

Amenabar Hand Chain Hoist



Hand Chain Hoist

Amenabar's experience and know-how in the design, development and manufacture of lifting machinery to FEM standards make the name **Amenabar** a synonym for safety, quality and guarantee in Chain Hoists.

Amenabar AR Series Hand Chain Hoists are the **only ones on the market with permanent load chain guide** in the shape of two central bodies which completely surround the sheave, thus ensuring that the load chain is permanently guided all along its travel on the plane of rotation of the sheave.

Amenabar Chain Hoists have the qualities most sought-after by customers: **safety, reliability and guaranteed operation at competitive prices.**

Amenabar recommends using hand chain hoists with **permanent load chain guide Safety Factor of 5-6.**

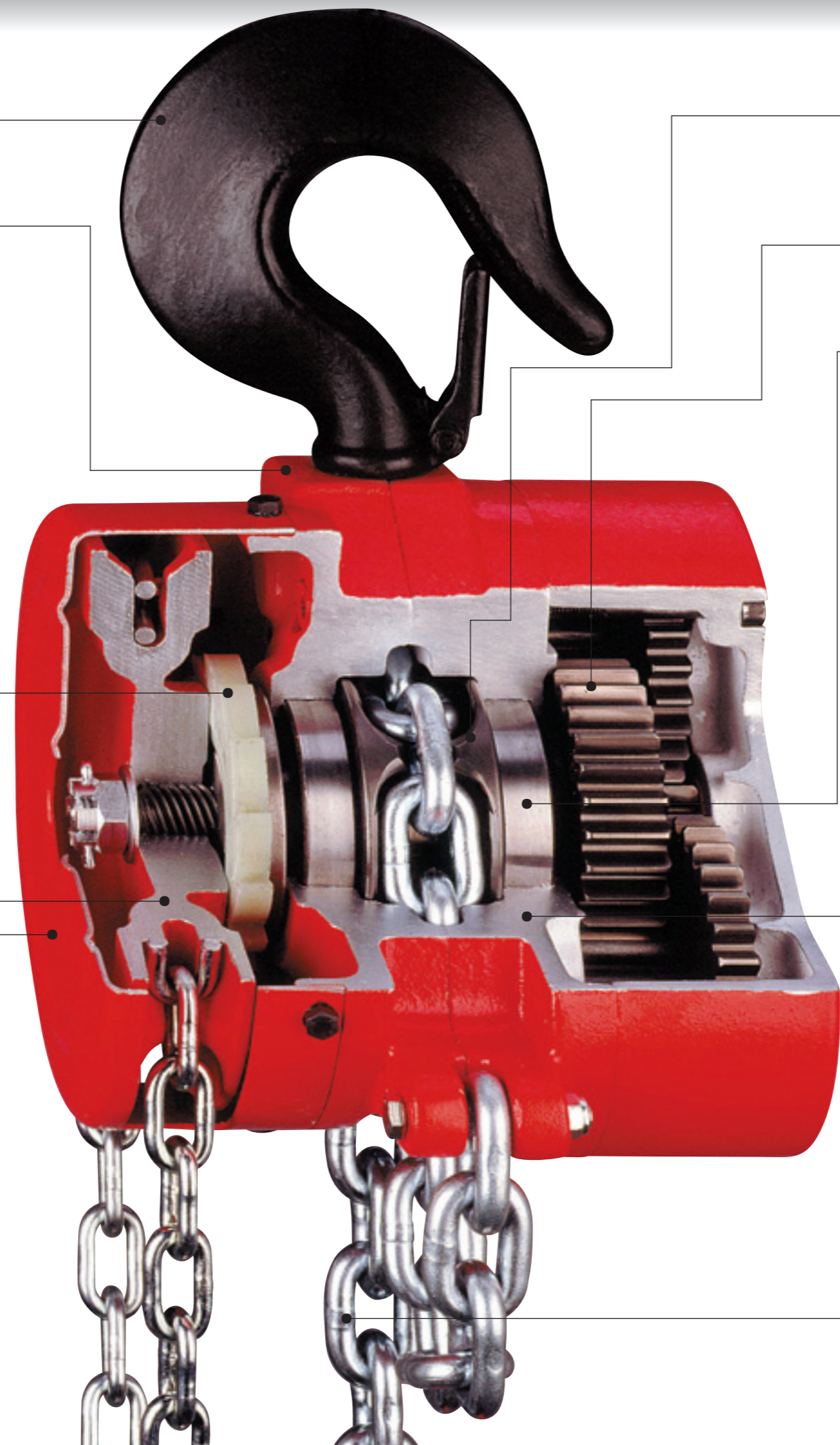
This increased safety factor means that the hand chain hoists can perform many more cycles than conventional products. This longer lifetime of the **Amenabar** Hand Chain Hoists is an evident saving for the customer.

- **Maximum Safety.** The load chain can not jam or break because it is **PERMANENTLY GUIDED.**
- **Maximum Reliability.** **Patented** immediate action safety brake.
- **Maximum Useful Lifetime.** Built to work at fullload in the harshest conditions for many years.
- **Minimal Maintenance.** Just **grease** the chain.
- **Standardized.** Complies with European Standards
- **Multi-Purpose.** Capable of working in horizontal, vertical and reverse positions.
- **Load Test Certificate.** Each chain hoist is tested at 125% of its rated load.
- **Maximum Guarantee.** **3 YEAR** Basic Guarantee (1 year for the chain).
- **Competitive Prices.** Amenabar Chain Hoists mean **Guaranteed Cost-Effectiveness.**

Amenabar Hand Chain Hoist parts

- **Hooks:**
Forged anti-ageing steel, free turning with security trigger.
- **Main Body:**
Completely closed, strong construction to prevent dust and dampness from penetrating it, produced in a small size and a totally balanced assembly.
- **Security brake:**
Patented. Front driven to make lowering easier and reducing the force required for lowering loads.
- **Control Flywheel:**
Cast iron to avoid premature wear and to make load lowering smoother.
- **Flywheel casing:**
Made of steel plate to protect the control flywheel and the brake against knocks and dust and to ensure the control chain enters the flywheel perfectly.

- Options:**
- Load Governor**
Asbestos-free, friction assembly that makes the hoisting of excess loads impossible. The hoists are supplied with the governor adjusted to 125% the nominal load.
 - Stainless Steel Chain**
 - Chain Container**
Made of plate or other material (according to requirements) to house the length of free chain.
 - Other options on request.



- **Load Chain Sheave:**
Made of alloy steel, milled in a CNC machine for perfect chain adaptation and heat-treated with a non-slip coating.
- **Reducer:**
With planetary gears, made of hardened steel with a 120 Kg/mm² minimum breakage load.
- **Ball Bearings:**
Great load capacity that practically cancels out any friction on the supports and reduces the force required for lifting loads.
- **Permanent Load Chain Guide:**
Made up of two central bodies which completely surround the sheave and provide permanent guide for the load chain throughout its travel over the plane of rotation of the sheave.
- **Load chain:**
Calibrated, Grade 80 High Resistance steel, under standards EN 818/7. With zinc treatment against rusting.

The **Amenabar's** Hand Chain Hoists can work in inverted and horizontal position thanks to the **exclusive design of its Permanent Steering.**

N.B. The load chain may become caught on other hoists, leading to breakage.



Characteristics and Dimensions of Amenabar Series Hand Chain Hoists

1 Load Chain Fall
from 250 Kg to 2.000 Kg



2 Load Chain Falls
from 3.200 Kg to 6.300 Kg



3 Load Chain Falls
8.000 Kg and 10.000 Kg



4 and 5 Load Chain Falls
12.500 Kg and 16.000 Kg



Hand hoist
coupled to trolley



Each **Amenabar's** hand chain hoist is supplied with a **TEST CERTIFICATE** proving that it has been subjected to and has passed a dynamic load test at 125 % its nominal load, in compliance with EC Directive on Machinery 89/392/CEE and Standards FEM-9811 and UNE – 58-915-92/7.

Hand Chain Hoists of Amenabar

Model	Load Capacity Kg.	References			N° of Chain falls	Load Chain Safety Factor	Load Chain Ø x pitch mm.	Hand Chain Ø x pitch mm.	Approx. weight with 3 m.				Additional weight x extra m. of lift		Hand Chain		Dimensions				IPN
		Hook Suspension	Push Trolley	Geared Trolley					Hook Kg.	Push Trolley Kg.	Geared Trolley Kg.	With Hook Kg.	With C-T Trolley Kg.	Effort to lift full load Kg.	Development x m. of lift Kg.	A mm.	B mm.	C mm.	H mm.	Track Width in mm.	
AR-8	250	M11002	-	-	1	8:1	5x15	4x19	8	15	17	1,15	1,75	17	20	260	130	160	280	50-82	
AR-6	500	M11005	M12005	M13005	1	6:1	5x15	4x19	8	15	17	1,15	1,75	21	31	260	130	160	280	50-82	
AR-6	1.000	M21010	M22010	M23010	1	6:1	7x21	5x21	13	23	27	2,10	3,10	26	50	310	160	175	330	66-98	
AR-5	1.600	M31016	M32016	M33016	1	5:1	8x24	5x21	18	33	37	2,50	3,50	32	66	380	180	185	400	82-113	
AR-4	2.000	M31020	M32020	M33020	1	4:1	8x24	5x21	18	35	41	2,50	3,50	38	66	380	180	185	400	82-113	
AR-6	2.000	M41020	M42020	M43020	1	6:1	10x28	6x27	31	48	54	3,60	5,05	40	80	415	210	205	435	82-113	
AR-5	2.500	M41025	M42025	M43025	1	5:1	10x28	6x27	31	48	54	3,6	5,05	44	80	415	210	205	435	82-113	
AR-5	3.200	M31032	M32032	M33032	2	5:1	8x24	5x21	29	60	66	3,90	5,35	32	132	520	260	185	540	98-125	
AR-5	5.000	M41050	-	M43050	2	5:1	10x28	6x27	45	-	93	5,85	7,30	40	160	640	290	205	660	119-149	
AR-6	6.300	M51063	-	M53063	2	6:1	13x36	6x27	75	-	126	8,95	10,40	48	175	730	380	230	760	119-149	
AR-7	8.000	M51080	-	M53080	3	7:1	13x36	6x27	110	-	220	12,75	14,20	42	264	870	440	230	890	137-185	
AR-6	10.000	M51100	-	M53100	3	6:1	13x36	6x27	120	-	240	12,75	14,20	50	264	900	440	230	940	137-185	
AR-7	12.500	M51125	-	M53125	4	7:1	13x36	6x27	160	-	290	16,60	18,00	50	352	1.000	490	250	1.040	143-185	
AR-6	16.000	M51160	-	M53160	5	6:1	13x36	6x27	205	-	340	20,40	21,80	50	440	1.150	520	250	1.200	143-185	

CERTIFICADO DE PRUEBA TEST CERTIFICATE

POLIPASTO MANUAL HAND HOIST BLOCK

* N° Serie / Serial No. 25.418

Cadena de Carga / Load Chain

Modelo / Model AR-6

Lote N° / Lot No. 16/03

Tipo / Type Gancho

Norma Dimensional Standard UNE-EN 818/7

* Carga Nominal / Nominal Load 1.000 Kg

Ø x paso / Ø x pitch 7 x 21

Coefficiente Seguridad / Safety Factor 6

Clase / Class T

N° Ramales / Branches No. 1

Carga de Ruptura / Breaking Load 6.100 Kg

Altura de Elevación / Lifting Height 3 m

Carga de Prueba / Proof Test 3.700 Kg

* Carga de Prueba / Proof Test 1.250 Kg

Fecha de Prueba / Test Date

1 de Septiembre 2003

Amenabar

Ctra. de Ochardiano, s/n. 01165 OLAETA (Alava) SPAIN P.O. Box 752 01080 VITORIA (SPAIN) Tfn. 34 - 945 45 00 50 Fax. 34 - 945 45 03 04

(*) Ensayos realizados de acuerdo con las Normas FEM-9811 y UNE-58-915/92/7. Tests made according to the FEM-9811 and UNE-58-915/92/7 Standards.

Dirección de Calidad / Quality Dept.

Note: **Amenabar** reserves the right to make any changes to this catalogue without prior warning for product modification or compliance with the prevailing legislation.



The Hoist Company

- The pieces to be lifted shall be of good construction, solid and resistant material.
- Do not pull on the taught chains under the load or rotate loads around them.
- The maximum permitted useful load should be visibly indicated.
- Loads should be lifted, lowered and moved slowly.
- The use of a sign on the chain indicating the maximum descent point of the load is practical.
- A signal code should exist, which is known by all operators intervening in work related to the hoisting and hauling of the loads.
- All hooks should be fitted with an effective safety bolt.
- The chains should be of wrought iron or steel as well as other accessories: rings, hooks, hoops.

Maintenance and Upkeep

- All the gears, shafts and mechanisms in general of the different units should be kept oiled and clean.
- The correct operation of the safety bolt of the hooks should be continuously checked.
- All pieces subject to deterioration should be regularly checked.
- The units should be in perfect condition and working order.
- The units should be inspected in their work position, at least once a week by the operator or other competent person.
- The chains, hooks etc., should be examined each day that they are used by the operator or designated personnel. A thorough inspection is recommended every three months and a certificate should be issued.
- The chains should be withdrawn when:
 - They are not safe due to overloads or defective or inappropriate irregularities.
 - They have stretched by more than 5% of their length.
 - The deterioration of the internal face of the links exceeds one quarter of the original thickness of the link..

- Chains should be oiled at frequent and regular intervals when rolled in drums or passing over hoists, except when they can retain or pick up sand or gravel and when they are used as slings
- Chains should be stored hanging from hooks in such a way that employees do not suffer strains and in conditions that reduce oxidation to a minimum.
- Chains which have been exposed to extremely low temperatures for hours shall be warmed.

Ergonomic Attitudes

- The arms of the worker shall be alternately extended to the maximum possible when pulling the traction element.
- The traction element shall not be wrapped around the hand but shall be tightly held.
- Feet shall be supported on a solid base. According to the case: separated or one in front of the other.
- The back shall always remain straight.
- It is strictly forbidden to stand below a suspended load.

We advise that these recommendations are clearly visible near to the work station for the correct and safe use of the units.

Personal Protection

Operators involved in the handling and manipulation of these units should have personal protection equipment consisting of a minimum of:

- Gloves.
- Safety boot with reinforced toecaps.
- Protective helmets.

The use of safety harnesses is reserved for those positions involving a risk of fall from a height.

When the work position is uncomfortable and the back is subjected to abnormal strains, the employee shall be provided with an anti-lumbago belt.



Suspended Loads



Compulsory Head Protection



Electrical Risk



Compulsory Hand Protection

RISKS

Breakage of chains:

Cuts, grazes or jamming:

Dropping to another level:

Load Dropping:

PREVENTATIVE MEASURES

- Chains shall be made of wrought iron or steel. The safety factor shall be at least five for the maximum nominal load.
- All chains shall be checked before being put into operation.
- The chain shall always be rolled around the rolling lathe a minimum of three times.
- When not in use, chains should be stored in clean, dry, well ventilated and closed spaces in order to protect them against corrosion or other damage.

- Pull prudently on the chain and in a coordinated way.
- Do not touch moving parts.
- Chains should not be wrapped around the hand but held tightly with both hands.

- If a risk exists, the area shall be protected with rigid hand rails around its perimeter, only leaving the area for unloading materials free, which will be protected by a detachable hand rail.

- Do not stand under suspended loads.
- All hooks should be equipped with a safety latch.
- When the shaft signal prevents the hoisting or stoppage signal from being heard, an auxiliary rope will be fitted with an audible element or other signal on the upper extreme, in such a way that when manipulated by the operator located at the bottom can advise his colleague of the moment the load is lifted or stopped.
- Another extremely practical system is to introduce a signal on the chain indicating the maximum descent point of the load and particularly in the lathe, i.e. a depth indicator.
- Do not lower the load quickly.
- Always check the proper operation of the braking system.
- Regularly check the deterioration produced by the essential elements of the chain units: cogs, shafts, slings etc.

- UNE 58915/1992 Series Elevation Units.
- UNE 58919/1995 Series Elevation Units. Measures to be taken to determine the operating periods of the power driven units.
- UNE 58920/1999 Elevation Force Restrictors for the control of power-driven elevating mechanisms. Chain Hoist.
- UNE-EN 818/7: 2002 Elevation Chains with short links. Safety. Part 7: Calibrated Chain for Chain Hoists. Class T (Types T, DAT and DT).
- UNE 58-234/1994, On-going Maintenance Equipment. Suspended Monorails with electric trolley. Definition and Safety Rules.
- UNE 18-024/1953, Jagged hoists for calibrated chains.
- UNE 58-509/1979 Elevation Hooks. General Characteristics.
- UNE 58-515/1982 Elevation Hooks. Nomenclature
- UNE-EN 1677-2/2001, Sling Accessories. Safety. Part 5: Wrought Elevation Hooks with safety pointer, class 8.
- General Decree for Safety and Hygiene in the Workplace In Chapter X, dedicated to "Elevation and Transport", we find the following Acts:

- Act 100: Construction of equipment and mechanisms.
- Act 101: Maximum Load.
- Act 102: Load Handling.
- Act 103: Service and Maintenance.
- Act 104: Brakes.
- Act 107: General Rules.
- Act 111: Rigging for Chain Hoists. Chains.

- Labour Decree for Construction, Glass and Ceramics. In Sub-section 4: Elevation Units, Transport and Similar, we find the following Acts:

- Act 277: On general conditions.
- Act 278: Maximum Load.
- Act 279: On stationing under loads.
- Act 280: Maximum Manual Overload.
- Act 285: On mechanism verification.
- Act 286: On chain, rope, cable quality.
- Act 287: On Hooks.

REVIEWS OF REGULATIONS

- ROYAL DECREE 2291/1985. Regulation for Lifting Equipment (MINISTRY OF INDUSTRY AND ENERGY, Official Journal number 296, 11th December 1985). Affected by:
 1. Transposed except, Acts. 10, 11, 12, 13, 14, 15, 19 and 23, for ROYAL DECREE 1314/1997, Single Repealing Provision).
- ROYAL DECREE 1215/1997, 18th July, setting out the minimum health and safety provisions for the use of work equipment by employees
- Directive 89/655/EEC, 30th November 1989, amended by the Directive 95/63/CE, 5th December 1995, establishes the minimum health and safety provisions for the use of work equipment by employees
- AGREEMENT 119 OF OIT, relating to machinery protection
- ROYAL DECREE 1435/1992, 27th November, in which the application stipulations of the Council Directive 89/392/CEE, relating to the approximation of the legislation of member states on machinery. (Includes the subsequent modification made by R.D. 56/1995)
- Directive 89/392/EEC, relating to the approximation of the legislation of member states on machinery (published in the "Official Journal of European Communities", number L 183, 29th June, 1989), later modified by the Council Directive 91/368/EEC, 20th June ("Official Journal of European Communities", number L 198, 22nd July, 1991).
- Council Directive 93/68/EEC, 22nd July (DOCE number L220/1, 30th August, 1993), modified at the same time several Directives among which, the Directive 89/392/CEE
- ROYAL DECREE 56/1995, 20th January, in which ROYAL DECREE 1435/1992, 27th November was modified, relating to the application stipulations of the Council Directive 89/392/CEE, on machinery.



Amenabar

The Hoist Company

Notes:

1. **Amenabar** reserves the right to make any changes to this catalogue without prior warning for product modification or in compliance with the prevailing legislation.
2. For some information in this catalogue, the source is MTAS.

Request Details:

Company Department
 Contact Name
 Street Postal Code Area
 Telephone Fax E-mail

We wish to receive information about:

Details of expected use
 Model Number of feeder lines Required Capacity
 Elevation Height Elevation Speed

Additional Devices:

Lowering control Collection Box Beam End
 Load Restrictor Maximum Speed Minimum Speed Space limitations: Long High Wide

Environmental Conditions:

Normal Relative Humidity % Dust Dirt
 Maximum Temperature Minimum Temperature Other Characteristics

Operation time of the chain hoist:

Loading cycle per hour Hours per Day Days per Week Distance covered for each cycle

Unusual conditions which may affect the selection and use of the powered chain hoist:

Type of Use (see page 16):

Light Medium Heavy _Very Heavy

Fixing:

Hook Manual Trolley Chain Trolley Power driven Trolley Beam Wing Width for Trolley

Voltage:

Tri-phase Mono-phase 230 V 400 V Other

Frequency:

50 Hz 60 Hz

Protection:

IP 55 Other

09/2005