Motor STAR 新四达

矿用提升机

永磁直驱电机解决方案

MINE HOIST

PERMANENT MAGNET DIRECT DRIVE MOTOR SOLUTION

公司简介

河北新四达电机股份有限公司，创建于2005年，实缴注册资金10631万，占地160余亩，是国内最早从事专业设计研发、生产、销售服务为一体的永磁直驱电机及特种重型电机于一体的高科技企业。创建以来始终专注于为工业用户提供高效节能的重型特种电机及控制系统成套解决方案。

国家重点“小巨人”企业
国家级服务型制造示范企业
国家高新技术企业
国家级绿色工厂
河北省磁传动装备产业技术研究院
河北省重型直驱电机系统技术创新中心
河北省企业技术中心
河北省工业设计中心
河北省科技型中小企业
河北省工业企业研究机构
新型磁性材料与高校电机校企联合实验室

COMPANY PROFILE

HeBei New Sdar Electric Motor Co.,Ltd, founded in 2005, with a total registered capital of 106.31 million, covers an area of more than 160 acres, is the first high-tech enterprise engaged in professional design, development, production, sales and service as one of the permanent magnet direct drive motor and special heavy motor in one. Since its establishment, it has always focused on providing industrial users with high-efficiency and energy-saving heavy-duty special motor and control system complete solutions.

National Specialized, Refined, Unique and New "Little Giant" Enterprise
National service-oriented manufacturing demonstration enterprise
National High-tech Enterprise
National Green Factory
Hebei Magnetic Transmission Equipment Industry Technology Research Institute
Hebei Province Heavy duty Direct Drive Motor System Technology Innovation Center
Hebei Enterprise Technology Center
Hebei Industrial Design Center
Hebei Province's technology-based small and medium-sized enterprises
Hebei Province Industrial Enterprise Research Institute
New Magnetic Materials and University Enterprise Joint Laboratory of Electric Machinery

10631万

实缴注册资金10631万
Paid in registered capital of 106.31 million

30000 m^2

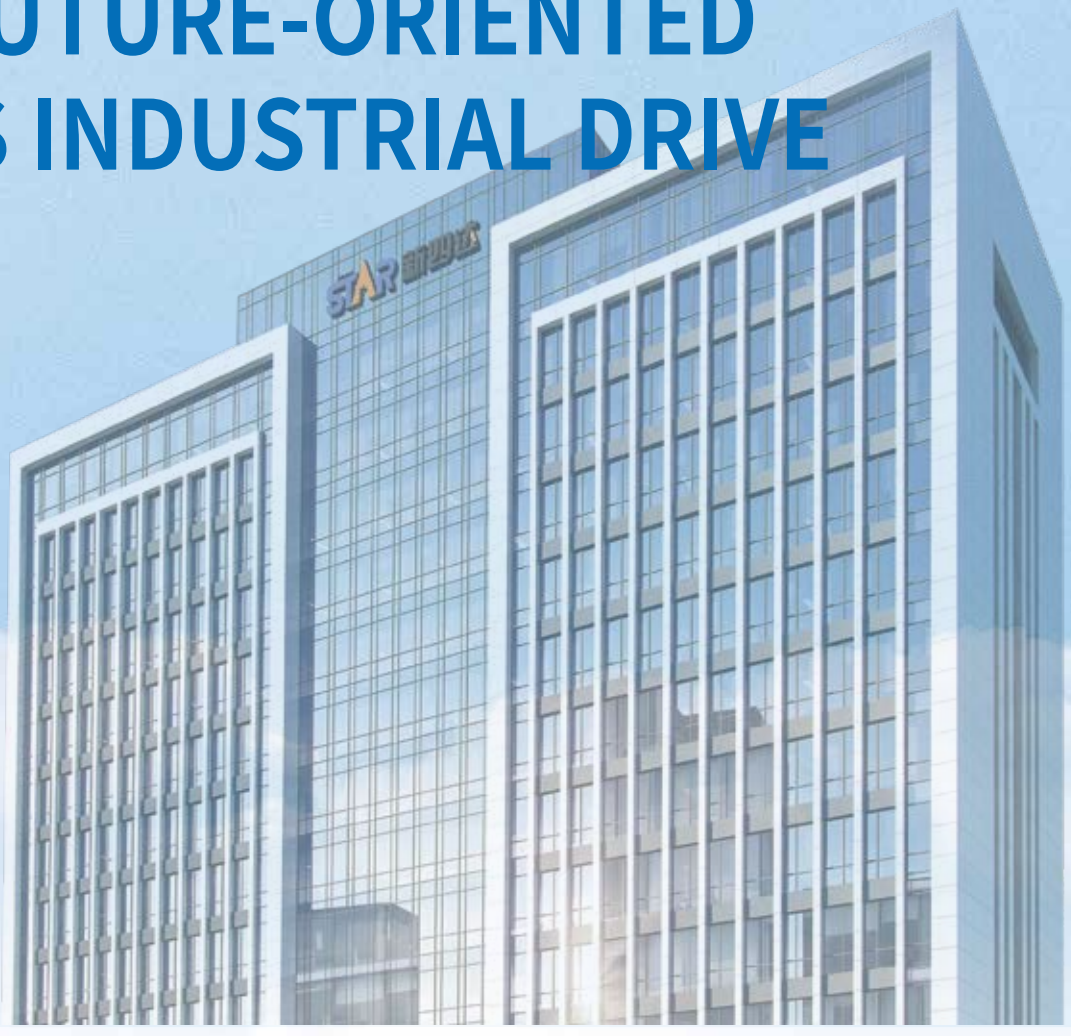
30000m^2生产面积
30000m^2 production area

200 +

各种专利及著作权200余项
Over 200 patents and copyrights of various kinds

构建面向未来的无齿轮化工业驱动体系

BUILD A FUTURE-ORIENTED GEARLESS INDUSTRIAL DRIVE SYSTEM



永磁电机技术特点

Technical characteristics of permanent magnet motor

高效节能

EFFICIENT AND ENERGY-SAVING

具有高效率、高功率因数。在25-120%的负荷率范围内，可保持90%以上的运行效率。与传统的拖动方式相比，电机驱动系统整体效率大大提高。

Has high efficiency and high power factor. Within the load rate range of 25-120%, it can maintain an operating efficiency of over 90%. Compared with traditional drag methods, the overall efficiency of the motor drive system is greatly improved.

智能管理

INTELLIGENT MANAGEMENT

随电机负载大小变化，以及永磁电机电压、电流温度等运行参数的反馈，通过智能变频控制，实现智能化管理。

With the change of the load size of the belt conveyor, as well as the feedback of the operating parameters of the permanent magnet motor such as voltage, current and temperature, intelligent management is realized through intelligent frequency conversion control.

大扭矩

LARGE TORQUE

随设备负载大小变化，以及永磁电机电压、电流温度等运行参数的反馈，通过智能变频控制，实现智能化管理。

With the change of equipment load size and feedback of operating parameters such as permanent magnet motor voltage, current and temperature, intelligent management is achieved through intelligent frequency conversion control.

安全可靠

SAFE AND RELIABLE

永磁同步电动机结构简单，材料性能稳定，过载倍数高;变频技术可靠成熟，应用广泛，矢量控制，保护齐全、安全可靠，基本免维护。

Permanent magnet synchronous motors have a simple structure, stable material properties, and high overload multiples; Variable frequency technology is reliable and mature, widely used, vector control, fully protected, safe and reliable, and basically maintenance free.

TYDT系列提升机永磁直驱变频同步电动机

TYDT series hoist permanent magnet direct drive variable frequency synchronous motor

产品介绍

在提升机应用中，去掉原电机系统中的减速机，具有结构紧凑、启动转矩大、效率高、运行平稳、噪音低、安全可靠、安装方便等优点，最大程度实现系统免维护。

结构设计理念：大外圆直径结构去除减速机、液力耦合器及辅传装置，电机与提升机头轮主轴直连。

Product introduction

In the application of elevators, removing the reducer from the original motor system has the advantages of compact structure, high starting torque, high efficiency, smooth operation, low noise, safety and reliability, and easy installation, achieving maximum maintenance free system.

Structural design concept: The large outer diameter structure eliminates the reducer, hydraulic coupler, and auxiliary transmission device, and the motor is directly connected to the main shaft of the lifting head wheel.

永磁电机参数

Permanent magnet machine parameter

冷却方式	Cooling mode	：水冷 water-cooling	额定电压 Rated voltage	：380/660V/1140V/6kV/10kV
防护等级	Class of protection	：IP55	额定功率 Rated power	：15~3350kW
电机热分级	Motor thermal classification	：H级 H Grade	额定转速 Rated speed	：60/75/90r/min
电缆引入方式	Cable entry mode	：接线柱 Binding post		

永磁直驱系统优势

Advantages of Permanent Magnet Direct Drive System

符合煤粉制备环境防爆电气要求/符合一级安全标准化审查要求,缩小设备占地面积;

Meets Explosion-Proof Electrical Requirements for Pulverized Coal Preparation Environment. Complies with Level 1 Safety Standardization Review Requirements. Optimized Design for Reduced Equipment Footprint.

设备可靠性提高,根治漏油等因减速机、液耦故障带来的停机困扰

Enhanced equipment reliability, resolving shutdown issues caused by gearbox and fluid coupling faults such as oil leakage。

消除减速机自身传动效率损失效率下降问题

Eliminate the reducer's own transmission efficiency loss efficiency reduction problem

带料启动性能优越,重载柔性启停

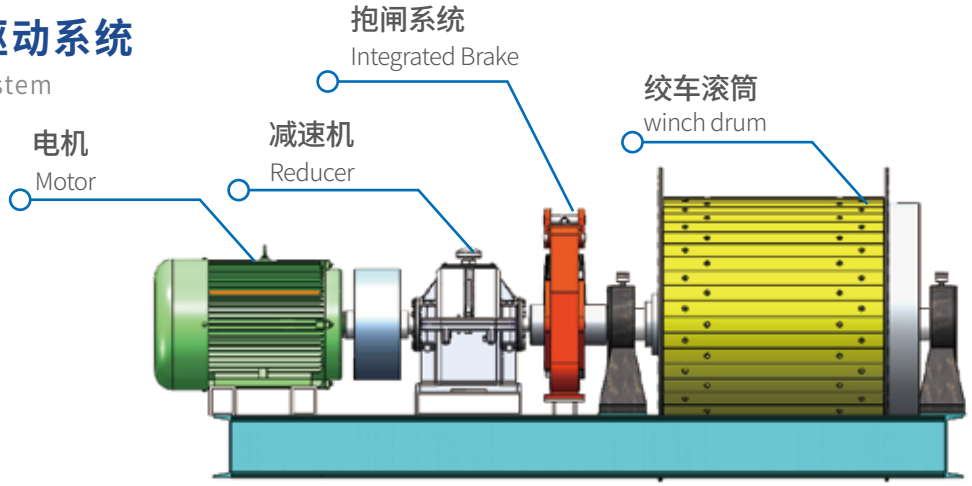
Superior Load-Starting Performance

优化结构,获得更好的防水性能

Optimized structure for better water resistance

传统的斗式提升机驱动系统

Traditional Hoister Drive System



STYG系列提升机永磁直驱变频同步电动机

STYG series hoist permanent magnet direct drive variable frequency synchronous motor

绞车用永磁滚筒适用于永磁滚筒电机外径D1000~D2600，可配套D2000~D5000绞车筒经，方便运输和快速拆装，绞车一体机外转子永磁绞车，有重量轻，体积小，方便安装拆卸的优点。

The permanent magnet drum for winches is suitable for the outer diameter of the permanent magnet drum motor D1000~D2600, and can be matched with the D2000~D5000 winch drum for easy transportation and disassembly. The winch is an integrated external rotor permanent magnet winch with the advantages of light weight, small size, and easy installation and disassembly.

永磁电机参数

Permanent magnet machine parameter

冷却方式 Cooling mode ：水冷 water-cooling

防护等级 Class of protection ：IP55

电机热分级 Motor thermal classification：H级 H Grade

额定电压 Rated voltage ：660V/1140V/6kV/10kV

额定功率 Rated power ：255-2500kW

额定转速 Rated speed ：0-50r/min

技术优势

Technological advantage

优化散热
Optimized heat dissipation

结构简单，散热均匀，降低温度梯度，减少热应力，
且制造工艺简便，流体阻力小，利于冷却液稳定流动。

The structure is simple, the heat dissipation is uniform, the temperature gradient is reduced, the thermal stress is minimized, and the manufacturing process is simple with low fluid resistance, which is conducive to stable flow of coolant.

优化转子
Optimized rotor

采用转子模块设计，磨具制作周期短；
同时，顶部尖角设计形成不均匀气隙，优化了气隙磁场的波形。

Adopting rotor module design, the production cycle of grinding tools is short;At the same time, the top sharp corner design forms an uneven air gap, optimizing the waveform of the air gap magnetic field.

气隙磁场 波形优化
Waveform optimization

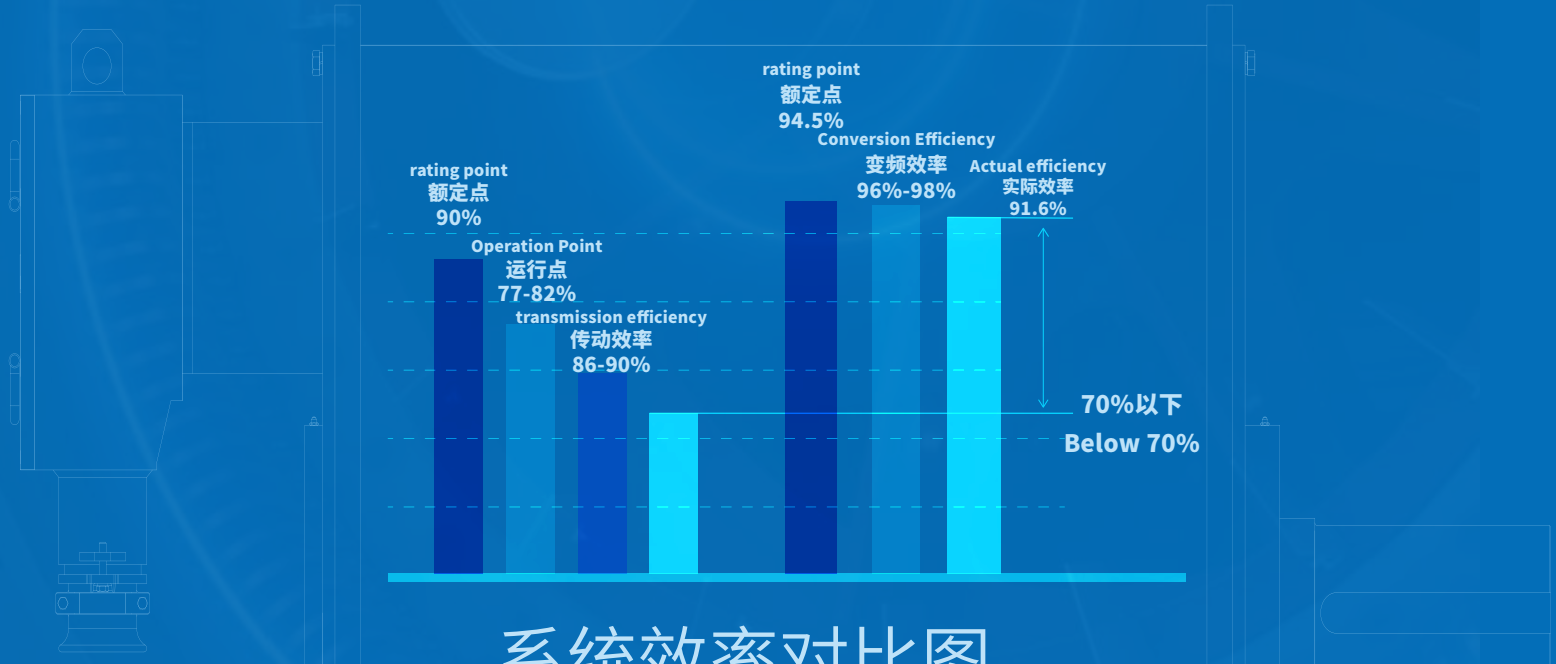
采用了分布式短距绕组，大幅降低谐波。
转子外圆不均匀设计，使气隙波形接近于正弦波。

Distributed short distance winding is adopted to significantly reduce harmonics. The uneven design of the rotor outer circle makes the air gap waveform close to a sine wave.

机体结构强化
Body structure strengthening

在电机两端端板与壳体之间对称增设多条加强筋，
有效提升了机壳整体结构强度。

Symmetrically add multiple reinforcing ribs between the end plates at both ends of the motor and the housing,Effectively improved the overall structural strength of the chassis.



系统效率对比图

System efficiency comparison diagram

新四达大功率提升机设备永磁电机代表业绩

New Sdar High Power Elevator Equipment Permanent Magnet Motor Representative Performance

序号 Serial Number	设备名称 Equipment name	规格型号 Specification and model	驱动形式 Drive form	终端客户 End customer
1	内置式永磁滚筒电机 Built in permanentmagnet drum motor	STYG2500-100/2500KW/10KV/33r/min	内置式滚筒 Built in drum	中煤第五建设有限公司第三工程处
2	内置式永磁滚筒电机 Built in permanentmagnet drum motor	STYG2000-100/2000KW/6KV/34r/min	内置式滚筒 Built in drum	中煤第五建设有限公司第三工程处
3	内置式永磁滚筒电机 Built in permanentmagnet drum motor	STYG2000-100/2000KW/6KV/34r/min	内置式滚筒 Built in drum	中煤第五建设有限公司第三工程处
4	内置式永磁滚筒电机 Built in permanentmagnet drum motor	STYG2000-100/2000KW/6KV/34r/min	内置式滚筒 Built in drum	中煤第五建设有限公司第三工程处
5	永磁直驱电机 Permanentmagnet direct drive motor	TBVF-630/60YC/630KW/660/1140V/25r/min	直驱方式 Direct drive mode	中国石化长城能源化工(宁夏）有限公司
6	永磁直驱电机 Permanentmagnet direct drive motor	TBVF200/40YC/200KW/660V/1140V/35r/min	直驱方式 Direct drive mode	新丰煤矿
7	永磁直驱电机 Permanentmagnet direct drive motor	TPYM1600-60/1600KW/10KV/58.8r/min	直驱方式 Direct drive mode	山西吕梁西山晋邦德煤业项目
8	永磁直驱电机 Permanentmagnet direct drive motor	TBVF-500/60YC/500KW/660/1140V/18.5r/min	直驱方式 Direct drive mode	新疆屯南煤业矿井提升机
9	永磁直驱电机 Permanentmagnet direct drive motor	TBVF-185/40YC/185KW/660/1140V/28.6r/min	直驱方式 Direct drive mode	湖南红卫煤业矿机提升机
10	永磁直驱电机 Permanentmagnet direct drive motor	TBVF-355/40YC/355KW/660/1140V/25r/min	直驱方式 Direct drive mode	开滦集团范各庄矿业公司
11	永磁直驱电机 Permanentmagnet direct drive motor	TBVF-250/40YC/250KW/1140V/25r/min	直驱方式 Direct drive mode	开滦集团范各庄矿业公司
12	永磁电机 Permanentmagnet motor	TPYM1250-30/1250KW/6KV/200r/min	半直驱方式 Semi direct drive mode	中煤第五建设有限公司第四十九处
13	永磁电机 Permanentmagnet motor	TPYM280-30/280KW/6KV/120r/min	半直驱方式 Semi direct drive mode	中煤第五建设有限公司第四十九处
14	永磁电机 Permanentmagnet motor	TPYM1250-30/1250KW/6KV/200r/min	半直驱方式 Semi direct drive mode	中煤第五建设有限公司第四十九处
15	永磁电机 Permanentmagnet motor	TPYM1600-30/1600KW/6KV/180r/min	半直驱方式 Semi direct drive mode	中煤第五建设有限公司第四十九处
16	永磁电机 Permanentmagnet motor	TPYM250-30/250KW/380V/150r/min	半直驱方式 Semi direct drive mode	中煤第五建设有限公司第三工程处
17	永磁电机 Permanentmagnet motor	TPYM2000-30/2000KW/6KV/180r/min	半直驱方式 Semi direct drive mode	中国平煤神马控股集团有限公司
18	永磁电机 Permanentmagnet motor	TPYM2000-30/2000KW/6KV/180r/min	半直驱方式 Semi direct drive mode	中国平煤神马控股集团有限公司
19	永磁电机 Permanentmagnet motor	TPYM2000-30/2000KW/6KV/180r/min	半直驱方式 Semi direct drive mode	中国平煤神马控股集团有限公司

应用案例
Application Cases

全国首台

高压矿井提升机永磁直驱电机

The first permanent magnet direct drive motor for high-voltage mine hoist in China

TPYM1600-30	1600kW	10kV	60r/min

全国首台

内装式高压矿井提升机永磁直驱电机

The first domestically installed high-voltage mine hoist permanent magnet direct drive motor in China

STYG2500-100	2500kW	10kV	33r/min

凿井提升机

矿井提升机永磁变频电机

DRILLING HOIST

Permanent magnet variable frequency motor for mine hoist;

TPYM1250-30	1250kW	6kV	200r/min

全国统一服务热线：

400-088-6583

Motor STAR 新四达

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抖音平台

微信平台

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