

纽科伦起重机

Crane of nucleon

PRODUCTION SELECTION GUIDE

■ 国际品质 中国力量
International Quality, China Power



产品选型手册

Production selection guide

纽科伦(新乡)起重机有限公司
NUCLEON (XINXIANG) CRANE CO., LTD.



中外技术结晶 打造世界品牌

The best technology of China and abroad build a world brand

纽科伦(新乡)起重机有限公司系中外合资企业, 公司位于河南长垣起重机械工业园区, 是起重机专业制造与服务供应商, 在技术、装备、产能、资源等方面都处于世界先进地位。在国内设有120余家办事服务机构, 拥有2000多名雇员, 业务遍及全国30多个省市自治区。

Located in Henan Changyuan crane industrial park, Nucleon (Xinxiang) Crane Co., Ltd is a Sino-Singapore joint venture. It is a professional crane manufacturer and service supplier, which maintains leading position in technology, equipment, capacity, resources around the world. Owning more than 2,000 employees and 120 service agencies its products has reached more than 30 provinces and areas in China.



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纽科伦 引领起重机的未来

NUCLEON Lead the future of the Crane

ND系列钢丝绳电动葫芦，采用欧洲FEM设计标准开发，理念先进、外形美观，驱动单元德国原装进口。整机结构紧凑合理，操作简单便捷，运行安全高效，符合当代低噪音，节能环保要求。

该系列电动葫芦应用13项专利技术，运行变频调速设计，冲击小，可实现精确定位；配备类似飞机“黑匣子”的智能化安全运行监控记录仪，可以不间断记录起重机工作状态信息和防止起重机违章操作；整体采用免维护设计，易损件少，保养维护方便，总体技术水平达到当今国内外同类产品的先进水平。
ND series steel wire rope electric hoist adopts the European FEM design standards with advanced concept, beautiful appearance. The drive unit adopts domestic advanced point line meshing gear structure making the machine has compact reasonable structure. The operation is simple, convenient and working is safety and efficient and meet the low noise, energy conservation and environment protection requirements.

This series of electric hoist applied 13patent technologies. This series of products are designed with frequency control of motor speed, small impact and it can realize accurate positioning. Equipped with intelligent monitoring recorder which is similar to the "black box" of plane, it can uninterruptedly record crane working status information and prevent false operation. The machine use maintenance free design with small vulnerability and convenient maintenance. The overall technical level has reached the advanced level of similar products at home and abroad.

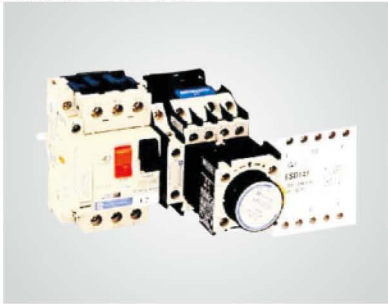
纽科伦ND型钢丝绳电动葫芦

NUCLEON ND Series Steel Wire Rope Electric Hoist

- | | |
|-----------------|--|
| ※1吨至80吨起重量 | The lifting capacity is from 1ton to 80ton |
| ※吊钩行程最大为100米 | The Max stroke of hook is 100meter |
| ※起升双速或变频，定位快速精确 | Two lifting speed or frequency conversion, fast and accurate positioning |
| ※行走变频调速，冲击小 | Walking frequency conversion control, small impact |
| ※紧凑的极限尺寸 | Compact limiting size |
| ※结构紧凑，盲区小 | Compact structure , small blind spot |
| ※低净空设计 | Low headroom designed |
| | Patent Protection |



智能化监控记录仪
Intelligent monitoring
and recording instrument



长寿命施耐德电器元件
Long life Schneider electric
components



布线合理、检修方便的电器控制箱
Wiring reasonable, overhaul
electrical box conveniently

专利保护：

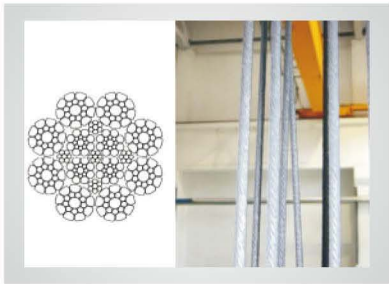
- 电动葫芦ZL2011302849316
- 反滚轮装置及使用该反滚轮装置的电动葫芦ZL2011102487047
- 导绳器及使用这种导绳器的电动葫芦ZL2011102882050
- 超载限制装置及使用该超载限制装置的电动葫芦ZL2011204456937
- 反滚轮装置及使用该反滚轮装置的电动葫芦ZL2011203158470
- 一种超载限制装置及使用该超载限制装置的电动葫芦ZL2011103570681
- 一种导绳器及使用这种导绳器的电动葫芦ZL2011102584545
- 一种电动葫芦墙板结构及具有该结构的电动葫芦ZL2011203158428
- 一种水平轮装置及使用该水平轮装置的电动葫芦ZL2011203158466
- 一种电动葫芦外壳及使用这种外壳的电动葫芦ZL2011203281850
- 一种轴架板及使用这种轴架板的支撑轴固定结构ZL2011203281973

Patent protection

- Electric hoist ZL2011302849316
- Anti-roll device and the hoist with Anti-roll device ZL2011102487047
- Rope guide and the electric hoist with rope guide ZL2011102882050
- Overload limit device and the electric hoist with overload limit ZL2011204456937
- Anti-roll device and the hoist with Anti-roll deviceZL2011203158470
- One overload limit device and the electric hoist with overload limit ZL2011103570681
- One rope guide and the electric hoist with rope guide ZL2011102584545
- One electric hoist wallboard and the electric hoist with this structure ZL2011203158428
- One horizontal wheel device and the electric hoist with this horizontal wheel ZL2011203158466
- One electric hoist shell and the electric hoist with this shell ZL2011203281850
- One axis frame plate and supporting axis fixed structure ZL2011203281973



安全便捷的重型航空接头
Safe and convenient heavy
air connector



进口高强度钢丝绳
Imported high strength steel
wire rope



德国DIN标准高强度吊钩
German high strength hook
according to DIN standards

纽科伦 树立行业典范

NUCLEON Establishing the profession model

纽科伦标准起重机

- ※适用于80吨以内的吊运
- ※钢结构优化设计
- ※自重轻，轮压小
- ※工作盲区小
- ※降低厂房高度与成本
- ※先进的焊接技术，刚性高，低损耗
- ※免维护设计

Standard crane of NUCLEON

- Suitable for lifting within 80 tons
- Steel structure optimization design
- Weight, small wheel
- Small blind spot
- Reduce the height and cost of workshop
- Advanced welding technical, high rigidity, low loss
- Free maintenance design



双梁小车式电动葫芦
Double trolley electric hoist



三合一硬齿面双速起升驱动单元
Three in one hard surface
two-speed lift drive units



三合一硬齿面大车变频驱动单元
Three in one hard surface cart
frequency drive unit



三合一硬齿面小车变频驱动单元
Three in one hard surface trolley with
frequency conversion drive unit



自动磨损检测功能制动器
Automatic wear detection brake



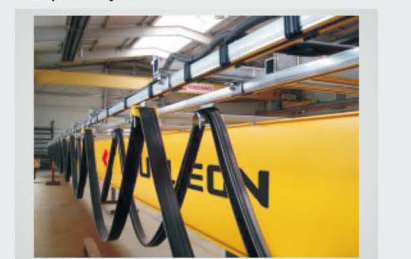
四级可调式旋转起升限位开关
Four-stage adjustable rotation
lifting limit switch



自复位限位开关
The automatic reset limit switch



变频控制单元
Frequency control unit



整洁顺畅的扁电缆供电系统
Clean and smooth flat cable
supply system



主副钩双梁小车式电动葫芦
Main and auxiliary hook double
girder trolley electric hoist



德国DIN标准高强度吊钩
German standard DIN high
strength hook



模块化设计车轮组
The modular design for wheel
group



圆滑过渡型钢端梁
Smooth transition end beam



安全高效的遥控操作系统
Security and efficiency remote
control operating system



小车合金方钢轨道
Trolley alloy square steel track



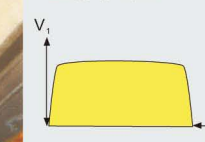
太空舱司机室
The capsule cab

ECO-LINE系列

ECO-LINEseries



运行性能



单速驱动设计，无调速功能，起动冲击较大，低档起重机配置，适用于单速行驶并对定位精度要求不高的工况。

Single speed drive design, no adjust the speed function, start a large impact, low-model crane

技术特征：

- ◆启动停止冲击大
 - ◆载荷摆动大
 - ◆工作效率低
 - ◆能耗高
 - ◆噪音大
- 应用实例：
- ◆仓库货场重物搬运
 - ◆一般机加工车间零件转运
 - ◆野外工地物品转运

Technical characteristic：

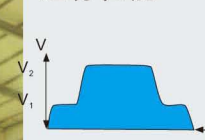
- Start stop large impact
 - Payload oscillation large
 - Low efficiency
 - High energy consumption
 - Large noise
- Application samples：
- Heavy handing at the warehouse compound
 - Components transport at mechanical processing workshops.
 - Field site goods transport

PROFI-LINE系列

PROFI-LINEseries



运行性能



双速驱动设计适合于对定位精度有较高要求的工况，极性转换电机（8 / 2-极）可提供两种行走速度。配置特殊的绕阻与转子，可实现安全的软启动，较单速运行效果有明显改善，一般起重机配置。

The double drive design is suit for the working conditions which require higher accuracy, polarity rotor motor(8/2-pole) can offer two travel speed. Configuring the special winding and rotor, can achieve security soft start.

技术特征：

- ◆启动停止冲击较小
- ◆载荷摆动较小
- ◆工作效率较高
- ◆能耗较低
- ◆噪音较小

Technical characteristic：

- Start stop little impact
- Payload oscillation little
- High efficiency
- Low energy consumption
- Small noise

- 应用实例：

◆单速驱动所有工况

◆新建机加工厂房

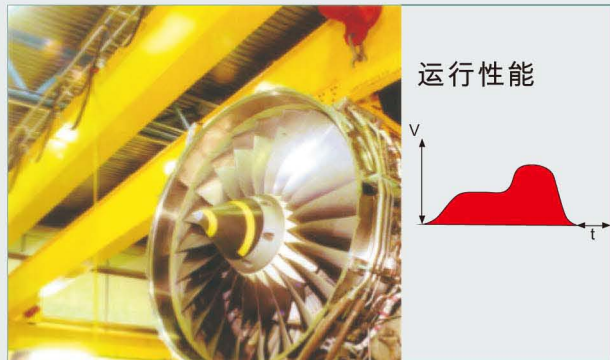
一般精度装配车间
- Application samples：

All single speed drive working conditions

New mechanical processing workshop

General precision assembly plant

AUTOMATION-LINE系列 AUTOMATION-LINEseries



变频驱动设计最适合于多变化的行驶速度，和定位精度有最高要求的工况，可用于获得不同的速度。用于变频器的4极电机可在87赫兹下运行。可通过控制器对包括加速与减速斜坡在内的重要参数进行调节。该传动装置可实现平缓的启动与刹车，将荷载摆动降低到最低的程度。适宜的速度，无摆动的运行和感应灵敏的定位大大缩短了工作节拍。

Variable frequency drive design is best suite for varied travel speed and the highest positioning accuracy working conditions required, and then get different speed. The four grade motor for frequency converter can drive under 87HZ, through controller adjust the key parameter including speed up and slow down the slopes. This driving device will realize start and stop slightly,making the load swing down the lowest level. Appropriate speed, no swing operation and sensitive sensor position will shorten the working frequency greatly.

- 技术特征：

◆启动停止冲击最小

◆荷载摆动最小

◆工作效率高

◆能耗最低

◆噪音最小
- Technical characteristic：

Min impact start and stop

Min load swing

High efficiency

Min energy consumption

Min noise
- 应用实例：

◆单双速驱动所有工况

◆精密加工车间

◆高精度装配车间

◆贵重危险物品吊运
- Application samples：

Single and double speed drive on all working conditions

Precision machining workshops

High-precision assembly workshop

Handing the precious dangerous goods

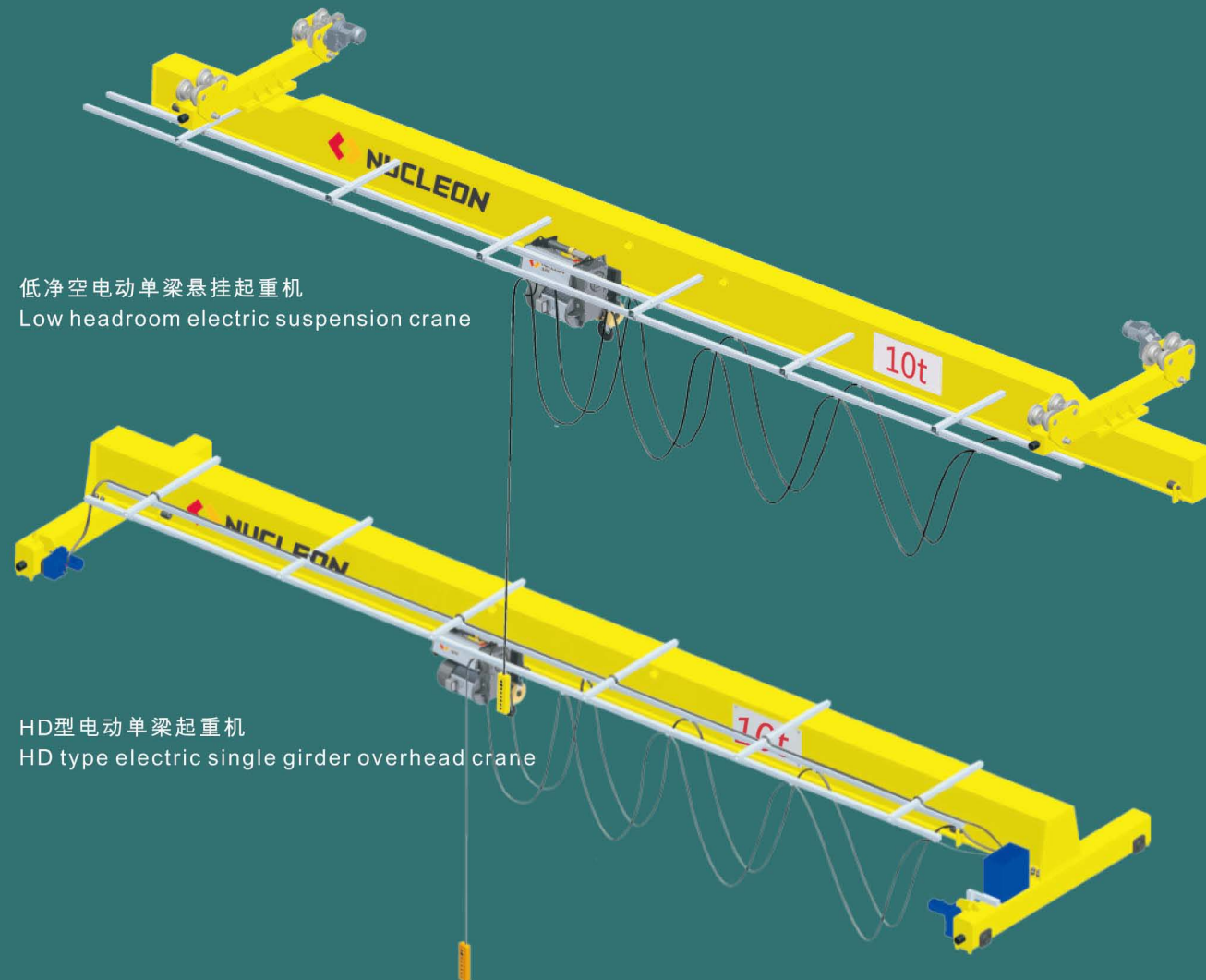
载荷谱 LOADING SPECTRUM

载荷类别 Loading categories	平均有效载荷 Mean effective loads	日平均工作时间 (h) Average operating time per day			
轻载 Light Duty	<p>K≤0.5 极少吊运额定负载，一般运行时荷载很轻 Hoist subject to very small loads and in exceptional cases only to rated loads</p>	≤2	2-4	4-8	8-16
中载 Medium Duty	<p>0.5<k≤0.63 有时吊运额定负载，而一般运行时，荷载中等 Hoist usually subject to medium loads but rater often to rated loads</p>	≤1	1-2	2-4	4-8
重载 Heavy Duty	<p>0.63<k≤0.8 经常需要吊运额定负载，而一般运行时，荷载较重 Hoist usually subject to heavy loads but frequently to rated loads</p>	≤0.5	0.5-1	1-2	2-4
特重载 Very Heavy Duty	<p>0.8<k≤1 经常吊运额定负载 Hoist usually subject to rated loads or almost rated loads</p>				
工作级别 Working group	ISO	≤0.25 M3	0.25-0.5 M4	0.5-1 M5	1-2 M6
	FEM	1Bm	1Am	2m	3m

日品均工作时间可由以下公式计算：		Average daily working time can be caculated by below formula	
$T_m = \frac{2 \times \text{吊钩行程 (m)} \times \text{每小时循环次数} \times \text{日工作时间}}{60 \times \text{起升速度 (m/min)}}$		$T_m = \frac{2 \times \text{average hook travel (m)} \times \text{cycles per hour} \times \text{daily working hours}}{60 \times \text{lifting speed (m/min)}}$	
选用ND系列电动葫芦示例		Pratical example for selection of ND series hoist related	
额定载荷	10000kg	Reted load	10,000kg
起升高度	8m	Lifting height	8m
吊钩平均行程 估计为	6m	Average trip	Estimated 6m
起升速度	5m/min	Lifting speed	5m/min
每小时循环次数	估计为12次	Number of cycles per hour	Estimated 12 cycles
日工作时间	8小时	Date working time	8hours
载荷类别	中载	Load category	Medium
$T_m = \frac{2 \times 6 \times 12 \times 8}{60 \times 5} = 3.84 \text{ 小时}$		$T_m = \frac{2 \times 6 \times 12 \times 8}{60 \times 5} = 3.84 \text{ hours}$	
参考载荷谱可以得出工作级别为 M5		Refer to the loading spectrum, the working grade is M5	

纽科伦 中外技术结晶

NUCLEON Accumulate crane technology of China and abroad



低净空电动单梁悬挂起重机
Low headroom electric suspension crane

HD型电动单梁起重机
HD type electric single girder overhead crane



NLH型电动葫芦桥式起重机
NLH type overhead traveling crane with electric hoist

BMHN电动葫芦半门式起重机
BMHN type electric hoist semi-gantry crane

新系列起重机独特的紧凑型设计，净空高度最低，实际增加了现有厂房的有效工作空间，使厂房的布局规划更灵活，能够更好地安排物流程序，优化空间利用。因此新厂房可以设计得更小，功能更全，前期减少建设投资，长期供热、空调及其它维护费用中可节约相当可观的资金。

New series crane have compact design, the lowest headroom height, increasing the existing plant effective work space, making the workshop's layout more flexible and better able to arrange the logistics process, optimizing space utilization. So the new factory can be designed smaller, more comprehensive functionality, in pre-project cut construction investment, during long term heating, air conditioning and other maintenance costs can save considerable money.

优化的结构设计，充分利用各式厂房空间

Optimized structure design, make full use of various types of workshop space.



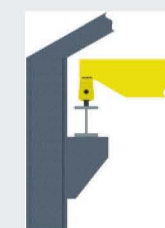
标准连接
Standard
connection



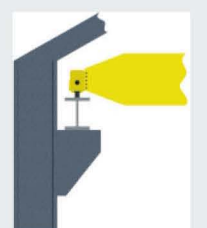
低位连接
Low position
connection



中位连接I型
Middle position
connection I type



中位连接II型
Middle position
connection II type



中位连接III型
Middle position
connection III type

产品展示 Product show

ND型单梁钢丝绳电动葫芦-----适用于单梁起重机系列

ND single girder rope electric hoist——suitable for the single girder crane series.

- ◆ 合理设计，结构紧凑，工作盲区小；
- ◆ 升降双速，运行变频调速，行走时晃动小，定位精确；
- ◆ 小车行走变频器及制动电阻集成在电控箱内，节省空间；
- ◆ 净空高度低，配置合理，传动高效，且模块化设计，免维护率高；

起重量最高达20吨。

Reasonable design, compact structure, and less working blind spots;

Double lifting and dropping speeds, frequency control travelling speed, move with small shake and position precisely;

The inverter and the brake resistor of the trolley are inside the electric cabinet, which help save much room;

Low headroom, reasonable configure device, efficient transmission, modular design and high maintenance-free rate;

The lifting load could be up to 20t.



NDS型双梁钢丝绳电动葫芦小车-----适用于双梁起重机系列

NDS single girder rope electric hoist trolley——suitable for the double-girder crane series.



- ◆ 齿轮传动采用点线啮合传动技术；
- ◆ 集成模块化设计，结构紧凑美观；
- ◆ 高精度加工，确保整车使用寿命；
- ◆ The high precision process ensures the working life of the whole crane;

起重量最高可达80吨。

Rated capacity could be up to 80t.



Some performance

Customer name	Industry	Crane category	Lifting load (t)	Quantity(set)
Yuchai Heavy Industry (Changzhou) Co., Ltd.	Machinery	Single, double overhead crane	5、10、20	9
Heavy Machinery Co., Ltd. Luoyang day letter	Machinery	Double girder overhead crane	20	1
Xi'an Railway 20th Bureau Group Construction Machinery Co., Ltd.	Other	ND type electric hoist	5、10、20、32、50	8
Billion-(Shanghai) Co., Ltd. Die	Other	ND type electric hoist	10、20	2
Kobelco special steel wire (Pinghu) Co., Ltd.	Machinery	European electric single girder crane	3	3
Xi'an Railway Bureau	Railway	ND type electric hoist	3.2、5、10	16
China Shipbuilding Industry Corporation, the seventh O seven segment Jiujiang Institute	Shipbuilding	Electric single girder crane	5	1
Deyang Ruichen Pipe Industry Co., Ltd.	Machinery	ND type electric hoist	10、16、50	8
Zoomlion Company Limited	Machinery	Electric single girder crane	5、10	41
AVIC International Logistics Co., Ltd., Guizhou	Logistics	Electric single girder crane	1、2、3	8
Cialis (Xuzhou) Ltd. Slewing	Machinery	European electric single girder cran	3、5	8
CNPC Bohai Drilling	Oil	Electric single girder crane	5	1
Chongqing, China Chongqing Electric Instrument Factory	Other	Double girder overhead crane	2、50	5
Conveying Equipment Co., Ltd. Shanghai Branch re-	Machinery	Electric single girder crane	20、10	4
God Southern Shanxi Coal Industry Development Co., Ltd.	Colliery	Double girder overhead crane with electric hoist	20、75	2
Xi'an Pengcheng Electromechanical Equipment Co., Ltd.	Machinery	European electric single girder cran	5、5+5、10	8

销售服务网络

Sales and Service Network in domestic market

纽科伦（新乡）起重机有限公司创建多年来，致力于为客户提供综合性能卓越的起重机设备，精诚所至、与客同兴，纽科伦产品畅销全国各地并远销海外，产品营销网络和售后服务网络不断拓展健全，为客户提供专业化服务。

Since founded, Nucleon is aim to provide customers with lifting equipment with superiorly comprehensive performance. With the deepest sincerity and the hope of common development with the clients, Nucleon's products have reached almost every province of China and even have been exported to many countries. The product marketing network and after-sales service network are perfected gradually, which will help Nucleon offer professional service.

