



LODESTAR CATALOG





Columbus McKinnon Entertainment Technology (CM-ET), the industry leader in providing quality lifting and positioning equipment for riggers around the globe, presents the new Lodestar Electric Chain Hoist. Generations of users have relied on the Lodestar "Motor" for consistent operation and long-life for years, and now exciting new features have been added to widen the appeal of the Lodestar to the next generation of rigging professionals.

In addition to a product line recognized in venues throughout the world, CM-ET has established a network of distributors that provide the highest level of customer service to users in the industry. Wherever the show takes place, a knowledgeable CM-ET distributor is available to offer assistance with parts, service, or accessories.

When searching for products or services to ensure that your event shines, turn to the company with more than 130 years of experience in meeting the needs of our customers – Columbus McKinnon.



**THE POWER
TO PERFORM**

LODESTAR®

The Rigger's Choice

We've received the best reviews, heard "Bravo" countless times and, like all the greats, we're recognized in every venue around the world.

So how do we make the legendary Lodestar electric chain hoist even better? By incorporating new features that provide steady operation for any application in the entertainment industry.

From today's top-selling musical performers to international sporting competitions, organizers rely on the Lodestar for consistent performance event after event. Professional riggers have trusted the Lodestar for unsurpassed reliability for decades, and now you can experience the quietest, smoothest-running Lodestar ever. What an Encore!

Specs

CAPACITIES
125 to 3000 KG.

LIFT
18 meters standard
(other lifts available)

SPEEDS
2 to 30 m/min

VOLTAGES
1-phase
& 3-phase available

NEW FEATURES ON THIS NEXT GENERATION OF LODESTAR

5 POCKET LIFTWHEEL
IMPROVED CHAIN WEAR & SMOOTH LIFTING

CLUTCH OUTSIDE GEAR TRAIN
MEETS INTERNATIONAL STANDARDS.

PRECISION HELICAL GEARING
FOR QUIETER OPERATION

REDESIGNED CONTROL PANEL
FOR EASIER ACCESS & FUSE INSTALLATION

STANDARD FEATURES

AC ELECTRO-MECHANICAL BRAKE
Field tested and proven in over 1 million Lodestars worldwide

LOW VOLTAGE CONTROL
110 Volt for long cable runs without voltage drop 24 & 48 Volt optional. (Low Voltage Unit Only)

DURABLE & LIGHTWEIGHT HOUSING
Cast aluminum. Black powder coated finish for low visibility.

GEARING
Helical design for long wear life and smooth operation

LOAD CHAIN
Designed and manufactured by Columbus McKinnon. Zinc plated to protect against corrosion. Optional black finish available.

DUTY CYCLE
FEM Rating: 2m, designed for heavy duty application. 50% of Duty Cycle or 300 Starts per Hour.

DIRECT CONTROL UNITS AVAILABLE

ELECTRICAL
Finger safe wiring meets all electrical codes. Quick change plugs allow for voltages 190 thru 400. Prevents improper voltage connections which can cause hoist damage. (Low Voltage Unit Only)

ADJUSTABLE LIMIT SWITCH
Adjustable screw limit switch that will automatically stop the hook at any predetermined point when either lifting or lowering, preventing overtravel. (Low Voltage Unit Only)

OVERLOAD PROTECTOR
Designed to prevent lifting of excessive overloads. Helps prevent lifting of dangerous overloads.

METRIC RATED

MEETS REQUIREMENTS
Meets or exceeds world standards.

ROAD READY
Easy to stow and travel.

LIFETIME WARRANTY
The industry's best

OPTIONAL FEATURES

DOUBLE BRAKE
Two independent acting DC brakes for redundant braking. Field installation kit available.

ENCODERS AVAILABLE
Incremental & Absolute

CHAIN BAGS
Cloth type bags easy-to-mount

VARIABLE SPEED UNITS AVAILABLE

ALLOY LATCHLOK HOOKS
Remains locked until released by the operator, even if chain goes slack.

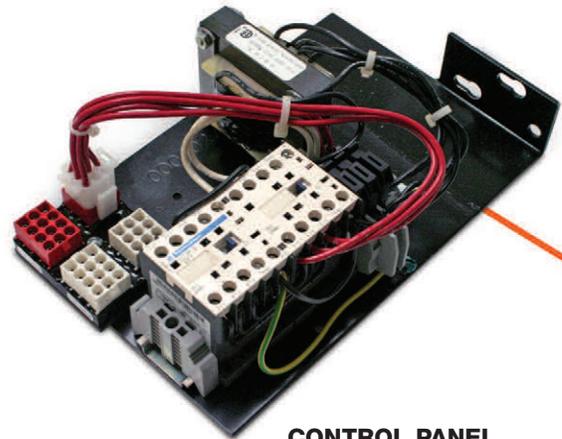
LODESTAR D8 SERIES

Specifications, Dimensions & Key Components



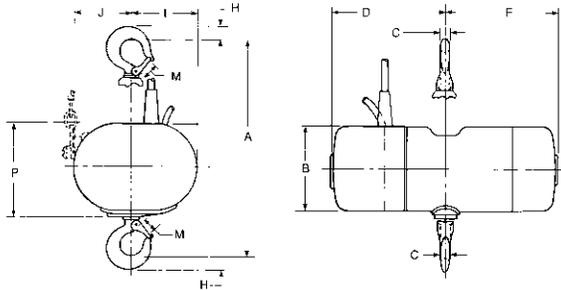
LOAD CHAIN

Sizes available from 6.35mm to 7.94mm
Chain is available according to EN 818-7
Meets or exceeds many national and international standards.
Zinc plated supplied as standard. Black phosphate finish available.
100% proof tested



CONTROL PANEL

Provides easy access to controls, plug & play connectors allow for quick voltage change for dual voltage motors. Fuses located on terminal strip.



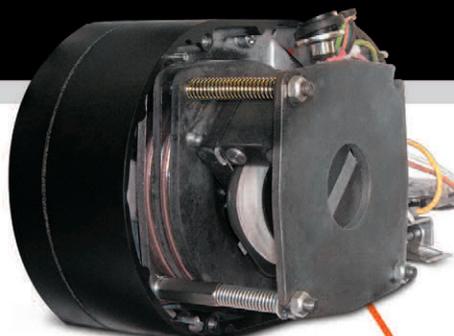
DIMENSIONS

| DRAWING LEGEND | D8 SERIES A, AA, B, C, E, F, H | D8+ SERIES A, AA, B, C E, F, H | D8 SERIES J, L, LL | D8 & D8+ SERIES JJ, R, RR, RT | D8+ SERIES J, L, LL | BGV-C1 SERIES | | |
|-----------------------------|--------------------------------------|--------------------------------------|-----------------------|--|---------------------------|---------------|---------|--------------------|
| | | | | | | F | L, LL | JJ, RR VARISTAR |
| B Body High | 15,4 cm | 15,4 cm | 19,4 cm | 19,4 cm | 2,2 CM | 15,4 cm | 19,4 cm | 19,4 cm |
| C Hook Thickness: Side | 1,7 cm | 1,7 cm | 2,2 cm | 2,9 cm | 25,3 cm | 1,7 cm | 2,2 cm | 2,9 cm |
| D Housing: Brake Side | 29,7 cm | 29,7 cm | 25,3 cm | 25,3 cm | 32,9 Cm | 29,7 cm | 25,3 cm | 25,3 cm |
| F Housing: Motor Side | 22,5 cm | 22,5 cm | 32,9 cm | 32,9 cm | 3,0 cm | 22,5 cm | 32,9 cm | 32,9 cm |
| H Hook Thickness: High | 2,5 cm | 2,5 cm | 3,0 cm | 3,8 cm | 17,6 cm | 2,5 cm | 3,0 cm | 3,8 cm |
| I Housing: Side Left | 11,3 cm | 11,3 cm | 17,6 cm | 14,2 cm | 14,5 cm | 11,3 cm | 17,6 cm | 14,2 cm |
| J Housing: Side Right | 10,7 cm | 10,7 cm | 14,5 cm | 17,9 cm | 2,8 cm | 10,7 cm | 14,5 cm | 17,9 cm |
| M Hook Opening | 2,5 cm | 2,5 cm | 2,8 cm | 3,3 cm | 20,8 cm | 2,5 cm | 2,8 cm | 3,3 cm |
| P Body High with Suspension | 16,8 cm | 16,8 cm | 20,8 cm | 20,8 cm | 19,4 cm | 16,8 cm | 20,8 cm | 20,8 cm |

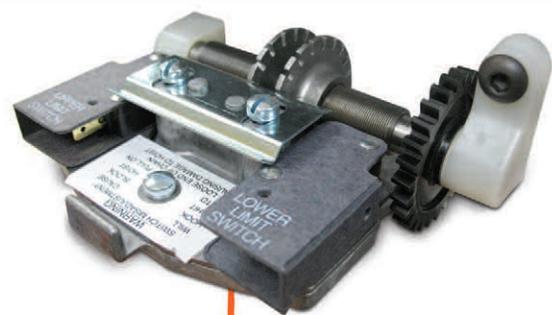
SPECIFICATIONS D8

| | Rate Load | Standard Lifting Speed at 50Hz | Operating Voltage | Single Phase Voltage | FEM Class | FEM Duty Factor | Chain Weight per meter lift-EWL | Load Chain EN 818-7 | Power Consumption -Full Load | Reeves Falls of Chain | Motor HP | Protection Class | Noise Level |
|----------|-----------|--------------------------------|-------------------|----------------------|-----------|-----------------|---------------------------------|---------------------|------------------------------|-----------------------|----------|------------------|-------------|
| Model A | 125 Kg | 8 m/min | 400-3-50 | optional | 2M | 50% | 0,89 Kg | 6,3 x 18,9 | 1,1 Amp | 1 | 0,250 HP | IP 54 | 73 dB |
| Model AA | 125 Kg | 16 m/min | 400-3-50 | optional | 2M | 50% | 0,89 Kg | 6,3 x 18,9 | 1,1 Amp | 1 | 0,250 HP | IP 54 | 73 dB |
| Model B | 250 Kg | 4 m/min | 400-3-50 | optional | 2M | 50% | 0,89 Kg | 6,3 x 18,9 | 1,1 Amp | 1 | 0,250 HP | IP 54 | 73 dB |
| Model C | 250 Kg | 8 m/min | 400-3-50 | optional | 2M | 50% | 0,89 Kg | 6,3 x 18,9 | 1,2 Amp | 1 | 0,5 HP | IP 54 | 73 dB |
| Model E | 500 Kg | 2 m/min | 400-3-50 | optional | 2M | 50% | 1,78 Kg | 6,3 x 18,9 | 1,2 Amp | 2 | 0,5 HP | IP 54 | 73 dB |
| Model F | 500 Kg | 4 m/min | 400-3-50 | optional | 2M | 50% | 0,89 Kg | 6,3 x 18,9 | 1,2 Amp | 1 | 0,5 HP | IP 54 | 73 dB |
| Model H | 1000 Kg | 2 m/min | 400-3-50 | optional | 2M | 50% | 1,78 Kg | 6,3 x 18,9 | 1,2 Amp | 2 | 0,5 HP | IP 54 | 73 dB |
| Model J | 500 Kg | 8 m/min | 400-3-50 | - | 2M | 50% | 1,42 Kg | 7,9 x 21,7 | 2,3 Amp | 1 | 1 HP | IP 54 | 73 dB |
| Model JJ | 500 Kg | 16 m/min | 400-3-50 | - | 2M | 50% | 1,42 Kg | 7,9 x 21,7 | 3,6 Amp | 1 | 2 HP | IP 54 | 73 dB |
| Model L | 1000 Kg | 4 m/min | 400-3-50 | optional | 2M | 50% | 1,42 Kg | 7,9 x 21,7 | 2,3 Amp | 1 | 1 HP | IP 54 | 73 dB |
| Model LL | 1000 Kg | 8 m/min | 400-3-50 | - | 2M | 50% | 1,42 Kg | 7,9 x 21,7 | 3,6 Amp | 1 | 2 HP | IP 54 | 73 dB |
| Model R | 2000 Kg | 2 m/min | 400-3-50 | optional | 2M | 50% | 2,84 Kg | 7,9 x 21,7 | 2,3 Amp | 2 | 1 HP | IP 54 | 73 dB |
| Model RR | 2000 Kg | 4 m/min | 400-3-50 | - | 2M | 50% | 2,84 Kg | 7,9 x 21,7 | 3,6 Amp | 2 | 2 HP | IP 54 | 73 dB |
| Model RT | 3000 Kg | 1,4 m/min | 400-3-50 | optional | 2M | 50% | 4,26 Kg | 7,9 x 21,7 | 3,6 Amp | 3 | 2 HP | IP 54 | 73 dB |

*415 Volt Operation *220 Volt Operation



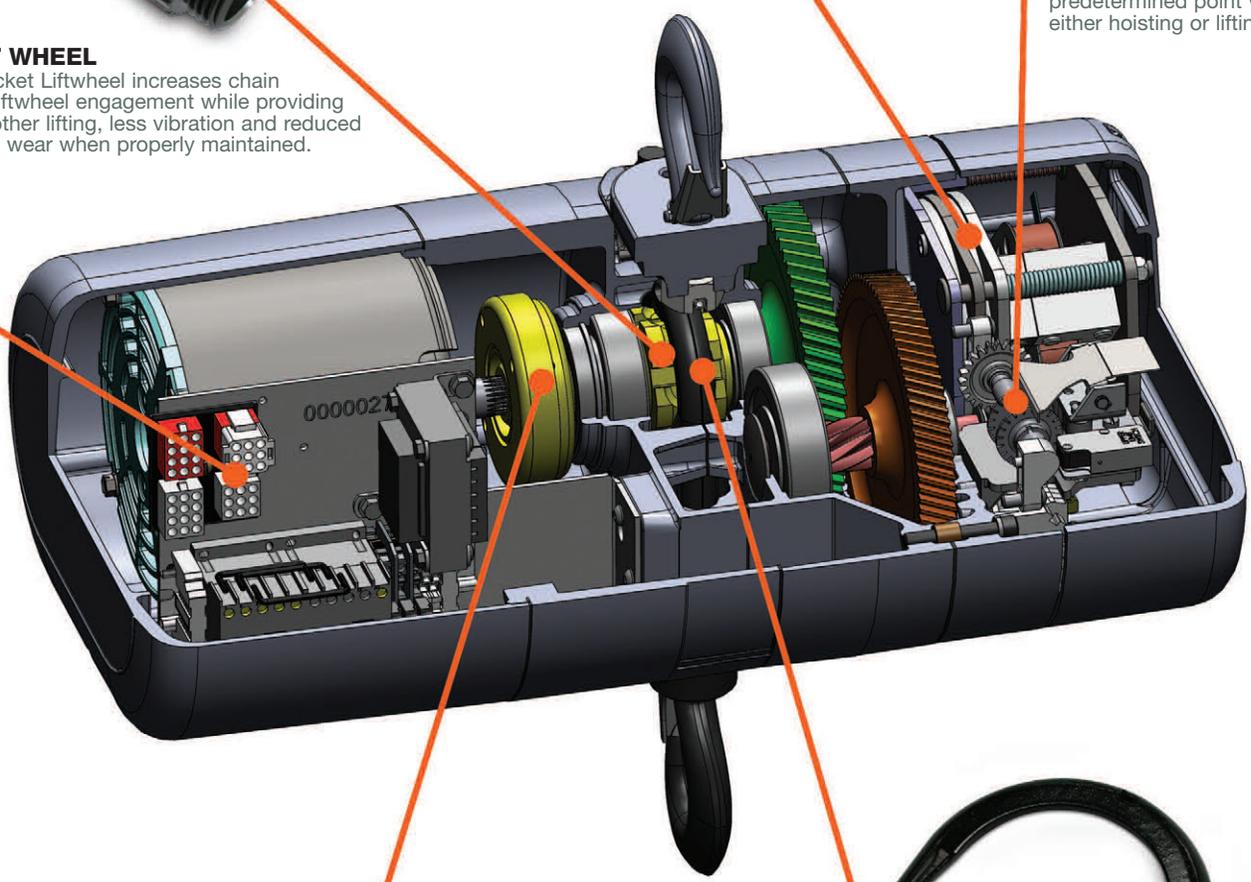
BRAKE
Heavy Duty AC Brake proven design in more than 1 million Lodestars. (Double DC Brake available)



LIMIT SWITCH
Adjustable screw limit switch that will automatically stop the hook at any predetermined point when either hoisting or lifting.



LIFT WHEEL
5 Pocket Liftwheel increases chain and liftwheel engagement while providing smoother lifting, less vibration and reduced chain wear when properly maintained.



CLUTCH
Designed to prevent lifting of excessive overloads. Located outside the gear box. Adjustable and easy to access.



INTERNAL CHAIN GUIDE
Stamped Steel guide coated for corrosion resistance and quiet operation, while keeping the load chain and liftwheel aligned.

LODESTAR D8+

CAPACITIES
70 to 1500 KG.

LIFT
18, 20 & 24 meters
standard

SPEEDS
2 to 16 meters/minute

VOLTAGES
3-phase available

The Lodestar D8+ meets all Standard SR2.0 requirements. It's clutch, outside the load path, acts as a precise overload device; and design factor is 10:1 with a double brake installed. The Lodestar D8+ is in accordance with the VPLT Code of Practice.

KEY FEATURES

ELECTRO-MECHANICAL PASSIVE DOUBLE BRAKES

5 POCKET LIFT WHEEL
For quiet & smooth operation

68 dB OPERATIONAL NOISE
A result of the Double Brake System

GEARING
Precision machined gears heat treated for strength and durability

INTERNAL CHAIN GUIDE
PVC black coated for quieter operation

LOW VOLTAGE CONTROL
110 Volt for long cable runs without voltage drop. 24 & 48 Volt optional.

DUTY CYCLE
H-4 duty rated for heavy duty application. 2M FEM class. 50% Duty Cycle or 300 on/off per hour.

10:1 MECHANICAL DESIGN FACTOR

14:1 LOAD CHAIN DESIGN FACTOR

STANDARD FEATURES

OVERLOAD PROTECTION
Rated operational range between 125 and 150/160%. Clutch is outside the load path when disconnected from power.

DURABLE & LIGHTWEIGHT HOUSING
Cast aluminum. Black powder coated finish for low visibility.

METRIC RATED

LOAD CHAIN
Designed and manufactured by Columbus McKinnon. Zinc plated to protect against corrosion. Black phosphate finish optional.

THE INDUSTRY'S BEST LIFETIME WARRANTY

MEETS OR EXCEEDS WORLD STANDARDS
Meets German Code of Practice VPLT SR2.0

OPTIONAL FEATURES

CHAIN BAG
Easy-to-Mount Cloth Type Bags

CHAIN STOP
Mounted on load chain to prevent overtravel. Standard on Direct Control.



SPECIFICATIONS D8+

| | Rate Load | Standard Lifting Speed at 50Hz | Operating Voltage | FEM Class | FEM Duty Factor | Chain Weight per meter lift-EWL | Load Chain EN 818-7 | Power Consumption -Full Load | Reeves Falls of Chain | Motor HP | Protection Class | Noise Level |
|----------|-----------|--------------------------------|-------------------|-----------|-----------------|---------------------------------|---------------------|------------------------------|-----------------------|----------|------------------|-------------|
| Model A | 70 Kg | 8 m/min | 400-3-50 | 2M | 50% | 0,89 Kg | 6,3 x 18,9 | 1,1 Amp | 1 | 0,250HP | IP 54 | 68 dB |
| Model AA | 70 Kg | 16 m/min | 400-3-50 | 2M | 50% | 0,89 Kg | 6,3 x 18,9 | 1,1 Amp | 1 | 0,250HP | IP 54 | 68 dB |
| Model B | 125 Kg | 4 m/min | 400-3-50 | 2M | 50% | 0,89 Kg | 6,3 x 18,9 | 1,1 Amp | 1 | 0,250HP | IP 54 | 68 dB |
| Model C | 125 Kg | 8 m/min | 400-3-50 | 2M | 50% | 0,89 Kg | 6,3 x 18,9 | 1,2 Amp | 1 | 0,5 HP | IP 54 | 68 dB |
| Model E | 250 Kg | 2 m/min | 400-3-50 | 2M | 50% | 1,78 Kg | 6,3 x 18,9 | 1,2 Amp | 2 | 0,5 HP | IP 54 | 68 dB |
| Model F | 250 Kg | 4 m/min | 400-3-50 | 2M | 50% | 0,89 Kg | 6,3 x 18,9 | 1,2 Amp | 1 | 0,5 HP | IP 54 | 68 dB |
| Model H | 500 Kg | 2 m/min | 400-3-50 | 2M | 50% | 1,78 Kg | 6,3 x 18,9 | 1,2 Amp | 2 | 0,5 HP | IP 54 | 68 dB |
| Model J | 250 Kg | 8 m/min | 400-3-50 | 2M | 50% | 1,42 Kg | 7,9 x 21,7 | 2,3 Amp | 1 | 1 HP | IP 54 | 68 dB |
| Model JJ | 500 Kg | 16 m/min | 400-3-50 | 2M | 50% | 1,42 Kg | 7,9 x 21,7 | 3,6 Amp | 1 | 2 HP | IP 54 | 68 dB |
| Model L | 500 Kg | 4 m/min | 400-3-50 | 2M | 50% | 1,42 Kg | 7,9 x 21,7 | 2,3 Amp | 1 | 1 HP | IP 54 | 68 dB |
| Model LL | 650 Kg | 8 m/min | 400-3-50 | 2M | 50% | 1,42 Kg | 7,9 x 21,7 | 3,6 Amp | 1 | 2 HP | IP 54 | 68 dB |
| Model R | 1000 Kg | 2 m/min | 400-3-50 | 2M | 50% | 2,84 Kg | 7,9 x 21,7 | 2,3 Amp | 2 | 1 HP | IP 54 | 68 dB |
| Model RR | 1300 Kg | 4 m/min | 400-3-50 | 2M | 50% | 2,84 Kg | 7,9 x 21,7 | 3,6 Amp | 2 | 2 HP | IP 54 | 68 dB |
| Model RT | 1500 Kg | 1,4 m/min | 400-3-50 | 2M | 50% | 4,26 Kg | 7,9 x 21,7 | 3,6 Amp | 3 | 2 HP | IP 54 | 68 dB |

See dimensions for Lodestar D8+ on Page 2

BGV-C1 SERIES

CAPACITIES
250 to 1300 KG.

LIFT
18, 20 & 24 meters
standard

SPEEDS
2 to 30 meters/minute

VOLTAGES
400VAC 3phase 50Hz only
No single phase versions

The Lodestar BGV-C1 Series meets the BGV-C1 German regulation for entertainment rigging. Available with fixed or variable speed, the Lodestar BGV-C1 can be adapted to reach a System Integrity Level 3 (SIL3)*

KEY FEATURES

ELECTRO-MECHANICAL PASSIVE DOUBLE BRAKES

5 POCKET LIFT WHEEL
For quiet & smooth operation.

68 dB OPERATIONAL NOISE
A result of the Double Brake System

GEARING
Precision machined gears heat treated for strength and durability.

INTERNAL CHAIN GUIDE
PVC black coated for quieter operation

LOW VOLTAGE CONTROL
110 Volt for long cable runs without voltage drop. 24 & 48 Volt optional.

DUTY CYCLE
H-4 duty rated for heavy duty application. 2M FEM class. 50% Duty Cycle or 300 on/off per hour

10:1 MECHANICAL DESIGN FACTOR

14:1 LOAD CHAIN DESIGN FACTOR

UNDERLOAD PROTECTION
with load cell installed

MODULAR MULTI-PIN CONNECTOR
with multi-wire shielded cable

4 POSITION LIMIT SWITCH
with active spring micro-switch

BUILT-IN PLC
For safety function monitoring, Brake and Limit Switch integrity, Load Cell reading, Overload and Underload settings

STANDARD FEATURES

OVERLOAD PROTECTION
Rated operational range between 125 and 150/160%. Clutch is outside the load path when disconnected from power.

DURABLE & LIGHTWEIGHT HOUSING
Cast aluminum. Black powder coated finish for low visibility.

METRIC RATED

LOAD CHAIN
Designed and manufactured by Columbus McKinnon. Zinc plated to protect against corrosion. Black phosphate finish optional.

THE INDUSTRY'S BEST LIFETIME WARRANTY
MEETS OR EXCEEDS WORLD STANDARDS
Meets German Regulation BGV-C1

OPTIONAL FEATURES

CHAIN BAG
Easy-to-Mount Cloth Type Bags

CHAIN STOP
Mounted on load chain to prevent overtravel.

LOAD CELL
Built in on the suspension hook

* SIL3 requires a BGV-C1 SIL3 certified controller not included.



SPECIFICATIONS BGV-C1

| | Rate Load | Standard Lifting Speed at 50Hz | Operating Voltage | FEM Class | FEM Duty Factor | Chain Weight per meter lift-EWL | Load Chain EN 818-7 | Power Consumption -Full Load | Reeves Falls of Chain | Motor HP | Protection Class | Noise Level |
|----------|-----------|--------------------------------|-------------------|-----------|-----------------|---------------------------------|---------------------|------------------------------|-----------------------|----------|------------------|-------------|
| Model F | 250 Kg | 4 m/min | 400-3-50 | 2M | 50% | 0,89 Kg | 6,3 x 18,9 | 1,2 Amp | 1 | 0,5 HP | IP 54 | 68 dB |
| Model J | 250 Kg | 4 m/min | 400-3-50 | 2M | 50% | 0,89 Kg | 6,3 x 18,9 | 1,2 Amp | 1 | 0,5 HP | IP 54 | 68 dB |
| Model JJ | 500 Kg | 16 m/min | 400-3-50 | 2M | 50% | 1,42 Kg | 7,9 x 21,7 | 3,6 Amp | 1 | 2 HP | IP 54 | 68 dB |
| Model L | 500 Kg | 4 m/min | 400-3-50 | 2M | 50% | 1,42 Kg | 7,9 x 21,7 | 2,3 Amp | 1 | 1 HP | IP 54 | 68 dB |
| Model LL | 650 Kg | 8 m/min | 400-3-50 | 2M | 50% | 1,42 Kg | 7,9 x 21,7 | 3,6 Amp | 1 | 2 HP | IP 54 | 68 dB |
| Model RR | 1300 Kg | 4 m/min | 400-3-50 | 2M | 50% | 2,84 Kg | 7,9 x 21,7 | 3,6 Amp | 2 | 2 HP | IP 54 | 68 dB |
| Varistar | 500 Kg | 30 m/min | 400-3-50 | 2M | 50% | 1,42 Kg | 7,9 x 21,7 | 6 Amp | 1 | 3 HP | IP 54 | 68 dB |

See dimensions for BGV-C1 on Page 2

TRAINING

For decades, the Lodestar Electric Chain Hoist or “Motor” has taken on many different supporting roles in the entertainment industry. From standard lifts to sophisticated computer-automated projects, the Lodestar has been the number one choice in the market. Loyal users trust the Lodestar for unparalleled reliability and durability, show after show.

As the entertainment industry continues to evolve through technological advancements and greater production demands, the need for qualified and trained hoist technicians continues to expand.

From basic motor maintenance training to certification classes, professionals from Columbus McKinnon cover everything from hoist design and operation to maintenance tips of the trade. Participants become well versed in all aspects of hoist technology and understand practices related to safe operation and long hoist life.



In addition to the popular Lodestar, numerous rigging accessories are available as part of the CM-ET line. Theatrical shackles, lever hoists, winches, beam clamps, and wire rope clips provide riggers with numerous options, depending on the venue. Most product categories feature a wide range of capacities, allowing the user to choose the exact product for the job.



REGULATION & STANDARDS

The Lodestar meets or exceeds the most stringent standards for lifting equipment around the world, including the following: ASME B30.16; ASME HST-1; EC Machine Directive 2006/42 EC; Low Voltage Directive 73/23/EEC; EC EMC Directive 89/336/EEC; FEM 9.511 – 9.671 – 9.811 – 9.683 – 9.941 – 9.755; EN 818-7; EN 12100-1; EN 60204-1; EN 349; EN 60204-32; EN 294; EN 55011; EN 55014; DIN 568-3; DIN 56850; BS 7905-1; BS 7906-1; CEN 15902 (ex CEN CWA 25)



COLUMBUS MCKINNON CORPORATION
ENTERTAINMENT PRODUCTS DIVISION

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