

Options and Technical Data

BULLARD® AND SHUR-LOC® HOOKS

These hooks offer a positive locking latch feature.
Consult Customer Service for full details.



Bullard®



Shur-Loc®

PENDANT COVER

Pliable silicone rubber pendant cover designed to protect hoist
and trolley push button pendants.

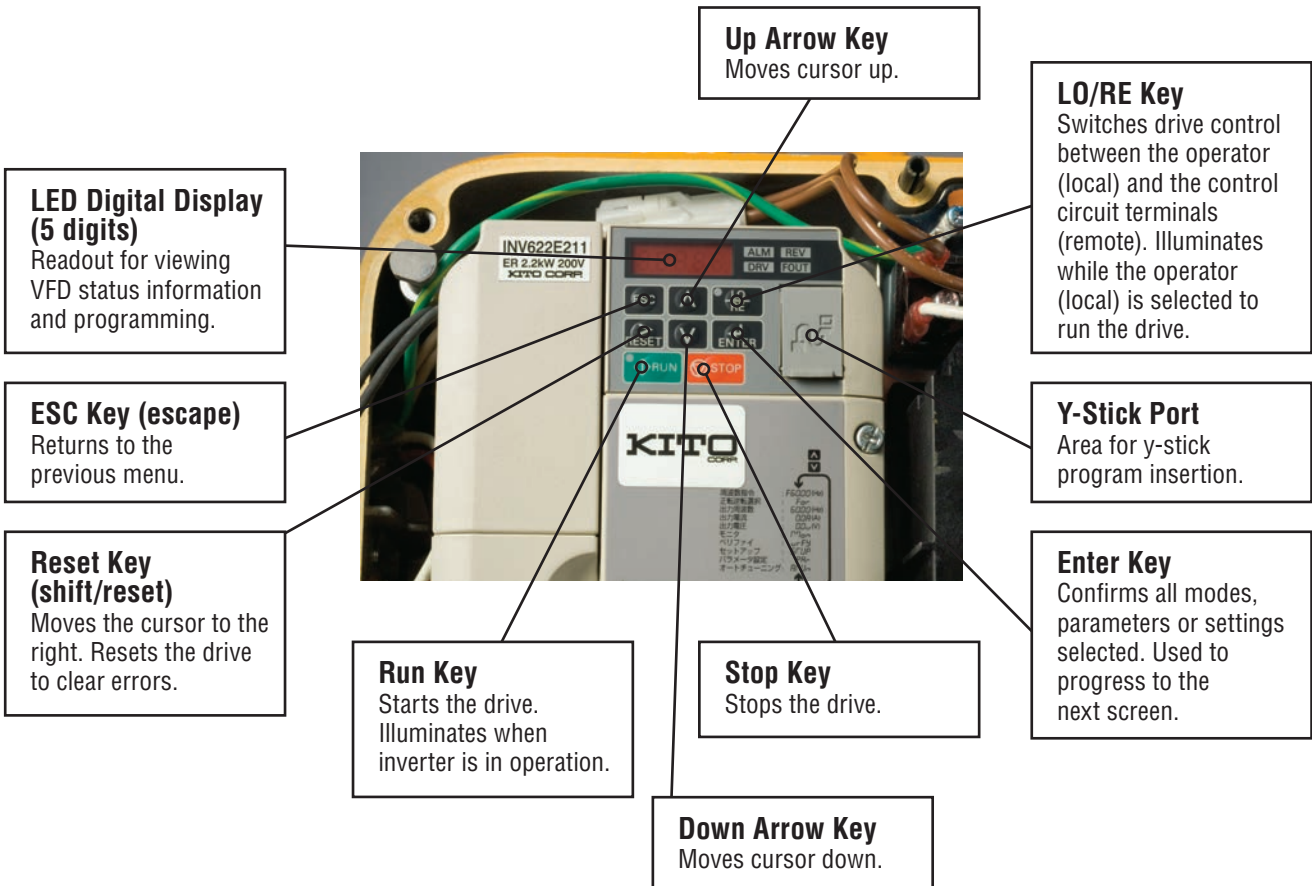


**VARIABLE FREQUENCY DRIVE – VFD
(INVERTER FOR SMOOTH TRANSITIONAL SPEED)**

The dual speed inverter delivers smoother movement than contactor control which reduces load swing. The inverter can be programmed to operate specific to the application, resulting in smooth starts, improved control, improved positioning accuracy and overall increased productivity. Standard lifting speed ratio is 6:1. Standard traversing speed ratio is 6:1 adjustable to 10:1.

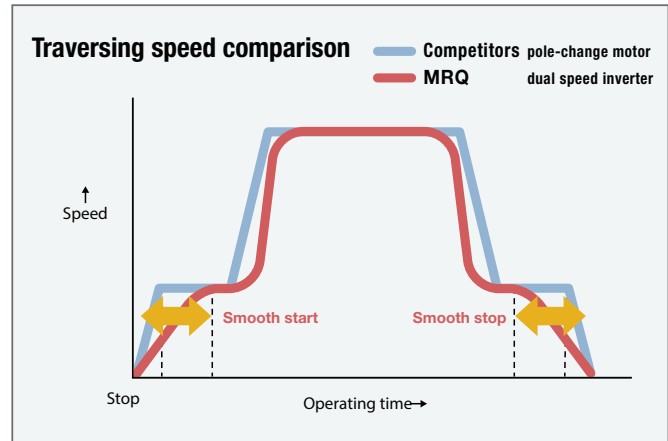
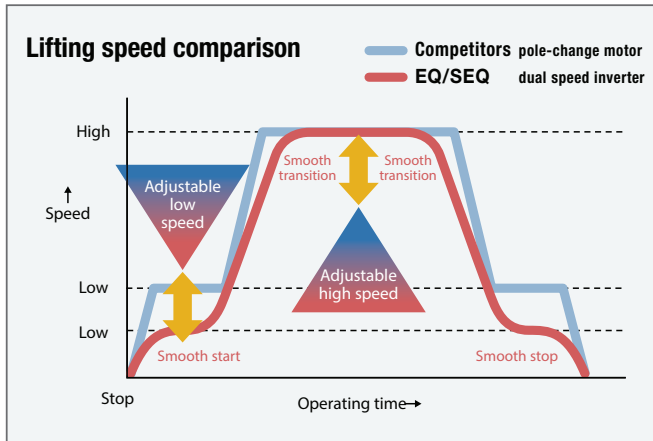
A no-load high-speed function is a standard feature, allowing its hoisting speed to move 1.3 times faster during no-load operation. When the no-load condition is detected by the inverter, this function is activated automatically switching to high-speed operation, leading to improved work efficiency with ease and safety. The function is easily activated (ON/OFF) with the push button control.

EQ, EQM and SEQ inverter units are well-customized for lifting/traversing applications including exclusive software, and are also provided with measures against impact and heat, which were verified through long-run tests.



Options and Technical Data

SPEED COMPARISONS



VFD HOIST CONTROL DESCRIPTIONS

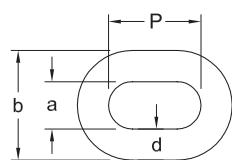
The dual speed inverter delivers smoother movement than contactor control which reduces load swing. The inverter can be programmed to operate specific to the application, resulting in smooth starts, improved control, improved positioning accuracy and overall increased productivity. Standard lifting speed ratio is 6:1. Standard traversing speed ratio is 6:1 adjustable to 10:1.

A no-load high-speed function is a standard feature, allowing its hoisting speed to move 1.3 times faster during no-load operation. When the no-load condition is detected by the inverter, this function is activated automatically switching to high-speed operation, leading to improved work efficiency with ease and safety. The function is easily activated (ON/OFF) with the push button control.

EQ, EQM and SEQ inverter units are well-customized for lifting/traversing applications including exclusive software, and are also provided with measures against impact and heat, which were verified through long-run tests.

EQ/SEQ CHAIN—DIMENSIONS

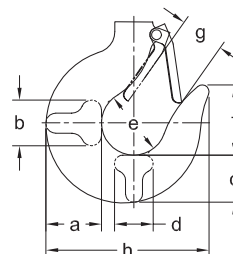
Cap. (Tons)	Product Code	d (in)	a (in)	b (in)	P (in)
1/8- 1/2	EQ001SD/003SD/005SD SEQ001SD/003SD/005SD	0.22	0.28	0.72	0.62
1	EQ010SD, SEQ010SD	0.28	0.36	0.92	0.79



Chain Dimensions

EQ/SEQ HOOK—DIMENSIONS

Capacity Code	Hook	a (in)	b (in)	c (in)	d (in)	e (in)	f (in)	g (in)	h (in)
001, 003, 005	T & B	1.1	0.7	0.9	0.7	1.4	1.5	1.1	3.7
010	T & B	1.5	0.9	1.2	0.9	1.7	1.8	1.2	4.3



Hook Dimensions

Duty Classifications

ASME HST

Hoist duty class	Typical areas of application	Operation time ratings at $K=0.65$			
		Uniformly distributed work periods		Infrequent work periods	
		Max. on time, min/ hr	Max. No. starts/ hr	Max. on 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	7.6 (12.5%)	75	15	100
H3	General machine shop fabricating, assembly, storage, and warehousing; loads and utilization randomly distributed	15 (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

The grade symbols are identical to those of ASME HST-1M. (Performance standard for Electric Chain Hoist)

HOIST CLASSIFICATION

State of loading		Total duration of use (h)							
		200	400	800	1600	3200	6300	12500	25000
Light	Mechanisms subjected very rarely to the maximum load and, normally, to light loads	—	—	M1	M2	M3	M4	M5	M6
Moderate	Mechanisms subjected fairly frequently to the maximum load but, normally, to rather moderate loads	—	M1	M2	M3	M4	M5	M6	—
Heavy	Mechanisms subjected frequently to the maximum load and, normally, to loads of heavy magnitude	M1	M2	M3	M4	M5	M6	—	—
Very heavy	Mechanisms subjected regularly to the maximum load	M2	M3	M4	M5	M6	—	—	—

This classification refers to ISO 4301-1 and applies to the mechanical components including gears and bearings except for consumable parts.

COMPLIANCE

Harrington's electric chain hoists are produced to comply with:

- CSA Std. C22.2 No 33-M1984 (R2004), "Construction and Test of Electrical Cranes and Hoists"
- CSA Std. C22.2 No 14-13, "Industrial Control Equipment"
- CSA Std. C22.2 No. 66.1-06 (R2011), "Low Voltage Transformer-Part I: General Requirements"
- ANSI/UL508 (17th Edition), "Industrial Control Equipment"
- ANSI/UL508A (First Edition), "Industrial Control Panels"
- ANSI/UL 1004 (First Edition), "Rotating Electrical Machines"
- ANSI/NFPA 70, "National Electrical Code"
- ANSI/ASME B30.16, "Safety Standard—Overhead Hoists (Underhung)"
- ANSI/ASME HST—1M, "Performance Standard for Electric Chain Hoists"

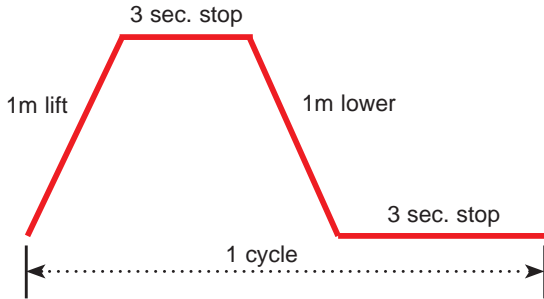
Harrington's manual and electric-powered trolleys are produced to comply with the trolley-related requirements of:

- OSHA Section 1910.179 of Title 29, "Occupational Safety and Health Regulations—Overhead and Gantry Cranes"
- ANSI/ASME B30.11, "Safety Standard—Monorails and Underhung Cranes"
- ANSI/ASME B30.17, "Safety Standard—Overhead and Gantry Cranes (Top Running Bridge, Single Girder, Underhung Hoist)"

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 operation for a short time span.

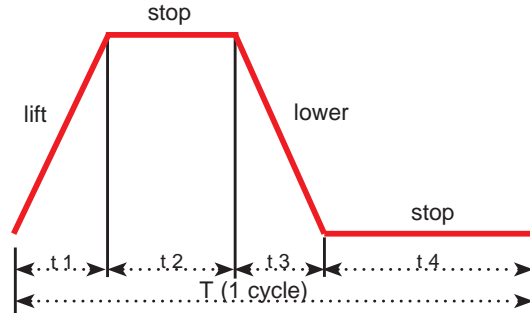


• Dual speed: 30/10 Min.

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.



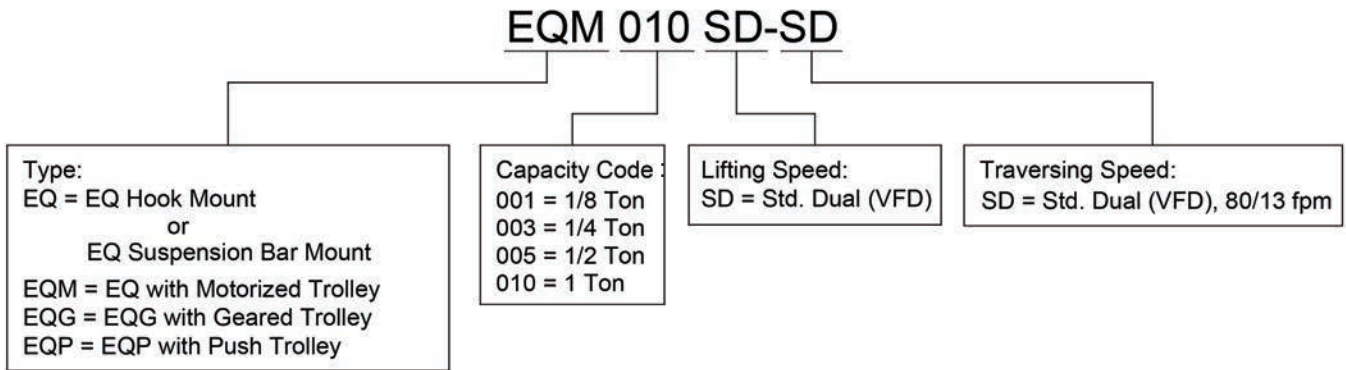
$$\text{Example: \%ED} = \frac{\text{Motor ON time (t1 + t3)}}{T \text{ (1 cycle)}} \times 100$$

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

EQ/SEQ Lifting Motor Ratings

• Dual speed: 40/20% ED, 120/240 starts/hr

Product Code for EQ Series



Product Code for SEQ Series

