ProWINCH

User Manual and
Security Warnings

PWMD and PWMDF SERIES

DISCLAIMERS

LSQA CERTIFICADO CERTIFICATE ISO 9001:2015 REG: 1875/01

PROWINCH®

Prowinch® LLC declares that it has made available to the Customer each and every one of the security warnings related to the purchased product and that, as a result, it does not assume any responsibility for any damages or losses that may be suffered by the client or third parties. cause or as a direct or indirect consequence of the breach or omission of any of the instructions or safety warnings contained in the User Manual and Security Warnings corresponding to the unit purchased.

In this sense, Prowinch® LLC will not be liable for accidents and / or damages to persons and / or property resulting from the negligent use of the product.

In no case does Prowinch® LLC assume any liability arising from the use of these voluntary recommendations, and does not offer any guarantee in relation to them. These recommendations do not take precedence over the current safety regulations of the plant.

For purposes of enforcing the Warranty of the product purchased, Prowinch® LLC, will only be liable for any damage when it is possible to prove that the user has followed each and every one of the warnings contained in the User Manual and Safety Warnings.

1. It is the sole responsibility of the Client / User to verify that the acquired equipment, products and accessories comply with the characteristics, capacities, elements, components, accessories and other conditions for the use that the Client / user intends to give it.

2. It is also the sole responsibility of the Client / User to ensure that the equipment and products purchased are operated and maintained in safety conditions and by personnel duly trained in the use thereof, also implementing all the security measures necessary for prevent accidents or damages to people or property and observing the indications and warnings of the corresponding manuals of use.

3. The possible support in the selection of the equipment, the capacities and characteristics required by the clients that Prowinch provides is delivered free of charge and provided based on the information of use and requirements indicated by the Client itself, information that Prowinch does not It may not correspond to verify. In this way, it is in any case the sole and exclusive responsibility of the Client -or who will use the equipment and products acquired- to ensure that they comply with the capabilities, characteristics, up-to-date maintenance and everything necessary for a correct and safe operation in relation to the intended use.

4. For personnel lifting Prowinch recommends the use of winches with 4 brakes. The use of winches of 3 or less brakes or safety features lower than the maximum available, for personnel lifting, is the sole responsibility of the customer.

5. In order to guarantee the safety of the users of the equipment, especially those of Personnel, it is necessary to carry out the inspections and maintenance of the equipment according to the recommended frequency in relation to its work cycle, as it is described by the ASME B30 standards. It is mandatory to keep record and evidence the written and photographic reports of: Maintenance, Start-up, Load Tests, Training, Certifications, Inspections and Reports of failures and accidents.

6. The aforementioned reports must be sent by email to registros@prowinch.com within the first 7 calendar days that said event has occurred.

7. Compliance with the timely implementation of the mandatory activities described in points 6 and 7, plus all the activities mentioned in the corresponding rules applied, are the sole responsibility of the user. Failure to comply with the foregoing, releases Prowinch from any type of Liability and Warranty to the team, customer, staff and / or user or any other liability that could be attributed to Prowinch.

The information contained in this manual may contain technical errors or inaccuracies, Prowinch® LLC, is not responsible for errors typing, omission or incorrect information.

This manual is subject to change without prior notice. Download the latest version available at www.prowinch.com

Always check www.prowinch.com for latest information regarding this product.

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PROWINCH® PWMD AND PWMDF HOIST

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PWMDF3T24M – PWMDF5T24M

PWMDF10T24M – PWMDF16T24M – PWMDF20T24M
PWMDF25T18M - PWMDF50T12M - PWMDF50T20M

Thank you for buying Prowinch's professional lifting equipment. This manual describes the cautions and warnings regardin the operation of this equipment. All the information available in this document is up to date with the latest informaction avaliable

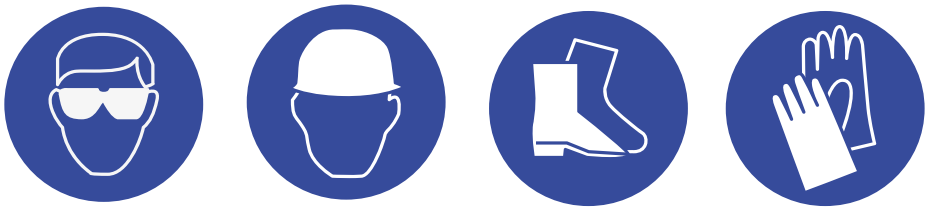
GENERAL SAFETY INSTRUCTIONS

Prowinch®'s Hoist is designed for delivering a safe and trustable service if it's operated according to the instructions manual. Respect all warnings for personnel and third party safety. The inadequate operation of the equipment may cause injuries or harm the equipment. Read and understand this manual carefully before installation and commissioning of the equipment. Keep this manual in a visible place for any consultation if needed.

With a compact structure, light weight and ease of use, PWR and PRWC models are preferred hoist for daily use in factories, mines, sea port and warehouses.

The hoist may offer a great deal of strength. If it's not used the right way may produce harm to users and may end up in wounds, injuries or death. In this manual you can find symbols for caution, warnings or danger. Always consider the notes beside the symbols for your own safety. A safety operation of this manual depends on you, the operator.

Always use at least the following security equipmente when operating the Hoist:



GENERAL SAFETY WARNINGS

WARNING:

This symbol indicates a dangerous situation which if not avoid,may cause minor or moderate wounds. It is also used for indicating unsafe practices

DANGER:

This symbol indicates a dangerous situations which if not avoided, may cause severe injuries or death.

DANGER

All operators and other users who are near the steel chain or near it's load projection, must wear the safety equipment for this equipment. This includes gloves, helmet, safety shoes and eyes protection.

DANGER

Always make sure to disconnect electrical feed when Operation is finished, Equipment is not attended or not in use.

GENERAL SAFETY WARNINGS

1. When Operating:

- Make sure the hoist in optimal conditions to begin operation.
- Do not use any wire rope or hook that was not designed for the unit you are using.
- To avoid an electrical discharge, make sure that electrical Hoist is adequately grounded by certified personnel.
- Before loading the Hoist make sure works fine without load, in all directions and for the complete traveling lengh.
- Do not lift weight with the edge of the hook.
- Do not change direction suddenly.
- Do not perform lifting with more than a Hoist at the same time.
- Never exceed the lifting weight capacity rated on the Hoist.
- Do not lift Humans or animals with this Hoist.
- Do not unwind all the wire rope from the Hoist's drum, always keep at least 5 turns of rope in it.
- This equipment is designed for vertical load lifting.
- Do not drag load.
- Do not lift load with any inclination from the vertical lift.

2. Wear appropriate clothing:

- Do not use any jewellery or loose clothes while operating the Hoist, they might get attached to the Wire rope or hook.
- Wear leather gloves anytime you handle the hoist and the wire rope.
- Operator should wear at least; gloves, safety shoes with non slippery sole, Helmet and eye protection.

3. Keep a safe distance:

- Make sure that people are away from the hoist wire rope when operating the equipment. It's suggested that the distance betce between personnel and the Hoist should be at least 1,5 times the length of the hoist's Wire Rope. If the rope breaks or gets loose, may harm people causing injuries or death.
- Do not walk over the Wire Rope.
- Don walk under the hook or load.
- It's necessary to make sure that all visitors and viewers surrounding the equipment are away from the working area.
- Keep your balance at all times.

4. Do not use the Hoist over it's maximum capacity:

- If the engine gets too hot, stop the hoist and let it cool for a while. Refer to the Working Class Table of the Hoist.
- If the hoist stops during it's operation, stop. Check load and trolley.
- Do not exceed maximum load capacity
- Always refer to the maximum load capacity of the hoist, not the hook.

5. Check damaged parts:

- Before use, do a full check of the hoist
- It's necessary that only authorized and qualified personnel perform inspections to the equipment and parts.

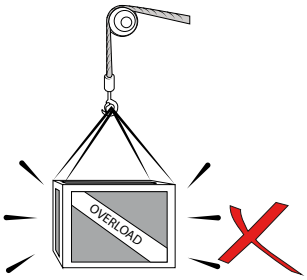
6. Hoist Mainteinance and Repairs:

- In order to repair an equipment, use only original Prowinch® parts, otherwise the operator may be in danger. The use of any not original replacement part will cause the expiration of the warranty.
- For security only a Prowinch® certified personnel perform reparations to the equipment.

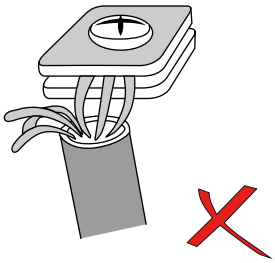
WARNING

Never lift Humans or Animals with this Hoist.

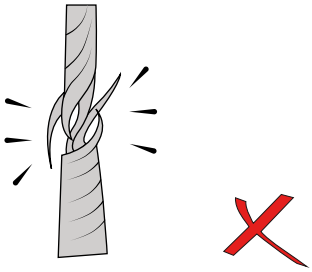
Handling precautions



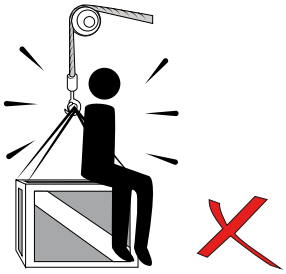
1. Do not overload the Hoist. Make sure you are trained for using this equipment and doing it with the accepted load weight.



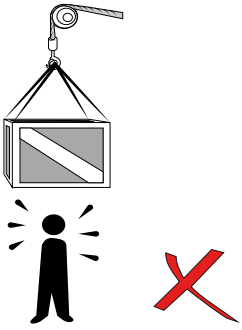
2. Check the electrical connections. Voltage may vary if not properly connected to power supply.



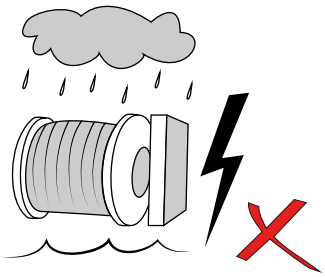
3. Check frequently the hoist's steel chain. in case of any damage, seek for replacement.



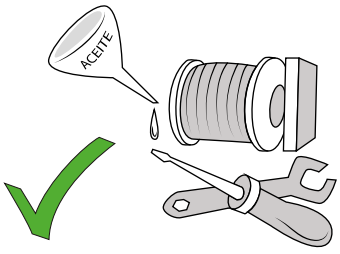
4. Do not use the equipment to lift or move people if the equipment is not designed for that purpose.



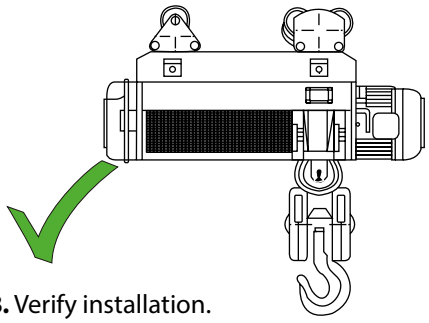
5. Do not stand under the load, it may fall and cause death.



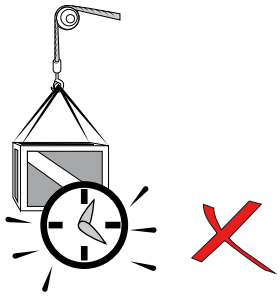
6. Do not use the hoist under the rain. Do not wet the engine or the switch.



7. Perform frequcuent inspections and maintenance at least once a year.



8. Verify installation.

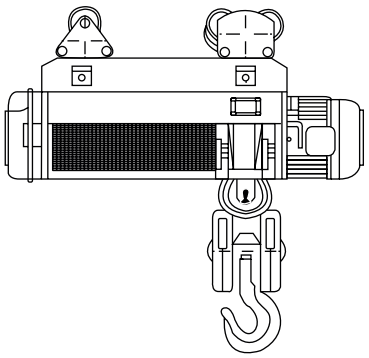


9. A heavy object must not stay up in the air for an extended period of time, it may cause girder deformation and/or cause an accident. Deformation and is considered a potential accident.

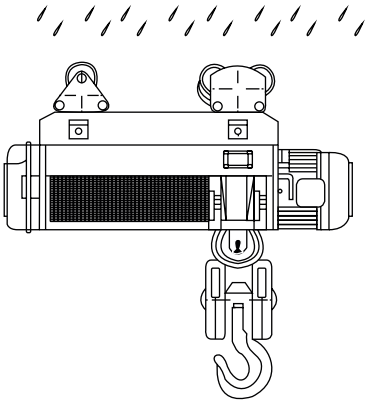
Environmental precautions

The following environmental conditions may cause mal functions in the equipment

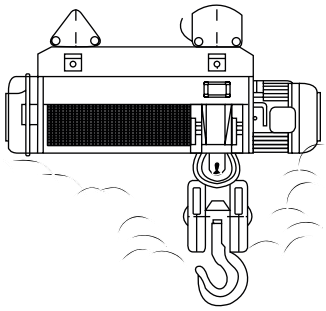
When operated outdoor, a roof or shelter should be used for extreme weather conditions: below -10° C or above 40° C



If used near chemicals, corrosive gas or explosives may cause an explosion. Exposure to salt or acids may cause malfunctioning.

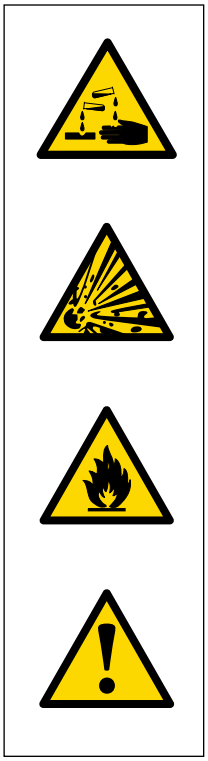


Avoid exposure to rain or extreme humidity. It may cause rusting of the equipment



Exposure to sand may cause malfunctioning.

Warnings:



1. GENERAL

1.1 Application

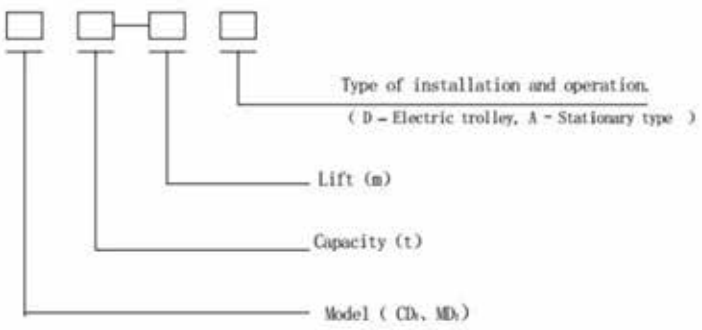
Model CDI & MDI Electric Hoist is a kind of hoisting equipment widely used in industrial and mineral enterprises, railway, docks or warehouse. With the features of compact structure, light and handy in volume and convenience to maintenance, it can be mounted under single-beam bridge crane, straight or curved I-beam to lift loads or can be installed on the double-girder bridge crane taking the role of hoisting mechanism. Also can be fitted with gantry crane or used as a fixed winch.

1.2 Security & Environment

This product is available for use in the site where the environmental temperature ranges-20°C ~ +40°C , but not suitable in hazadous areas of explosion and flame, in the site full of acid gas or other corrosion gases and in the site with the relative humidity excess 85%. It is not allowed to handle and transporting persons. In the circumstances of open air, necessary measure should be taken to protect it from being wet.

A medium working rate FC25% is recommended for this product and the rate of power starting is 120 times/hr.

1.3 Meaning of hoist code



1.4 Type & Specifications

The type and specifications of CDI, MDI referring to Capital Data Table 1a & Table 1g.

Table 1a-1d Capital Data & Dimension of Model CDI Electric Hoist

Table 1e-1g Capital Data & Dimension of Model MDI Electric Hoist

2. MAIN STRUCTURE & RUNNING PRINCIPLE

2.1 Overall Structure of Model CDI & MDI Electric Hoist

Overall Structure of Model CDI & MDI Electric Hoist referring to fig.1a~1g.

1.Cable Lead-in Device

2.Control Cabinet of Electric Devices

3.Electric Trolley

4.Traversing Reducer

5.Traversing Motor

6.Hook Device

7.Hoisting Motor

8.Power-cut Space Limiter

9.Space Limit Lever

10.Rope Guide Device

11.Stop Block

12.Hoisting Reducer

13.Drum Device

14.Balance Beam

15.Idle Trolley

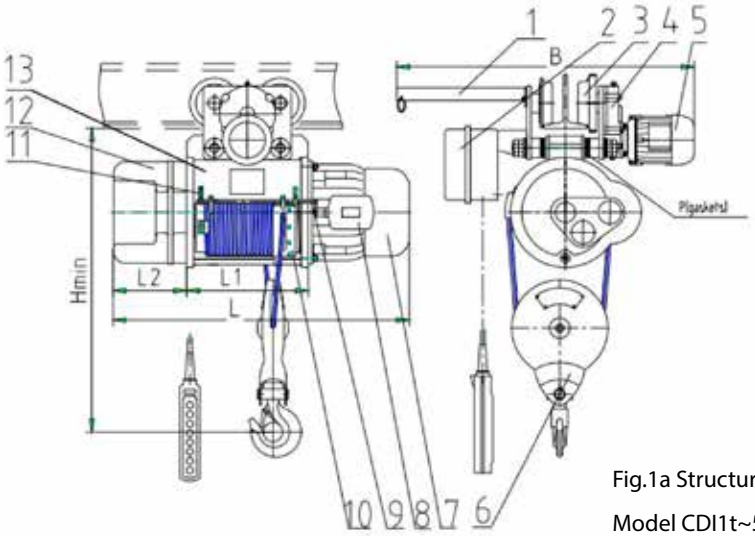


Fig.1a Structure and Outline of Electric Hoist
Model CDI1t~5t, H=6m~9m , CDI0.5t , H=6m~12m

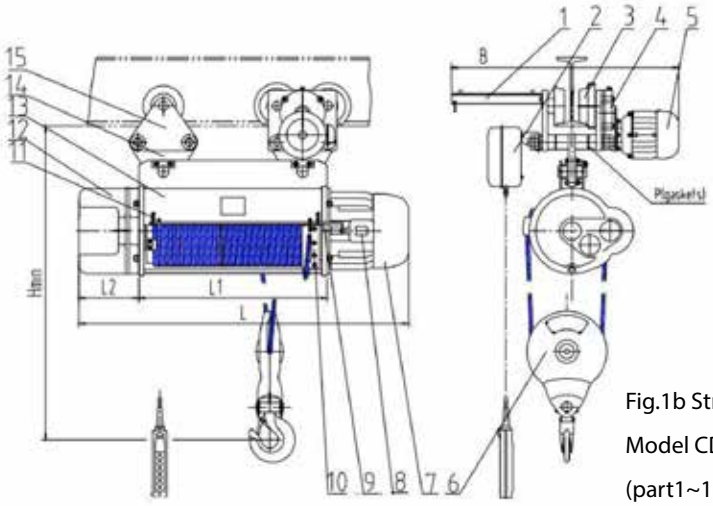


Fig.1b Structure and Outline of Electric Hoist
Model CDI1t~5t, H=12m~40m
(part1~13 in Fig.lb are the same as those in Fig. 1a)

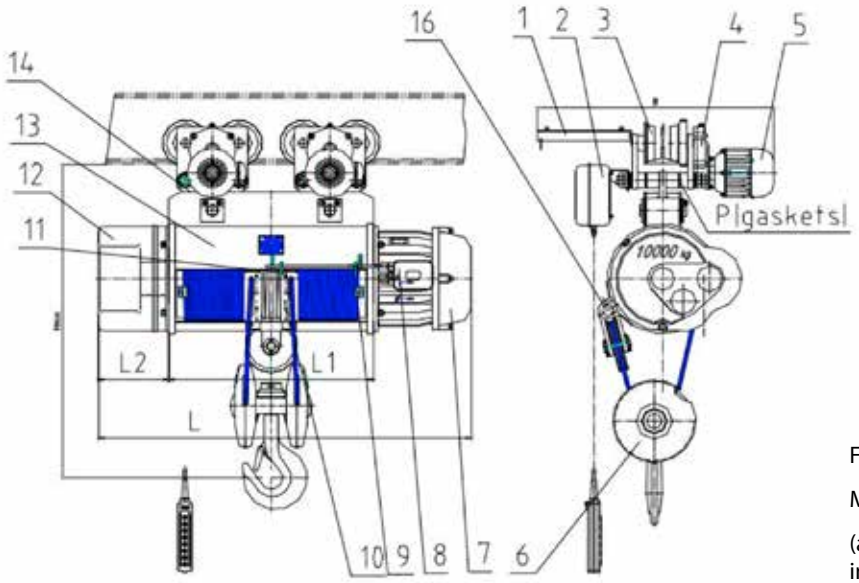


Fig.1c Structure and Outline of Electric Hoist

Model CD110t, H=9m~40m

(apart from 16,1~15 in Fig.lc are the same as those in Fig.1a,1b)

16. Balance Wheel Device

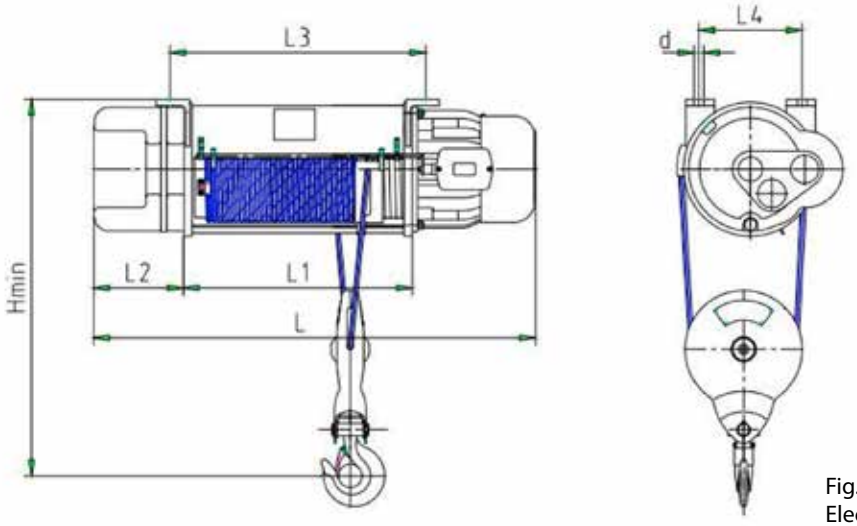
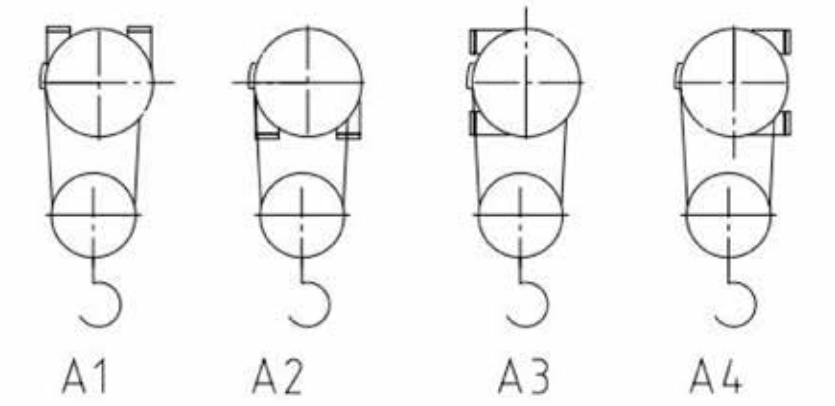


Fig.1d Structure and Outline of the Stationary Electric Hoist, Model CDI, MDI

MAIN STRUCTURE & RUNNING PRINCIPLE

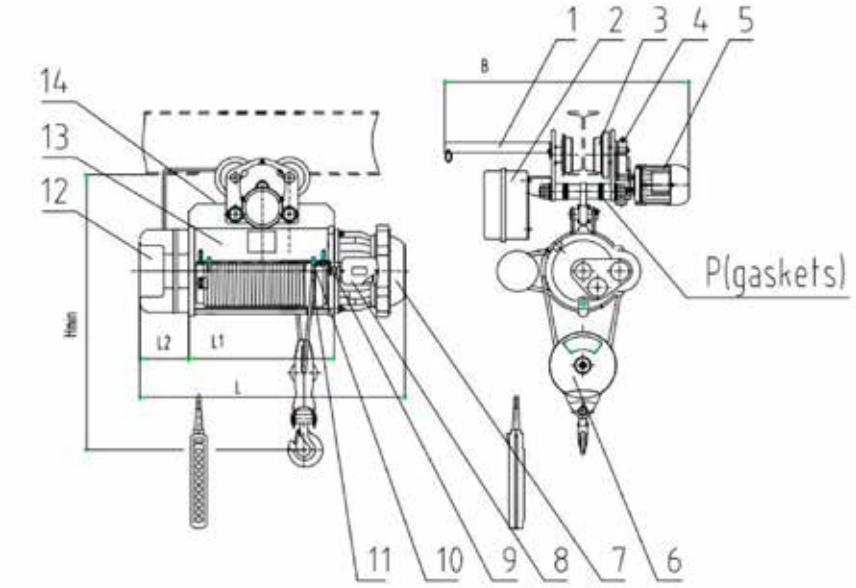


A1 is top mounting

A2 is bottom mounting

A3 is left mounting

A4 is right mounting



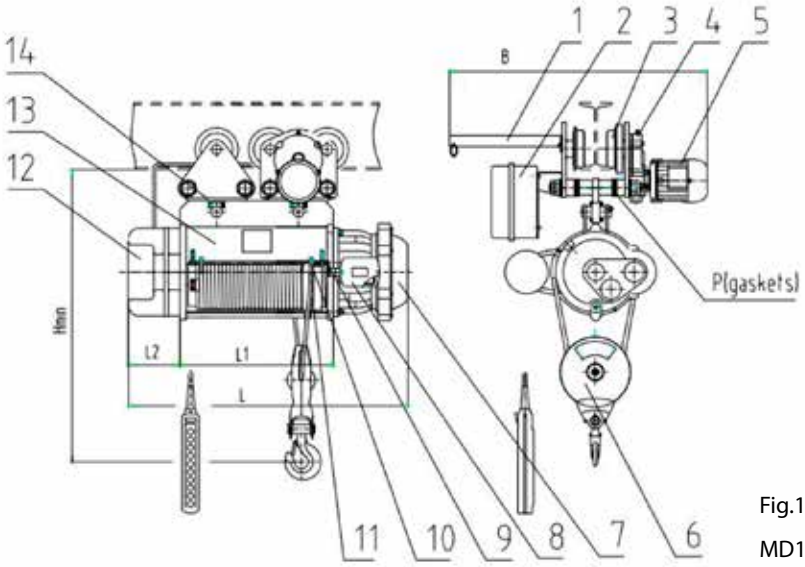


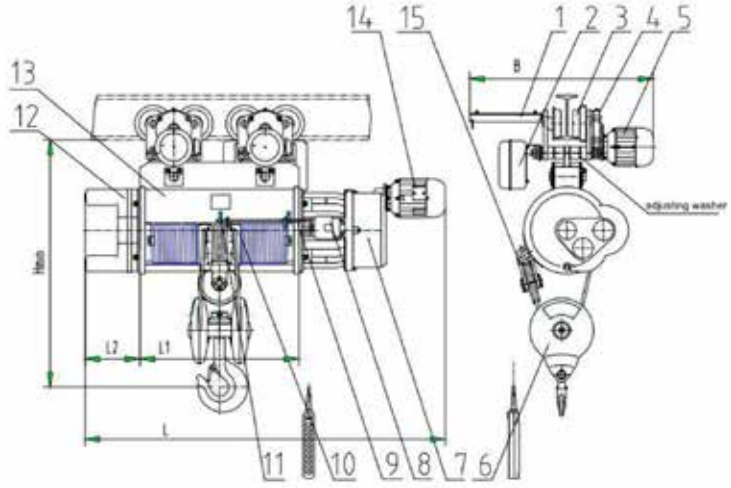
Fig.1f Structure and Outline of Electric Hoist Model MD1 1t~5t, (H=12m~40m)

14. Creep Lifting Motor

15. Balance Wheel Device

Fig.1g Structure Outline of Electric Hoist, Model MD1 10t H=9m~40m

(apart from14~15,1~13 in Fig.lg are the same as those in Fig.1a)



2.2 Main structure and Running Principle of the Model CD1 & MD1 Electric Hoist

The hoist is formed of three parts. Hoisting Mechanism, Traversing Mechanism (stationary type has no trolley), Electric Control Device.

MDI electric hoist is supplied with the base frame of CDI electric hoist. The hoisting motor is changed to double motor providing normal and slow lifting speeds. The difference between MDI & CDI hoist are only hoisting motor and electric control parts.

2.2.1 Hoisting Mechanism

The hoisting mechanism of MDI & CDI hoist referring to fig.2.

The running principle is described as follows. The Hoisting Motor(11), through Flexible Coupling (8) , then the gears of the Reducer (1), transmitted to the Hollow Shaft (2), then drives Drum (4) turning, cause the wire rope wound around the drum to draw the hook device up and down.

The hoist with the lifting height H=6m,a Flexible Coupling (8) is adopted to connect the Motor Shaft (10) with the Input Shaft (3) of the reducer. The flexible coupling, consisting of a rubber ring lined with fibre of high strength and two split half-couplings, can absorb the impact load and make compensation for the installation errors. A Rope Guide Device (7) is provided to prevent the wire rope from winding in disorder.

For the hoist with H≥9m, an Intermediate Shaft(6) and a Rigid Coupling(5) are provided.

For the hoist with H≥18m,a Support(9)(integral with the Right Cover) is used to prevent the long intermediate shaft from being damaged and rotating roughly or bent caused by trembling as it is very long.

A transmitting mechanism of 3-stage outside meshed bevel gears is used for he reducer (See Fig.3). The gears and shafts are made of alloy steel, quenched with carburization with the result of high strength and good wear-resistance. All the shafts are supported by anti-friction bearings and well lubricated so that to have smooth transmission and ideal efficiency. " O " oil-proof rubber gasket is used for the sealing between the housing and the case to ensure leak-proof.

The conic rotor motor of the electric hoist Model CDI has a built-in brake device (See Fig.4& 5). Switching on the power, the conic rotor produces a magnetic pulling force along axial, which overcomes the pressure of the spring

to make the fan brake wheel disengage from Rear-cover and allow the motor running. When the power is cut off the magnetic pulling force disappears, the cone braking lining, which stuck on the fan brake wheel and effected by the spring pressure, engages tightly with the Rear-cover to make the brake. This brake is very reliable and the wear-resistance good, blades are designed on

the fan brake wheel, playing the role of heat dissipation and cooling.

The hoisting motor of MDI electric hoist adopts a set of ZDSI double-motor group, the one consists of 3 parts (see Fig. 6 & 7a,(The structure shown in the Fig.7b is used for the hoist of MDI 10t under some conditions.) those are Creep Hoisting Motor (1) (named "small motor" in the following), Normal Hoisting Motor (2) (named "big motor" in the following), Creep Driving Mechanism (3). Their running principle is introduced as follows.

The small motor is connected with the big motor through the Creep Driving Mechanism. While the small motor is turned on, the tapered brake in it is open.

The small motor runs at the speed of 1380 r/min., the speed is decreased by the Creep Driving Mechanism which drives the fan braking wheel (combined with the rotor of big motor for running) and rotor of big motor turning together.

Understandable the speed of big motor is only 1/i(generally, approximate to 1/10)of the small motor. Turned on the big motor, the brake is unclamped and the big motor runs at normal speed when the small motor is in the braking mode.

When the rated load is descending, the braking slide-down range S is specified as $S \leq V/100$

In the formula: S—the braking slide-down range

V—The steady rising distance at rated load per minute

Do adjust if the slide exceeds the above-mentioned specifications.

MAIN STRUCTURE & RUNNING PRINCIPLE

Table a Model CD main data and basic dimensions of electric hoist

Type		CD1 0.5			CD1 1								
		-06D	-09D	-12D	-06D	-09D	-12D	-18D	-24D	-30D	-33D	-36D	-40D
Capacity (t)		0.5			1								
Lifting height (m)		6	9	12	6	9	12	18	24	30	33	36	40
Hoisting speed(m/min)		8			8								
Traveling speed(m/min)		20(30)			20(30)								
Wire rope	Dia.(mm)	4.8			7.4								
	Total Length(m)	14.4	20.4	26.4	14.6	20.6	26.6	38.6	50.6	62.6	68.6	74.6	82.6
	Structure	D-6×37+1			D-6×37+1								
I Beam Rail Type(m)		16~28b			16~28b								
Min.Radius of rail(m)		1.2			1.2		1.5	1.8	2.5	3.2	3.6	4	4.5
Hoisting Motor	Type	ZD1 21-4			ZD1 22-4								
	Power(kw)	0.8			1.5								
	Speed (rpm)	1380			1380								
	Phase	3			3								
	Voltage(V)	380			380								
	Current(A)	2.4			4.3								
	Frequency	50			50								
Traveling Motor	Type	ZDY1 11-4			ZDY1 11-4								
	Power(kw)	0.2			0.2								
	Speed (rpm)	1380			1380								
	Phase	3			3								
	Voltage(V)	380			380								
	Current(A)	0.72			0.72								
	Frequency	50			50								
Coupling times (T/h)		120			120								
Working rate(FC%)		25			25								
Basic dimension (mm)	H min	~650			~667		~767						
	L2	125			158								
	L1	274	346	418	345	443	541	737	933	1129	1227	1325	1456
	L	616	688	760	758	856	954	1150	1346	1542	1640	1738	1869
	B	~884			~884								
	L3	318	390	462	401	499	597	793	989	1185	1283	1381	1512
	L4	190			196								
	D	16.5			19								
Weight (kg)		121	125	130	137	145	172	188	204	220	228	236	246

MAIN STRUCTURE & RUNNING PRINCIPLE

TYPE		CD1 2								CD1 3								
		-06D	-09D	-12D	-18D	-24D	-30D	-33D	-36D	-06D	-09D	-12D	-18D	-24D	-30D	-33D	-36D	-40D
Capacity(T)		2								3								
Lifting Height(m)		6	9	12	18	24	30	33	36	6	9	12	18	24	30	33	36	40
Hoisting speed		8(m/min)								8(m/min)								
Traveling speed		20(30)(m/min)								20(30)(m/min)								
Wire rope	Dia.(mm)	11								13								
	Total length(m)	15.4	21.4	27.4	39.4	51.4	63.4	69.4	75.4	15.9	21.9	27.9	39.9	51.9	63.9	69.9	75.9	83.9
	Structure	D-6×37+1								D-6×37+1								
I Beam Rail Type		20a-32c								20a-32c								
Min.Radius of rail(m)		1.5	1.5	1.8	2	2.8	3.5	4	4.5	1.5	1.5	1.8	2	2.8	3.5	3.9	4.2	5.0
Hoist Motor	Type	ZD1 31-4								ZD1 32-4								
	Power(kw)	3.0								4.5								
	Speed (rpm)	1380								1380								
	Phase	3								3								
	Voltage(V)	380								380								
	Current(A)	7.6								11								
	Frequency	50								50								
Travel Motor	Type	ZDY1 12-4								ZDY1 12-4								
	Power(kw)	0.4								0.4								
	Speed (rpm)	1380								1380								
	Phase	3								3								
	Voltage(V)	380								380								
	Current(A)	1.25								1.25								
	Frequency	50Hz								50Hz								
Coupling times (T/h)		120								120								
Working rate(FC%)		25								25								
Basic dimension (mm)	H min	~840		~950						~954			~1058					
	L2	187								229								
	L1	352	452	552	752	952	1152	1252	1352	380	483	586	792	998	1204	1307	1410	1547
	L	820	920	1020	1220	1420	1620	1720	1820	932	1035	1138	1344	1550	1756	1859	1962	2099
	B	~930								~930								
	L3	418	518	618	818	1018	1218	1318	1418	448	551	654	860	1066	1272	1375	1478	1615
	L4	240								264								
	D	25								25								
Weight (kg)		221	232	285	309	332	353	373	393	281	297	354	390	420	451	472	493	516

MAIN STRUCTURE & RUNNING PRINCIPLE

TYPE		CD1 5									CD1 10							
		-06D	-09D	-12D	-18D	-24D	-30D	-33D	-36D	-40D	-09D	-12D	-18D	-24D	-30D	-33D	-36D	-40D
Capacity(T)		5									10							
Lifting Height(m)		6	9	12	18	24	30	33	36	40	9	12	18	24	30	33	36	40
Hoisting speed		8 (m/min)									7 (m/min)							
Traveling speed		20(30)(m/min)									20(30)(m/min)							
Wire rope	Dia.(mm)	15									15							
	Total length(m)	16.4	22.4	28.4	40.4	52.4	64.4	70.4	76.4	84.4	43	55	79	103	127	139	151	167
	Structure	D-6×37+1									D-6×37+1							
I Beam Rail Type		25a-63c									32a-63c							
Min.Radius of rail(m)		1.8	1.8	2.2	2.5	3.0	4.0	5.0	5.5	6.0	3	3.5	4.5	6	7.2	7.5	8	9
Hoist Motor	Type	ZD1 41-4									ZD1 51-4							
	Power(kw)	7.5									13							
	Speed (rpm)	1400									1400							
	Phase	3									3							
	Voltage(V)	380									380							
	Current(A)	18									30							
	Frequency	50									50							
Travel Motor	Type	ZDY1 21-4									ZDY1 21-4							
	Power(kw)	0.8									0.8							
	Speed (rpm)	1380									1380							
	Phase	3									3							
	Voltage(V)	380									380							
	Current(A)	2.4									2.4							
	Frequency	50Hz									50Hz							
Coupling times (T/h)		120									120							
Working rate(FC%)		25									25							
Basic dimension (mm)	H min	~1120		~1283							~1350							
	L2	267									301							
	L1	415	536	625	835	1045	1255	1360	1465	1605	875	1056	1418	1780	2142	2325	2508	2752
	L	1047	1168	1257	1467	1677	1887	1992	2097	2237	1602	1783	2145	2507	2869	3052	3235	3479
	B	~1055									~1055							
	L3	485	606	695	905	1115	1325	1430	1535	1655	949	1130	1492	1854	2216	2399	2582	2826
	L4	320									376							
	D	31									37							
Weight (kg)		473	495	597	646	696	726	748	770	800	1048	1098	1209	1310	1411	1462	1513	1585

Table b Model MD main data and basic dimensions of electric hoist

Type		MD1 0.5			MD1 1								
		-06D	-09D	-12D	-06D	-09D	-12D	-18D	-24D	-30D	-33D	-36D	-40D
Capacity (t)		0.5			1								
Lifting height (m)		6	9	12	6	9	12	18	24	30	33	36	40
Hoisting speed(m/min)		8/0.9			8/0.73								
Traveling speed(m/min)		20(30)			20(30)								
Wire rope	Dia.(mm)	4.8			7.4								
	Total Length(m)	14.4	20.4	26.4	14.6	20.6	26.6	38.6	50.6	62.6	68.6	74.6	82.6
	Structure	D-6×37+1			D-6×37+1								
I Beam Rail Type(m)		16~28b			16~28b								
Min.Radius of rail(m)		1.2			1.2		1.5	1.8	2.5	3.2	3.6	4	4.5
Hoisting Motor	Type	ZDS1 21-4			ZDS1 22-4								
	Power(kw)	0.8/0.2			1.5/0.2								
	Speed (rpm)	1380/157			1380/157								
	Phase	3			3								
	Voltage(V)	380			380								
	Current(A)	2.4/0.72			4.3/0.72								
	Frequency	50			50								
Traveling Motor	Type	ZDY1 11-4			ZDY1 11-4								
	Power(kw)	0.2			0.2								
	Speed (rpm)	1380			1380								
	Phase	3			3								
	Voltage(V)	380			380								
	Current(A)	0.72			0.72								
	Frequency	50			50								
Coupling times (T/h)		120			120								
Working rate(FC%)		25			25								
Basic dimension (mm)	H min	~650			~667		~767						
	L2	125			158								
	L1	274	346	418	345	443	541	737	933	1129	1227	1325	1456
	L	616	688	760	780	878	976	1172	1368	1564	1668	1760	1891
	B	~884			~884								
	L3	318	390	462	401	499	597	793	989	1185	1283	1381	1512
	L4	190			196								
	D	16.5			19								
Weight (kg)		148	155	163	164	172	199	215	231	247	255	263	274

MAIN STRUCTURE & RUNNING PRINCIPLE

TYPE		MD1 2								MD1 3								
		-06D	-09D	-12D	-18D	-24D	-30D	-33D	-36D	-06D	-09D	-12D	-18D	-24D	-30D	-33D	-36D	-40D
Capacity(T)		2								3								
Lifting Height(m)		6	9	12	18	24	30	33	36	6	9	12	18	24	30	33	36	40
Hoisting speed		8/0.73 (m/min)								8/0.73 (m/min)								
Traveling speed		20(30)(m/min)								20(30)(m/min)								
Wire rope	Dia.(mm)	11								13								
	Total length(m)	15.4	21.4	27.4	39.4	51.4	63.4	69.4	75.4	15.9	21.9	27.9	39.9	51.9	63.9	69.9	75.9	83.9
	Structure	D-6×37+1								D-6×37+1								
I Beam Rail Type		20a-32c								20a-32c								
Min.Radius of rail(m)		1.5	1.5	1.8	2	2.8	3.5	4	4.5	1.5	1.5	1.8	2	2.8	3.5	3.9	4.2	5.0
Hoist Motor	Type	ZDS1 31-4								ZDS1 32-4								
	Power(kw)	3.0 / 0.4								4.5 /0.4								
	Speed (rpm)	1380 /127								1380 /127								
	Phase	3								3								
	Voltage(V)	380								380								
	Current(A)	7.6 /1.25								11 /1.25								
	Frequency	50								50								
Travel Motor	Type	ZDY1 12-4								ZDY1 12-4								
	Power(kw)	0.4								0.4								
	Speed (rpm)	1380								1380								
	Phase	3								3								
	Voltage(V)	380								380								
	Current(A)	1.25								1.25								
	Frequency	50Hz								50Hz								
Coupling times (T/h)		120								120								
Working rate(FC%)		25								25								
Basic dimension (mm)	H min	~840		~950						~954			~1058					
	L2	187								229								
	L1	352	452	552	752	952	1152	1252	1352	380	483	586	792	998	1204	1307	1410	1547
	L	808	908	1008	1208	1408	1608	1708	1808	915	1018	1125	1327	1533	1739	1820	1945	2082
	B	~930								~930								
	L3	418	518	618	818	1018	1218	1318	1418	448	551	654	860	1066	1272	1375	1478	1615
	L4	240								264								
	D	25								25								
Weight (kg)		253	264	317	341	364	385	405	425	313	329	386	422	452	483	504	525	548

MAIN STRUCTURE & RUNNING PRINCIPLE

TYPE		MD1 5									MD1 10							
		-06D	-09D	-12D	-18D	-24D	-30D	-33D	-36D	-40D	-09D	-12D	-18D	-24D	-30D	-33D	-36D	-40D
Capacity(T)		5									10							
Lifting Height(m)		6	9	12	18	24	30	33	36	40	9	12	18	24	30	33	36	40
Hoisting speed		8 / 0.78 (m/min)									7 /0.7 (m/min)							
Traveling speed		20(30)(m/min)									20(30)(m/min)							
Wire rope	Dia.(mm)	15									15							
	Total length(m)	16.4	22.4	28.4	40.4	52.4	64.4	70.4	76.4	84.4	43	55	79	103	127	139	151	167
	Structure	D-6×37+1									D-6×37+1							
I Beam Rail Type		25a-63c									32a-63c							
Min.Radius of rail(m)		1.8	1.8	2.2	2.5	3.0	4.0	5.0	5.5	6.0	3	3.5	4.5	6	7.2	7.5	8	9
Hoist Motor	Type	ZDS1 41-4									ZDS1 51-4							
	Power(kw)	7.5 /0.8									13 /1.5							
	Speed (rpm)	1400/135									1400/138							
	Phase	3									3							
	Voltage(V)	380									380							
	Current(A)	18/2.4									30/4.3							
	Frequency	50									50							
Travel Motor	Type	ZDY1 21-4									ZDY1 21-4							
	Power(kw)	0.8									0.8							
	Speed (rpm)	1380									1380							
	Phase	3									3							
	Voltage(V)	380									380							
	Current(A)	2.4									2.4							
	Frequency	50Hz									50Hz							
Coupling times (T/h)		120									120							
Working rate(FC%)		25									25							
Basic dimension (mm)	H min	~1120		~1283							~1350							
	L2	267									301							
	L1	415	536	625	835	1045	1255	1360	1465	1605	875	1056	1418	1780	2142	2325	2508	2752
	L	1047	1168	1257	1467	1677	1887	1992	2097	2237	1969	2150	2512	2874	3236	3419	3602	3846
	B	~1055									~1055							
	L3	485	606	695	905	1115	1325	1430	1535	1655	949	1130	1492	1854	2216	2399	2582	2826
	L4	320									376							
	D	31									37							
Weight (kg)		530	552	654	703	743	783	805	827	857	1104	1154	1265	1366	1467	1518	1569	1641

2.2.2 Traversing Mechanism

Through the traversing reducer, the motor drives a pair of driving wheels of the trolley, causing the hoist moving under along I beam rail.

The traversing motor is also a conic rotor motor with brake device. A flat brakering is used for the brake so that the braking torque is comparative smaller, and the braking process slow to avoid the load from vacillation when stopping the trolley.

1. Reducer
2. Hollow Shaft
3. Reducer Input Shaft
4. Drum
5. Rigid Shaft
6. Intermediate Shaft
7. Rope Guide Device
8. Flexible Coupling
9. Right Cover
10. Motor Shaft
11. Hoisting Motor

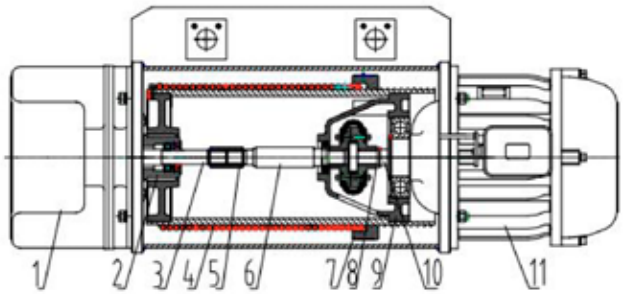


Fig.2 Hoisting Mechanism

(The Right Cover shall be provided with support if H≥18m.)

1. Casing
2."O"Sealing-ring
3. Housing

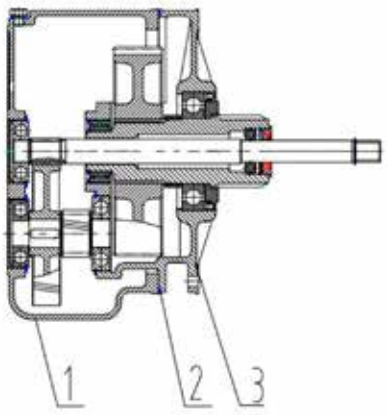


Fig.3 Hoisting Reducer

1. Locking Screw
2. Holding Nut
3. Fan Brake Wheel
4. Conic Braking Lining
5. Rear-cover
6.Supporting Ring
7. Pressure Spring
8. Stator
9.Rotor
10.Front-cover

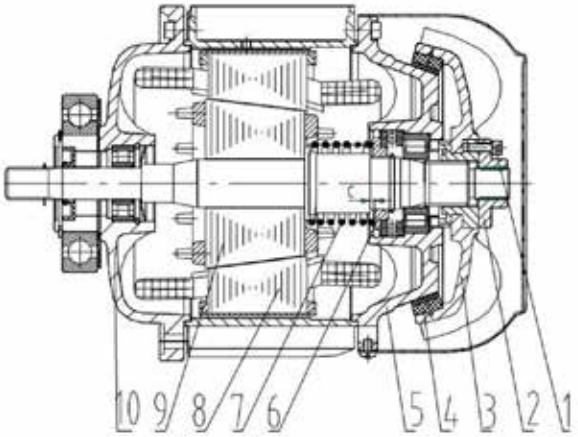


Fig.4 Structure of Hoisting Motor of Electric Hoist Model CDI0.5t~5t

11. Rear-cover
12. Supporting Cap

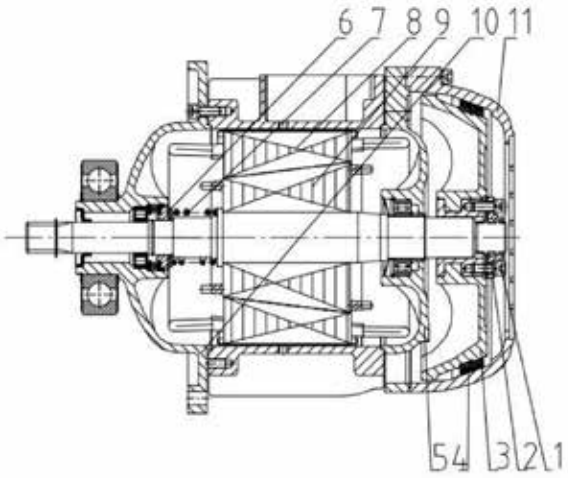


Fig.5 Structure of Hoisting Motor of Electric Hoist Type CDI 10t

(1~10 are the same as those in Fig.4)

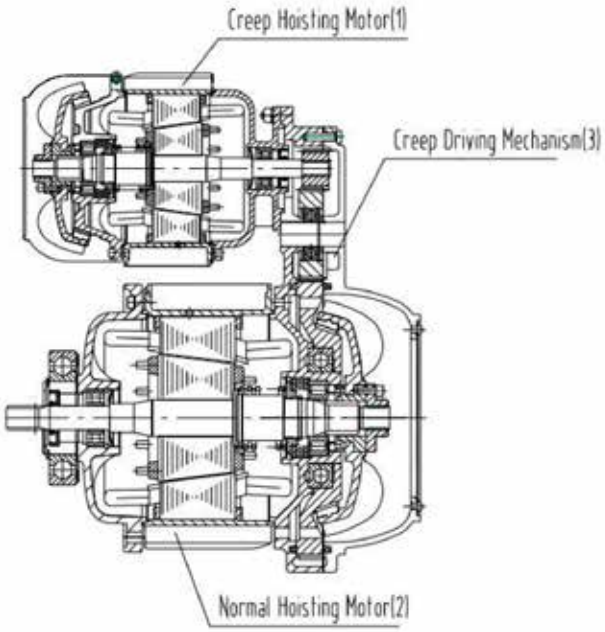


Fig. 6 The Double-motor Group of Electric Hoist Model MDI 0.5t~5t

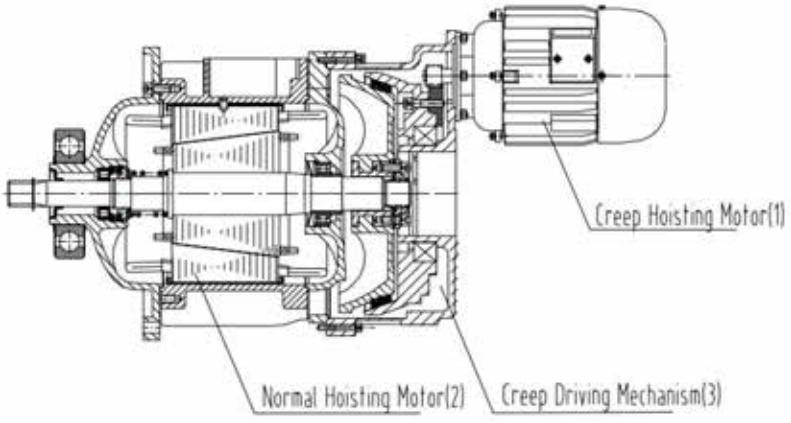


Fig.7a The Double-motor Group of Electric Hoist Model MDI 10t

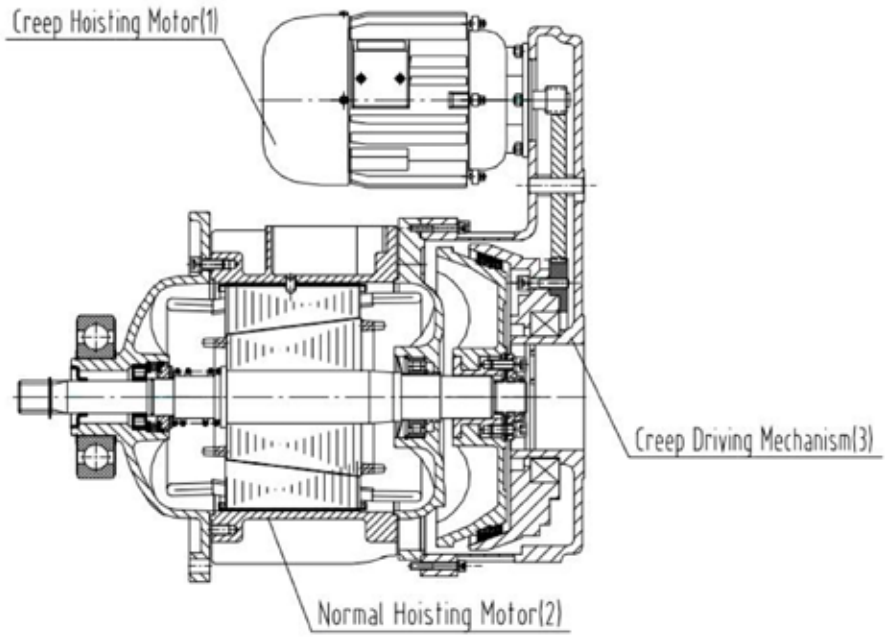


Fig.7b The Double-motor Group of Electric Hoist Model MDI 10t

2.2.3 Electric Devices

The electric devices of the electric hoist Model CDI, MDI consists of Control Cabinet, Push Button Station and Power-cut Space Limiter. The electrical principle scheme refers Fig. 9a~9b (Electricity Components in the Fig. please refer Table 2).

Control Cabinet is mounted to electric trolley with a connecting shelf. The stationary type of hoist will be fixed according to field condition by users. The electric units should be fixed and fitted at the connecting board, while the cable is connecting with terminal panel. The electricity control and operation is at safety voltages(normally is 36v).

The power-cut space limiter is used to prevent accident which may be caused by the loads exceeds the limited position when it goes up or down. When the load reaches the limit position,the Rope Guide Device in Fig.1a(10) which moves axially impacts against the Stop Block Fig.1a(11) on the space limiting lever, causing the space limit lever to push (or pull) the limiter so as cut off the circuit of hoisting motor, then the load will stop moving. Push the button of the opposite direction, the load will disengage from the stabled condition.

Be care the power-cut space limiter will not be used as path switch.

MAIN STRUCTURE & RUNNING PRINCIPLE

The push button station of Model CDI electric hoist provides such buttons.

Stop(off),Start(on),Up(Δ),Down(∇),Left(<J),right([>),Forward(+),Backward(0).

The same of Model MDI provides: Stop(off), Start(on),Creep Up(Δ),Fast Up(Δ),Fast Down(∇),Creep

Down(∇),Left(<J),Right([>),Forward(+),Backward(0). The Forward(+)& Backward(0) are prepared for Bridge Crane moving. The Electrical Devices is designed possessing both mechanical and electrical interlock.

The power lead-in can adopt cable, sliding bar or other proper methods.

When cable is used, the Cable Lead-in Device 1a(1) will be mounted to fix cable for the Control Cabinet receiving power.

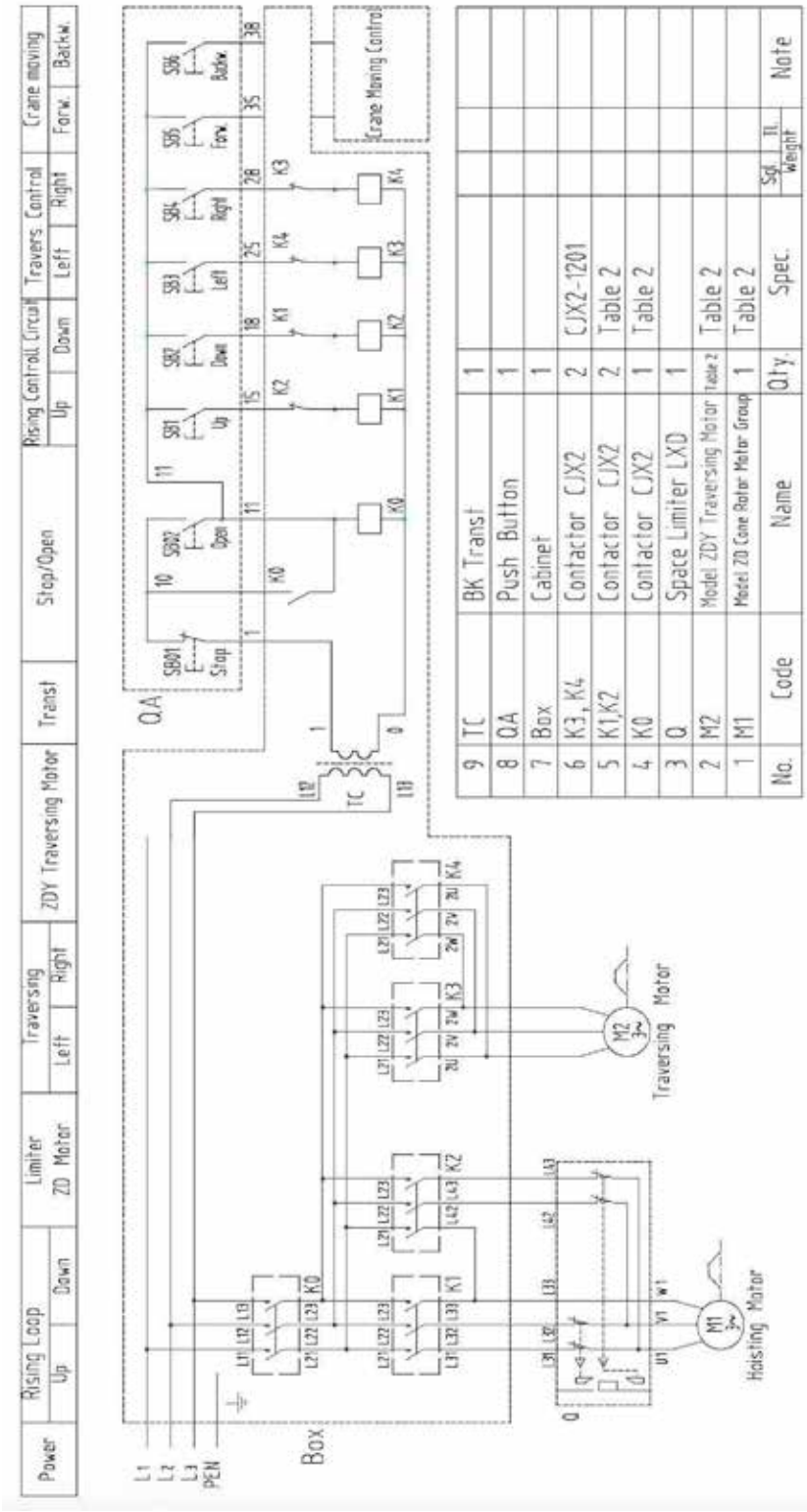
The principle of electric control. On pushing down the button Start (on), the KO AC contactor acts in self-security mode so as to provide power for other contactors. When the power in accident shot-cut, the KO contactor losses electricity, simultaneously the main source is cut off. Since the hoist is in usage and hung in air, it is not convenient for operator to treat, the protection of shot-cut does not provided unless specially required by customer.

When the hoist need to work, push the button of selected direction, connect related contactors to master the action of hoist, meanwhile the control loop of opposite contactors Will be cut off to realize electric interlock. When the pushed button is released, the contactor will release too, the hoist stop acting.

Push down the Stop(off) button when job finished or in emergency, the KO contactor losses electricity leading power off.

Table 2 Electricity Components List

Model of Product		CDI、MDI0.5t~1t	CDI、MDI2t~3t	CDI、MDI5t	CDI、MDI10t
Model Of Electric Control Cabinet	CDI	QK1C-2×□	QK1C-6×□	QK1C-8×□	QK1C-15×□
	MDI	QK1E--2×□	QK1E--6×□	QK1E--8×□	QK1E--15×□
Model of " Start" Contactor K0		CJX2-1210	CJX2-1610	CJX2-2510	CJX2-4011
Model of " Up" Contactor K1,K2		CJX2-1201	CJX2-3201	CJX2-4011	CJX2-6511
Model of Traversing Contactor K3,K4,K5,K6		CJX2-1201			CJX2-1601
Model of Power-cut Space Limiter Q		LXD-20			LXD-40
No. of Traversing Motor M2		1			2



No.	Code	Name	Qty.	Spec.	Sgl. Weight	TL.	Note
9	TC	BK Transf	1				
8	QA	Push Button	1				
7	Box	Cabinet	1				
6	K3,K4	Contactor CJX2	2	CJX2-1201			
5	K1,K2	Contactor CJX2	2	Table 2			
4	K0	Contactor CJX2	1	Table 2			
3	Q	Spare Limiter LXD	1				
2	M2	Model ZDY Traversing Motor Table 2		Table 2			
1	M1	Model ZD Crane Motor Motor Group	1	Table 2			

Fig.9a Electric Principle Scheme For Electric Hoist Model CD1 0.5~10t

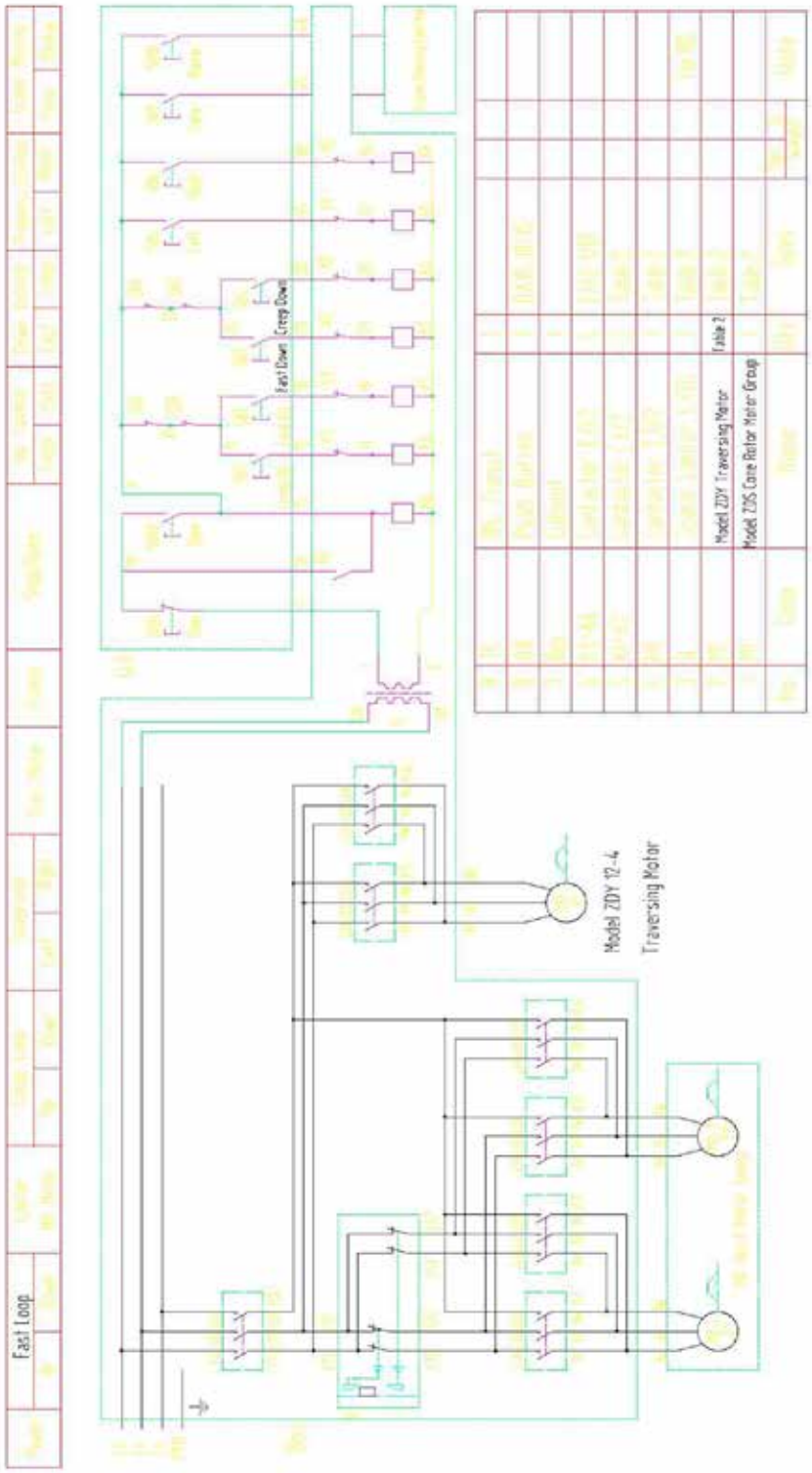


Fig.9b Electric Principle Scheme For Electric Hoist Model MD10.5t~10t

3. INSTALLATION AND ADJUSTMENT

3.1 INSTALLATION

3.1.1 When the hoist is shipped to the installation site, to care that no damage has been done during the transportation.

3.1.2 The hoist runs with the fixed and standard rail(see Table 1a,1b). In order to match the variable I beam rails, user should select standard rail referring the tables or design by themselves (the rail must be in compliance with related standard).While installing, the width between traversing wheels can be adjusted with Gaskets P (See Fig.1). A clearance of 4mm~ 5mm on each side should be maintained between the wheel edges and bottom flange of the I beam during the adjustment.

3.1.3 Stop pins or elastic buffers should be installed on both ends of the rail in order to avoid the hoist from derailing and damaging the body by impacting.

3.1.4 A protective earth should be laid on the I beam or the structure connected with hoist. Either φ4mm ~ φ5mm bare copper wire or any metal conductor with the section not less than 25mm2 can be used.

3.1.5 After the completion of the installation of all the electric appliances, the earth insulation resistance to all the power loop and control loop should not be less than 1.5MΩ.

3.2 ADJUSTMENT

3.2.1 Fig.4 shows the hoisting motor structure of electric hoist model CDI 0.5t-5t. When adjusting, first loosen the screw (1), rotate clockwise the locking nut (2) so as to increase the pressure on the spring (7) and gain a greater braking torque, then tighten the screw (1). shortening the slide-down distance.

Watch carefully the leap clearance of motor shaft when starting and stopping the motor repeatedly (or press the shaft end of motor with force to cause it shifting). Generally speaking, the leap clearance of 1.5mm is recommended; rotate in counter clockwise the locking nut (2) which has 1.5mm screw can reduce the leap clearance. In case the slide-down distance of hoist still exceeds the specifications after the adjustment, eliminate the troubles one by one in accordance with Table 5 "TROUBLE-SHOOTING" in item 2.

3.2.2 Fig. 5 shows the motor of the electric hoist model CDI 10t. The adjusting method for it is same in principle as mentioned above, instead of the locking nut (2) should be rotated in contrary direction.

3.2.3 Adjustment can be made to motor brake according to the following description. For model CDI, when the braking lining is won out or damaged, replacement should be made. While replacing, the braking lining must be pressed tighten into the fan brake wheel. The internal cone surface of the braking lining should be machined and ground carefully to have an excellent connection with the conic surface of the rear cover so as to ensure a reliable braking. For adjustment to Model MDI, please disassemble the dust-proof

cover at the end of big motor and do the adjustment as per previous description. And the same can be done to the small motor as per 3.2.1.

3.2.4 The adjusting method of the traversing motor is the same as that of the

hoisting motor 3.2.1, it is also important to set the braking clearance properly.

4. INSPECTION AND TEST

4.1 Check whether all the locations of lubrication have been sufficiently greased. (Ref. to Table 3, Table 4).

4.2 Check whether the hoist and rail has been connected reliably.

4.3 The step-down of power voltage must not be less than 90% at the installation site (Care must be taken to avoid the voltage from excessive reducing caused by long length or small section of cable). Pay attention to the phase order when the power is turned on.

4.4 When performing the idle test, start up the hoist in positive and negative rotations to check the reliability of the control buttons, space limiter and rope guide device, etc.. At the moment, be sure the controlling loop is correct, hoist acting is in accordance with button direction and each mechanism is in good order.

4.5 If it is loose or in disorder, the wire rope should be rearranged in right order and tightened.

4.6 The position of the stop blocks fixed on the lever of the space limiter should be checked and adjusted after installation (See Fig.1) as per following method.

Do a no-load test. When the hook rises to the highest position, Rope Guide touches the stop block on the right, pushing the lever of space limiter to cut off the power, then the hook stops rising immediately. At this moment the space between the top of the hook pulley and the bottom surface of the drum should be 50mm ~150mm. Similarly, when the hook falls to the lowest position it should cut off power and stop going down automatically. And at this moment, the rope should still have 2 ~ 3 windings(safe windings) remaining on the drum.

4.7 Start the hoist and traveling mechanism with the rated load to check whether the operation is normal, the slide-down distance is in conformity with the specification and the reducer is leaky.

Table 3 The Places for Lubrication

	Places for Lubrication	Lubricating Method	Material	Interval of Replaceme
1	Hoisting Reducer	Inject at Upper Bolt Holes	L-AN46 GB443 Oil for whole consumption system	3 Months
2	Traversing Reducer	Ditto	V≥30m/min Ditto	3 Months
			V < 30m/min Calcium Base	Half a year
3	Wire Rope & Drum	Surface Coating	Wire Rope Grease	1 Month
4	Thrust Bearings of Hook & Bearings at Pulley	Ditto	Calcium Base Grease NO.3 (NO.1&2)	1 year
5	Bearings of Traversing Wheel	Ditto	Ditto	1 year
6	Bearings of Drum	Ditto	Ditto	1 year
7	Bearings of Hoisting & Traversing Motors	Squeeze In	No.7019-1 compound Lithium Base Grease	1 year

Table 4 Volume of Lubricating (Lt.)

Hoist Capacity (t)	0.5	1	2	3	5	10
Hoisting Reducer	1	1.5	2	3	3	4
Traversing Reducer	0.1				0.2	

5 . PRECAUTION AND TROUBLE-SHOOTING

5.1 PRECAUTION

5.1.1 The electric hoist should be operated by such person who should understand the structure and properties of the hoist and be familiar with the safety and operation regulations.

5.1.2 The space limiter is a security device for preventing the hook from exceeding the limit position when it moves up or down. It should not be used frequently as a path switch.

5.1.3 Never suspend the load in the air long time thus may cause permanent deformation to the machine parts and other accidents.

5.1.4 After work, raise the hook two meters above the ground and cut off the main source.

5.1.5 Never lift the loads in inclination, which may damage the rope guide. Never over-load.

5.1.6 Inspect the electric hoist periodically and lubricate according to Tables 3 & 4.

5.1.7 Don't be in panic, if any self–sliding occurs. In this case, push the button "DOWN" so that to lower the load slowly onto the ground and check the hoist.

5.1.8 Use and Rejection of Wire Rope.

5.1.8.1 Always lubricate the wire rope well to prevent it from fast wear.

5.1.8.2 Pay attention to the fixing condition at the ends of the wire rope in the periodical inspection.

5.1.8.3 Some measures should be taken to prevent it from twist together, crisscross, be curved to folding and paste impurity on when the wire rope is reel off the drum or rope reel.

5.1.8.4 When any condition as follows is found, the wire rope should be rejected according to GB/T5972-1986 "PRACTICAL REGULATIONS OF EXAMINATION AND REJECTING FOR WIRE ROPE IN USE OF HOISTING MACHINERY".

A) The wire rope should be rejected if the broken wires gathered in part.

B) The wire rope should be rejected if the breaking entirety happened to any strand.

C) Reject the wire rope when exterior layer of wire worn by 40% of the diameter

D) Reject the wire rope when the rope reduce 7% of the nominal diameter or more, although the broken wire is not found.

E) Reject the wire rope when the corrosion of deep pits is found or the wire is loosen.

F) Reject the wire rope immediately if any strand with basket-looking distortion is pressed out of rope or the wire rope twist together.

G) Folding is the angle deformation caused by outside influence, this rope should be rejected.

5.2 THE METHODS OF REMOVING TROUBLE

The problem and the trouble-shooting of electrical hoist should be dealt with according to the methods in the Table 5.

Table 5 Trouble-shooting

Problems	Main Causes	Instruction
1.After starting up, the motor does not rotate and the hoisting is fail.	（1）Overload.	Not allowed.
	（2）Voltage is lower than 10% of the rated voltage.	Run again when the power resume normal
	（3）Trouble be fund to electric appliance such as open circuit or bad connection.	Inspect and repair electric appliance and circuits.
	（4）The brake wheel cannot disengage because of the rust	Dismantle the brake wheel and clean the rust or corrosion surface.
	（5）Rub between the conical rotor and stator.	Refer to bellow No.9.
	（6）Conductor is too long or has too small section.	Replace with proper cable.
2.Braking is not reliable and the slide-down distance exceeds the requirement.	（1）The spring pressure is reduced due to the wear of the brake lining or other causes.	According to the methods described in Fig.4&5.adjust and increase the spring pressure.
	（2）Bad connection between brake lining and conical surface of rear cover.	Remove for repairing and grinding.
	（3）Greasy dirt on braking surface.	Remove for cleaning.
	（4）Loosen of brake lining.	Replace or fix it.
	（5）Fatigue of pressing spring.	Replace spring.
	（6）Ineffective shift or stick occurred to the flexible coupling.	Check the connection parts.
3.The temperature rise of the motor is too high.	（1）Overloading .	Not allowed.
	（2）Too busy with operation.	According to JC 25% work rate.
	（3）Insufficient brake clearance which give rises to the heat, cause the brake lining can not disengage completely while rotating.	Readjust clearance.
4.The reducer is over noisy.	Bad lubrication. Gears worn too much and the clearance between teeth are too big. Damage of gears. Damage of bearings.	Disassemble for maintenance.
5.The motor hums when starting up.	Power or motor lack of phase. Bad connection of AC contactor.	a） Check the power and maintain the motor. b） Maintain or replace contactor.
6.Load is lifted half way when it stopped. Failure to start again.	Voltage is too low or fluctuation is too big.	Restart it until the normal voltage is recovered.
7.After starting up the hoist can not stop, or when the hoist reaches the limit position the limiter can't work.	（1）Burning up of points of AC contactor. （2）The space limiter is in failure.	Cut off the power immediately Maintenance or replace the AC contactor. Maintain or replace the limiter.
8.Leakage of Reducer	（1）Bad assembly or damage of sealing ring between the housing and case. （2） Fitting screws are not tightened.	（1）Remove for maintenance or replace sealing. （2）Tighten the screws.
9.Rub between the conical rotor and stator due to insufficient clearance	Products with such trouble are not allowed to dispatch. The trouble is mainly caused by serious wear of the bearing rings on the motor shaft, axial displacement of the rotor or displacement of the stator.	Dismantle and replace the bearing ring. Even clearance between the stator and rotor surfaces should be kept by 0.35mm ~0.55mm (smaller clearance for smaller motor) or send it back to factory for repair.

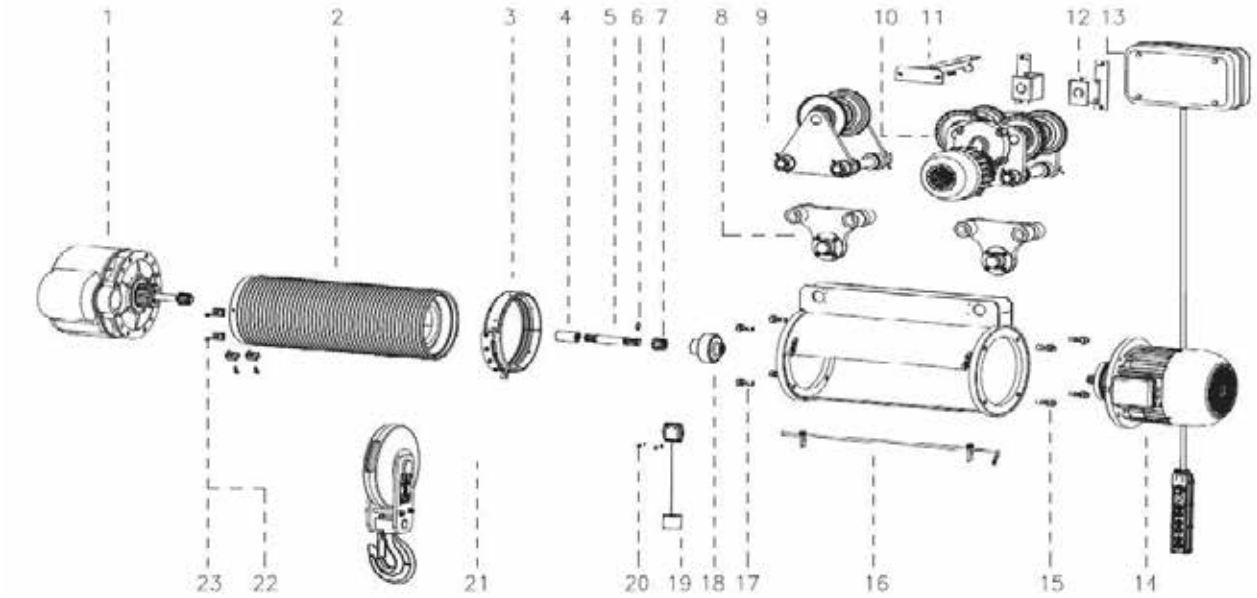


Fig. 2 Constructional Drawing for PWMD3T24M and PWMD5T24M

1. Speed reducer
2. Drum device
3. Rope guide device
4. Coupling
5. Intermediate shaft
6. Ring shield
7. Splined hub
8. Beam-balanced device
9. Two-wheel trolley device
10. Electric trolley
11. Soft cable introducer
12. Switch connector
13. Control box
14. Lifting motor
15. Coupling screw
16. Rod limiter
17. Coupling screw
18. Elastic coupling
19. Heavy hammer limiter
20. Coupling screw
21. Hook device
22. Tightened pad
23. Coupling screw

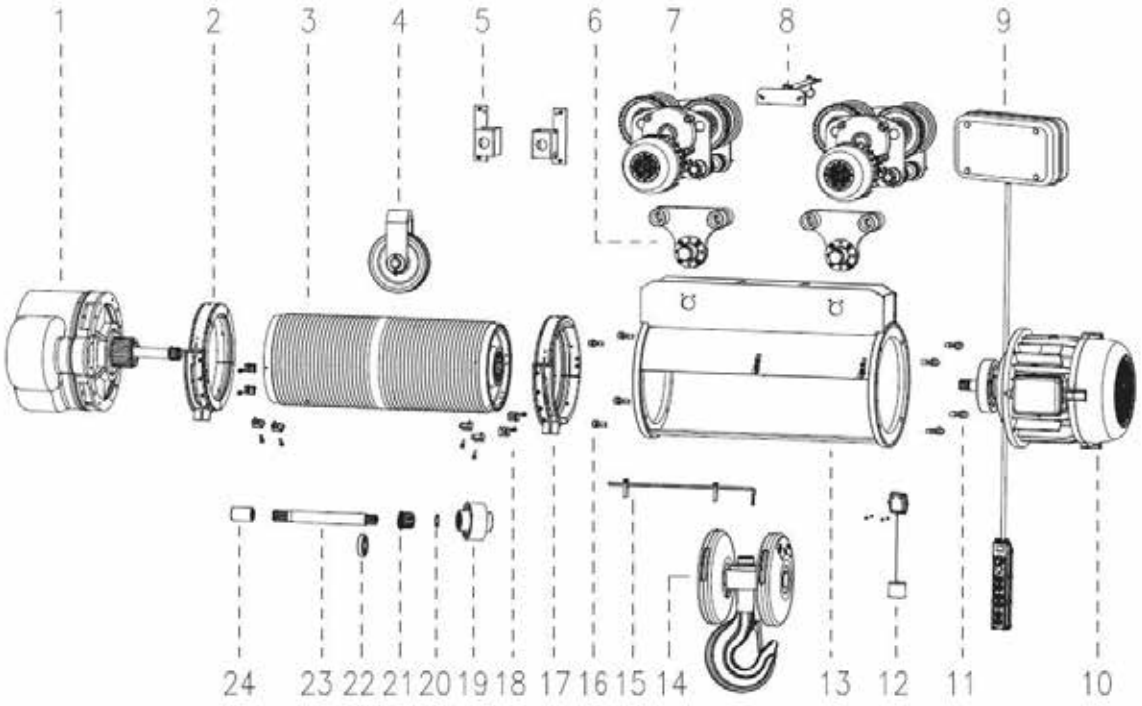


Fig. 3 Constructional Drawing for PWMD10T24M

1. Speed reducer
2. Right rotation rope guide
3. Drum device
4. Balance wheel device
5. Switch connector
6. Beam-balanced device
7. Electric hoist
8. Soft cable introducer
9. Control box
10. Lifting motor
11. Coupling screw
12. Heavy hammer limiter
13. Drum cover
14. Hook device
15. Rod limiter
16. Coupling screw
17. Left rotation rope guide
18. Tightened pad
19. Elastic coupling
20. Bearing shield
21. Splined hub
22. Bearing
23. Intermediate shaft
24. Solid coupling

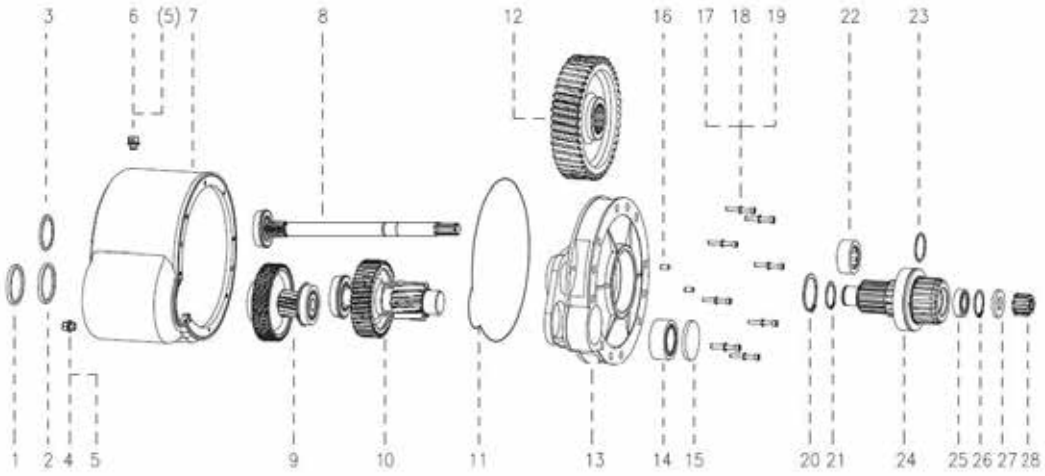


Fig. 4 Constructional Drawing for Speed Reducer

1. Bearing cover
2. Bearing cover
3. Bearing cover
4. Oil plug
5. Oil plug
6. Vent plug
7. Speed reducer cover
8. The first shaft assembly
9. The second shaft assembly
10. The third shaft assembly
11. Sealing ring
12. Gear teeth
13. Gear box body
14. Bearing
15. Bearing cover
16. Round pin
17. Washer
18. Oil plug
19. Coupling screw
20. Hole ring
21. Ring shield
22. Bearing
23. Snap ring
24. Hollow shaft
25. Bearing
26. Hole ring
27. Framework oil seal
28. Splined hub.

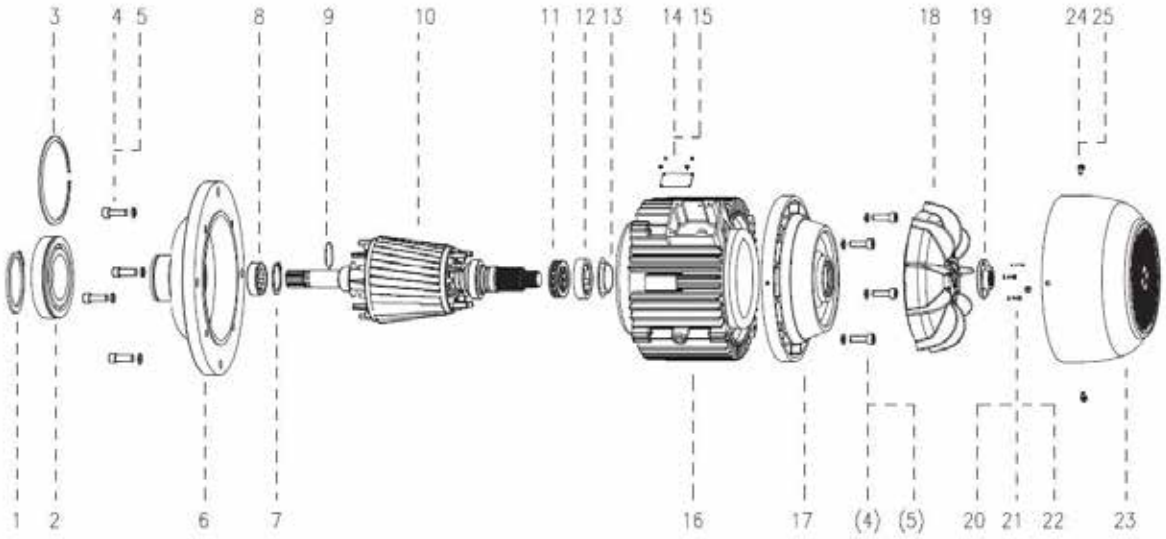


Fig. 5 Constructional Drawing for Lifting motor

1. Ring shield
2. Bearing
3. Snap ring
4. Coupling screw
5. Spring washer
6. Front end cap
7. Hole ring
8. Bearing
9. Round wire snap ring
10. Rotor assembly
11. Surface bearing
12. Bearing
13. Shield cap
14. Rivet
15. Nameplate
16. Stator assembly
17. Back end cover
18. Fan brake wheel
19. Lock nut
20. Screw
21. Spring washer
22. Washer
23. Fan cover
24. Screw
25. Spring washerpring washer

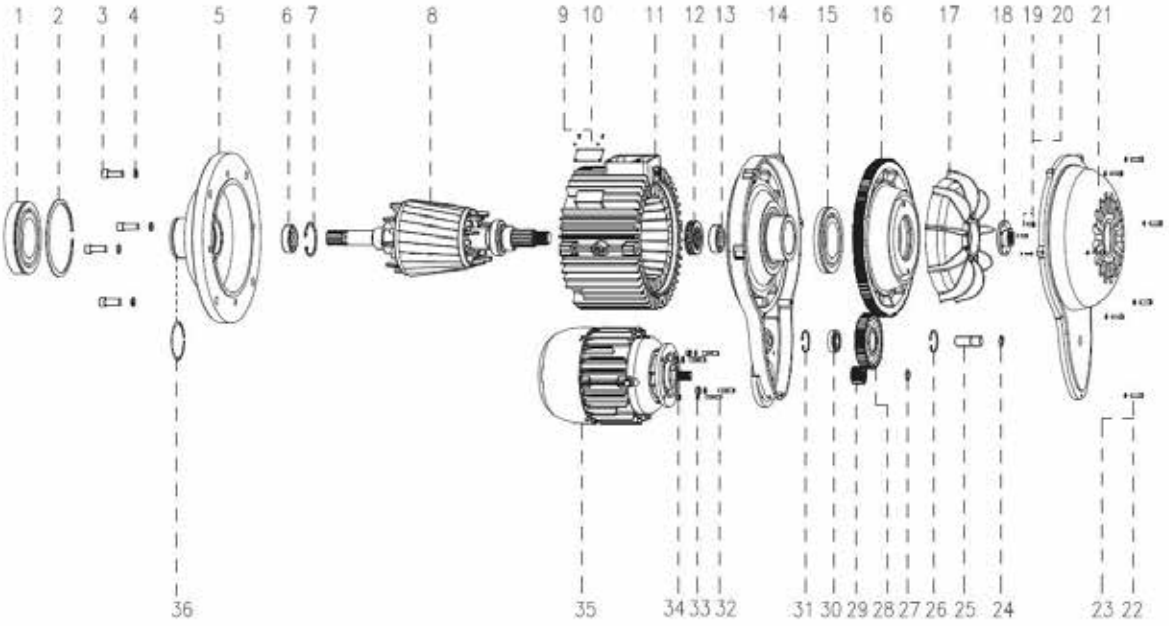


Fig. 6 Constructional Drawing for Double speed motor

1. Bearing
2. Snap ring
3. Screw
4. Washer
5. Front end cover
6. Bearing
7. Hole ring
8. Rotor assembly
9. Rivet
10. Nameplate
11. Stator assembly
12. Surface bearing
13. Bearing
14. Double speed body
15. Bearing
16. Double speed big gear wheel
17. Fan brake wheel
18. Lock nut
19. Screw
20. Spring washer
21. Double speed cover
22. Screw
23. Spring washer
24. Ring shield
25. Shaft
26. Hole ring
27. Ring shield
28. Double speed intermediate gear wheel
29. Small gear wheel
30. Bearing
31. Ring shield
32. Double end stud
33. Washer
34. Nut
35. Double speed small motor

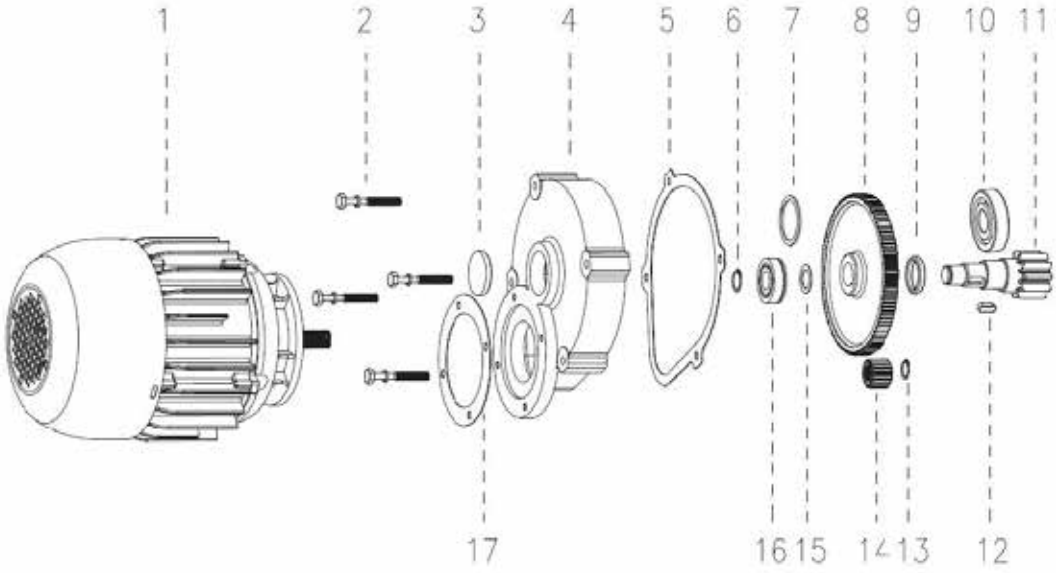


Fig. 7 Constructional Drawing for Electric trolley driving device

1.Travelling motor
2. Coupling screw
3. Bearing cap
4. Travelling speed reducer body
5. Sealing gasket
6. Ring shield
7. Snap ring
8. Big driving gear
9. Space ring
10. Bearing
11. Gear shaft
12. Flat key
13. Ring shield
14. Travelling motor small gear
15. Washer
16. Bearing
17. Washer

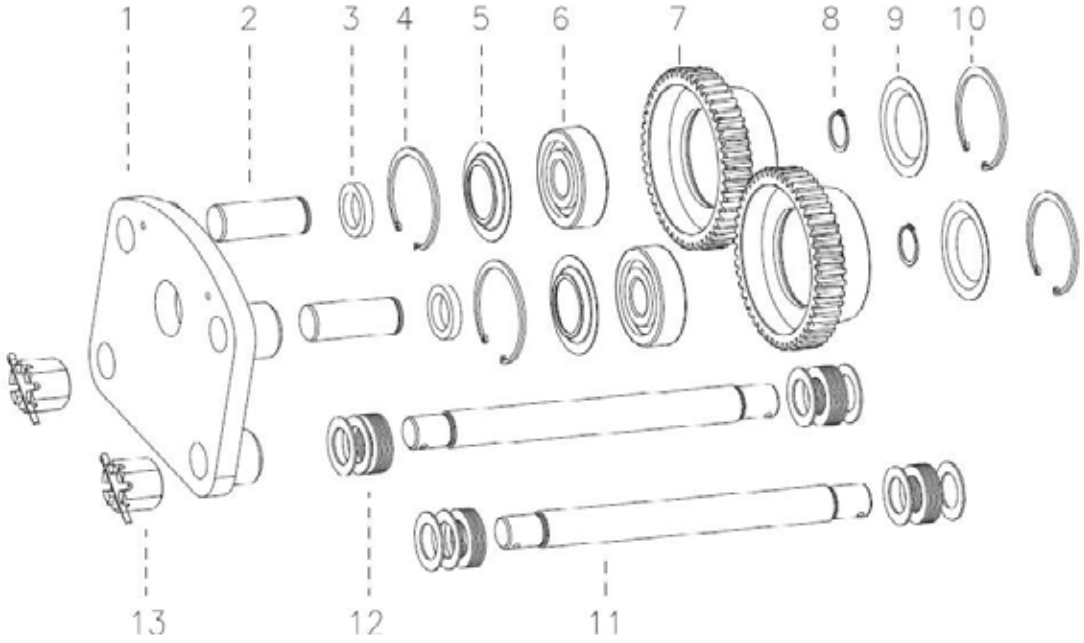


Fig. 8 Constructional Drawing for Electric trolley

1. Wall board
2. Wheel axle
3. Space ring
4. Ring shield
5. Shield cap
6. Bearing
7. Driving wheel
8. Ring shield
9. Shield cap
10. Hole ring
11. Trolley bolt
12. Washer of trolley bolt
13. Trolley bolt groove nut

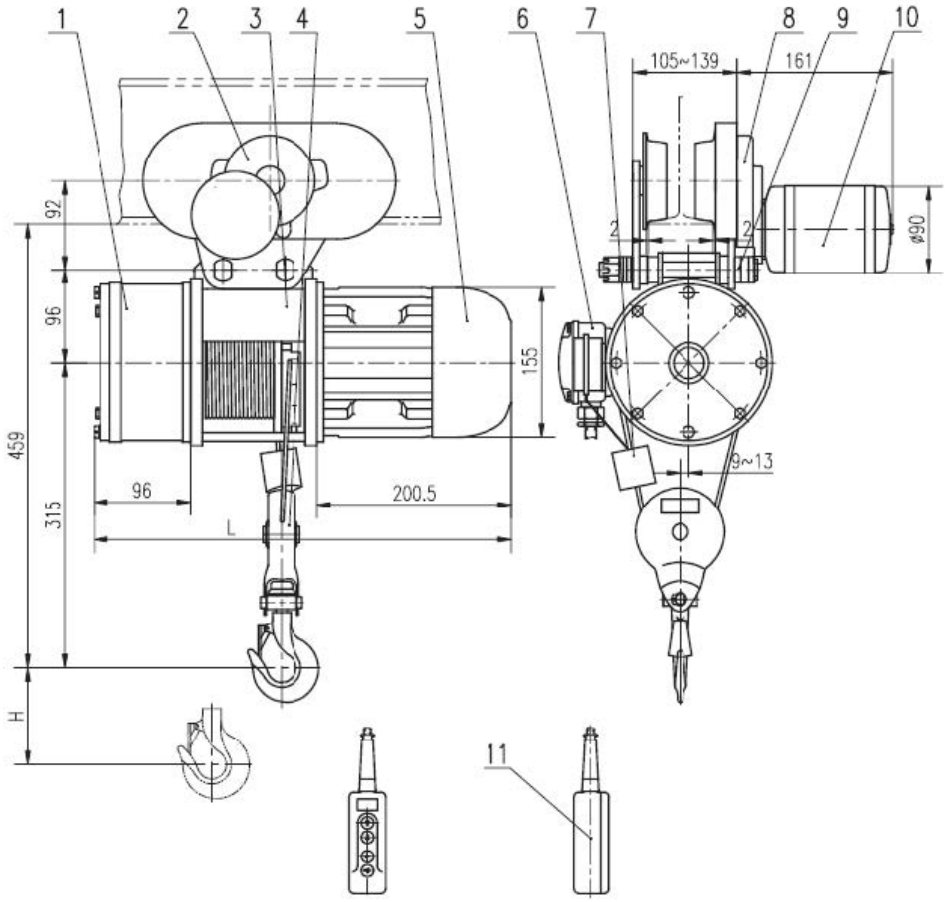


Fig. 9 Outline Structure Drawing for PWMD 0.25T Electric hoist

1. Hoisting speed reducer
2. Driven wheel system
3. Drum equipment
4. Hook assembly
5. Hoisting motor
6. Electric wheel system
7. Heavy hammer limiter
8. Traveling reducer
9. Wheel system shim
10. Traveling motor
11. Bottom switch

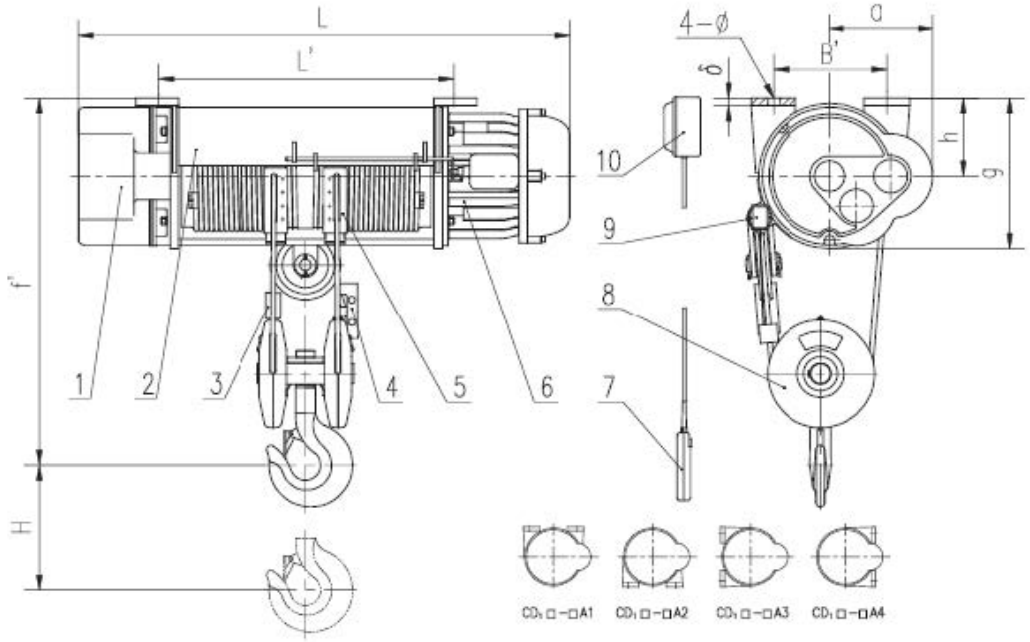


Fig. 10 Outline Structure Drawing for PWMDF3T24M – PWMDF5T24M Fixed hoist

1. Hoisting speed reducer
2. Drum equipment
3. Rope guide device
4. Control button
5. Hoisting motor
6. Hook assembly
7. Hoisting weight limiter
8. Heavy hammer limiter (for 5T use)
9. Electric wheel system

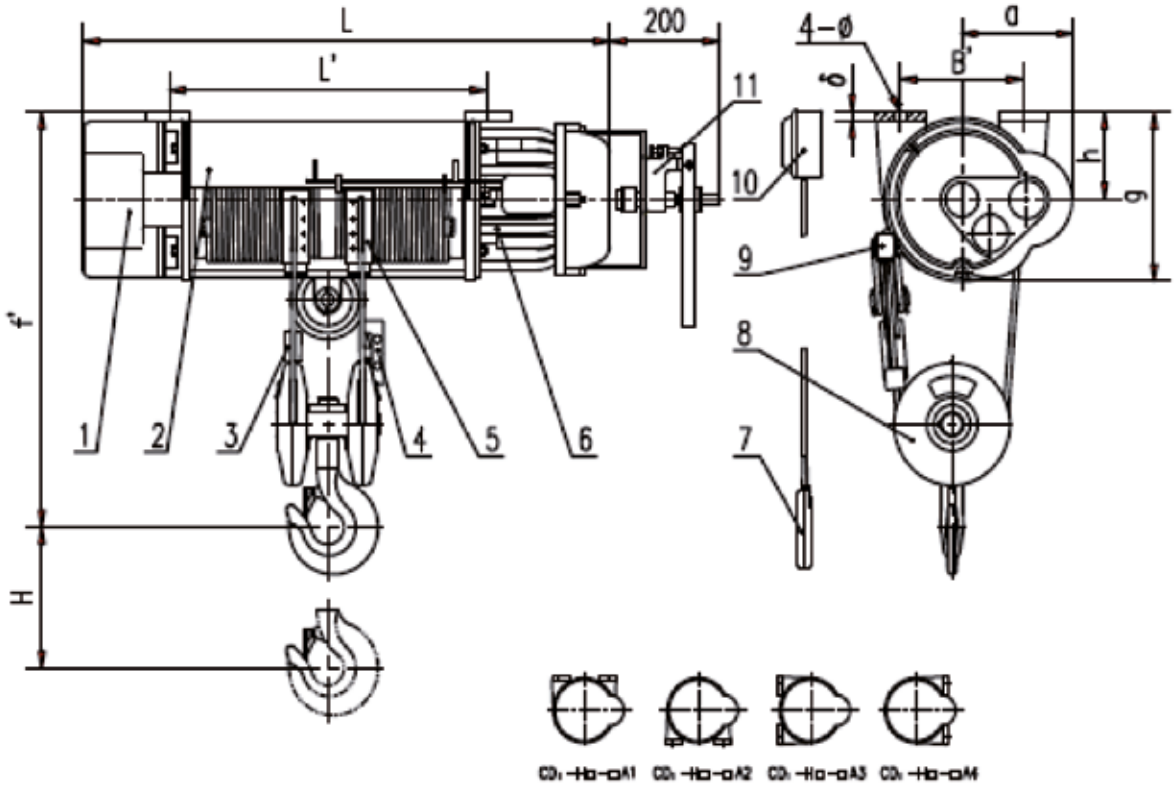


Fig. 10 Outline Structure Drawing for PWMDF3T24M – PWMDF5T24M Fixed hoist

1. Hoisting speed reducer
2. Drum equipment
3. Rope guide device
4. Control button
5. Hoisting motor
6. Hook assembly
7. Hoisting weight limiter
8. Heavy hammer limiter (for 5T use)
9. Electric wheel system

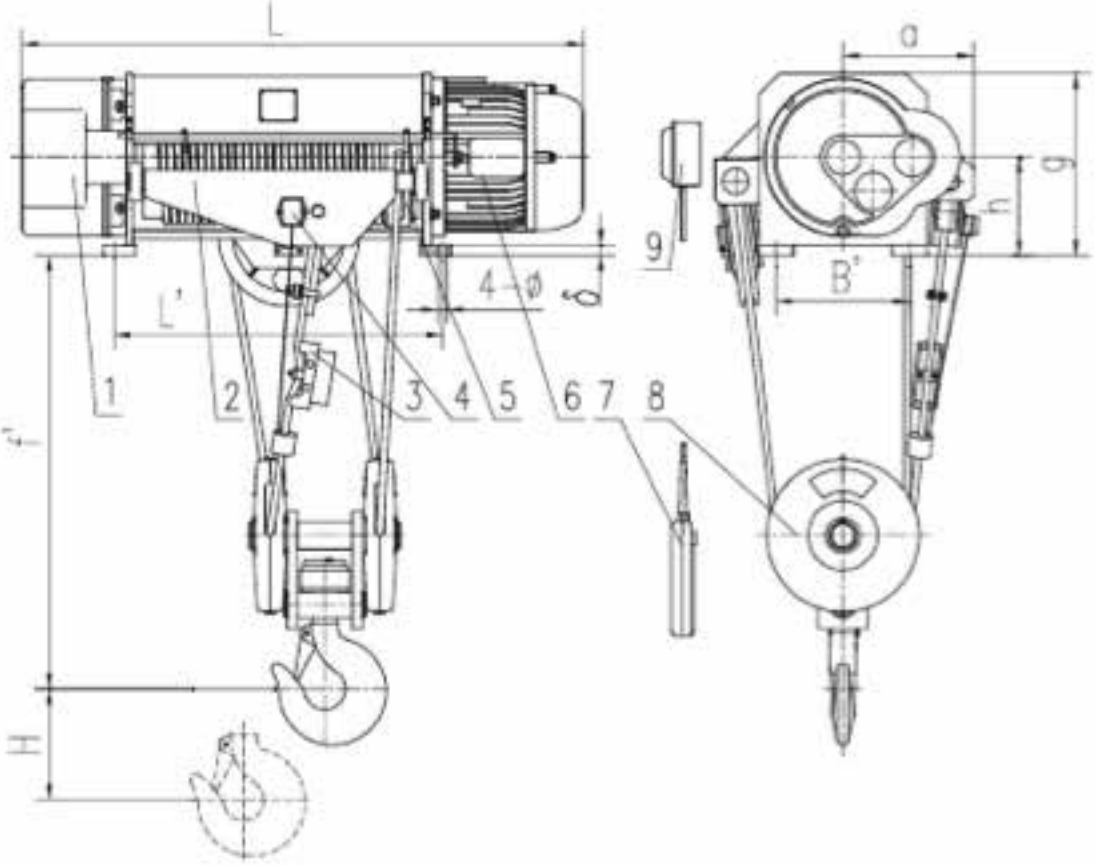


Fig. 12 Outline Structure Drawing for PWMDF16T24M and PWMDF20T24M Fixed hoist

1. Hoisting speed reducer
2. Drum equipment
3. Hoisting weight limiter
4. Heavy hammer limiter
5. Rope guide device
6. Hoisting motor
7. Control button
8. Hook assembly
9. Electric wheel system

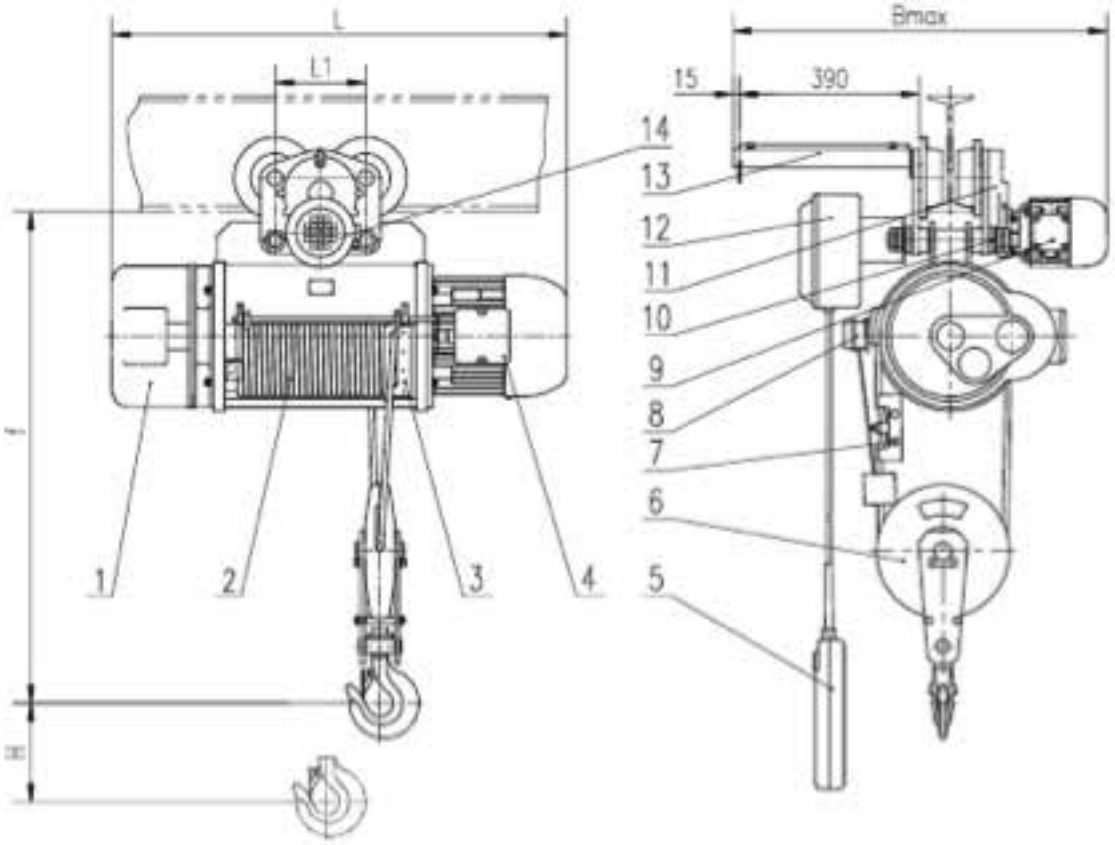


Fig. 13 Outline Structure Drawing for PWMD3T24M and PWMD5T24M Electric Hoist

1. Hoisting speed reducer
2. Drum equipment;
3. Rope guide device
4. Hoisting motor
5. Control button
6. Hook assembly
7. Hoisting weight limiter
8. Heavy hammer limiter (for 5T use)
9. Traveling motor
10. Adjustingshim
11. Traveling reducer
12. Electric system
13. Flexible cable introducer
14. Electric wheel system

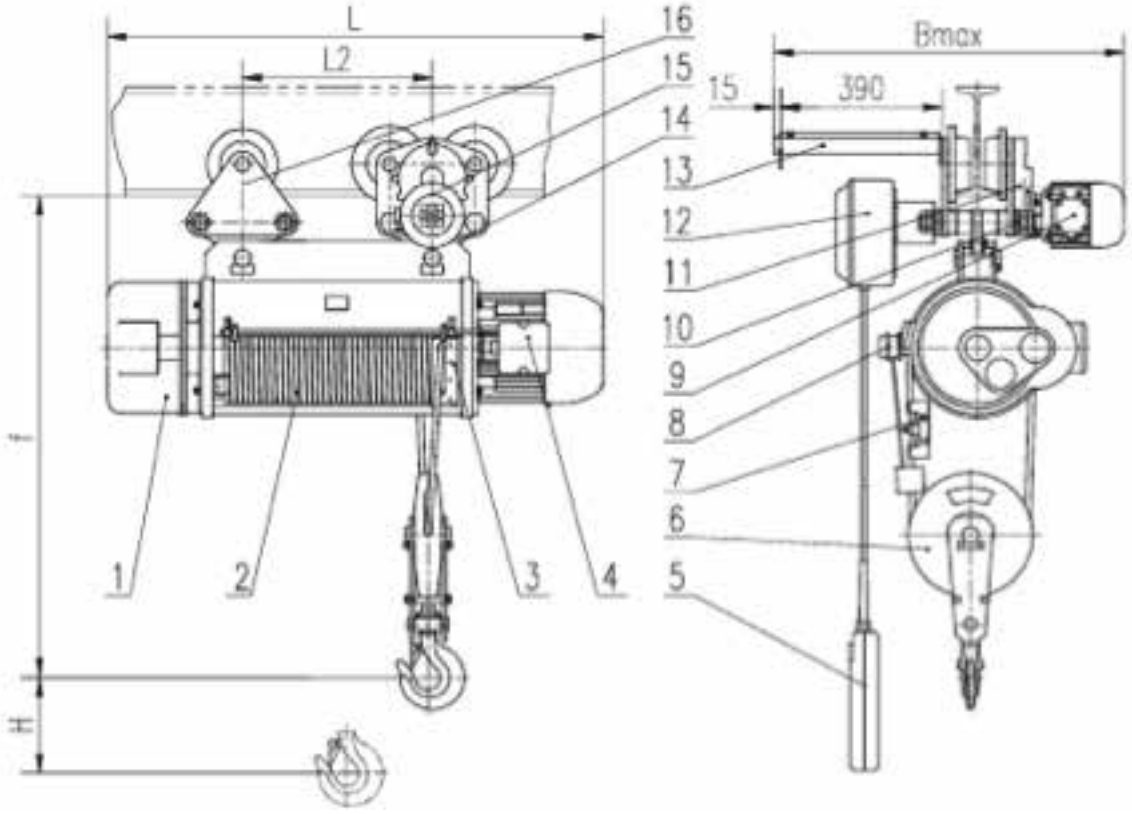


Fig. 14 Outline Structure Drawing for PWMD3T24M and PWMD5T24M Electric hoist

1. Hoisting speed reducer
2. Drum equipment
3. Rope guide device
4. Hoisting motor
5. Control button
6. Hook assembly
7. Hoisting weight limiter
8. Heavy hammer limiter(for 5T use)
9. Traveling motor
10. Adjusting shim
11. Traveling reducer
12. Electric system
13. Flexible cable introducer
14. Beam-balanced device
15. Electric wheel system
16. Driven wheel system

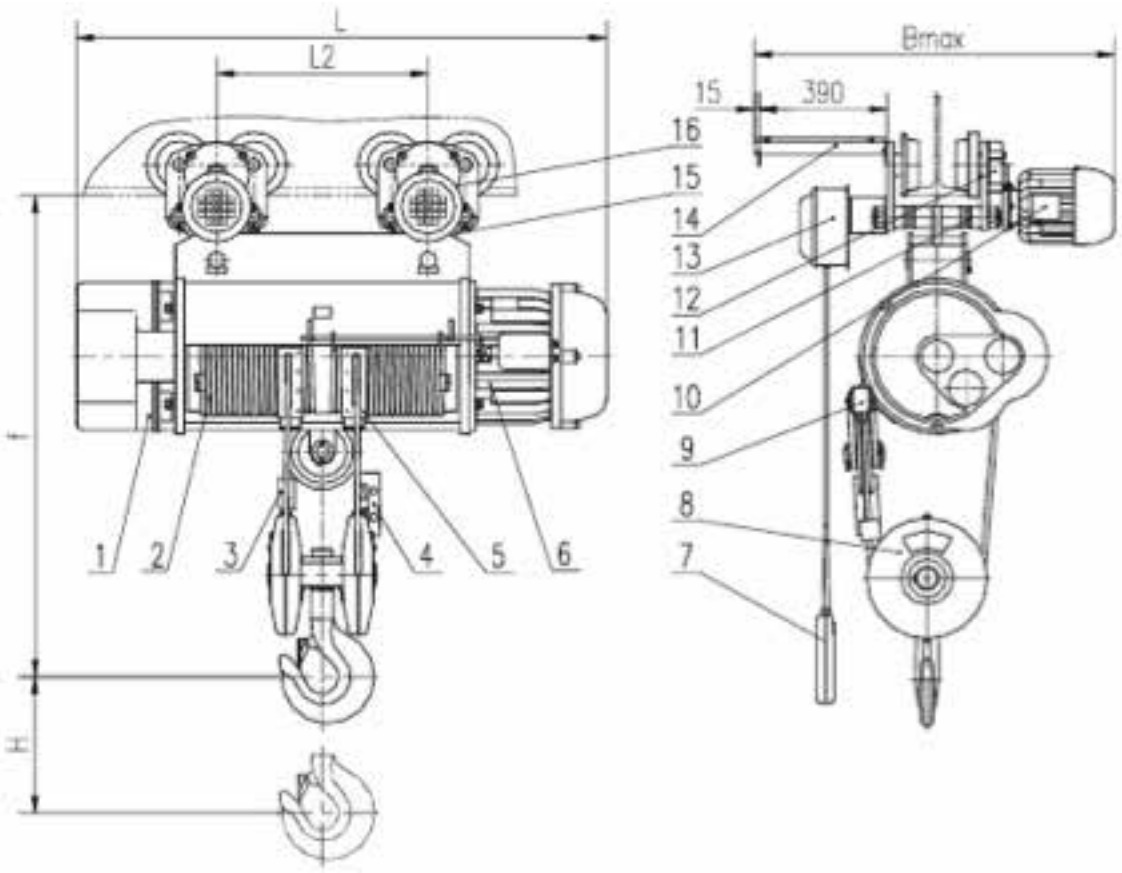


Fig. 15 Outline Structure Drawing for PWMD10T24M Electric hoist

1. Hoisting speed reducer
2. Drum equipment;
3. Balance weight for hoisting weight limiter
4. Heavy hammer limiter
5. Rope guide device
6. Hoisting motor
7. Control button
8. Hook assembly
9. Heavy hammer limiter
10. Traveling motor
11. Adjusting shim
12. Traveling reducer
13. Electric apparatus
14. Flexible cable introducer
15. Beam-balanced device
16. Electric bottom switch

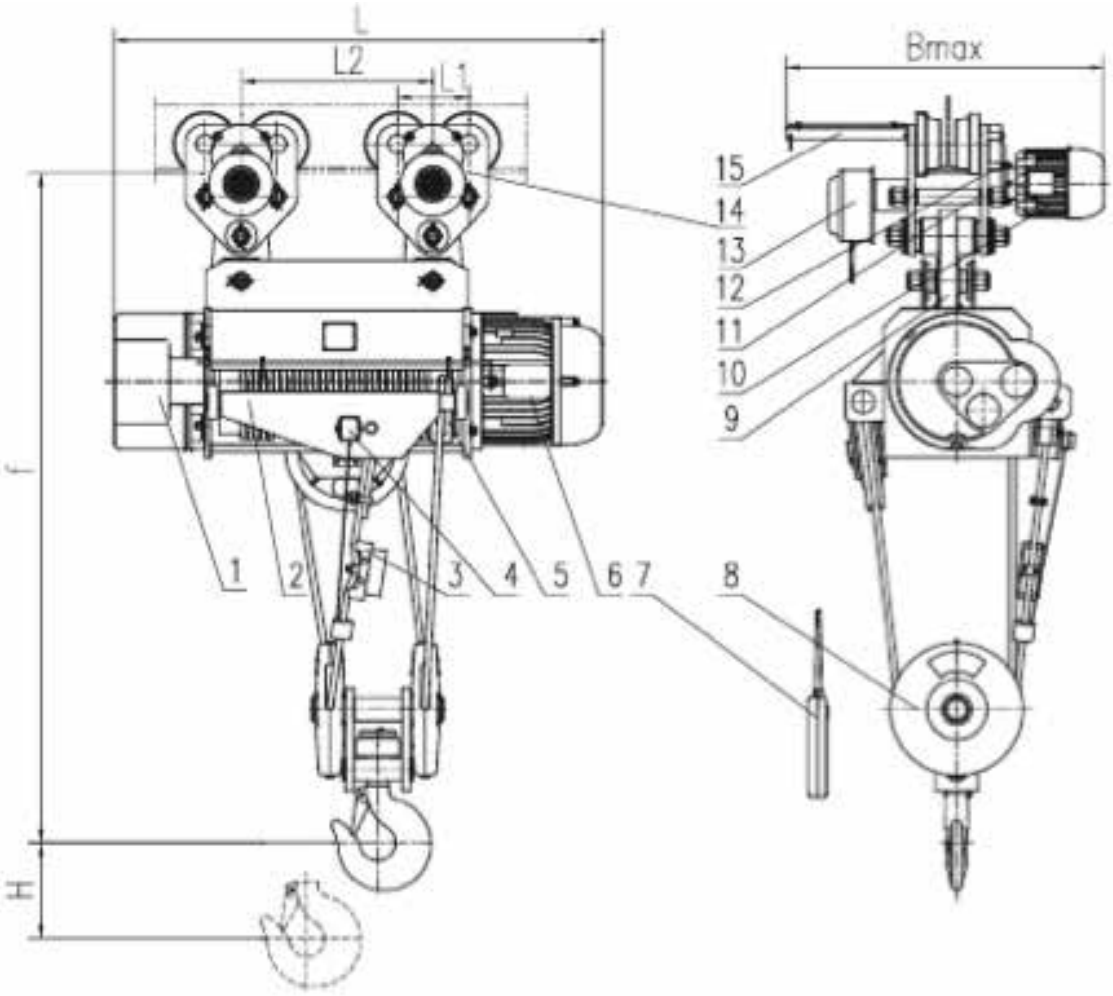


Fig. 16 Outline Structure Drawing for PWMD16T24M and PWMD20T24M Electric Hoist

1. Hoisting speed reducer
2. Drum equipment
3. Hoisting weight limiter
4. Heavy hammer limiter
5. Rope guide device
6. Hoistingmotor
7. Control button
8. Hook assembly
9. Beam-balanced device
10. Traveling motor
11. Adjusting shim
12. Traveling reducer
13. Electric system
14. Electric wheel system
15. Flexible cable introducer

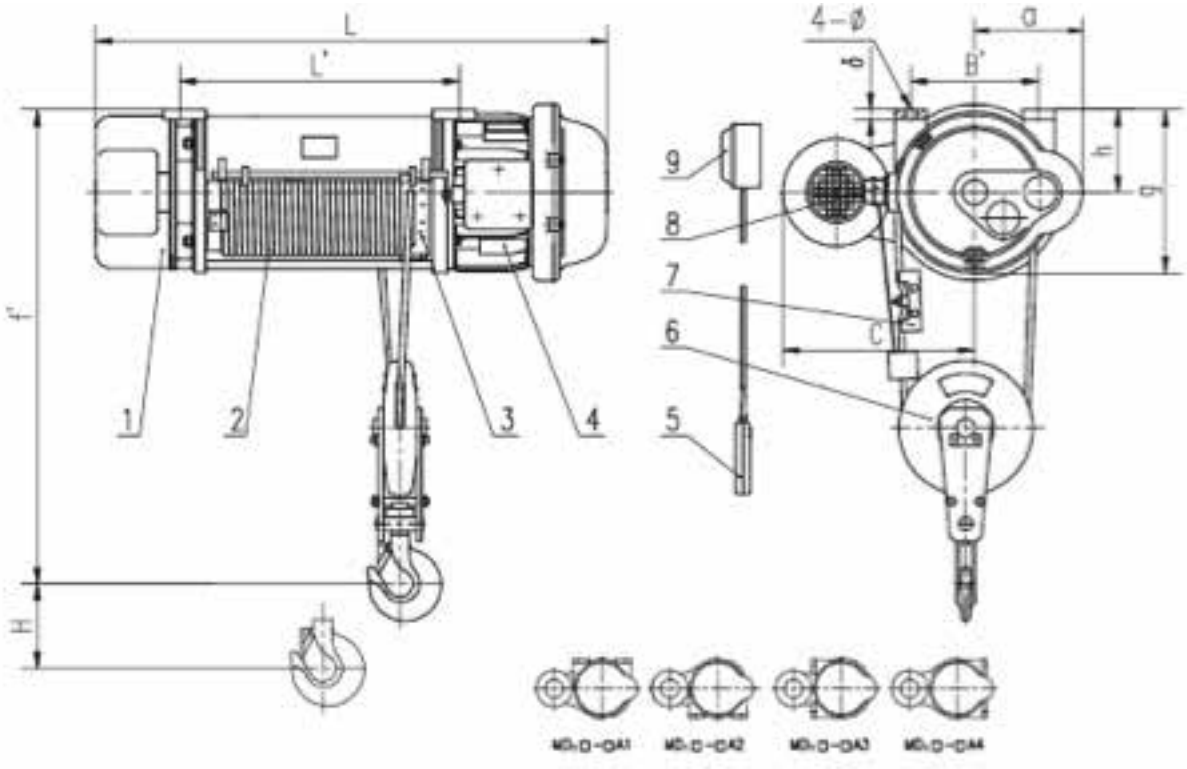


Fig. 17 Outline Structure Drawing for PWMDF3T24M and PWMDF5T24M Fixed Hoist

1. Hoisting speed reducer
2. Drum equipment
3. Rope guide device
4. Hoisting two-speed motor set
5. Control button
6. Hook assembly
7. Hoisting weight limiter
8. Heavy hammer meter limiter (for 5T use)
9. Electric wheel device system

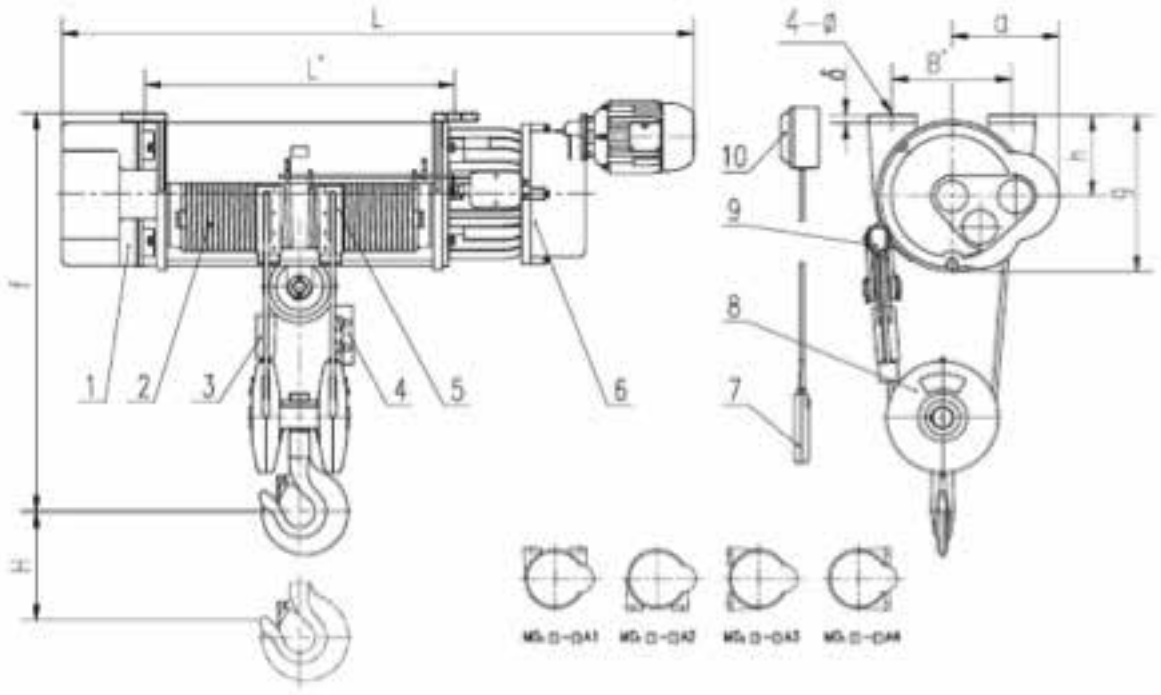


Fig. 18 Outline Structure Drawing for PWMDF10T24M Fixed Hoist

1. Hoisting speed reducer
2. Drum equipment
3. Balance weight for hoisting weight limiter
4. Hoisting weight limiter
5. Rope guide device
6. Hoisting two-speed motor set
7. Control button
8. Hook assembly
9. Heavy hammer limiter
10. Electric system

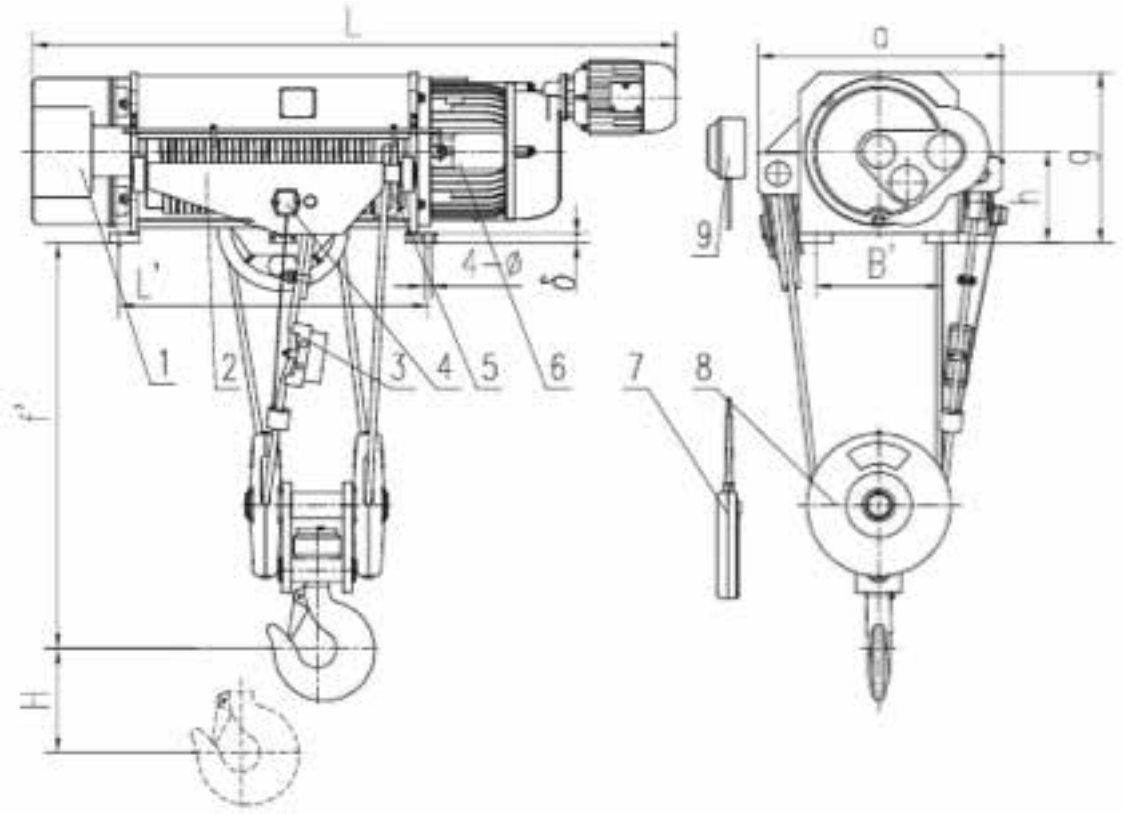


Fig. 19 Outline Structure Drawing for PWMDF16T24M and PWMDF20T24M Fixed Hoist

1. Hoisting speed reducer
2. Drum equipment
3. Hoisting weight limiter
4. Heavy hammer limiter
5. Rope guide device
6. Hoisting two-speed motor set
7. Control button
8. Hook assembly
9. Electric wheel device system

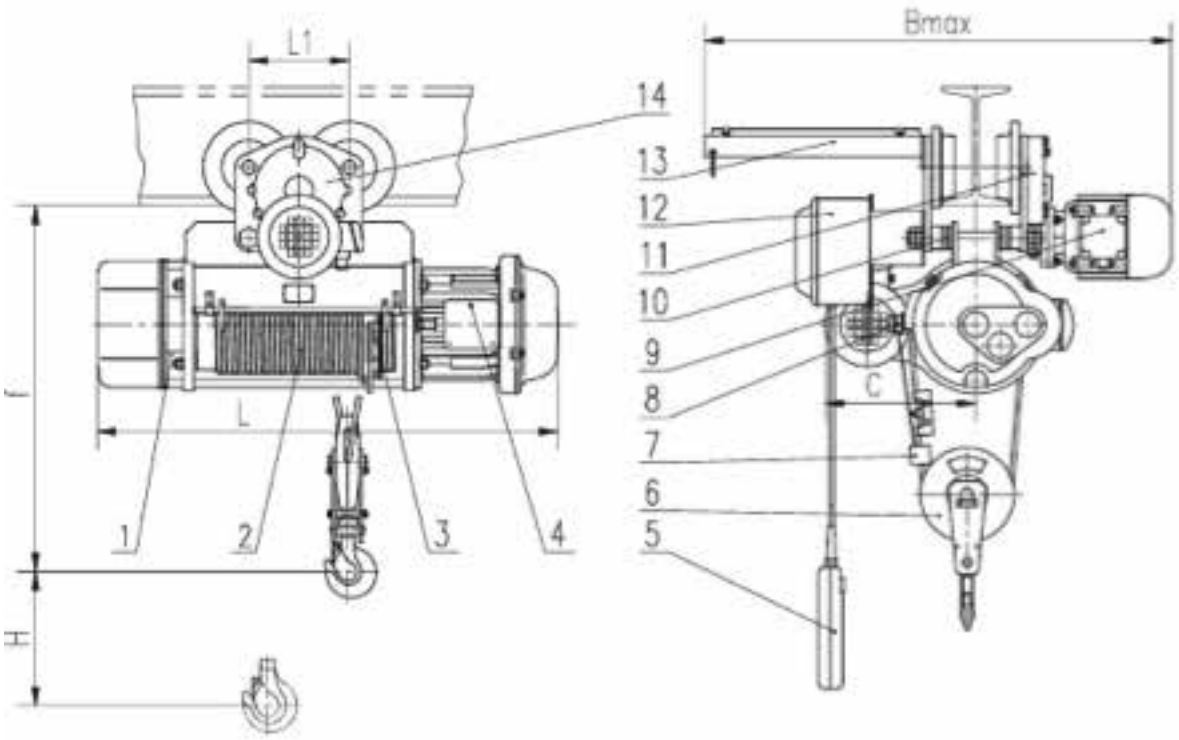


Fig. 20 Outline Structure Drawing for PWMD0.5T12M Electric Hoist

1. Hoisting speed reducer
2. Drum equipment
3. Rope guide device
4. Hoisting two-speed motor set
5. Control button
6. Hook assembly
7. Hoisting weight limiter
8. Heavy hammer limiter (for 5T use)
9. Traveling motor
10. Adjusting shim
11. Traveling reducer
12. Electric system
13. Flexible cable introducer
14. Electric wheel system

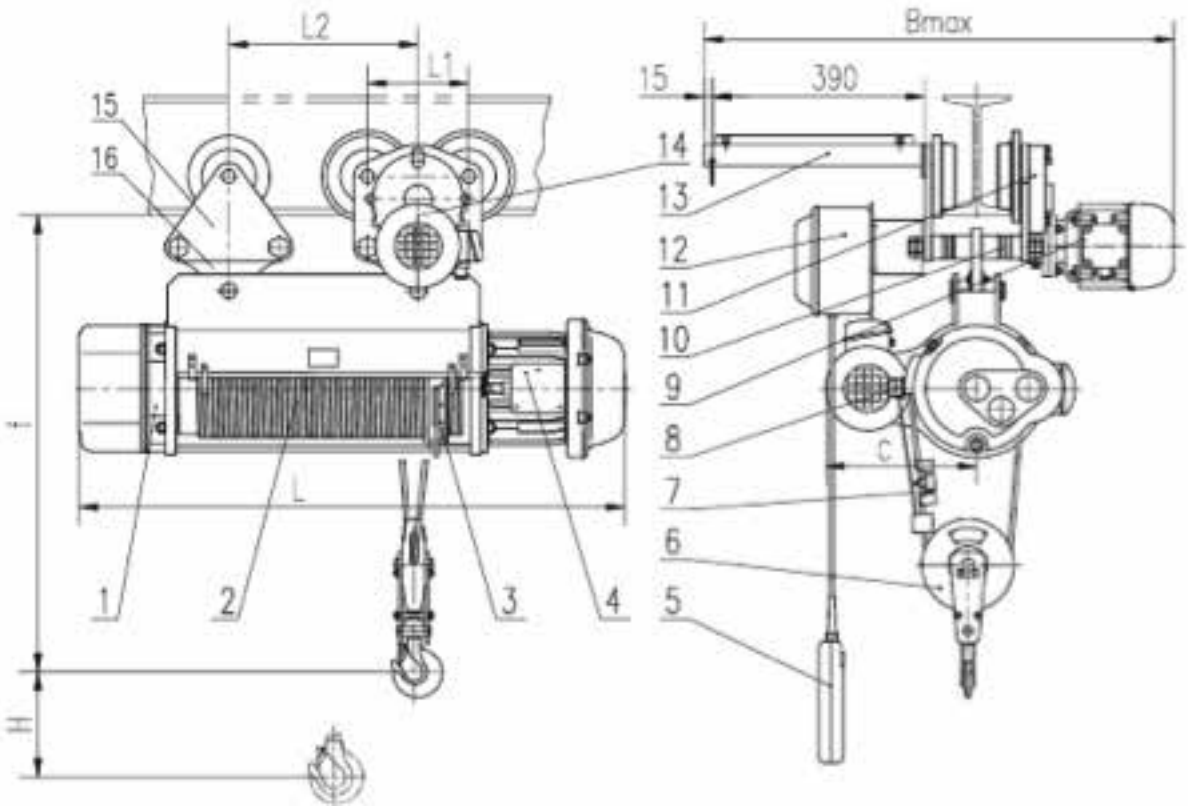


Fig. 21 Outline Structure Drawing for PWMD3T24M and PWMD5T24M Electric Hoist

1. Hoisting speed reducer
2. Drum equipment
3. Rope guide device
4. Hoisting two-speed motor set
5. Control button
6. Hook assembly
7. Hoisting weight limiter
8. Heavy hammer limiter (for 5T use)
9. Traveling motor
10. Adjusting shim
11. Traveling reducer
12. Electric system
13. Flexible cable introducer
14. Electric wheel device
15. Driven wheel device
16. Beam-balanced device

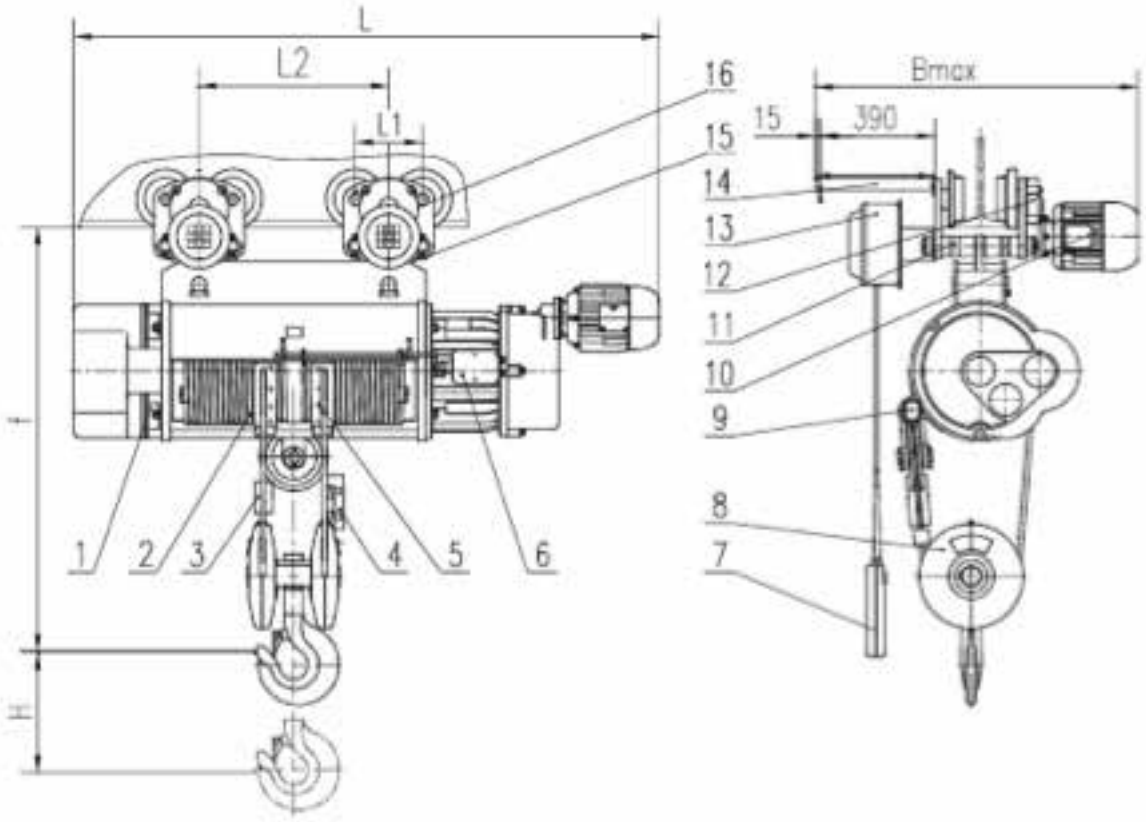


Fig. 22 Outline Structure Drawing for PWMD10T24M Electric Hoist

1. Hoisting speed reducer
2. Drum equipment
3. Balance weight for heavy hammer limiter
4. Heavy hammer limiter
5. Rope guide device
6. Hoisting two-speed motor set
7. Control button
8. Hook assembly
9. Heavy hammer limiter
10. Traveling motor
11. Adjusting shim
12. Traveling reducer
13. Electric system
14. Flexible cable introducer
15. Beam-balanced device
16. Electric wheel system

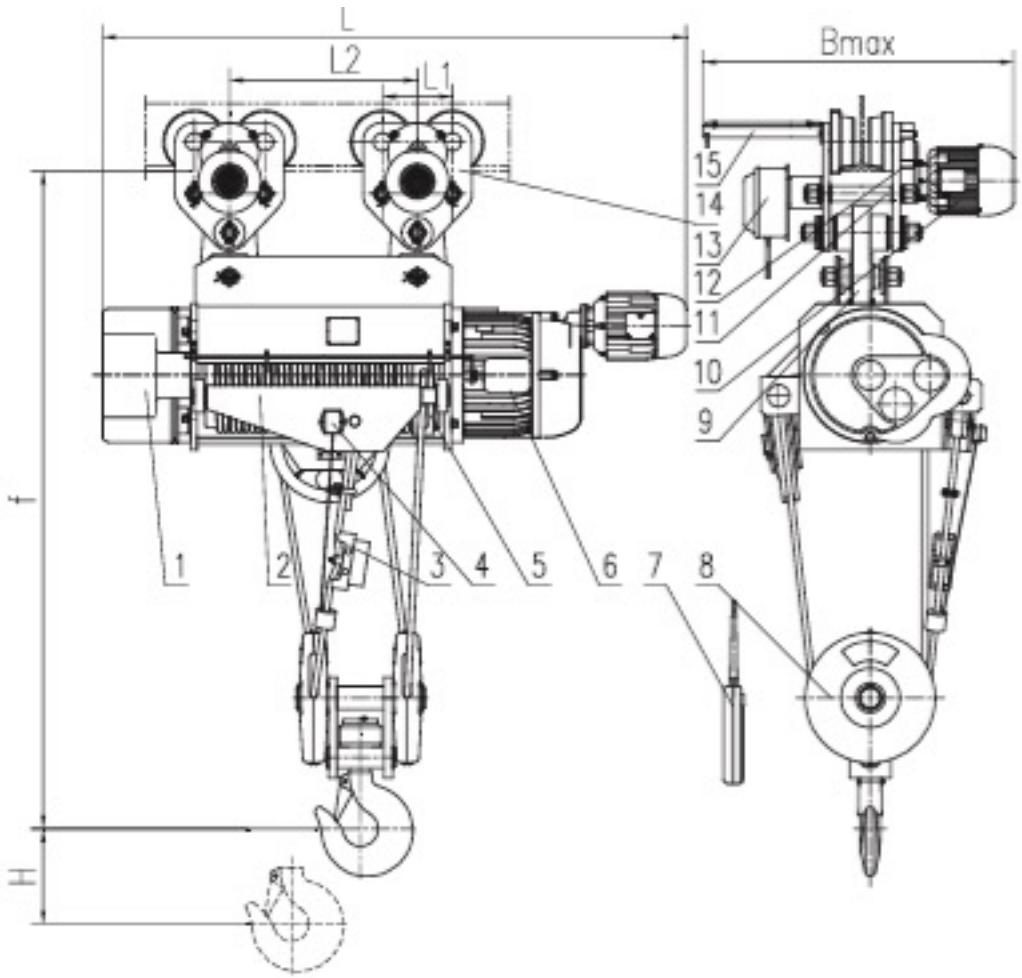


Fig. 23 Outline Structure Drawingfor PWMD16T24M and PWMD20T24M Electric Hoist

1. Hoisting speed reducer
2. Drum equipment
3. Heavy hammer limiter
4. Heavy hammer limiter
5. Rope guide device
6. Hoisting two-speed motor set
7. Control button
8. Hook assembly
9. Beam-balanced device
10. Traveling motor
11. Adjusting shim
12. Traveling reducer
13. Electric system
14. Electric wheel system
15. Flexible cable introducer

7. ANNEX

ANNEX 1

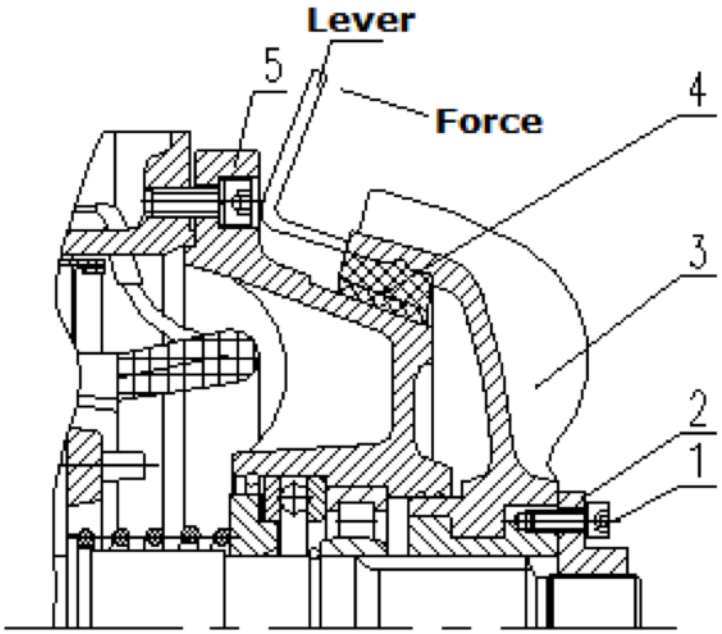
Adjustment of tapered motor brake

Please confirm power off and no-load on the hook before adjusting the motor brake, otherwise it can not adjust.

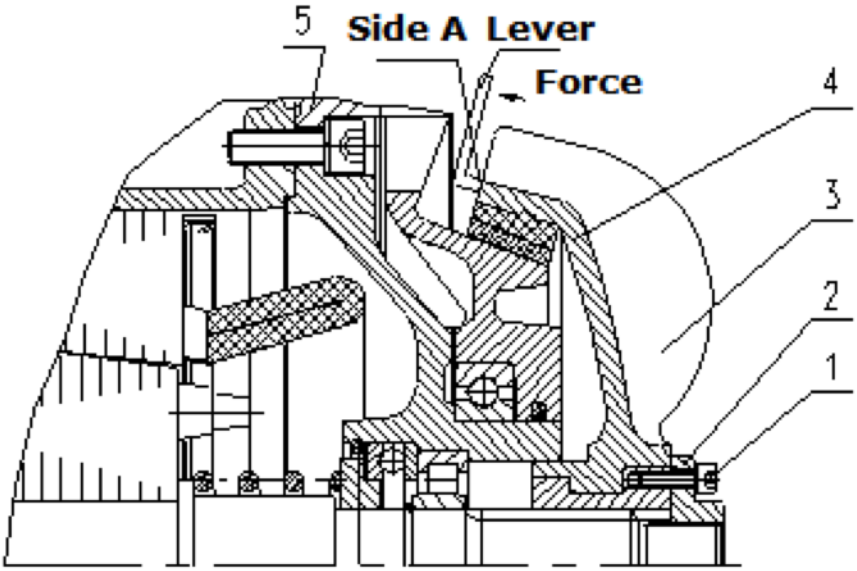
(I). The adjustment of fan brake wheel on tapered motor brake

The brake ring may be stuck under the effect of temperature or humidity, and the motor blockage will occur if power on at this time. Troubleshooting: remove the fan cover of motor, insert the screwdriver or other crowbar to the connection of fan blade brake wheel and end cover, pry the fan blade brake wheel along the axial to separate it, then operation after re-mount the motor fan cover.

(II). The movement adjustment of tapered motor brake spindle (brake clearance)



PWMD 0.5 - 5T Brake



S/n	Name
1	Bolt
2	Adjustable lock nut
3	Fan brake wheel
4	Brake ring
5	Motor back end cover

PWMD 0.5 ton - 5 ton brake

PWMD 0.5T - 5T and PWMF 0.5T -5T brake adjustment

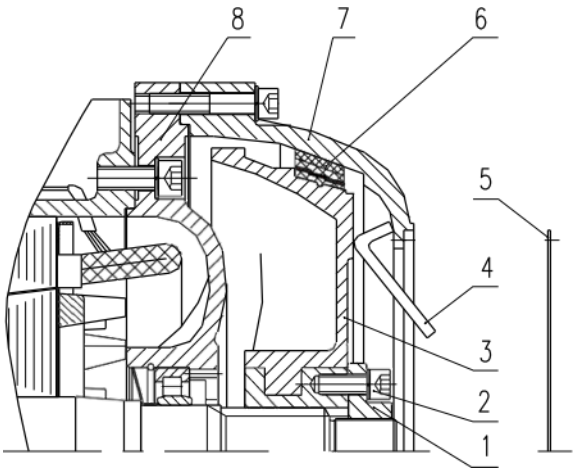
1. Dismount the motor fan cover, check the axial movement of fan blade brake wheel using lever, the normal movement is around 2 mm.

2. If the brake glide amount is large after using a stage, the adjustment method is to loose screw 1, rotate counterclockwise the adjustable locknut 2 about 1 - 2 scales, then tighten the screw 1.

PWMD 10T, 16T and 20T brake adjustment

1. Dismount the motor air window 5, check the axial movement of fan blade brake wheel using lever 4, the normal movement is around 2 mm.

2. If the brake glide amount is large after using a stage, the adjustment method is to loose screw.

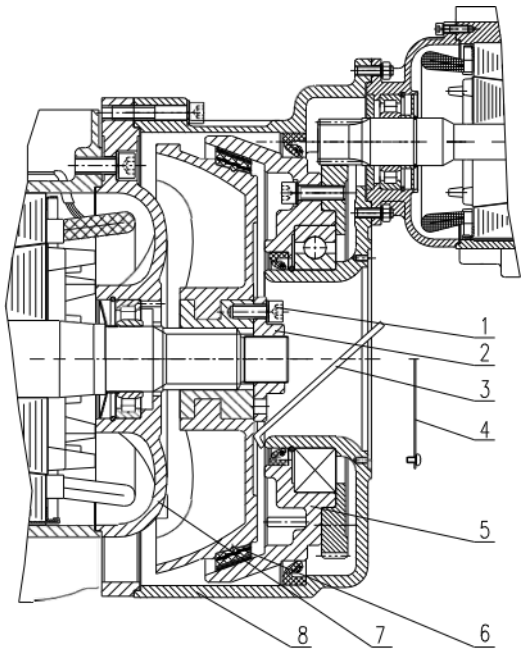


S/n	Name
1	Adjustable locknut
2	Screw
3	Fan brake wheel
4	Lever
5	Air window
6	Brake ring
7	Fan cover
8	Motor rear end cover

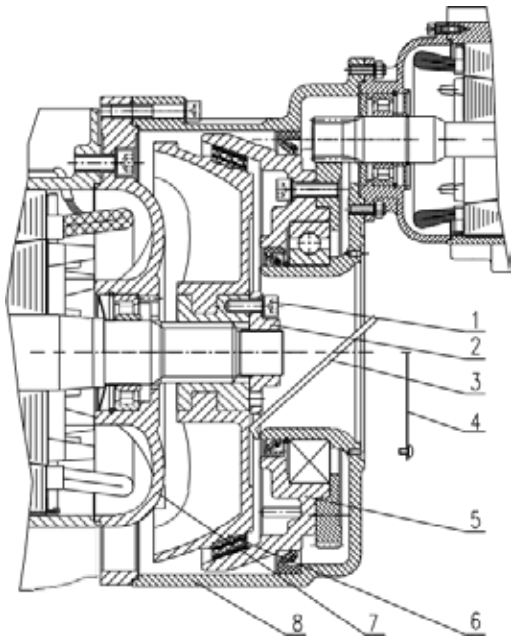
PWMD 10T, 16T and 20T brake adjustment:

1. Dismount the motor air window 4, check the axial movement of fan blade brake wheel using lever 3, the normal movement is around 2 mm.

2. If the brake glide amount is large after using a stage, the adjustment method is to loose screw 1, rotate counter clockwise the adjustable locknut 2 about 1 - 2 scales, then tighten the screw 2.



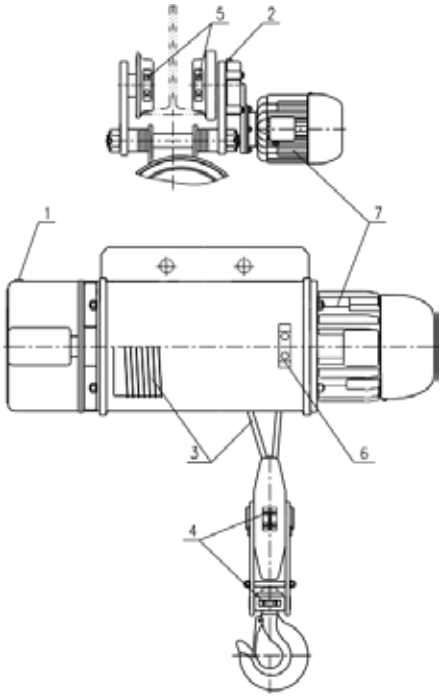
S/n	Name
1	Screw
2	Adjustable locknut
3	Lever
4	Air window
5	Fan brake wheel
6	Brake ring
7	Motor rear end cover
8	Fan cover



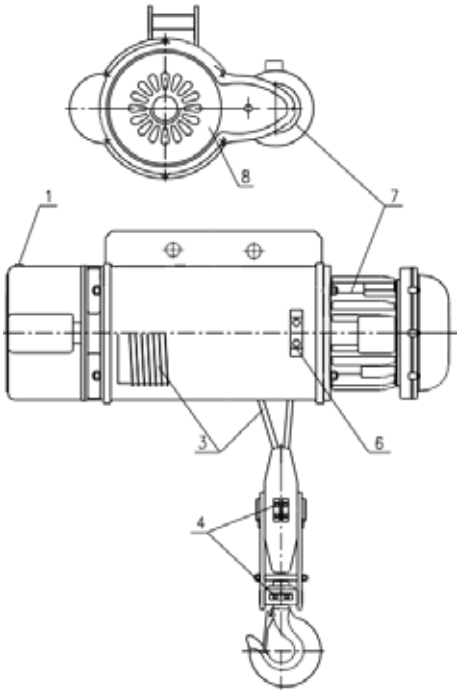
PWMD 10T, 16T and 20T brake adjustments

ANNEX 2

Lubrication Schematic Diagram



PWMD single speed electric hoist

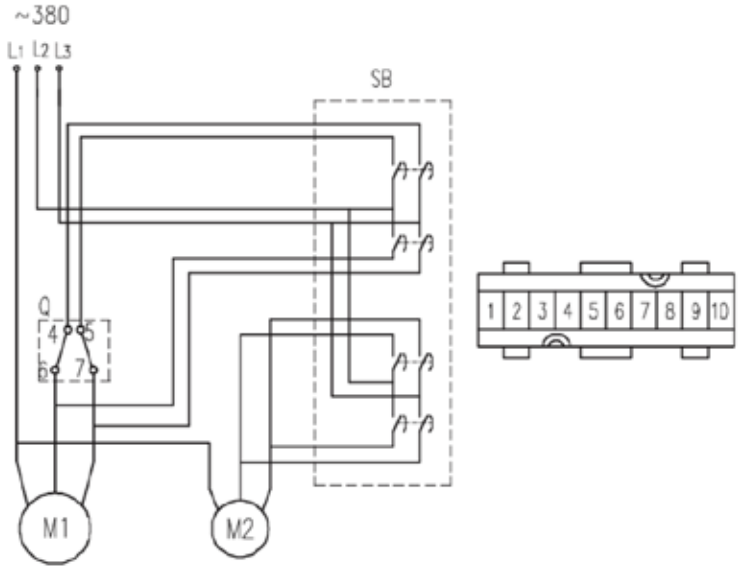


PWMD double-speed electric hoist

S/n	Parts name	Lubrication method	Name of lubricating grease	Period
1	Reducer for lifting mechanism	change lubricating grease	New standard N100 or old standard 50#machinery grease	Every three months
2	Reducer for running mechanism	Fill after dismounted the motor	3# Lithium lubricating grease	Once every six months
3	Wire rope and drum	coat surface	Wire rope grease	semimonthly
4	Hook thrust ball bearing and pulley bearing	Squeeze into	3# Lithium lubricating grease	Once every six months
5	Wheel bearing	Squeeze into	3# Lithium lubricating grease	Once every six months
6	Bearing inside drum supporting	Squeeze into	3# Lithium lubricating grease	Once every six months
7	Bearing inside lifting motor or traveling motor	Squeeze into	3# Lithium lubricating grease	Once every six months
8	Low speed box	Squeeze into	3# Lithium lubricating grease	Once every six months

ANNEX 3

Electric diagram for PWMD Electric Hoist

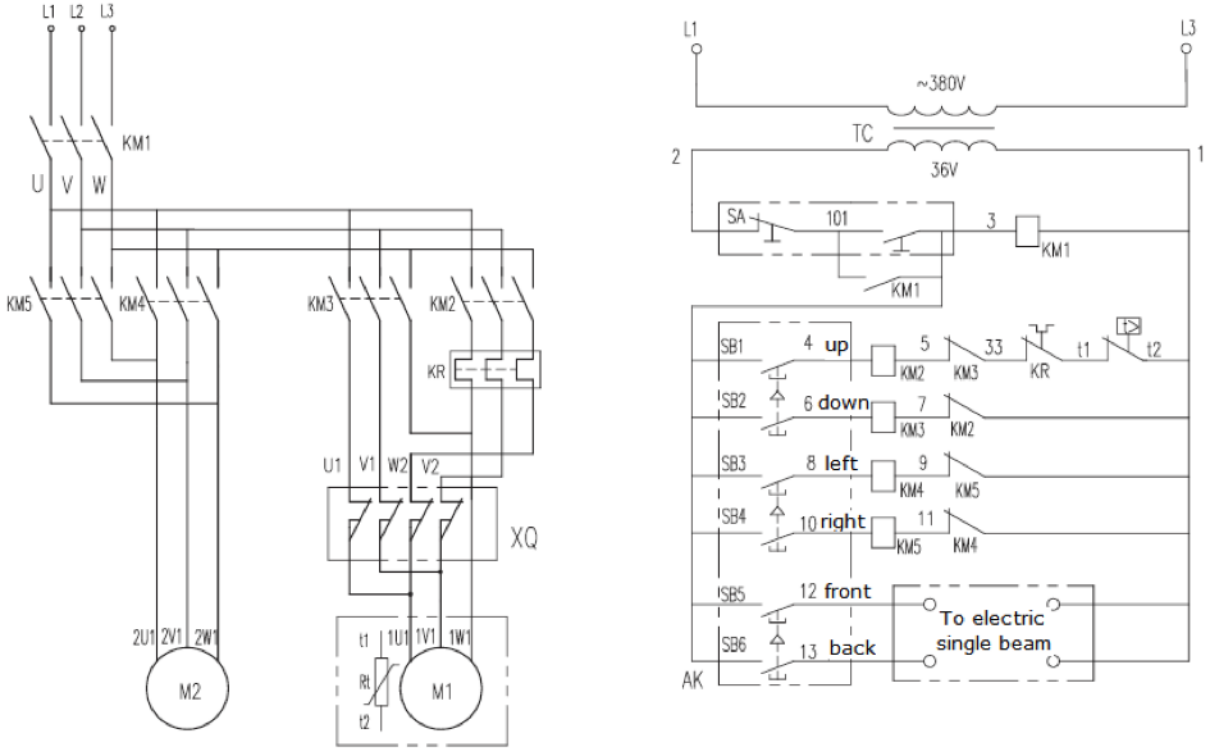


Connecting box (fixed on M1)

L1, L2, L3	Power lead-in
M1	Lifting motor
M2	Traveling motor
SB	Control button
Q	Fire stopper limit

Note: M2 is not used in fixed electric hoist

Control Principle Diagram for PWMD 0.25T Electric Hoist



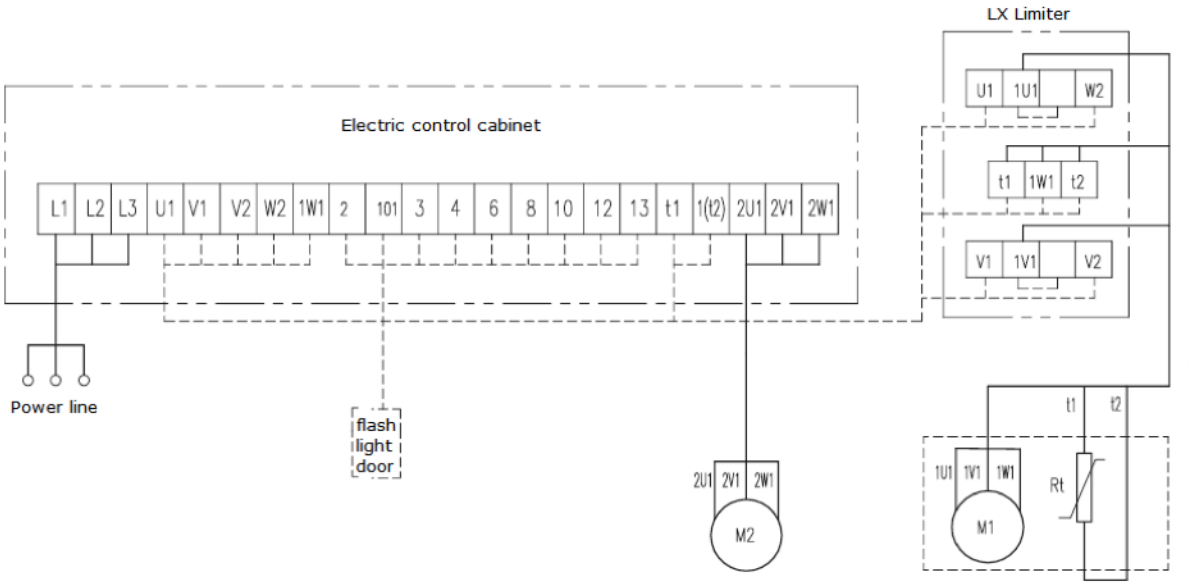
XQ	Fire stopper limit			
KM1~KM5	AC contactor		KR	Thermal relay
M2	Traveling motor		TC	Transform er
M1	Lifting motor		AK	Button box
Symbols	Name		Symbols	Name

Note:

1. Temperature controlled switch Rt is optional to assembly by user, when ordering.

2. M2 are all not adopted in fixed electric hoists.

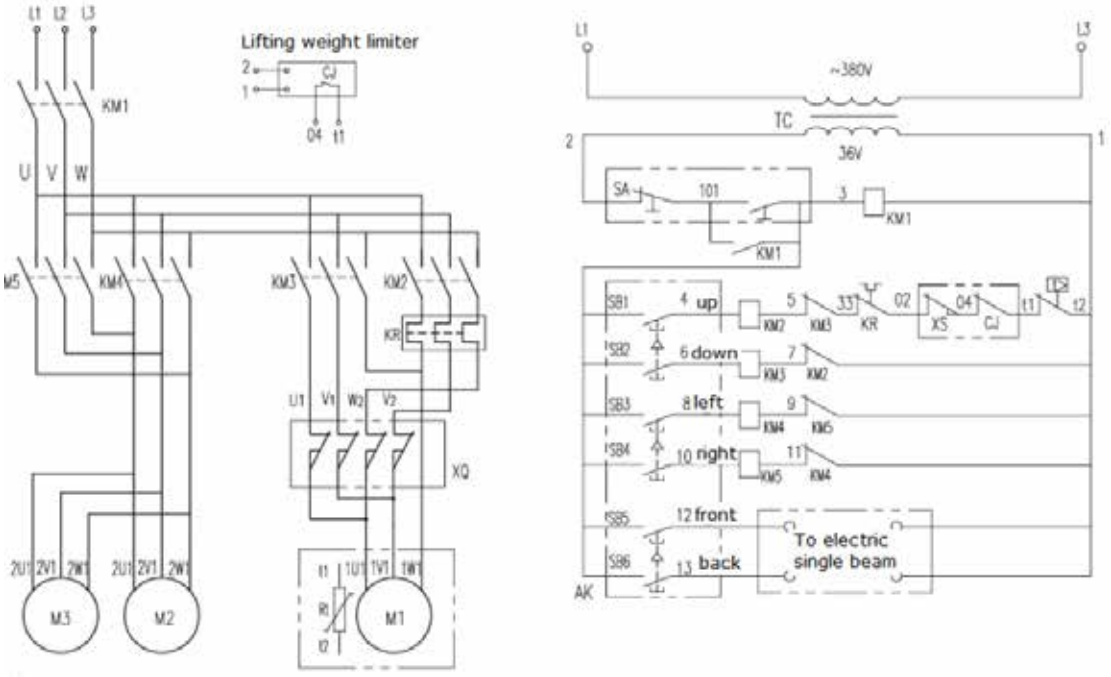
Electricity Schematic Diagram for PWMD 0.5 - 1 T Electric Hoist



Note:

1. M2 is not adopted in fixed electric hoist.
2. Temperature controlled switch R1 is selected to assembly by user, when ordering.
3. Underlined manufacture unit in diagram has been wired; users only need to connect solid-line part.

Wiring Diagram for PWMD 0.5 - 2.95 ton Electric Hoist

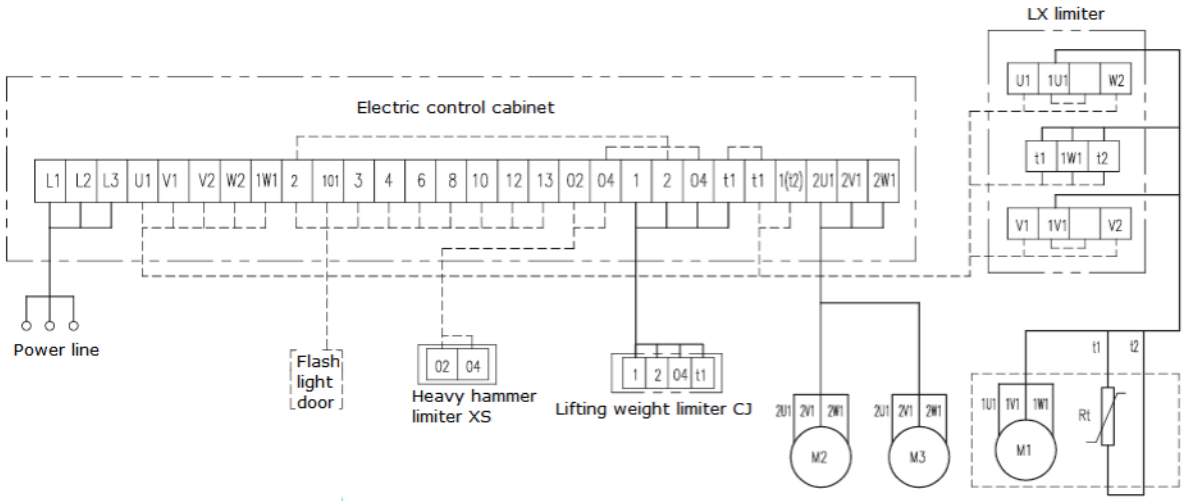


Note:

1. Temperature controlled switch Rt is optional to assembly by user, when ordering.
2. M3 in diagram is only used for 10t and 16t and 20t traveling electric hoist.
3. M2, M3 are not adopted in fixed type electric hoists

AK	Button box			
XQ	Fire stopper limit		CJ	Lifting weight limit
KM1~KM5	AC contactor		KR	Thermal relay
M2,M3	Traveling motor		XS	Heavy hammer limit
M1	Lifting motor		TC	Transformer
Symbols	Name		Symbols	Name

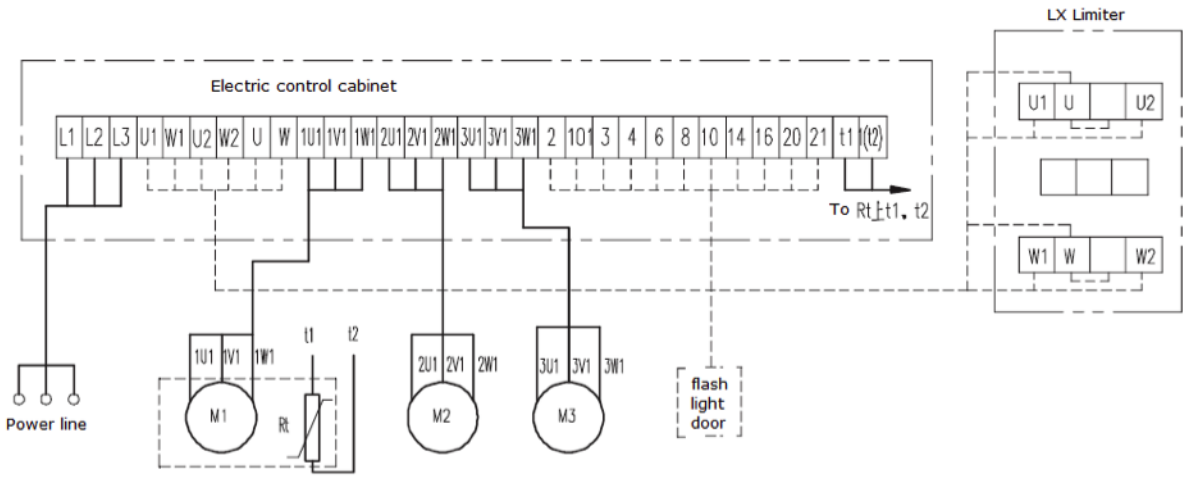
Electricity Schematic Diagram for PWMD3T - 20T Electric Hoist



Note:

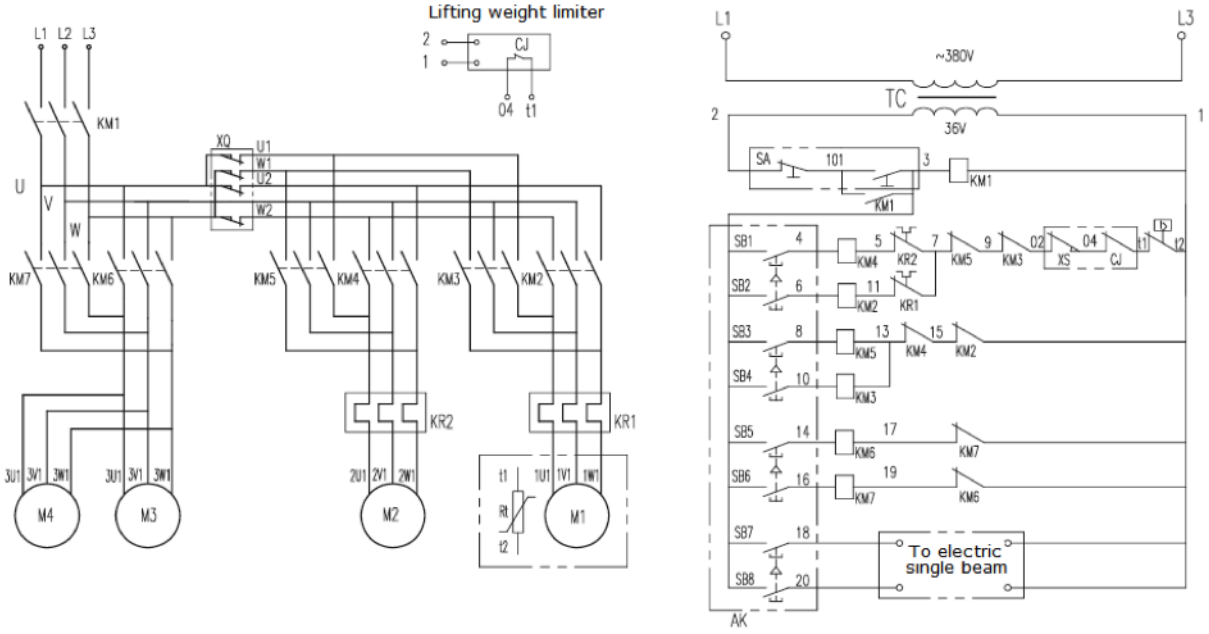
1. M3 in figure is only used for 10t and 16tand 20t traveling electric hoist; M2 and M3 are not adopted in fixed type electric hoists.
2. Temperature controlled switch R1 is selected to assembly by user when ordering.
3. Underlined manufacture unit in diagram has been wired

Wiring diagram of PWMD3T - 20T Electric hoist for users



Note:

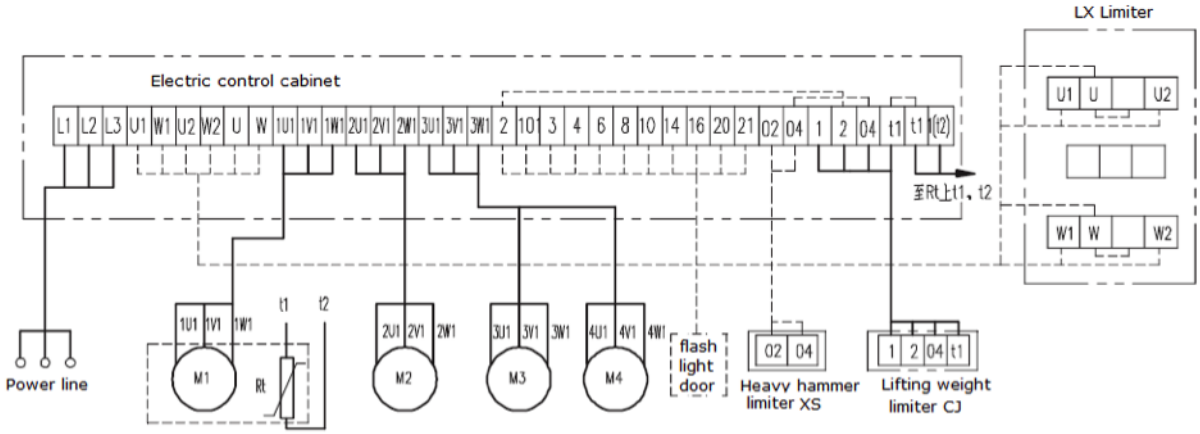
1. M3 is not adopted in fixed type electric hoist.
2. Temperature controlled switch R1 is selected to assembly by user when ordering.
3. Underlined manufacture unit in diagram has beenwired; users only need connect solid-line part.



AK	Button box			
XQ	Fire stopper limit		CJ	Lifting weight limit
KM1~KM7	AC contactor		KR1,KR2	Thermal relay
M3~M4	Traveling motor		XS	Heavy hammer limit
M1/M2	Fast/slow lifting motor		TC	Transformer
Symbols	Name		Symbols	Name

Note:

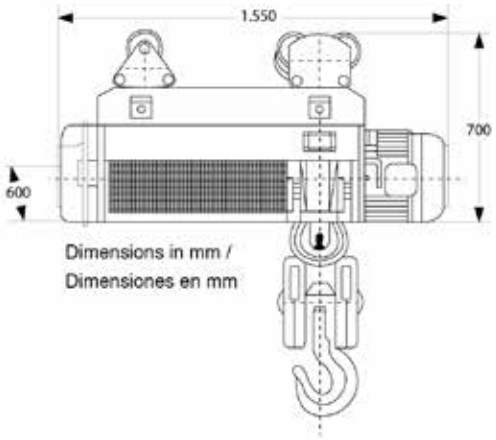
1. Temperature controlled switch Rt is optional to assembly by user, when ordering.
2. M4in diagram is only used for 10t and 16t and 20t.
3. M3and M4arenot adopted in fixed type electric hoist.
4. Heavy hammer limitXS is only used in 5 - 20t.



Note:

1. M4 in figure is only used for 10T, 16T and 20T traveling electric hoists and M3 and M4 is not adopted in fixed type electric hoists.
2. Temperature controlled switch R1 is selected to assembly by user when ordering.
3. Underlined manufacture unit in diagram has been wired; users only need connect solid-line part.
4. Heavy hammer limit XS is only used in 5 - 20T.

b. PWMD3T24M



TECHNICAL PARAMETERS / PARÁMETROS TÉCNICOS

Code / Código	PWMD3T24M
Capacity 1st Layer:	6,614 lb
Capacidad 1ª Capa:	3 TON
Lifting Height:	79 ft
Altura de Izaje:	24 m
1st Lifting speed:	3 ft/min
Velocidad de Izaje 1ª:	0,8 m/min
2nd Lifting speed:	26 ft/min
Velocidad de izaje 2ª:	8 m/min
Traveling Speed:	66 ft/min
Velocidad del recorrido:	20 m/min
Beam Width:	4 ~ 5 inch
Ancho Viga:	100 ~ 134 mm
IWRC Rope:	ø9/16" x 79 ft
Cable IWRC:	ø13 mm x 48 m
Frame:	ø 6 x 37 + 1
Estructura:	
LIFTING MOTOR / MOTOR DE IZAJE	
Motor Power :	0,8 ~ 4,5 kW 3 Ph
Potencia Motor:	
RPM:	1.380
Voltage:	380 v 50 Hz
Voltaje:	
Current:	2,4 ~ 11 A
Corriente:	
TRAVEL MOTOR / MOTOR DE DESPLAZAMIENTO	
Code:	ZDY, 12 – 4
Modelo:	
Minimum turning Ratio:	13 ft
Radio mínimo de giro:	4 m
Motor Power:	0,4 kW 3 Ph
Potencia Motor:	
RPM:	1.380
Voltage:	380V 50 Hz
Voltaje:	
Current:	1,25 A
Corriente:	

Working Temperature:	-4 ~ 104 °F
Temperatura de trabajo:	-20 ~ 40 °C
Working Humidity:	< 85 %
Humedad de Trabajo:	
Maximum starts per hour:	120 c/h
Máximo de Partidas por Hora:	
Duty Cycle:	25% FC
Ciclo de Trabajo:	
Total Weight:	992 lb
Peso Total:	450 kg
Standard:	ASME B30.17
Norma:	

Warranty:
1 Year Included.
2 Years Extended.
10 Years Parts and Service Availability
Garantía:
1 Año Incluida.
2 Años Extendida.
10 Años Disponibilidad de Repuestos y Servicio.

* Includes:
In Unit upper and lower travel adjustable limiters
*Incluye:
Limitadores de recorrido superior e inferior regulables en el equipo

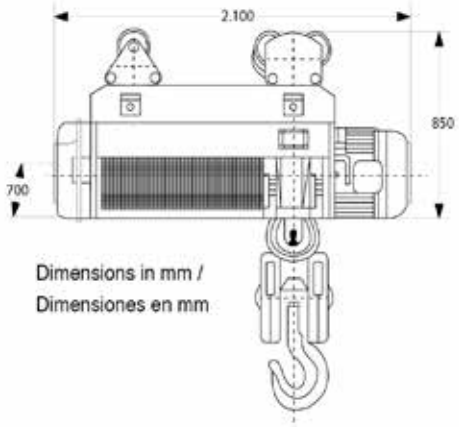
VOLTAGES AVAILABLE/ VOLTAJES DISPONIBLES

Country / País	TRIPHASE / TRIFÁSICO
Argentina	380V 50Hz
Chile	380V 50Hz
Colombia	220V60Hz / 440V60Hz
Costa Rica	220V60Hz / 440V60Hz
Mexico	220V60Hz / 440V60Hz
Peru	220V60Hz / 440V60Hz
USA	220V60Hz / 440V60Hz
Resto A.L.	220V60Hz / 440V60Hz

* Check for options / Consulte por opciones

Imágenes Referenciales

c. PWMD5T24M



TECHNICAL PARAMETERS / PARÁMETROS TÉCNICOS

	Code / Código	PWMD5T24M
LIFTING MOTOR / MOTOR DE IZAJE	Capacity 1st Layer: Capacidad 1ª Capa:	11.023 lb 5 TON
	Lifting Height: Altura de Izaje:	79 ft 24 m
	1st Lifting speed : Velocidad de Izaje 1ª:	3 ft/min 0,8 m/min
	2nd Lifting speed: Velocidad de izaje 2ª:	26 ft/min 8 m/min
	Traveling Speed: Velocidad del recorrido:	66 ft/min 20 m/min
	Beam Width: Ancho Viga:	5 ~ 7 inch 116 ~ 180 mm
	IWRC Rope: Cable IWRC:	ø5/8" x 157 ft ø15 mm x 48 m
	Frame: Estructura:	ø 6 x 37 + 1
	Motor Power : Potencia Motor:	0,8 ~ 7,5 kW 3 Ph
	RPM: Voltage: Voltaje:	1.400 380 v 50 Hz
	Current: Corriente:	2,4 ~ 18 A
TRAVEL MOTOR / MOTOR DESPLAZAMIENTO	Code: Modelo:	ZDY, 41 ~ 4
	Minimum turning ratio: Radio mínimo de giro:	13 ft 4 m
	Motor Power: Potencia Motor:	0,8 kW 3 Ph
	RPM: Voltage: Voltaje:	1.380 380V 50 Hz
	Current: Corriente:	2,4 A

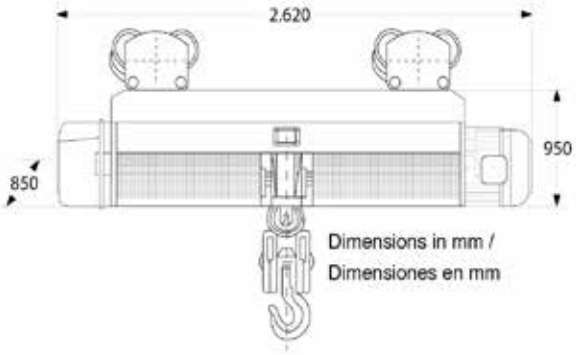
Working Temperature: Temperatura de trabajo:	-4 ~ 104 °F -20 ~ 40 °C
Working Humidity: Humedad de Trabajo:	< 85 %
Maximum starts per Hour: Máximo de Partidas por Hora:	120 c/h
Duty Cycle: Ciclo de Trabajo:	25% FC
Total Weight: Peso Total:	1.400 lb 635 kg
Standard: Norma:	ASME B30.17
Warranty: 1 Year Included. 2 Years Extended. 10 Years Parts and Service Availability Garantía: 1 Año Incluida. 2 Años Extendida. 10 Años Disponibilidad de Repuestos y Servicio.	
* Includes: In Unit upper and lower travel adjustable limiters *Incluye: Limitadores de recorrido superior e inferior regulables en el equipo	

VOLTAGES AVAILABLE/ VOLTAJES DISPONIBLES

Country / País	TRIPHASE / TRIFÁSICO
Argentina	380V 50Hz
Chile	380V 50Hz
Colombia	220V60Hz / 440V60Hz
Costa Rica	220V60Hz / 440V60Hz
Mexico	220V60Hz / 440V60Hz
Peru	220V60Hz / 440V60Hz
USA	220V60Hz / 440V60Hz
Resto A.L.	220V60Hz / 440V60Hz
* Check for options / Consulte por opciones	

Imágenes Referenciales

d. PWMD10T24M



TECHNICAL PARAMETERS / PARÁMETROS TÉCNICOS

Code / Código	PWMD10T24M
Capacity 1st Layer: Capacidad 1ª Capa:	22.046 lb 10 TON
Lifting Height: Altura de Izaje:	79 ft 24 m
1st Lifting speed: Velocidad de Izaje 1ª:	3 ft/min 0,8 m/min
2nd Lifting speed: Velocidad de izaje 2ª:	26 ft/min 8 m/min
Speed Traveling: Velocidad del recorrido:	66 ft/min 20 m/min
Beam Width: Ancho Viga:	5 ~ 7 inch 116 ~ 180 mm
IWRC Rope: Cable IWRC:	ø5/8" x 315 ft ø15 mm x 96 m
Frame: Estructura:	ø 6 x 37 + 1
LIFTING MOTOR / MOTOR DE IZAJE Motor Power: Potencia Motor:	1,5 ~ 13 kW 3 Ph
RPM:	1.400
Voltage: Voltaje:	380 v 50 Hz
Current: Corriente:	4,3 ~ 30 A
TRAVEL MOTOR / MOTOR DE DESPLAZAMIENTO Code: Modelo:	ZDY_1 51 ~ 4
Minimum turning Ratio: Radio mínimo de giro:	25 ft 7,5 m
Motor Power: Potencia Motor:	0,8 kW 3 Ph
RPM:	1.380
Voltage: Voltaje:	380V 50 Hz
Current: Corriente:	2,4 A

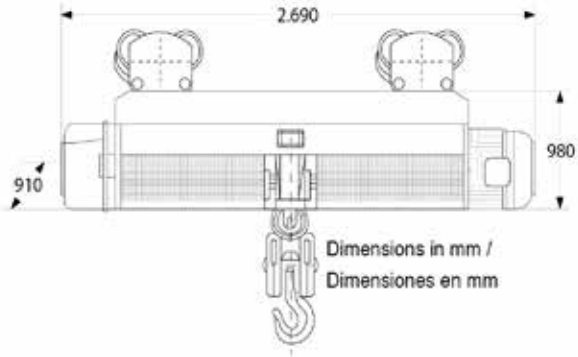
Working Temperature: Temperatura de trabajo:	-4 ~ 104 °F -20 ~ 40 °C
Working Humidity: Humedad de Trabajo:	< 85 %
Maximum starts per hour: Máximo de Partidas por Hora:	120 c/h
Duty Cycle: Ciclo de Trabajo:	25% FC
Total Weight: Peso Total:	2.800 lb 1.270 kg
Standard: Norma:	ASME B30.17
Warranty: 1 Year Included. 2 Years Extended. 10 Years Parts and Service Availability Garantía: 1 Año Incluida. 2 Años Extendida. 10 Años Disponibilidad de Repuestos y Servicio.	
* Includes: In Unit upper and lower travel adjustable limiters *Incluye: Limitadores de recorrido superior e inferior regulables en el equipo	

VOLTAGES AVAILABLE/ VOLTAJES DISPONIBLES

Country / País	TRIPHASE / TRIFÁSICO
Argentina	380V 50Hz
Chile	380V 50Hz
Colombia	220V60Hz / 440V60Hz
Costa Rica	220V60Hz / 440V60Hz
Mexico	220V60Hz / 440V60Hz
Peru	220V60Hz / 440V60Hz
USA	220V60Hz / 440V60Hz
Resto A.L.	220V60Hz / 440V60Hz
* Check for options / Consulte por opciones	

Imágenes Referenciales

e. PWMD16T24M



TECHNICAL PARAMETERS / PARÁMETROS TÉCNICOS

	Code / Código	PWMD16T24M
	Capacity 1st Layer:	35.274 lb
	Capacidad 1ª Capa:	16 TON
	Lifting Height:	79 ft
	Altura de Izaje:	24 m
	1st Lifting speed:	3 ft/min
	Velocidad de Izaje 1ª:	0,8 m/min
	2nd Lifting speed:	26 ft/min
	Velocidad de izaje 2ª:	8 m/min
	Traveling Speed:	66 ft/min
	Velocidad del recorrido:	20 m/min
	IWRC Rope:	ø3/4" x 315 ft
	Cable IWRC:	ø17,5 mm x 96 m
	Frame:	ø 6 x 37 + 1
	Estructura:	
LIFTING MOTOR / MOTOR DE IZAJE	Motor Power:	13 kW 3 Ph
	Potencia Motor:	
	RPM:	1.400
	Voltage:	380 v 50 Hz
	Voltaje:	
	Current:	30 A
	Corriente:	
TRAVEL MOTOR / MOTOR DE DESPLAZAMIENTO	Code:	ZDY, 51 – 4
	Modelo:	
	Minimum turning:	25 ft
	Radio mínimo de giro:	7,5 m
	Motor Power:	0,8 kW 3 Ph
	Potencia Motor:	
	RPM:	1.380
	Voltage:	380V 50 Hz
	Voltaje:	
	Current:	2,4 A
	Corriente:	

Working Temperature:	-4 ~ 104 °F
Temperatura de trabajo:	-20 ~ 40 °C
Working Humidity:	< 85 %
Humedad de Trabajo:	
Maximum starts per hour:	120 c/h
Máximo de Partidas por Hora:	
Duty Cycle:	25% FC
Ciclo de Trabajo:	
Total Weight:	3.505 lb
Peso Total:	1.590 kg
Standard:	ASME B30.17
Norma:	

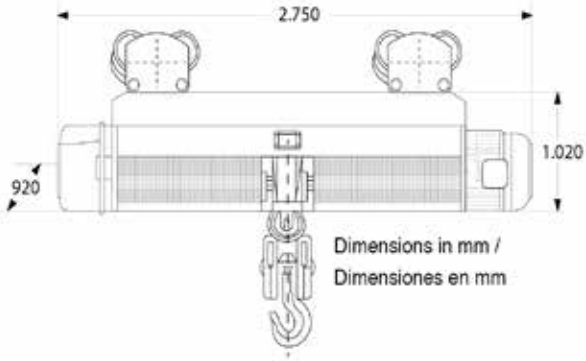
Warranty:
1 Year Included.
2 Years Extended.
10 Years Parts and Service Availability
Garantia:
1 Año Incluida.
2 Años Extendida.
10 Años Disponibilidad de Repuestos y Servicio.
* Includes:
In Unit upper and lower travel adjustable limiters
*Incluye:
Limitadores de recorrido superior e inferior regulables en el equipo

VOLTAGES AVAILABLE/ VOLTAJES DISPONIBLES

Country / Pais	TRIPHASE / TRIFÁSICO
Argentina	380V 50Hz
Chile	380V 50Hz
Colombia	220V60Hz / 440V60Hz
Costa Rica	220V60Hz / 440V60Hz
Mexico	220V60Hz / 440V60Hz
Peru	220V60Hz / 440V60Hz
USA	220V60Hz / 440V60Hz
Resto A.L.	220V60Hz / 440V60Hz
* Check for options / Consulte por opciones	

Imágenes Referenciales

f. PWMD20T24M



TECHNICAL PARAMETERS / PARÁMETROS TÉCNICOS

	Code / Código	PWMD20T24M
LIFTING MOTOR / MOTOR DE IZAJE	Capacity 1st Layer: Capacidad 1ª Capa:	44.092 lb 20 TON
	Lifting Height: Altura de Izaje:	79 ft 24 m
	1st Lifting speed : Velocidad de Izaje 1ª:	3 ft/min 0,8 m/min
	2nd Lifting speed: Velocidad de izaje 2ª:	26 ft/min 8 m/min
	Traveling Speed: Velocidad del recorrido:	66 ft/min 20 m/min
	IWRC Rope: Cable IWRC:	ø3/4" x 315 ft ø17,5 mm x 96 m
	Frame: Estructura:	ø 6 x 37 + 1
	Motor Power : Potencia Motor:	18,5 kW 3 Ph
	RPM:	1.400
	Voltage: Voltaje:	380 v 50 Hz
	Current: Corriente:	40 A
TRAVEL MOTOR / MOTOR DE DESPLAZAMIENTO	Code: Modelo:	ZDY, 51 – 4
	Minimum turning: Radio mínimo de giro:	25 ft 7,5 m
	Motor Power: Potencia Motor:	1,5 kW 3 Ph
	RPM:	1.380
	Voltage: Voltaje:	380V 50 Hz
	Current: Corriente:	4,3 A

Working Temperature: Temperatura de trabajo:	-4 ~ 104 °F -20 ~ 40 °C
Working Humidity: Humedad de Trabajo:	< 85 %
Maximum starts per Hour: Máximo de Partidas por Hora:	120 c/h
Duty Cycle: Ciclo de Trabajo:	25% FC
Total Weight: Peso Total:	4.167 lb 1.890 kg
Standard: Norma:	ASME B30.17

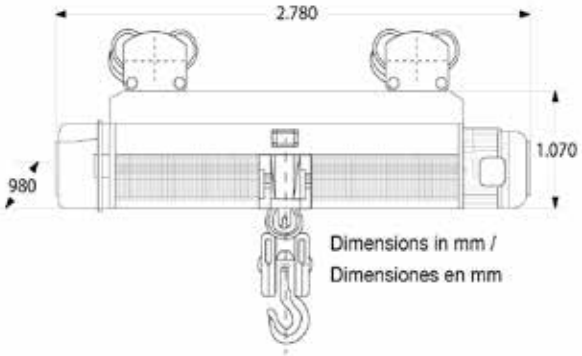
Warranty:
1 Year Included.
2 Years Extended.
10 Years Parts and Service Availability
Garantía:
1 Año Incluida.
2 Años Extendida.
10 Años Disponibilidad de Repuestos y Servicio.
* Includes:
In Unit upper and lower travel adjustable limiters
*Incluye:
Limitadores de recorrido superior e inferior regulables en el equipo

VOLTAGES AVAILABLE/ VOLTAJES DISPONIBLES

Country / País	TRIPHASE / TRIFÁSICO
Argentina	380V 50Hz
Chile	380V 50Hz
Colombia	220V60Hz / 440V60Hz
Costa Rica	220V60Hz / 440V60Hz
Mexico	220V60Hz / 440V60Hz
Peru	220V60Hz / 440V60Hz
USA	220V60Hz / 440V60Hz
Resto A.L.	220V60Hz / 440V60Hz
* Check for options / Consulte por opciones	

Imágenes Referenciales

g. PWMD25T18M



TECHNICAL PARAMETERS / PARÁMETROS TÉCNICOS

	Code / Código	PWMD25T18M
	Capacity Capacidad	55.115 lb 25.000 kg
	Lifting Height Altura de Izaje	59 ft 18 m
	1st Lifting speed : Velocidad de Izaje 1ª:	1 ft/min 0,24 m/min
	2nd Lifting speed: Velocidad de izaje 2ª:	8 ft/min 2,4 m/min
	Traveling Speed: Velocidad del recorrido:	66 ft/min 20 m/min
	IWRC Rope: Cable IWRC:	ø7/8" x 236 ft ø23 mm x 72 m
	Frame: Estructura:	ø 6 x 37 + 1
LIFTING MOTOR / MOTOR DE IZAJE	Motor Power : Potencia Motor:	18,5 kW 3 Ph
	RPM:	1.600
	Voltage: Voltaje:	380 v 50 Hz
	Current: Corriente:	40 A
TRAVEL MOTOR / MOTOR DE DESPLAZAMIENTO	Code: Modelo:	ZDY_1 51 – 4
	Minimum turning Ratio: Radio mínimo de giro:	15 ft 4,6 m
	Motor Power: Potencia Motor:	0,8 kW 3 Ph
	RPM:	
	Voltage: Voltaje:	380V 50 Hz
	Current: Corriente:	2,4 A

	Working Temperature: Temperatura de trabajo:	-4 ~ 104 °F -20 ~ 40 °C
	Working Humidity: Humedad de Trabajo:	< 85 %
	Maximum starts per hour: Máximo de Partidas por Hora:	120 c/h
	Duty Cycle: Ciclo de Trabajo:	25% FC
	Total Weight: Peso Total:	4.850 lb 2.200 kg
	Standard: Norma:	ASME B30.17
	Warranty: 1 Year Included. 2 Years Extended. 10 Years Parts and Service Availability Garantía: 1 Año Incluida. 2 Años Extendida. 10 Años Disponibilidad de Repuestos y Servicio.	
	* Includes: In Unit upper and lower travel adjustable limiters *Incluye: Limitadores de recorrido superior e inferior regulables en el equipo	

VOLTAGES AVAILABLE/ VOLTAJES DISPONIBLES

Country / País	TRIPHASE / TRIFÁSICO
Argentina	380V 50Hz
Chile	380V 50Hz
Colombia	220V60Hz / 440V60Hz
Costa Rica	220V60Hz / 440V60Hz
Mexico	220V60Hz / 440V60Hz
Peru	220V60Hz / 440V60Hz
USA	220V60Hz / 440V60Hz
Resto A.L.	220V60Hz / 440V60Hz
* Check for options / Consulte por opciones	

Imágenes Referenciales

h. PWMD50T12M

TECHNICAL PARAMETERS / PARÁMETROS TÉCNICOS

Code / Código	PWMD50T12M
Capacity 1st Layer: Capacidad 1ª Capa:	110.231 lb 50 TON
Lifting Height: Altura de Izaje:	39 ft 12 m
1st Lifting speed: Velocidad de Izaje 1ª:	1 ft/min 0,24 m/min
2nd Lifting speed: Velocidad de izaje 2ª:	8 ft/min 2,4 m/min
LIFTING MOTOR / MOTOR DE IZAJE Motor Power : Potencia Motor:	18,5 kW 3 Ph
TRAVEL MOTOR / MOTOR DE DESPLAZAMIENTO Motor Power: Potencia Motor:	1,5 kW 3 Ph
Working Temperature: Temperatura de trabajo:	-4 ~ 104 °F -20 ~ 40 °C
Working Humidity: Humedad de Trabajo:	< 85 %
Maximum Starts per hour: Máximo de Partidas por Hora:	120 c/h
Duty Cycle: Ciclo de Trabajo:	25% FC
Total Weight: Peso Total:	12.125 lb 5.500 kg
Standard: Norma:	ASME B30.17
Warranty: 1 Year Included. 2 Years Extended. 10 Years Parts and Service Availability Garantía: 1 Año Incluida. 2 Años Extendida. 10 Años Disponibilidad de Repuestos y Servicio.	
* Includes: In Unit upper and lower travel adjustable limiters *Incluye: Limitadores de recorrido superior e inferior regulables en el equipo	

VOLTAGES AVAILABLE/ VOLTAJES DISPONIBLES

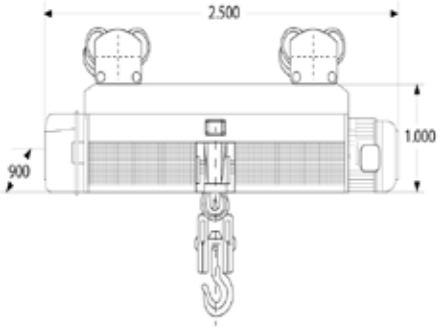
Country / País	TRIPHASE / TRIFÁSICO
Argentina	380V 50Hz
Chile	380V 50Hz
Colombia	220V60Hz / 440V60Hz
Costa Rica	220V60Hz / 440V60Hz
Mexico	220V60Hz / 440V60Hz
Peru	220V60Hz / 440V60Hz
USA	220V60Hz / 440V60Hz
Resto A.L.	220V60Hz / 440V60Hz
* Check for options / Consulte por opciones	

Imágenes Referenciales

i. PWMD50T20M

TECHNICAL PARAMETERS / PARÁMETROS TÉCNICOS

	Code / Código	PWMD50T20M
LIFTING MOTOR / MOTOR DE IZAJE	Capacity 1st Layer: Capacidad 1ª Capa:	110.231 lb 50 TON
	1st Lifting speed: Velocidad de Izaje 1ª:	1 ft/min 0,24 m/min
	2nd Lifting speed: Velocidad de izaje 2ª:	8 ft/min 2,4 m/min
	Motor Power: Potencia Motor:	18,5 kW 3 Ph
TRAVEL MOTOR / MOTOR DE DESPLAZAMIENTO	Motor Power: Potencia Motor:	1,5 kW 3 Ph
	Working Temperature: Temperatura de trabajo:	-4 ~ 104 °F -20 ~ 40 °C
	Working Humidity: Humedad de Trabajo:	< 85 %
	Maximum starts per hour: Máximo de Partidas por Hora:	120 c/h
	Duty Cycle: Ciclo de Trabajo:	25% FC
	Total Weight: Peso Total:	12.125 lb 5.500 kg
	Standard: Norma:	ASME B30.17
	Warranty: 1 Year Included. 2 Years Extended. 10 Years Parts and Service Availability Garantía: 1 Año Incluida. 2 Años Extendida. 10 Años Disponibilidad de Repuestos y Servicio.	
	* Includes: In Unit upper and lower travel adjustable limiters *Incluye: Limitadores de recorrido superior e inferior regulables en el equipo	



Dimensions in mm / Dimensiones en mm

VOLTAGES AVAILABLE/ VOLTAJES DISPONIBLES

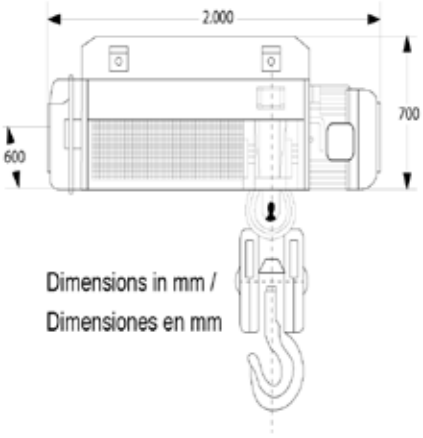
Country / País	TRIPHASE / TRIFÁSICO
Argentina	380V 50Hz
Chile	380V 50Hz
Colombia	220V60Hz / 440V60Hz
Costa Rica	220V60Hz / 440V60Hz
Mexico	220V60Hz / 440V60Hz
Peru	220V60Hz / 440V60Hz
USA	220V60Hz / 440V60Hz
Resto A.L.	220V60Hz / 440V60Hz
* Check for options / Consulte por opciones	

Imágenes Referenciales

j. PWMDF3T24M

TECHNICAL PARAMETERS / PARÁMETROS TÉCNICOS

Code / Código	PWMDF3T24M
Capacity 1st Layer: Capacidad 1ª Capa:	6.614 lb 3.000 kg
Lifting Height: Altura de Izaje:	79 ft 24 m
1st Lifting speed: Velocidad de Izaje 1ª:	3 ft/min 0,8 m/min
2nd Lifting speed: Velocidad de izaje 2ª:	26 ft/min 8 m/min
IWRC Rope: Cable IWRC:	ø9/16" x 79 ft ø13 mm x 48 m
Frame: Estructura:	ø 6 x 37 + 1
LIFTING MOTOR / MOTOR DE IZAJE Motor Power: Potencia Motor:	0,8 ~ 4,5 kW 3 Ph
RPM:	1.380
Voltage: Voltaje:	380V 50 Hz
Current: Corriente:	2,4 ~ 11 A
Working Temperature: Temperatura de trabajo:	-4 ~ 104 °F -20 ~ 40 °C
Working Humidity: Humedad de Trabajo:	< 85 %
Maximum starts per hour: Máximo de Partidas por Hora:	120 c/h
Duty Cycle: Ciclo de Trabajo:	25% FC
Total Weight: Peso Total:	992 lb 450 kg
Standard: Norma:	ASME B30.16
Warranty: 1 Year Included. 2 Years Extended. 10 Years Parts and Service Availability Garantía: 1 Año Incluida. 2 Años Extendida. 10 Años Disponibilidad de Repuestos y Servicio.	
* Includes: In Unit upper and lower travel adjustable limiters *Incluye: Limitadores de recorrido superior e inferior regulables en el equipo	



VOLTAGES AVAILABLE/ VOLTAJES DISPONIBLES

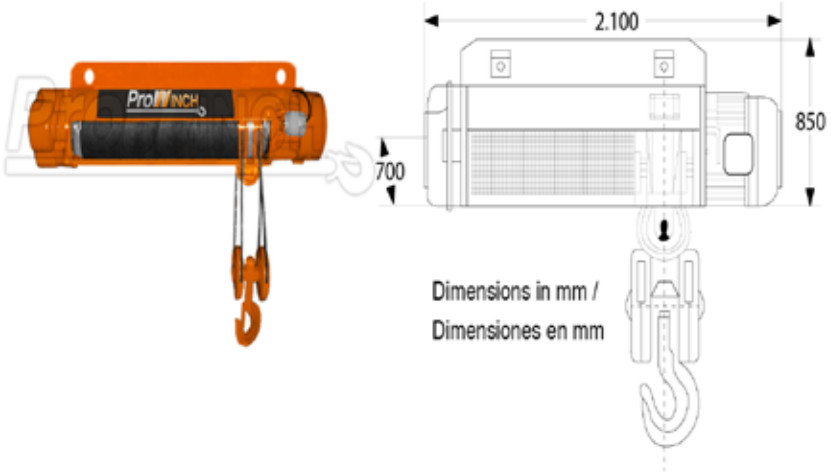
Country / País	TRIPHASE / TRIFÁSICO
Argentina	380V 50Hz
Chile	380V 50Hz
Colombia	220V60Hz / 440V60Hz
Costa Rica	220V60Hz / 440V60Hz
Mexico	220V60Hz / 440V60Hz
Peru	220V60Hz / 440V60Hz
USA	220V60Hz / 440V60Hz
Resto A.L.	220V60Hz / 440V60Hz
* Check for options / Consulte por opciones	

Imágenes Referenciales

k. PWMDF5T24M

TECHNICAL PARAMETERS / PARÁMETROS TÉCNICOS

	Code / Código	PWMDF5T24M
LIFTING MOTOR / MOTOR DE IZAJE	Capacity 1st Layer: Capacidad 1ª Capa:	11.023 lb 5.000 kg
	Lifting Height: Altura de Izaje:	79 ft 24 m
	1st Lifting speed: Velocidad de Izaje 1ª:	3 ft/min 0,8 m/min
	2nd Lifting speed: Velocidad de izaje 2ª:	26 ft/min 8 m/min
	IWRC Rope: Cable IWRC:	ø5/8" x 79 ft ø15 mm x 48 m
	Frame: Estructura:	ø 6 x 37 + 1
	Motor Power: Potencia Motor:	0,8 ~ 7,5 kW 3 Ph
	RPM:	1.380
	Voltage: Voltaje:	380V 50 Hz
	Current: Corriente:	2,4 ~ 18 A
	Working Temperature: Temperatura de trabajo:	-4 ~ 104 °F -20 ~ 40 °C
	Working Humidity: Humedad de Trabajo:	< 85 %
	Maximum starts per hour: Máximo de Partidas por Hora:	120 c/h
	Duty Cycle: Ciclo de Trabajo:	25% FC
	Total Weight: Peso Total:	992 lb 450 kg
	Standard: Norma:	ASME B30.16
	Warranty: 1 Year Included. 2 Years Extended. 10 Years Parts and Service Availability Garantía: 1 Año Incluida. 2 Años Extendida. 10 Años Disponibilidad de Repuestos y Servicio.	
	* Includes: In Unit upper and lower travel adjustable limiters *Incluye: Limitadores de recorrido superior e inferior regulables en el equipo	



VOLTAGES AVAILABLE/ VOLTAJES DISPONIBLES

Country / País	TRIPHASE / TRIFÁSICO
Argentina	380V 50Hz
Chile	380V 50Hz
Colombia	220V60Hz / 440V60Hz
Costa Rica	220V60Hz / 440V60Hz
Mexico	220V60Hz / 440V60Hz
Peru	220V60Hz / 440V60Hz
USA	220V60Hz / 440V60Hz
Resto A.L.	220V60Hz / 440V60Hz
* Check for options / Consulte por opciones	

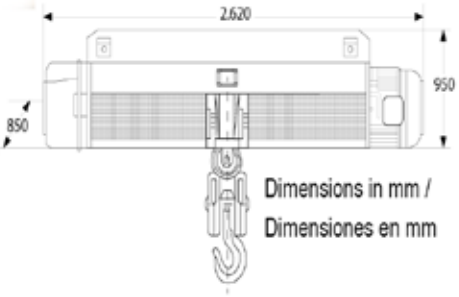
Imágenes Referenciales

I. PWMDF10T24M

TECHNICAL PARAMETERS / PARÁMETROS TÉCNICOS

Code / Código	PWMDF10T24M
Capacity 1st Layer: Capacidad 1ª Capa:	22.046 lb 10.000 kg
Lifting Height: Altura de Izaje:	79 ft 24 m
1st Lifting speed: Velocidad de Izaje 1ª:	26 ft/min 8 m/min
2nd Lifting speed: Velocidad de izaje 2ª:	3 ft/min 0,8 m/min
IWRC Rope: Cable IWRC:	ø5/8" x 211 ft ø15 mm x 96 m
Frame: Estructura:	ø 6 x 37 + 1
LIFTING MOTOR / MOTOR DE IZAJE Motor Power: Potencia Motor:	1,3 ~ 1,5 kW 3 Ph
RPM:	1.400
Voltage: Voltaje:	380V 50 Hz
Current: Corriente:	4,3 ~ 30 A
Working Temperature: Temperatura de trabajo:	-4 ~ 104 °F -20 ~ 40 °C
Working Humidity: Humedad de Trabajo:	< 85 %
Maximum starts per hour: Máximo de Partidas por Hora:	120 c/h
Duty Cycle: Ciclo de Trabajo:	25% FC
Total Weight: Peso Total:	2.520 lb 1.143 kg
Standard: Norma:	ASME B30.16
Warranty: 1 Year Included. 2 Years Extended. 10 Years Parts and Service Availability Garantía: 1 Año Incluida. 2 Años Extendida. 10 Años Disponibilidad de Repuestos y Servicio.	

* Includes:
In Unit upper and lower travel adjustable limiters
*Incluye:
Limitadores de recorrido superior e inferior regulables en el equipo



Dimensions in mm /
Dimensiones en mm

VOLTAGES AVAILABLE/ VOLTAJES DISPONIBLES

Country / País	TRIPHASE / TRIFÁSICO
Argentina	380V 50Hz
Chile	380V 50Hz
Colombia	220V60Hz / 440V60Hz
Costa Rica	220V60Hz / 440V60Hz
Mexico	220V60Hz / 440V60Hz
Peru	220V60Hz / 440V60Hz
USA	220V60Hz / 440V60Hz
Resto A.L.	220V60Hz / 440V60Hz

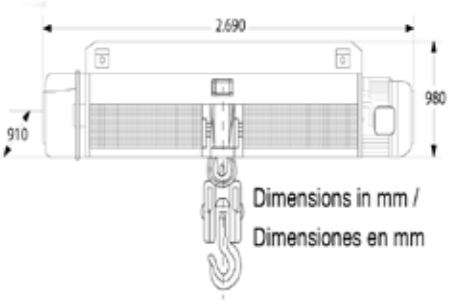
* Check for options / Consulte por opciones

Imágenes Referenciales

m. PWMDF16T24M

TECHNICAL PARAMETERS / PARÁMETROS TÉCNICOS

Code / Código	PWMDF16T24M
Capacity 1st Layer: Capacidad 1ª Capa:	35.274 lb 16.000 kg
Lifting Height: Altura de Izaje:	79 ft 24 m
1st Lifting speed: Velocidad de Izaje 1ª:	3 ft/min 0,8 m/min
2nd Lifting speed: Velocidad de izaje 2ª:	26 ft/min 8 m/min
IWRC Rope: Cable IWRC:	ø3/4" x 211 ft ø17,5 mm x 96 m
Frame: Estructura:	ø 6 x 37 + 1
LIFTING MOTOR / MOTOR DE IZAJE Motor Power: Potencia Motor:	13 kW 3 Ph
RPM:	1.400
Voltage: Voltaje:	380V 50 Hz
Current: Corriente:	30 A
Working Temperature: Temperatura de trabajo:	-4 ~ 104 °F -20 ~ 40 °C
Working Humidity: Humedad de Trabajo:	< 85 %
Maximum starts per hour: Máximo de Partidas por Hora:	120 c/h
Duty Cycle: Ciclo de Trabajo:	25% FC
Total Weight: Peso Total:	3.505 lb 1.590 kg
Standard: Norma:	ASME B30.16
Warranty: 1 Year Included. 2 Years Extended. 10 Years Parts and Service Availability Garantía: 1 Año Incluida. 2 Años Extendida. 10 Años Disponibilidad de Repuestos y Servicio.	
* Includes: In Unit upper and lower travel adjustable limiters *Incluye: Limitadores de recorrido superior e inferior regulables en el equipo	



Dimensions in mm /
Dimensiones en mm

VOLTAGES AVAILABLE/ VOLTAJES DISPONIBLES

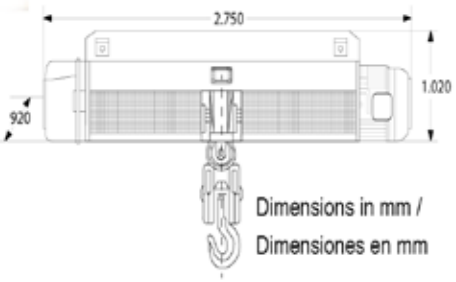
Country / País	TRIPHASE / TRIFÁSICO
Argentina	380V 50Hz
Chile	380V 50Hz
Colombia	220V60Hz / 440V60Hz
Costa Rica	220V60Hz / 440V60Hz
Mexico	220V60Hz / 440V60Hz
Peru	220V60Hz / 440V60Hz
USA	220V60Hz / 440V60Hz
Resto A.L.	220V60Hz / 440V60Hz
* Check for options / Consulte por opciones	

Imágenes Referenciales

n. PWMDF20T24M

TECHNICAL PARAMETERS / PARÁMETROS TÉCNICOS

Code / Código	PWMDF20T24M
Capacity 1st Layer: Capacidad 1ª Capa:	44.092 lb 20.000 kg
Lifting Height: Altura de Izaje:	79 ft 24 m
1st Lifting speed: Velocidad de Izaje 1ª:	26 ft/min 8 m/min
2nd Lifting speed: Velocidad de izaje 2ª:	3 ft/min 0,8 m/min
IWRC Rope: Cable IWRC:	ø7/8" x 211 ft ø21,5 mm x 96 m
Frame: Estructura:	ø 6 x 37 + 1
LIFTING MOTOR / MOTOR DE IZAJE Motor Power: Potencia Motor:	18,5 kW 3 Ph
RPM:	1.600
Voltage: Voltaje:	380V 50 Hz
Current: Corriente:	40 A
Working Temperature: Temperatura de trabajo:	-4 ~ 104 °F -20 ~ 40 °C
Working Humidity: Humedad de Trabajo:	< 85 %
Maximum starts per hour: Máximo de Partidas por Hora:	120 c/h
Duty Cycle: Ciclo de Trabajo:	25% FC
Total Weight: Peso Total:	4.167 lb 1.890 kg
Standard: Norma:	ASME B30.16
Warranty: 1 Year Included. 2 Years Extended. 10 Years Parts and Service Availability Garantía: 1 Año Incluida. 2 Años Extendida. 10 Años Disponibilidad de Repuestos y Servicio.	
* Includes: In Unit upper and lower travel adjustable limiters *Incluye: Limitadores de recorrido superior e inferior regulables en el equipo	



Dimensions in mm /
Dimensiones en mm

VOLTAGES AVAILABLE/ VOLTAJES DISPONIBLES

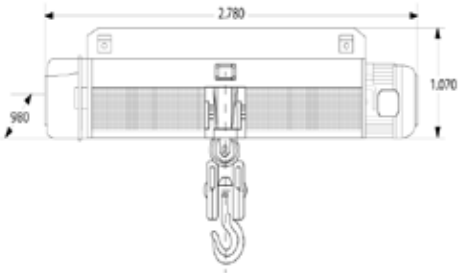
Country / País	TRIPHASE / TRIFÁSICO
Argentina	380V 50Hz
Chile	380V 50Hz
Colombia	220V60Hz / 440V60Hz
Costa Rica	220V60Hz / 440V60Hz
Mexico	220V60Hz / 440V60Hz
Peru	220V60Hz / 440V60Hz
USA	220V60Hz / 440V60Hz
Resto A.L.	220V60Hz / 440V60Hz
* Check for options / Consulte por opciones	

Imágenes Referenciales

o. PWMDF25T18M

TECHNICAL PARAMETERS / PARÁMETROS TÉCNICOS

Code / Código	PWMDF25T18M
Capacity 1st Layer: Capacidad 1ª Capa:	55.116 lb 25.000 kg
Lifting Height: Altura de Izaje:	59 ft 18 m
1st Lifting speed: Velocidad de Izaje 1ª:	1 ft/min 0,24 m/min
2nd Lifting speed: Velocidad de izaje 2ª:	8 ft/min 2,4 m/min
IWRC Rope: Cable IWRC:	ø1 1/8" x 72 ft ø23 mm x 18 m
Frame: Estructura:	ø 6 x 37 + 1
LIFTING MOTOR / MOTOR DE IZAJE Motor Power: Potencia Motor:	18,5 kW 3 Ph
RPM:	1.600
Voltage: Voltaje:	380V 50 Hz
Current: Corriente:	40 A
Working Temperature: Temperatura de trabajo:	-4 ~ 104 °F -20 ~ 40 °C
Working Humidity: Humedad de Trabajo:	< 85 %
Maximum starts per hour: Máximo de Partidas por Hora:	120 c/h
Duty Cycle: Ciclo de Trabajo:	25% FC
Total Weight: Peso Total:	4.850 lb 2.200 kg
Standard: Norma:	ASME B30.16
Warranty: 1 Year Included. 2 Years Extended. 10 Years Parts and Service Availability Garantía: 1 Año Incluida. 2 Años Extendida. 10 Años Disponibilidad de Repuestos y Servicio.	
* Includes: In Unit upper and lower travel adjustable limiters *Incluye: Limitadores de recorrido superior e inferior regulables en el equipo	



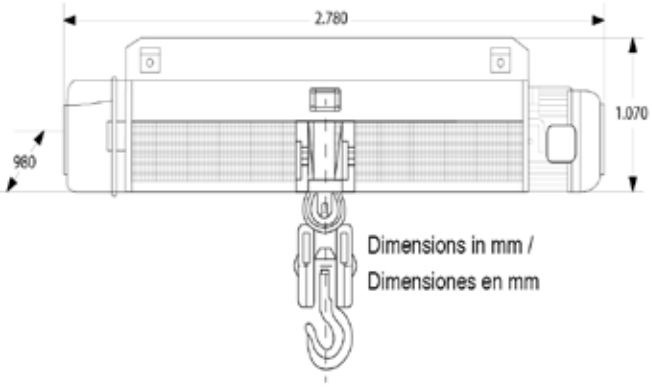
Dimensions in mm / Dimensiones en mm

VOLTAGES AVAILABLE/ VOLTAJES DISPONIBLES

Country / País	TRIPHASE / TRIFÁSICO
Argentina	380V 50Hz
Chile	380V 50Hz
Colombia	220V60Hz / 440V60Hz
Costa Rica	220V60Hz / 440V60Hz
Mexico	220V60Hz / 440V60Hz
Peru	220V60Hz / 440V60Hz
USA	220V60Hz / 440V60Hz
Resto A.L.	220V60Hz / 440V60Hz
* Check for options / Consulte por opciones	

Imágenes Referenciales

p. PWMDF32T18M



TECHNICAL PARAMETERS / PARÁMETROS TÉCNICOS

Code / Código	PWMDF32T18M
Capacity Capacidad	70.548 lb 32.000 kg
Lifting Height Altura de Izaje	59 ft 18 m
1st Lifting speed : Velocidad de Izaje 1ª:	1 ft/min 0,24 m/min
2nd Lifting speed: Velocidad de izaje 2ª:	8 ft/min 2,4 m/min
IWRC Rope: Cable IWRC:	ø7/8" x 236 ft ø21 mm x 72 m
Frame: Estructura:	ø 6 x 37 + 1
LIFTING MOTOR / MOTOR DE IZAJE Motor Power : Potencia Motor:	18,5 kW 3 Ph
RPM	
Voltage: Voltaje:	380V 50 Hz
Current: Corriente:	40 A
Working Temperature: Temperatura de trabajo:	-4 ~ 104 °F -20 ~ 40 °C
Working Humidity: Humedad de Trabajo:	< 85 %
Maximum starts per hour: Máximo de Partidas por Hora:	120 c/h
Duty Cycle: Ciclo de Trabajo:	25% FC

Total Weight: Peso Total:	3.307 lb 1.500 kg
Standard: Norma:	ASME B30.16
Warranty: 1 Year Included. 2 Years Extended. 10 Years Parts and Service Availability Garantía: 1 Año Incluida. 2 Años Extendida. 10 Años Disponibilidad de Repuestos y Servicio.	
* Includes: In Unit upper and lower travel adjustable limiters *Incluye: Limitadores de recorrido superior e inferior regulables en el equipo	

VOLTAGES AVAILABLE/ VOLTAJES DISPONIBLES

Country / País	TRIPHASE / TRIFÁSICO
Argentina	380V 50Hz
Chile	380V 50Hz
Colombia	220V60Hz / 440V60Hz
Costa Rica	220V60Hz / 440V60Hz
Mexico	220V60Hz / 440V60Hz
Peru	220V60Hz / 440V60Hz
USA	220V60Hz / 440V60Hz
Resto A.L.	220V60Hz / 440V60Hz
* Check for options / Consulte por opciones	

Imágenes Referenciales

q. PWMDF50T12M

TECHNICAL PARAMETERS / PARÁMETROS TÉCNICOS

Code / Código	PWMDF50T12M
Capacity 1st Layer: Capacidad 1ª Capa:	110.231 lb 50.000 kg
Lifting Height: Altura de Izaje:	39 ft 12 m
1st Lifting speed: Velocidad de Izaje 1ª:	1 ft/min 0,24 m/min
2nd Lifting speed: Velocidad de izaje 2ª:	8 ft/min 2,4 m/min
LIFTING MOTOR / MOTOR DE IZAJE Motor Power : Potencia Motor:	18,5 kW 3 Ph
Working Temperature: Temperatura de trabajo:	-4 ~ 104 °F -20 ~ 40 °C
Working Humidity: Humedad de Trabajo:	< 85 %
Maximum starts per hour: Máximo de Partidas por Hora:	120 c/h
Duty Cycle: Ciclo de Trabajo:	25% FC
Total Weight: Peso Total:	12.125 lb 5.500 kg
Standard: Norma:	ASME B30.16
Warranty: 1 Year Included. 2 Years Extended. 10 Years Parts and Service Availability Garantía: 1 Año Incluida. 2 Años Extendida. 10 Años Disponibilidad de Repuestos y Servicio.	
* Includes: In Unit upper and lower travel adjustable limiters *Incluye: Limitadores de recorrido superior e inferior regulables en el equipo	

VOLTAGES AVAILABLE/ VOLTAJES DISPONIBLES

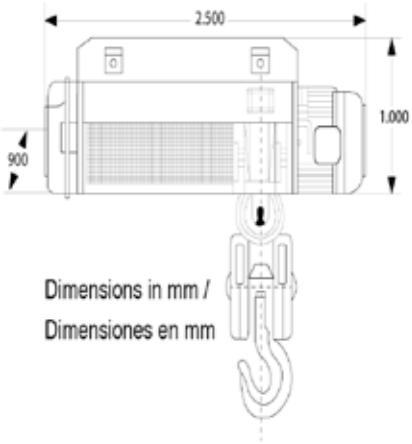
Country / País	TRIPHASE / TRIFÁSICO
Argentina	380V 50Hz
Chile	380V 50Hz
Colombia	220V60Hz / 440V60Hz
Costa Rica	220V60Hz / 440V60Hz
Mexico	220V60Hz / 440V60Hz
Peru	220V60Hz / 440V60Hz
USA	220V60Hz / 440V60Hz
Resto A.L.	220V60Hz / 440V60Hz
* Check for options / Consulte por opciones	

Imágenes Referenciales

r. PWMDF50T20M

TECHNICAL PARAMETERS / PARÁMETROS TÉCNICOS

	Code / Código	PWMDF50T20M
	Capacity Capacidad	110.231 lb 50.000 kg
	Lifting Height Altura de Izaje	66 ft 20 m
	1st Lifting speed : Velocidad de Izaje 1ª:	1 ft/min 0,24 m/min
	2nd Lifting speed: Velocidad de izaje 2ª:	8 ft/min 2,4 m/min
LIFTING MOTOR / MOTOR DE IZAJE	Motor Power : Potencia Motor:	18,5 kW 3 Ph
	Working Temperature: Temperatura de trabajo:	-4 ~ 104 °F -20 ~ 40 °C
	Working Humidity: Humedad de Trabajo:	< 85 %
	Maximum starts per hour: Máximo de Partidas por Hora:	120 c/h
	Duty Cycle: Ciclo de Trabajo:	25% FC
	Total Weight: Peso Total:	7.716 lb 3.500 kg
	Standard: Norma:	ASME B30.16
	Warranty: 1 Year Included. 2 Years Extended. 10 Years Parts and Service Availability Garantía: 1 Año Incluida. 2 Años Extendida. 10 Años Disponibilidad de Repuestos y Servicio.	
	* Includes: In Unit upper and lower travel adjustable limiters *Incluye: Limitadores de recorrido superior e inferior regulables en el equipo	



VOLTAGES AVAILABLE/ VOLTAJES DISPONIBLES

Country / País	TRIPHASE / TRIFÁSICO
Argentina	380V 50Hz
Chile	380V 50Hz
Colombia	220V60Hz / 440V60Hz
Costa Rica	220V60Hz / 440V60Hz
Mexico	220V60Hz / 440V60Hz
Peru	220V60Hz / 440V60Hz
USA	220V60Hz / 440V60Hz
Resto A.L.	220V60Hz / 440V60Hz
* Check for options / Consulte por opciones	

Imágenes Referenciales

9. WARRANTY

1) Warranty is only valid with the receipt or legal invoice for a period of 3 years from it's issue date and with the Prowinch maintenance up to date (yearly)
2) This lifting equipment, even though it was designed to lift or pull weight, it's not designed lo lift people or similar objects. People must keep away from the wire rope (or chain), hook and load.
3) It's user's responsibility to install the unit by certified personnel who are fully capable of performing that labor by the norms. Every structural calculation must be done by a
calculation engineer accredited who must certify the installation. A wrong installation process will invalidate the unit's warranty.
4) Is responsibility of every person who uses the equipment, to operate according to ASME B30 norms. Is also responsible for doing and keeping record of maintenance donde to the equipment. Prowinch offers training and certifies operators.
5) In case of performing any electric connection that differs from the user's manual, the warranty will immediately expire.
6) The equipment owner is responsible for checking regularly the wire rope (or chain), hook or any other piece of the equipment that may be loose or damaged, on the equipment or the load to be manipulated.
7) The user is responsible for wearing the safety equipment indicated in the manual for the operation of this equipment. Strong globes, working helmet, safety shoes and eye glasses protection. This applies for any person surrounding the equipment.
8) The warranty will expire immediately if any type of intervention is done to the equipment.
9) Every Prowinch equipment has a warranty seal. In case it is broken, warranty will expire immediately.
10) Warranty will end if equipment in not installed in an adequate levelled surface and without the right perforations and anchorages.
11) It's user's responsibility to comply with the right electrical specifications of the equipment.
12) This warranty only covers fabrication defects.
13) Every unit that may show signs of abuse, loading more than the indicated weight, has evidence of burned circuits, has broken or damaged parts will not be covered for this warranty.
14) It's users responsibility not to overload the equipment above the weight indicated on the nameplate of the unit.
15) This warranty is given within Prowinch headquarters. Replacement parts covered by this warranty are sent to destination. Shipping and handling costs are not included and must be paid by the owner.
16) Warranty does not cover equipment transportation, unloading, personnel transportation or any other cost that may be related to not using the equipment.
17) In case a technical visit is solicited and scheduled at customers site, it shall be paid in advance even though the visit involves services covered by this warranty.
18) The warranty is only valid to the direct buyer, not to other people in case of resale, renting or passing the equipment to others.

Warranty exclusions:
- If the damage is produced by meteorological agents.
- If the damage is produced by external agents such as: fire, water, crushing, wrong voltage usage or inadequate energy use.
- If any damage is caused by inadequate transportation, vandalism, sand or natural disasters such as earthquakes, flood or fire.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