

RY SERIES





Working Harder For You

In 1876, Edwin Harrington dramatically improved the self-sustaining hoist by introducing the worm-gear design. Since then, the company he founded has earned a proud reputation for product innovations and consistent quality that our customers count on to meet their diverse requirements.

Over the years we have developed and grown by recognizing the value of our customers and responding to your needs. The daily mission of our organization is to provide you, the customer, with the highest quality in our products, service and support.

In addition to our superior products and expanded facilities, we offer a Sales and Customer Service team that is dedicated to serving you, a well qualified Engineering Department to support your technical needs and a full support staff who all know the importance of working together to provide solutions for your material handling projects.

We are working harder to be the supplier-of-choice for all of your hoist and crane applications.

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RY Series Electric Wire Rope Hoists

Premium Features

UL® Listed

Certified and listed to UL 1340 "Standard for Hoists" and CSA 22.2 No. 33 "Construction and **Test of Electric Cranes** and Hoists."



VFD Control – **Hoist and Trolley**

Δ

Soft start/stop minimizes load swing. High and low speed

adjustability. Max ratio of 6:1. Includes standard count hour meter that records and displays the number of lifting/ lowering starts and hoist on time for preventative maintenance.

Premium Wire Rope (IWRC, **Coated Core**)

Provides high resistance to fatigue and wear.



Full 360° Rope Guide

Made of a high strength polymer for durability, keeps the rope securely in the groove on the drum. Simple design makes replacement easy.



Rope Drum

Deep grooved, high strength drum for durability and long service life.



High Performance Motor Brakes

The Pull-Rotor motor brake on 3 and 5 Ton and Magnetic Disc Brake on 7.5 and 10 Ton provide reliable operation and exceptional durability. 5-year hoist brake warranty.





Externally Adjustable Upper/Lower Limit Switches



Set the range of operation with easy adjustment.

Standard Upper Emergency Paddle Limit

Secondary limit independent of drum rotation to comply with US Safety Standard ASME B30.



Heavy Duty – Fan Cooled Hoist Motor

With class F insulation and a ribbed frame for maximum cooling and durability. IP55 rating ensures a high level of protection from the entrance of dust and water.H4 rated hoist, 60 minute duty rating.



Standard Guide Rollers and Rubber Trolley Bumpers

Guide rollers reduce wheel friction and noise while providing smooth travel and increased life of wheel and beam. Rubber trolley bumpers provide protection from collisions.



No Load High Speed Function

Operates at 1.5 times the standard high speed with a load less than 25% of rated capacity.



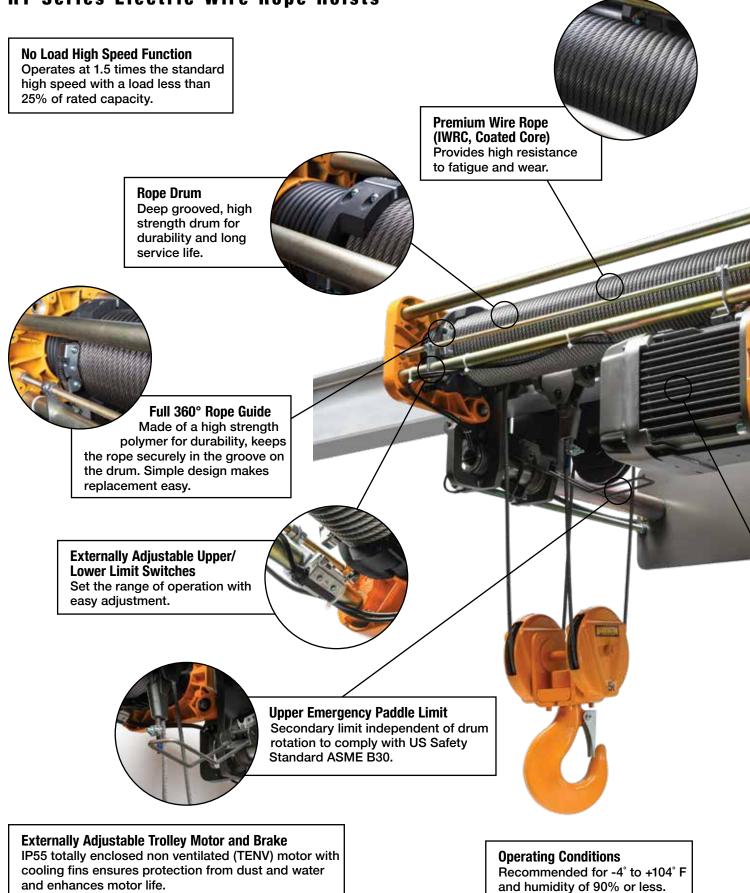
Externally Adjustable Trolley Motor and Brake

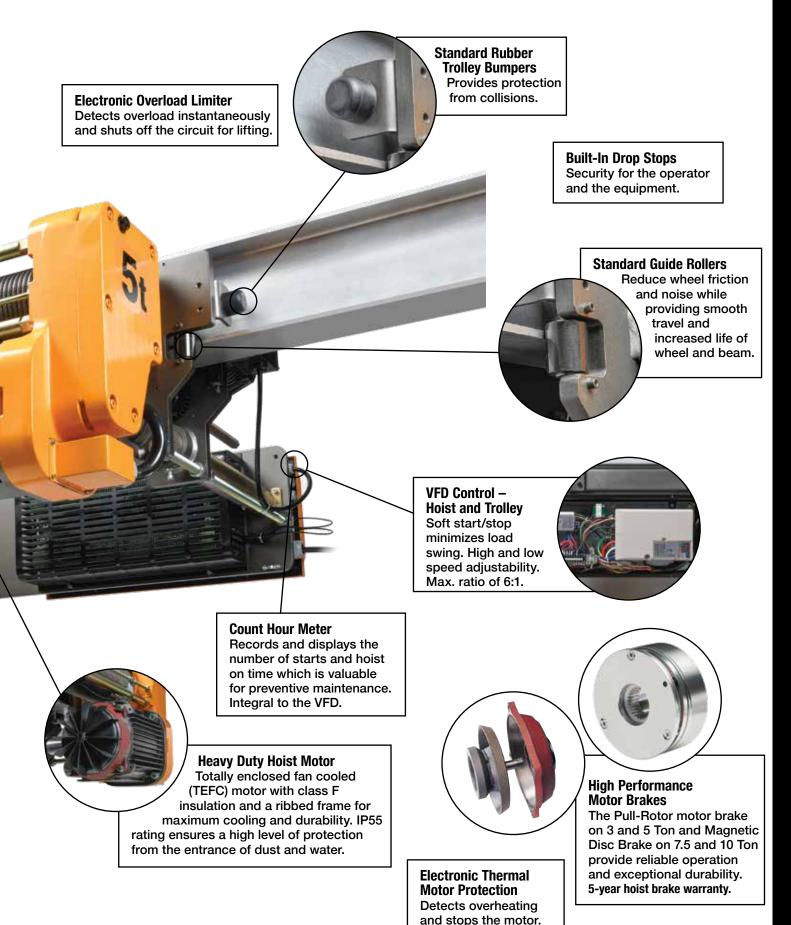
IP55 totally enclosed non ventilated (TENV) motor with cooling fins ensures protection from dust and water and enhances motor life.



HARRINGTON

RY Series Electric Wire Rope Hoists





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RY Series Electric Wire Rope Ultra-Low Headroom Trolley Hoists



5 Ton

Harrington's RY Series wire rope hoists are designed for safety, reliability and performance. These ultra-low headroom trolley hoists have an H4 duty rating for high demand applications and comes standard with VFD controls for ultimate lifting and lowering accuracy.

Features and Benefits

UL[®] Listed**

Certified and listed to UL 1340 "Standard for Hoists" and CSA 22.2 No. 33 "Construction and Test of Electric Cranes and Hoists."

VFD Control - Hoist and Trolley Soft start/stop minimizes load swing. High and low speed adjustability. Max. ratio of 6:1.

No Load High Speed Function

Operates at 1.5 times the standard high speed with a load less than 25% of rated capacity.

Premium Wire Rope (IWRC, Plastic Coated Core)

Provides high resistance to fatigue and wear.

Full 360° Rope Guide

Made of a high strength polymer for durability, keeps the rope securely in the groove on the drum. Simple design makes replacement easy.

Rope Drum

Deep grooved, high strength drum for durability and long service life.

High Performance Motor Brakes

The Pull-Rotor motor brake on 3 and 5 Ton and Magnetic Disc Brake on 7.5 and 10 Ton provide reliable operation and exceptional durability. **5-year hoist brake warranty.**

Externally Adjustable

Upper/Lower Limit Switches Set the range of operation with easy adjustment.

Electronic Overload Limiter Detects overload instantaneously and shuts off the circuit for lifting.

Standard Upper Emergency Paddle Limit

Secondary limit independent of drum rotation to comply with US Safety Standard ASME B30.

Heavy Duty -Fan Cooled Hoist Motor

Totally enclosed fan cooled (TEFC) motor with class F insulation and a ribbed frame for maximum cooling and durability. IP55 rating ensures a high level of protection from the entrance of dust and water.

Standard Hoist/Trolley Specifications

Capacity Range 3 – 10 Ton

Standard Voltage (208-230)-3-50/60 460-3-50/60

Control Voltage

Duty Cycle* 60 min

Ratings Hoist/Trolley – IP55

Classification

ASME H4 ISO M5 or M4 FEM 2M or 1Am

Conformance** UL1340, 508, 508A, 1004 ASME B30.16, B30.17, HST-4 CMAA 74 CSA 22.2 (33, 14-13, 66), B167

Operating Conditions Recommended for -4° to +104° F and humidity of 90% or less.

Mounting Ultra-Low Headroom

Standard Rubber Trolley Bumpers

Provides protection from collisions.

Externally Adjustable Trolley Motor and Brake

IP55 totally enclosed non ventilated (TENV) motor with cooling fins ensures protection from dust and water and enhances motor life.

Electronic Thermal

Motor Protection Detects overheating and stops the motor.

Count Hour Meter

Records and displays the number of starts and hoist on time which is valuable for preventive maintenance. Integral to the VFD.

Standard Guide rollers

Reduced wheel friction and noise providing smooth travel and increased life of wheel and beam.

Built-In Drop Stops

Security for the operator and the equipment.

Trolley Wheels Fit flat or tapered beam flange.

Wheels Will operate on a tapered or flat beam flange.

Pendant Optional IP65 (NEMA 3R) or NEMA 4 (both with emergency on/off)

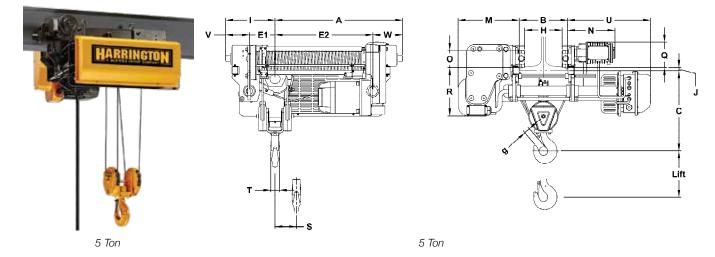
Pendant Cord Optional

Power Supply Cord Optional

Flange Extension Kit – (Installed) Optional

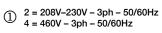
*See page 15 for additional information.

** Standard models shipped with UL listing – Contact Customer Service



ULTRA-LOW HEADROOM TROLLEY HOISTS - SPECIFICATIONS

						Lifting Motor 3 Phase – 50/60Hz						Traversing Motor 3 Phase – 50/60Hz														
						Lifting (ft/) Speed ¹ (min)		F	lated Curren (amps)	tt²	Traversing Speed ² (ft/min)			Rated Curro	ent (amps)²										
Capacity (Tons)	Product Code	Lift (ft)	Flange Range B (in)	Reeving (parts/ reeving)	Rope (mm)	Initial High/ Low Speed	No Load High Speed	Output (Hp)	@208V/ 60Hz	@230V/ 60Hz	@460V/ 60Hz	Initial High/ Low Speed	Output (Hp)	@208V/ 60Hz	@230V/ 60Hz	@380V/ 50Hz	@460V/ 60Hz	Net Weight (Ibs.)								
	RYU030A25HDDD	25	4.92- 13.78															960								
		20	13.79- 19.68															971								
3	RYU030A33HDD0	33	4.92- 13.78	4/1	9	26/4.3	39	6.7	24.7	22.9	12.1	66/11	0.54	1.5	2.1		1.4	1048								
		33	13.79- 19.68														1059									
	RYU050B25HDD0	25	4.92- 13.78																					-		993
5		20	13.79- 19.68	4/1	9	26/4.3	39	10.7	36.5	34.0	18.3	66/11	0.54	1.5	2.1	17	14	1004								
5	RYU050B33HDD	33	4.92- 13.78	-771	9	20/4.0		10.1				00/11	0.04		2.1	1.7	1.4	1092								
		33	13.79- 19.68															1103								
	RYU075C30HDDD	30	5.9- 13.78															2227								
		30	13.79- 20.00															2258								
7.5			5.9- 13.78	4/1	13	20/3.3	30	17.7	43.4	39.6	19.0	66/11	1.0	3.9	4.4	2.5	2.6	2397								
	RYU075C40HDD®	40	13.79- 20.00															2428								
			5.9- 13.78															2227								
10	RYU100C30HDD®	30	13.79- 20.00		10	00/0 0		477	504	54.4	04.0	00/44						2258								
10		40	5.9- 13.78	4/1	13	20/3.3	30	17.7	56.1	51.4	24.8	66/11	1.0	3.9	4.4	2.5	2.6	2397								
	RYU100C40HDD®	40	13.79- 20.00															2428								

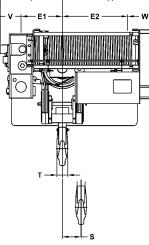


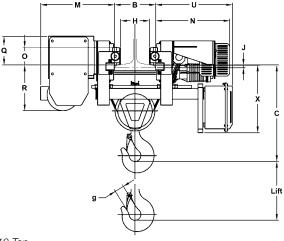
1) Low and high speeds are adjustable 2) Current values based on 250 kVA power supply



RY Series Electric Wire Rope Ultra-Low Headroom Trolley Hoists



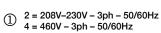




10 Ton

ULTRA-LOW HEADROOM TROLLEY HOISTS - DIMENSIONS

Capacity	Product	Flange Range B										ensions (in)										
(Tons)	Code	Lift (ft)	(in)	A	C	E1	E2	g	H	I	J	М	N	0	Q	R	S	T	U	V	W	X
	RYU030A25HDD®	25	4.92- 13.78	36.3			27.8										6.1		32.4- 23.6			
3		25	13.79- 19.68	30.3	25.0	7.3	27.0	17	1.7 B-3.1	14.1	1.3 or	174	13.5	1 02	73	13.7	6.1	2.1	29.5- 23.6	6.7	8.5	13.7
5	RYU030A33HDD	33	4.92- 13.78	44.7	23.0	1.5	36.1	1.7			less		13.5	4.52	7.5	10.7	8.1	2.1	32.4- 23.6	0.7	0.5	13.7
			13.79- 19.68				00.1										0.1		29.5- 23.6			
	RYU050B25HDD①	25	4.92- 13.78	36.3			27.8										6.1		32.4- 23.6			
5		20	13.79- 19.68	00.0	25.6	7.3	27.0	1.8	B-3.1	14.1	1.3 or	174	13.5	1 02	72	13.7	0.1	2.5	29.5- 23.6	6.7	95	12.7
	RYU050B33HDD	33	4.92- 13.78	44.7	23.0	1.5	26.1	1.0	D-0.1	14.1	less	17.4	15.5	4.92	7.5	13.7	8.1	2.5	32.4- 23.6	0.7	7 8.5 13.7	
		33	13.79- 19.68	44.7			30.1												29.5- 23.6			
	RYU075C30HDD	30	5.9- 13.78	32.3			21.6										6.3		33.6- 25.8			
7.5			13.79- 20.00	02.0	32.3	12 /	21.0		2.8	B-4.1	-4.1 20.8	1.6 or	24.7	24.7 24.8	50		15.0	0.0	3.5	31.7-25.8	7.4	10.7
1.5	RYU075C40HDD	1	5.9- 13.78	40.8	52.5	15.4	30.0	2.0	D-4.1	20.0	less	24.7	24.0	5.9	9.6	15.3	8.4	5.5	33.6- 25.8	7.4 10	10.7	22.0
		40	13.79- 20.00	40.0			30.0	30.0									8.4		31.7-25.8			
	RYU100C30HDD®	30	5.9- 13.78	32.3			21.6										6.3		33.6- 25.8			
10		30	13.79- 20.00	52.5	32.3	10.4	21.0	2.8	D 41	00.0	1.6	04.7	24.8	5.9	9.6	15.3	0.3	3.5	31.7-25.8	74	10.7	00.6
	RYU100C40HDD®	40	5.9- 13.78	40.8	32.3	13.4	20.0	2.8	B-4.1	20.8	or less	24.7	24.8	5.9	.9 9.6	15.3	0 /		33.6- 25.8	7.4	10.7	22.6
		40	13.79- 20.00	40.0		30.0 21.6	\$0.0									8.4		31.7-25.8				



RY Series Plug and Play Crane Kit Packages

TROLLEY HOIST



- H4 rated hoist, 60 minute duty rating for the most demanding applications
- The Pull-Rotor Motor Brake on 3 and 5 Ton and Magnetic Disc Brake on 7.5 and 10 Ton provide reliable operation and exceptional durability with a **5-year hoist brake warranty**
- High and low speed adjustability via under-the-cover variable frequency control. Max. ratio of 6:1
- No load high speed hoist function for operation at 1.5 times the standard high speed when the load is less than 25% of rated capacity
- Standard upper emergency paddle limit is a secondary limit independent of drum rotation
- Premium wire rope (IWRC coated core) provides high resistance to fatigue and wear

BRIDGE CONTROL PANEL



- Field adjustable UL listed Power Electronics[®] variable frequency drive on bridge motors
- Completely pre-wired and tested
- Through-the-door fused disconnect switch
- Control transformer with primary and secondary fusing
- Mainline contactor
- Thermal overload relay

END TRUCKS



- Totally enclosed non-ventilated (TENV) motors with adjustable DC brakes
- Helical gear reducers
- Externally adjustable DC brakes allow controlled deceleration
- Thermal motor protection
- Rubber bumpers
- Rail sweeps
- Machined steel wheels with side guide rollers that reduce wheel friction

FLAT CABLE FESTOONING



- Flat cable power festoon for smooth trolley travel
- Flat cable roving pendant provides safe and effective handling without close proximity to the load
- Completely pre-wired and tested
- Modular design for easy packaging and installation

RY SERIES PLUG AND PLAY CRANE KIT PACKAGES:

End Trucks

40 FPM or 80 FPM with VFD control

Hoist Capacity 3–10 Ton

Hoist and Trolley

Dual speed VFD controlled High and low speed adjustability Max. ratio of 6:1

Lift 25' or 33

25' or 33' (3–5 Ton) 30' or 40' (7.5–10 Ton)

Beam Accessory Kit

Includes all braces, mounting plates, guide wire brackets, end stops, control panel extension brackets when applicable, hardware and instructions

Bridge Control Panel

UL listed Power Electronics ® VFD Control Panel with plug and play connections

Crane Wiring Complete package

Flat Cable Festooning Complete Package for power and roving pendant

Pendant 8-button with on/off

Voltage 460-3-60 (Consult Customer Service for alternate voltages)

Bridge Beam NOT Included

Consult Customer Service for alternate span requirements or recommended bridge beam sizes.

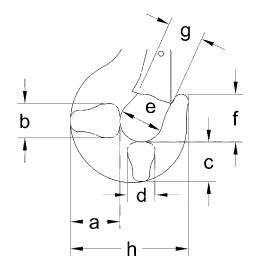
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BOTTO	BOTTOM HOOK—DIMENSIONS											
Capacity (Tons)	Product Code	a (in)	b (in)	c (in)	d (in)	e (in)	f (in)	g (in)	h (in)			
	RYU030A25HDD					<u>.</u>			0.7			
3	RYU030A33HDD ^①	2.6	2.1	2.3	1.8	2.5	2.8	1.7	6.7			
_	RYU050B25HDD		2.5	2.6	2.1	2.8	3.2	1.8				
5	RYU050B33HDD ^①	3.2							7.6			
	RYU075C30HDD ^①		3.5	3.7	3.0	3.9	4.5					
7.5	RYU075C40HDD ^①	4.4						2.8	10.9			
	RYU100C30HDD [®]				3.0		4.5	2.8				
10 -	RYU100C40HDD	4.4	3.5	3.7		3.9			10.9			

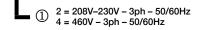


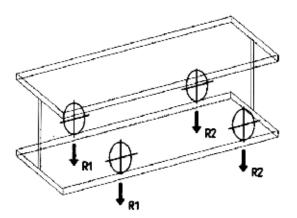
① 2 = 208V-230V - 3ph - 50/60Hz 4 = 460V - 3ph - 50/60Hz



REACTION FORCES AT RATED LOAD

	Ultra-Low Headroom Trolley Hoists Wheel Reaction Forces										
Capacity (Tons)	Product Code	Flange Range B (in)	R1 (lb)	R2 (lb)							
		4.92-13.78	2994	789							
	RYU030A25HDD ^①	13.82-19.68	2999	790							
3		4.92-13.78	3182	645							
	RYU030A33HDD ^①	13.82-19.68	3187	646							
		4.92-13.78	4751	1252							
	RYU050B25HDD [®]	13.82-19.68	4755	1253							
5		4.92-13.78	5032	1020							
	RYU050B33HDD [®]	13.82-19.68	5037	1021							
		5.9-13.78	5797	3586							
7.5	RYU075C30HDD [®]	13.79-20.00	5806	3592							
7.5		5.9-13.78	6555	2913							
	RYU075C40HDD [®]	13.79-20.00	6566	2917							
		5.9-13.78	7500	4639							
10	RYU100C30HDD [®]	13.79-20.00	7509	4645							
10		5.9-13.78	8463	3760							
	RYU100C40HDD [®]	13.79-20.00	8474	3765							





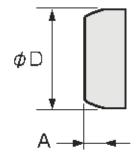
Trolley Hoist Wheel Reaction Forces



TROLI	.EY WHEEL—DIMENSIOI	N S	1		
Capacity (Tons)	Product Code	A (in)	фD (in)		
	RYU030A25HDD ^①				
3	RYU030A33HDD ^①	- 0.79	3.86		
_	RYU050B25HDD ^①	0.70			
5	RYU050B33HDD ^①	0.79	3.86		
	RYU075C30HDD	1.10	5.04		
7.5	RYU075C40HDD ^①	- 1.42	5.91		
10	RYU100C30HDD	1.10	5.04		
10	RYU100C40HDD®	- 1.42	5.91		

2 = 208V-230V - 3ph - 50/60Hz 4 = 460V - 3ph - 50/60Hz

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DUTY CLASSIFICATIONS

		Operation Time Ratings at K = 0.65*							
			Distributed Periods	Infrequent Work Periods					
Hoist Duty Class	Typical Areas of Application	Max. Time (min/hr)	Max. No. of Starts/hr	Max. Time From Cold Start (min)	Max. No. of starts				
H2	Light machine shop fabricating, service and maintenance; loads and utilization randomly distributed; rated loads infrequently handled	7.5 (12.5%)	75	15	100				
нз	General machine shop fabricating, assembly, storage, and warehousing; loads and utilization randomly distributed	7.5 (25%)	150	30	200				
H4	High volume handling in steel warehouses, machine shops, fabricating plants and mills, and foundries; manual or automatic cycling operations in heat treating and plating; loads at or near rated load frequently handled	30 (50%)	300	30	300				

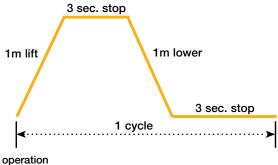
*K = Mean effective load factor.

LIFTING MOTOR RATINGS

Short Time Rating

This rating indicates how long the hoist can be operated continuously

at the rated capacity on the cycle below, assuming continued



for a short time span.

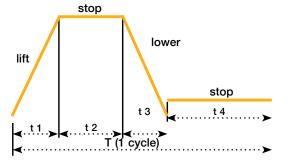
Dual speed: 30/10 min

Intermittent Rating (Percent ED)

Max. Number of Starts Per Hour

This rating indicates the allowable ratio of motor ON time to motor

OFF time, and starts per hour for a hoist operated continuously at 63% of rated capacity on the cycle below, assuming continued operation or repeated starting over a long time span.



Example (single speed): %ED = <u>Motor ON time (t1 + t3</u>) x 100 T (1 cycle)

(Where T = 1 cycle (t1 + t2 + t3 + t4) and is not more than 10 minutes.)

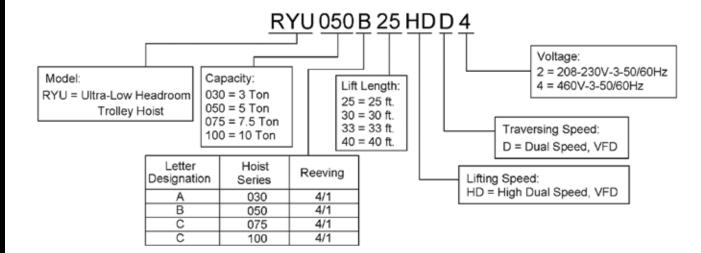


COMPLIANCE

Harrington's RY Hoists are produced to comply with the following standards:

- •NFPA 70 "National Electric Code"
- •ASME B30.16, "Safety Standard Overhead Hoists (Underhung)"
- •ASME HST-4, "Performance Standard for Overhead Electric Wire Rope Hoists"
- RY hoists in standard configurations (including certain options) are certified to UL 1340 "Standard for Hoist", CSA 22.2 No. 33

PRODUCT CODE



Notes



Notes

Complete Product Offering

Over the years Harrington has continued to respond to the needs of our customers by further expanding our product offerings. In addition to the many models described in this catalog, our full series of product catalogs, as shown below, will provide you with all of the information you will need to answer questions, specify a product and place an order. For catalog copies or answers to specific product questions, please contact our Customer Service Department by calling 800-233-3010 or e-mail customerservice@harringtonhoists.com



Manual Hoist Products Catalog

Refer to this Harrington catalog for detailed information on the following:

- Lever hoists Hand chain hoists
- Low headroom trolley hoists
- Push and geared trolleys
- Hoist and trolley combinations
 Hoist load testers



Electric Chain Hoists Catalog

Refer to this Harrington catalog for detailed information on the following:

- Three phase electric hoists and trolleys
- Single phase electric hoists and trolleys
 - Ergonomic electric hoists



Air Powered Hoists Catalog

Refer to this Harrington catalog for detailed information on the following:

- · Compact Mini-Cat with pendant, cord and manipulator controls
- · Air hoists with pendant and cord controls
- Air trolleys



Crane Components Catalog

Refer to this Harrington catalog for detailed information on the following:

- · End trucks-top running-motorized, geared and push
- End trucks-underhung-motorized, geared and push
- Double girder MAX-E-Lift end trucks
- · Convertible push end trucks
- · Beam accessory kits



Complete Cranes Catalog

Refer to this Harrington catalog for detailed information on the following:

- Heavy-duty Class C single girder top running and underhung cranes
- Heavy-duty Class C double girder top running and underhung cranes
- · Medium-duty top running and underhung push cranes
- · Crane control panels



Below-The-Hook and Material Handling Equipment

Refer to this Harrington catalog for detailed information on the following:

- Lifting beams and spreader beams
- Roll lifters, coil lifters and tongs
- Sheet lifters and pallet lifters
- Fork truck accessories
- Material stands and material baskets

CONTACT YOUR NEARBY HARRINGTON DISTRIBUTOR



Warranty

All products sold by Harrington Hoists, Inc. are warranted to be free from defects in material and workmanship from date of shipment by Harrington for the following periods:

1 year – Electric and Air Powered Hoists (excluding (N)ER2 Hoists and EQ/SEQ Hoists), Powered Trolleys, Powered Tiger Track Jibs and Gantries, Crane Components, Below the Hook Devices, Spare/Replacement Parts

2 years – Manual Hoists & Trolleys, Beam Clamps

3 years - (N)ER2 Hoists, EQ/SEQ Hoists, (T)EM/(T)SEM hoists, and RY Hoists

5 years - Manual Tiger Track Jibs and Gantries, Hoist Motor Brakes for TNER, EQ/SEQ, (T)EM/(T)SEM, and RY

10 years - (N)ER2 Brake, Tiger Track Workstation Cranes, and Monorails

The product must be used in accordance with manufacturer's recommendations and must not have been subject to abuse, lack of maintenance, misuse, negligence, or unauthorized repairs or alterations.

Should any defect in material or workmanship occur during the above time period in any product, as determined by Harrington Hoist's inspection of the product, Harrington Hoists, Inc. agrees, at its discretion, either to replace (not including installation) or repair the part or product free of charge and deliver said item F.O.B. Harrington Hoists, Inc. place of business to customer.

Customer must obtain a Return Goods Authorization as directed by Harrington or Harrington's published repair center prior to shipping product for warranty evaluation. An explanation of the complaint must accompany the product. Product must be returned freight prepaid. Upon repair, the product will be covered for the remainder of the original warranty period. Replacement parts installed after the original warranty period will only be eligible for replacement (not including installation) for a period of one year from the installation date. If it is determined there is no defect, or that the defect resulted from causes not within the scope of Harrington's warranty, the customer will be responsible for the costs of returning the product.

Harrington Hoists, Inc. disclaims any and all other warranties of any kind expressed or implied as to the product's merchantability or fitness for a particular application. Harrington will not be liable for death, injuries to persons or property or for incidental, contingent, special or consequential damages, loss or expense arising in connection with the use or inability whatever, regardless of whether damage, loss or expense results from any act or failure to act by Harrington, whether negligent or willful, or from any other reason.

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