2RZC3	6308 2RZC3
132M2	5.5	9.9	88.3	0.96	50	D42X110	6212 2RZC3	6308 2RZC3
132M1	7.5	13	89.3	0.96	50	D42X110	6212 2RZC3	6308 2RZC3
160L	11	19	90.4	0.96	50	D48X110	6212 2RZC3	6309 2RZC3
180M	15	26	91.2	0.96	50	D55X110	6213 C3	6311 C3
180L	18.5	32	91.7	0.96	50	D60X140	6213 C3	6311 C3
225L	22	38	92.1	0.96	50	D60X140	6215 C3	6312 C3
225L	30	51	92.7	0.96	50	D65X140	6215 C3	6312 C3
225M	37	63	93.1	0.96	50	D75X140	6216 C3	6313 C3
225M	45	76	93.4	0.96	50	D75X140	6216 C3	6313 C3
250M	55	93	93.7	0.96	50	D80X170	6217 C3	6314 C3
280M	75	126	94.2	0.96	50	D80X170	6317 C3	6317 C3
315m	90	151	94.4	0.96	50	D80X170	6322 C3	6319 C3
315M	110	184	94.7	0.96	50	D80X170	6322 C3	6319 C3
315L1	132	220	94.9	0.96	50	D95X170	6322 C3	6319 C3
355M1	160	266	95.1	0.96	75	D95X170	6224 C3	6320 C3
355M2	185	307	95.4	0.96	75	D95X170	6224 C3	6320 C3
355L	200	332	95.4	0.96	75	D95X170	6224 C3	6320 C3
355L1	220	365	95.4	0.96	75	D95X170	6224 C3	6320 C3
355L2	250	415	95.4	0.96	75	D110X210	6224 C3	6320 C3

永磁直驱 PM (direct-driving) Main Specifications & Technical Data

 直进式拉丝机直驱额定转速 22~682rpm (适用于中低碳钢, 高碳钢钢丝)
 Drawbench rated speed 22~682rpm

额定功率 (kW)	额定扭矩 Nm	额定转速 r/min	效率(%)	功率因数 (%)	备注
36	500	682	0.93	0.95	硬线直进式拉丝机
37	650	545	0.93	0.95	
31	650	450	0.93	0.95	
19	707	250	0.93	0.95	
30	850	341	0.925	0.95	
36	850	409	0.925	0.95	
33	1000	314	0.925	0.95	
22	1051	200	0.925	0.95	
33	1300	239	0.925	0.95	
30	1433	200	0.925	0.95	
39	1500	248	0.925	0.95	
29	1600	175	0.925	0.95	
31	1650	181	0.925	0.95	
25	2000	118	0.925	0.95	
27	2400	109	0.925	0.95	
25	2800	84	0.925	0.95	
38	3000	120	0.925	0.95	
30	3500	82	0.92	0.95	
52	4000	125	0.92	0.95	
38	4500	80	0.92	0.95	
52	5000	100	0.92	0.95	
50	6000	80	0.92	0.95	
41	6500	60	0.92	0.95	
48	7000	65	0.92	0.95	
36	8500	40	0.92	0.95	
47	9000	50	0.92	0.95	
30	9500	30	0.92	0.95	
47	10000	45	0.92	0.95	
42	15000	27	0.92	0.95	
37	16000	22	0.92	0.95	

永磁直驱 PM (direct-driving) Main Specifications & Technical Data

直进式拉丝机直驱额定转速 84~2000rpm (适用于铜铝拉丝机)

Drawbench rated speed 84~2000rpm

功率 kW	扭矩 Nm	额定转速 r/min	中心高 Frame size	冷却方式 cooling	应用 Application
17	80	2000	160	IC416 or 71W	软线直进式拉丝机
17	100	1600	160	IC416 or 71W	
17	100	1580	160	IC416 or 71W	
16	120	1270	160	IC416 or 71W	
16	120	1260	160	IC416 or 71W	
16	150	1020	160	IC416 or 71W	
16	150	1010	160	IC416 or 71W	
15	180	820	160	IC416 or 71W	
15	180	810	160	IC416 or 71W	
15	220	650	180	IC416 or 71W	
16	230	660	180	IC416 or 71W	
31	280	1050	180	IC416 or 71W	
15	280	520	180	IC416 or 71W	
66	320	1960	180	IC416 or 71W	
91	350	2480	180	IC416 or 71W	
30	350	830	180	IC416 or 71W	
31	430	680	225	IC416 or 71W	
38	430	850	225	IC416 or 71W	
30	430	670	225	IC416 or 71W	
31	540	540	225	IC416 or 71W	
32	550	550	225	IC416 or 71W	
53	600	840	225	IC416 or 71W	
44	650	650	225	IC416 or 71W	
31	680	430	225	IC416 or 71W	
31	680	430	225	IC416 or 71W	
83	720	1100	225	IC416 or 71W	
31	850	350	225	IC416 or 71W	
32	860	350	225	IC416 or 71W	
37	894	400	280	IC416 or 71W	
31	1070	280	280	IC416 or 71W	
45	1437	300	280	IC416 or 71W	
44	1842	230	280	IC416 or 71W	
44	2362	177	315	IC416 or 71W	
43	3028	137	315	IC416 or 71W	
44	3882	108	315	IC416 or 71W	
44	5021	84	315	IC416 or 71W	

永磁直驱 PM (direct-driving) Main Specifications & Technical Data

直驱额定转速 90~140rpm (适用于搅拌, 冷却塔等领域)

Rated speed 90~140rpm

额定功率 (kW)	额定扭矩	额定转速	效率(%)	功率因数
18	1963	90	92.50%	0.95
29	1963	140	93%	0.95
22	2334	90	92.50%	0.95
35	2388	140	93%	0.95
43	2918	140	93%	0.95
30	3183	90	93%	0.95
37	3926	90	93%	0.95
58	3979	140	94.50%	0.96
45	4775	90	93%	0.95
55	5836	90	94.20%	0.95
90	6139	140	94.80%	0.96
110	7504	140	95.10%	0.96
75	7958	90	94.50%	0.96
132	9004	140	95.20%	0.96
90	9550	90	94.80%	0.96
160	10914	140	95.20%	0.96
110	11672	90	95.10%	0.96
132	14007	90	95.20%	0.96
220	15041	140	95.70%	0.97
235	16061	140	95.20%	0.96
248	16951	140	95.80%	0.97
160	16978	90	95.20%	0.96
255	17364	140	95.30%	0.96
280	19100	140	95.40%	0.96
185	19631	90	95.30%	0.96
200	21222	90	95.40%	0.96
220	23344	90	95.50%	0.97
350	23875	140	95.80%	0.97
250	26528	90	95.50%	0.97
394	26859	140	96.20%	0.98
438	29844	140	96.20%	0.98
315	33425	90	95.50%	0.97
490	33425	140	96.20%	0.98

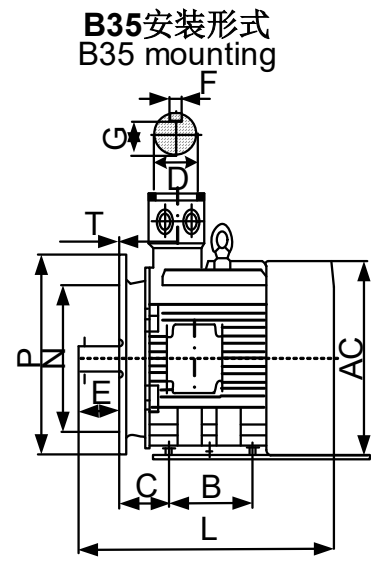
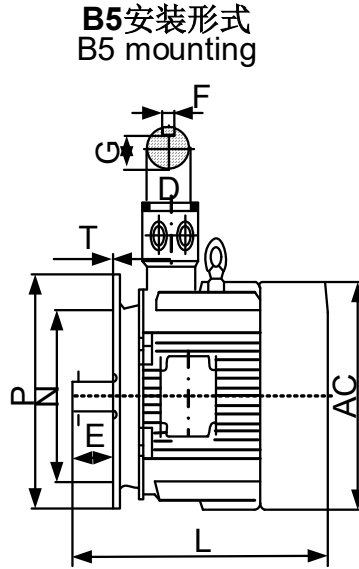
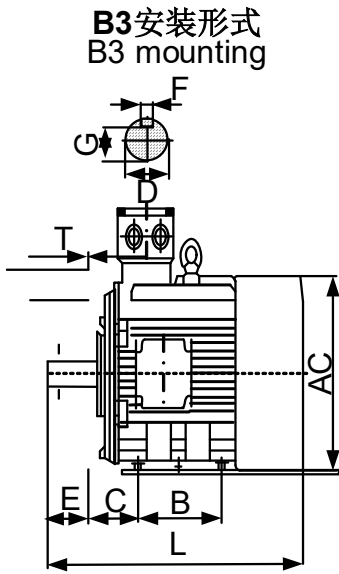
永磁直驱 PM (direct-driving) Main Specifications & Technical Data

直驱额定转速 90~140rpm (适用于搅拌, 冷却塔等领域)

Rated speed 90~140rpm

额定功率 (kW)	额定扭矩 Nm	额定转速 r/min	效率(%)	功率因数(%)
551	37603	140	96.20%	0.98
355	37669	90	95.50%	0.97
621	42378	140	96.20%	0.98
400	42444	90	95.50%	0.97
450	47750	90	95.50%	0.97
700	47750	140	96.20%	0.98
500	53056	90	95.50%	0.97
560	59422	90	95.50%	0.97
900	61393	140	96.20%	0.98
630	66850	90	95.50%	0.97
1000	68214	140	96.50%	0.98
1120	76400	140	96.50%	0.98
1250	85268	140	96.50%	0.98
1400	95500	140	96.50%	0.98
1600	109143	140	96.50%	0.98

通用电机主要安装尺寸及外形图 Mounting dimension and outline

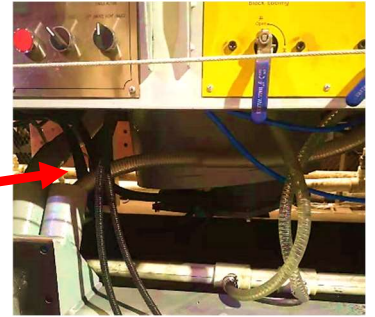


机座号 Frame size	安装尺寸 Mounting dimensions											外形尺寸 Outline dimension				
	A	B	C	D	E	F	G	H	M	N	P	AB	AC	AD	HD	L
80	125	100	50	详见性能表 See the performance table for detail.	40	6	16	80	165	130	200	160	176	150	230	297
90S	140	100	56		50	8	20	90	165	130	200	176	176	150	240	351
90L		125	63		60		24	100	215	180	250	200	215	169	270	385
100L	160	70	112			80	33	132	265	230	300	262	275	210	345	473
112M	190	140	89		110		12	37	160	300	250	350	314	330	255	420
132S	216	178	108			14	43	180	349				380	280	455	663
132M		216	121		16	49	200	350	300	400	388	420	310	505	738	
160M	254	210	149		140	18	53	225	400	350	450	435	470	335	560	789
160L		254	108			18	58	250	500	450	550	484	510	370	615	911
180M	279	241	190		140	20	68	280				542	580	401	680	1064
180L		279	121			16	49	200	350	300	400	388	420	310	505	738
200L	318	305	133		170	22	71	315	600	550	660	628	645	553	868	1277
225S		286	149			18	53	225	400	350	450	435	470	335	560	789
225M	356	311	190		140	18	58	250	500	450	550	484	510	370	615	911
250M		349	168			20	68	280				542	580	401	680	1064
280S	457	368	216		170	22	71	315	600	550	660	628	645	553	868	1277
280M		419	190			18	53	225	400	350	450	435	470	335	560	789
315S	508	406	216		170	22	71	315	600	550	660	628	645	553	868	1277
315M		457	216			18	53	225	400	350	450	435	470	335	560	789
315L	508	216	190		140	18	58	250	500	450	550	484	510	370	615	911
355M	610	560	254	20		68	280	542				580	401	680	1064	
355L		630	254	16	49	200	350	300	400	388	420	310	505	738		

直驱型外形图因设备不同，为厂家定制，可为您特殊设计或 3D 图提供。

典型永磁运用案例 Typical PM motor application
一、钻房集尘风机应用案例

用电负荷	1日	2日	3日	4日	5日	6日	7日	8日	9日
9#集尘机改造前原电机 AC 100HP 75KW-4 极	1061	1071	1071	1071	1071	1071	1071	1073	1075
9#集尘机改造后：永磁 OMP-250-1500r/min	928	969	929	948	937	938	944	915	904
节电率	13%	10%	13%	11%	13%	12%	12%	15%	16%


二、拉线机直驱应用案例


线径	重量 (吨)	用卷 筒数	砂带机	开始 时间	结束 时间	用时	开始 电量	结束 电量	用电量	吨电耗	小时 产量	备注
2.23	3.2	7	开	23:40	2:40	3 小时	13591	13940	349	109.0625	1.070	改造前异步
2.23	6	7	开	8:00	13:25	5.5 小时	14930	15467	537	89.5	1.14	改造后永磁直 驱，去除减速机

之前设计：

1. 异步+减速箱
2. 异步+皮带轮

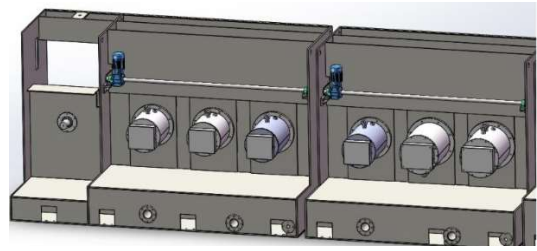
直驱设计：

永磁直驱，取消减速箱及皮带轮。

直驱优势：

1. 节电数据。8%~15%，视拉丝头。
2. 免维护。（可常年不停机，无需换油和换皮带）。
3. 噪声和振动变小，吸有卷筒声音。
4. 反应速度变快，启动同步，减少断线。
5. 空间变小，电机装在卷筒下面，减少 1/3 的占地。可实现一人多机，减少人工。

三、 拉丝机永磁电机及直驱应用



有风冷，水冷及油冷都不需要减速箱。

之前设计:

- 1、 异步+减速机
- 2、 异步+皮带

永磁设计:

永磁+一级减速

永磁优势:

1. 相比原异步，永磁节电 3~5%
2. 只有一级减速，无齿轮箱，不存在漏油
3. 反映速度快，过载能力强。

四、 风机应用案例



紧密纺风机与平纤机由异步切换到永磁，客户反馈节电率 12%。

五、 句容华电改造案例



贵州运煤皮带机改造，用永磁直驱代替，取消减速箱，节电 **21%**



句容华电改造换成永磁直驱，去除减速机，节电率 **18.5%**

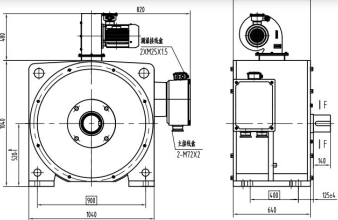
六、水泵异步改造永磁案例

- 白俄 40 万吨纸浆厂水泵及化工泵改造，换成永磁，平均节电 **9.7%**



七、冷却塔改造永磁案例

- 唐山化工厂空冷岛换成永磁直驱，平均节电 **12.7%**

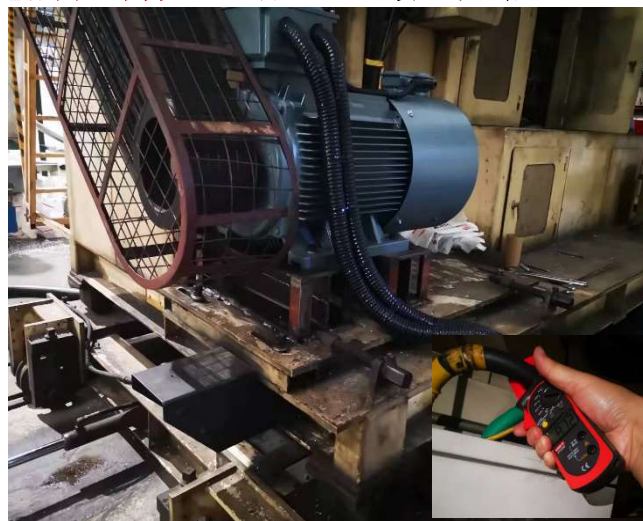



型号	功率 (kW)	额定电压 (V)	额定转速			额定电流			空载及堵转电流 (A)	
			转速 (r/min)	同步 (r/min)	额定 (r/min)	额定 (A)	堵转 (A)	空载 (A)		
MPM3-230V-40P	30	380	2970	~190	~13	10.9	18.5	18.2	14.7	13P-370

绝缘	工作制	冷却方式	冷却形式	绝缘	防护等级	轴承	后轴承	轴承润滑	冷却系统	重量
Y	S1	MP3	风冷	F	IP55	SKF30	SKF30	20PT100	油雾润滑	2500kg

外形图: OGS000458
MPM3-230V-40P
无锡威灵电机有限公司

八、东莞塑胶厂直流改造永磁案例，电流同比下降 60%，原 231A，改造永磁后 81A。



九、细纱机改造，取消皮带轮，取消制动器。平均节电 8.7%



十、新疆电厂引风机 800KW 高压改造案例



十一、浙江电厂改造案例



十二、立磨机 220KW，以及内蒙化工循环水泵 55KW 改造案例，节电率达 8%





我们为您提供一站式的节能服务，从节能方案制订，产品制造（变频器，电机），安装以及售后服务。
We provide one-stop energy saving solution, with package of consulting, high efficiency motor and inverter.

无锡欧瑞京电机有限公司

Wuxi Original Mechanical & Electrical Co.,Ltd.

工厂地址：江苏省无锡市惠山区阳山镇陆戴路 8 号

Address: No.8 Ludai Road, Yangshan Town, Huishan District, Wuxi City, Jiangsu, China

销售&技术办公室：江苏省滨湖区绣溪路 53 号旭天科技园 17 号楼 301 室&401 室

Sales, R&D: No. 53 Xiuxi Road, Block 17, Xutian Park, Binhu District, Jiangsu, China

联系电话 (Tel):+86-0510-83052852

传真 (Fax): +86-0510-85186817

E-mail: qiang.fang@chinaomec.com

网址 (Website): www.chinaomec.com