

HYM Series

油泵用变频永磁同步电机
High Efficiency Permanent
Magnet Synchronous Motor
For Oil Pumps



油泵用变频永磁同步电机采用渗氮工艺处理的 40cr 轴及铸铝机壳，选用高可靠性 SKF 轴承和稀土钕铁硼材料励磁，从温度和强度两个方面保证电机寿命可靠性。

相比异步电机控制，永磁同步电机在转子内嵌永磁体，搭配专用变频器无速度传感矢量控制，不仅省去了转子中感应电流损耗，提高了效率，并且拥有更广的高效率调速区间，更加的节能。

The permanent magnet synchronous motor for oil pump adopts 40cr shaft treated by nitriding process cast aluminum casing , and uses high-reliability SKF bearings and excitation of rare iron boron materials to ensure the reliability of motor life in terms of temperature and strength.

Compared with asynchronous motor control, the permanent magnet synchronous motor has permanent magnets embedded in the rotor, and it matched with a special frequency converter for speed sensorless vector control. It not only saves the loss of induced current in the rotor, but also has a wider range of high-efficiency speed regulation, which improves the efficiency and saves more energy.

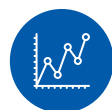
产品特点 Product Features



结构紧凑
Compact structure



高效节能
Energy efficient



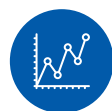
性能优异
Excellent performance



安全可靠
Safe and reliable



智能监控
Intelligent monitoring



定制设计
Custom design

设计方案 Design Scheme

高效节能设计

Energy efficient design

采用优质永磁体，减少电流输出，软件方面通过测算得出专属客户的控制曲线，相辅相成融合实际工况，体现于液压站整体的低溢流现象，大大减少了无效功率输出。

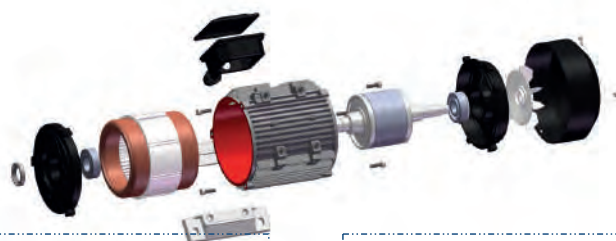
High-quality permanent magnets are used to reduce the current output. The software calculates the exclusive customer's control curve, which complements and integrates the actual working conditions. The low overflow phenomenon reflected in the overall hydraulic station greatly reduces the ineffective power output.

专用变频器

Special frequency converter

采用与当前国际最领先技术完全同步的无传感器矢量控制技术，结合目前国内的应用环境，强化了产品的可靠性设计，能够更好地满足各种传动应用的需求。

Adopting the sensorless vector control technology that is fully synchronized with the international leading technology, combined with the domestic application environment, the reliability design of the product has been strengthened, and it can better meet the needs of various transmission applications.



部件品质

Component quality

轴承选用高可靠性 SKF 轴承，轴采用 40cr 制造，辅以渗氮工艺，保证轴同泵头配合面强度及整机高使用寿命。机壳采用 ZL102 铝合金制成，保证强度的同时大大减少零件重量，并可根据客户需求更改接线盒安装面。

The bearings are made of high-reliability SKF bearings, and the shaft is made of 40cr, supplemented by nitriding process to ensure the strength of the mating surface between the shaft and the pump head and the long service life of the whole machine. The casing is made of ZL102 aluminum alloy, which greatly reduces the weight of parts while ensuring strength, and the installation surface of the terminal box can be changed according to customer needs.

材料选择 - 稀土永磁烧结钕铁硼

Material selection - rare-earth permanent magnet NdFeB magnet

电机磁钢选用第三代稀土永磁材料钕铁硼，采用世界最先进的烧结工艺冶炼而成，高剩磁密度、高矫顽力、高磁能积和线性退磁曲线的优异磁性能使其成为制造电机的首选。

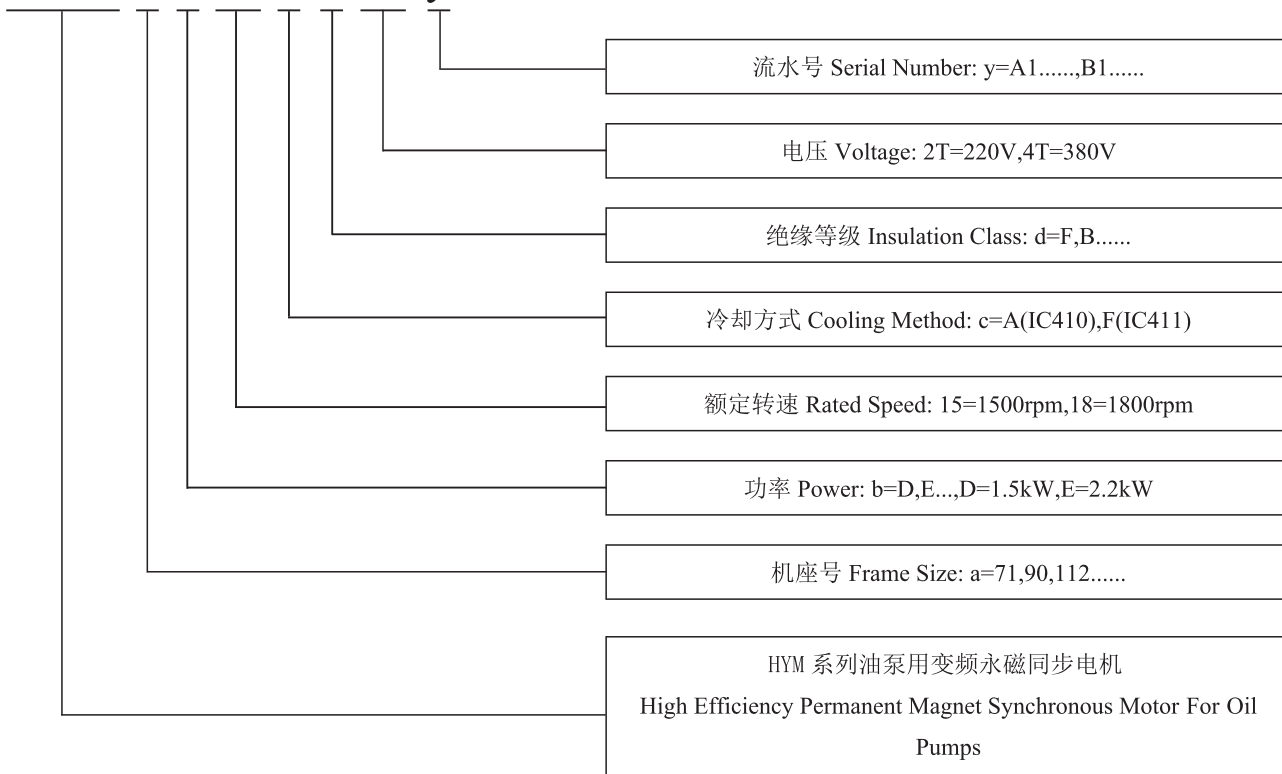
The motor magnet is made of the third-generation rare earth permanent magnet material NdFeB magnet by the world's most advanced sintering process. The excellent magnetic properties of high remanence density, high coercive force, high magnetic energy product and linear demagnetization curve make it the first choice for manufacturing motors.

应用领域 Application Fields

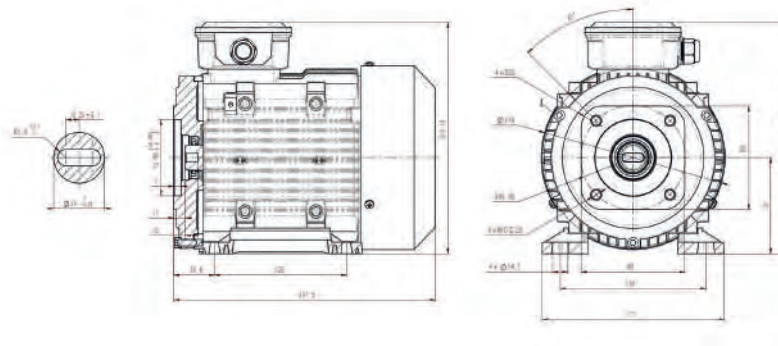


命名规则 Naming Rule

HYM-a-b-15-c-d-4T-y



产品参数 Product Parameters



电机型号 Motor type	额定功率 Rated power (kW)	额定转速 Rated speed (rpm)	额定电压 Rated voltage (V)	额定扭矩 Rated torque (N.m)	额定电流 Rated current (A)	额定频率 Rated frequency (Hz)	极数 Number of poles	反电动势 Counter electromotive force (V)	效率 Efficiency ($\eta\%$)	重量 Weight (kg)	防护等级 Protection class	绝缘等级 Insulation class	工作制 Continuous duty	冷却方式 Cooling method	轴伸端轴承/ 非轴伸端轴承 BRGS/O.P.E
HYM90D15FF4T-A1	1.5	1500	380	9.55	3.10	100	8	292.1	88.17	12.06	IP44	F	S8	IC411	6205-2Z/6304-2Z
HYM90D15FF2T-A1	1.5	1500	220	9.55	6.11	100	8	153.2	87.09	12.11	IP44	F	S8	IC411	6205-2Z/6304-2Z
HYM90E15FF4T-A1	2.2	1500	380	14.00	4.11	100	8	298.3	89.50	12.20	IP44	F	S8	IC411	6205-2Z/6304-2Z
HYM90E15FF2T-A1	2.2	1500	220	14.00	8.48	100	8	156.9	88.44	12.25	IP44	F	S8	IC411	6205-2Z/6304-2Z