

1.0 Scope

- 1.1 To define the requirements for 3-phase motorized trolley.

2.0 Codes and Standards

- 2.1 OSHA Section 1910.179 of Title 29, "Occupational Safety and Health Regulations – Overhead and Gantry Cranes"
- 2.2 NFPA 70, "National Electrical Code"
- 2.3 ASME B30.2, "Safety Standard – Overhead and Gantry Cranes (Top Running Bridge, Single or Multiple Girder, Top Running Hoist)"
- 2.4 ASME B30.11, "Safety Standard – Monorails and Underhung Cranes"
- 2.5 ASME B30.17, "Safety Standard – Overhead and Gantry Cranes (Top Running Bridge, Single Girder, Underhung Hoist)"
- 2.6 RoHS (Restriction of Hazardous Substances) Compliance

3.0 Design

- 3.1 The motorized trolleys shall be model MR2 as supplied by Harrington Hoists, Inc. The trolleys shall be rated 1/8 US Ton through 20 US Ton.
- 3.2 The motorized trolleys shall meet the specifications and dimensions of EDOC0406, "ER2 Electric Chain Hoist with Motorized Trolley Models ER2A and MR2A - Specifications and Dimensions" and EDOC408, "ER2, ER2M, ER2G & ER2P Electric Chain Hoist 8 to 20 Ton, Model ER2A – Specifications and Dimensions".
- 3.3 The motorized trolleys shall meet the design and construction criteria of paragraph 2.4 above.
- 3.4 The trolleys' enclosure ratings shall provide protection against water jets from any direction in accordance with IP55 of paragraph 2.2 above.
- 3.5 The motorized trolleys shall be equipped with a four-button pendant control station with a rating of IP65 per item 2.2 above. The pendant shall connect to the trolley control box via a quick disconnect plug/socket assembly. It shall be equipped with integral strain relief and an emergency stop button on the control station.
- 3.6 The motorized trolleys shall be built without the use of harmful materials, complying with the RoHS standard per item 2.6 above.
- 3.7 The electric chain hoist with MR2 motorized trolley mount are configured as perpendicular to the beam on single fall models. Parallel mount is available as option.
- 3.8 The trolleys' motor shall be compatible for 208-230/460 volt 3 phase power at 60 Hertz, and it shall be equipped with thermal overload protection. The motor's insulation shall meet Class B requirements.

Single Speed Motor

- Short Time Rating: 30 minutes
Intermittent Rating: 40% ED, 240 starts/hr.

Dual Speed Motor

- Short Time Rating: 40 minutes (30 min. high speed, 10 min. low speed)

GENERAL USE

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Intermittent Rating: 40% ED (27% high speed, 13% low speed), 240 starts/hr
(78 high speed, 162 low speed)

- 3.9 The dual speed motorized trolley shall be equipped with variable frequency drives, located under the control cover. VFD provides the high/low speed ratio of 6:1 as standard, with adjustability down to 12:1.
- 3.10 The motorized trolleys shall be equipped with a microprocessor based meter with on-board readout for monitoring the number of starts/stops and total hoist run time.
- 3.11 The motorized trolleys shall be equipped with a warning tag per item 2.4 above. The warning tag shall be attached to the pendant cord, it shall be made of durable plastic laminated construction, and it shall give comprehensive information for the safe operation of the hoist.

4.0 Documentation

- 4.1 Each motorized trolley shall be supplied with an Owner's Manual that includes the following information.
 - a) Important Information and Warnings
 - b) Installation and Operation
 - c) Inspection
 - d) Lubrication, Maintenance and Handling, and Troubleshooting.
- 4.2 Each motorized trolley shall be supplied with a Parts List.