Technical Sheet

PowerLine™ Hoist

PowerLine is a line shaft hoist, re-imagined to reduce size, weight, and cost. PowerLine hoists offer a wide range of speeds and capacities, making them versatile performers and excellent choices for retrofits in older buildings. Among it's many uses are electric sets, scenery and curtains, and front-of-house lighting sets.

Features

- Customizable line shaft design that is strong, efficient and versatile
- Fixed or variable speed options to meet your performance needs
- Compact unit doesn't require wall or wing space and can be mounted upright or underhung on 10" (254 mm) spacing
- Simple construction places only vertical loads on the supporting structure without lateral loads
- Easy to install backbone can be continuous/discontinuous to meet your site conditions
- Universal joints in the drive shaft promote long life and reliability by allowing various building steel configurations
- Compact drum fits over standard 10" (254 mm) grid well
- Helical/worm or helical/bevel gear boxes can be oriented four ways for simple installation in any space
- Flexible installation — standard hoists can be mounted from beams with flanges from 4 - 11" (102 - 279 mm) wide and from 1/4 to 1" (6.3 to 25 mm) thick. Custom mounting hardware can be provided if needed
- 6 or 8" (152 or 203 mm) welded steel drums offer a wide range of speeds and capacity options to meet your performance requirements
- Versatile mounting clamps attach to steel that is parallel or perpendicular to the hoist for fast, easy installation without welding
- High-efficiency green motors meet IEC 60034-30 efficiency classes standard
- Three-year warranty against defects in materials or workmanship is provided on all J.R. Clancy equipment, additional warranty information is available at jrclancy.com

Capability

- Speed: up to 240 fpm (1.2 m/s)
- Travel: up to 60 ' (18.3 m)
- Capacity: up to 2,500 lb (1184 kg)
- Max batten length: as required
- Custom speeds and capacities available

Dimensions

PowerLines are built to meet your requirements so dimensions will vary. Contact us for more details.

Safety

- Designed and manufactured by J.R. Clancy, a company with over 130 years of rigging expertise
- "Fail-safe" motor brakes are spring applied and electrically released
- Emergency-stop system meets NFPA 79 (Electrical Standard for Industrial Machinery) with ramped stops for high speed equipment to reduce mechanical shock loads
- Two levels of limit switches with normal travel and over travel switches using separate, redundant circuits for added safety
- Hold-to-run controls require an operator to be present when movement is taking place in conformance with NFPA 79
- Touch safe interior of all electrical enclosures guards to prevent contact with live components, per IEC 204-1 Protection

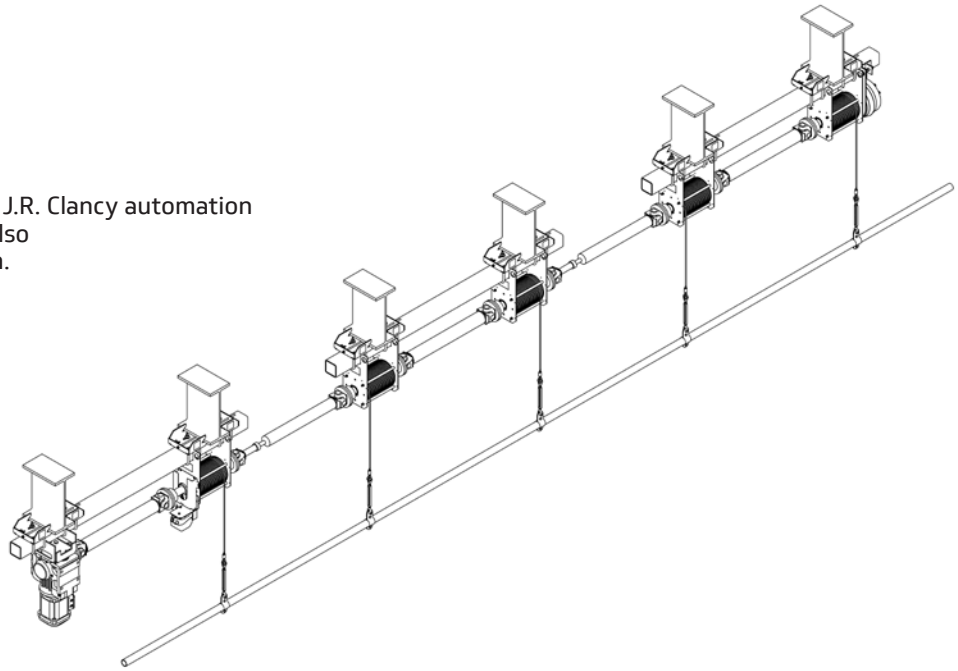
Options
- Cross groove and slack line detectors
- Load cells
- Position encoder
- Additional limit switches
- Overspeed or electric secondary brake

Control Options
- PowerLine works with the entire range of J.R. Clancy automation consoles or push button controls. It can also interface with any modern control system.

Batten Termination Options
- Trim chain
- Pipe clamp and turnbuckle
- Batten trim plate
- Batten trim clamp

Batten Options
- 1.5" (48 mm) schedule 40 batton
- 1.5" (48 mm) schedule 80 batton
- 1.5" (48 mm) schedule 40 truss batton

Mounting Configurations
- Motor on one end, brake on the opposite
- Motor in the middle, brake on each end
- Motor on each end



Models

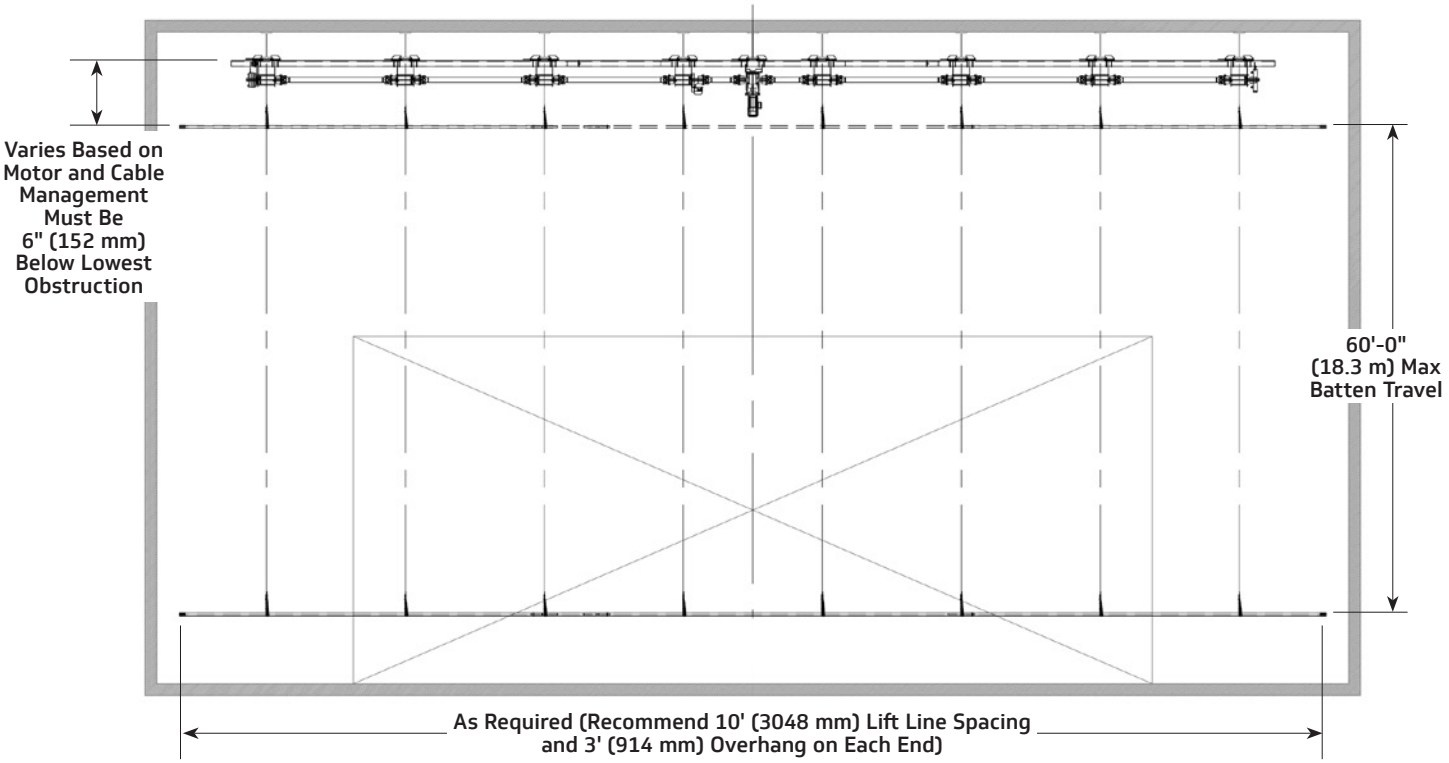
Model Number	Hoist Speed	Hoist Capacity
018-PL0210	20 fpm (0.1 m/s)	1,000 lb (454 kg)
018-PL0213	20 fpm (0.1 m/s)	1,250 lb (567 kg)
018-PL0216	20 fpm (0.1 m/s)	1,600 lb (726 kg)
018-PL0222	20 fpm (0.1 m/s)	2,150 lb (975 kg)
018-PL0225	20 fpm (0.1 m/s)	2,500 lb (1184 kg)
018-PL1113	0–110 fpm (0–0.56 m/s)	1,300 lb (590 kg)
018-PL1420	0–140 fpm (0–0.71 m/s)	1,950 lb (885 kg)
018-PL2423	0–240 fpm (0–1.2 m/s)	2,300 lb (1043 kg)
Custom speeds, capacities and options available.		

Cable and Drum Options

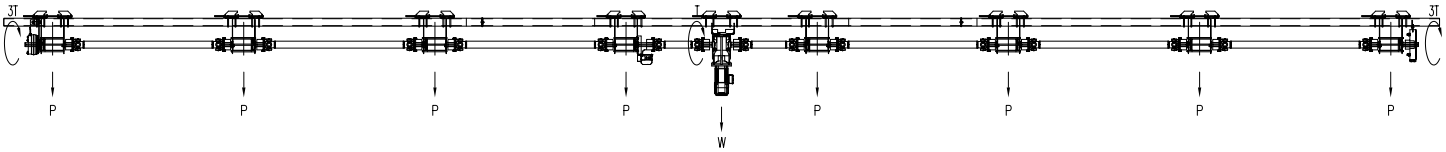
Options	Lift Line	Drum Diameter	Max. Load/Line
Option 1	1/4" (6.3vmm)	7-1/2" (190 mm)	750 lb (341 kg)
Option 2	3/16" (4.8vmm)	5-1/2" (140 mm)	500 lb (227 kg)

Electrical Requirements				
Model	HP	Current Draw		
		280 - 240 V	440 - 480 V	380 V 21 fpm (0.107 m/s)
018-PL0210	0.75 (.55 kW)	3.5 A	1.8 A	1.5 A
018-PL0213	1.5 (1.12 kW)	6.6 A	3.5 A	2.9 A
018-PL0216	1.5 (1.12 kW)	6.6 A	3.5 A	2.9 A
018-PL0222	2 (1.5 kW)	7.5 A	3.9 A	3.3 A
018-PL0224	2 (1.5 kW)	7.5 A	3.9 A	3.3 A
018-PL1113	5 (3.73 kW)	16.7 A	8.7 A	7.3 A
018-PL1420	10 (7.5 kW)	30.8 A	16 A	13.4 A
018-PL2423	20 (15 kW)	59.4 A	30.9 A	25.8 A

Loading Diagram



Rigging Loads



Loading notes:

P (drum line load) = 0 to 500 lb (225 kg)

T (hoist torque) = see table 1

(Stalling torque) = see table 1

W (hoist weight) = motor assembly (see table 1)
+ backbone (12.5 lb/ft [1.73 kg/m])
+ drive shaft (see table 1)
+ drum assembly (75 lb [34 kg] each)
+ brake (100 lb [45 kg] ea)

1. Set capacity = see table 1
2. Total line load on all drums not to exceed the set capacity
3. Line load on each drum not to exceed drum capacity (p)

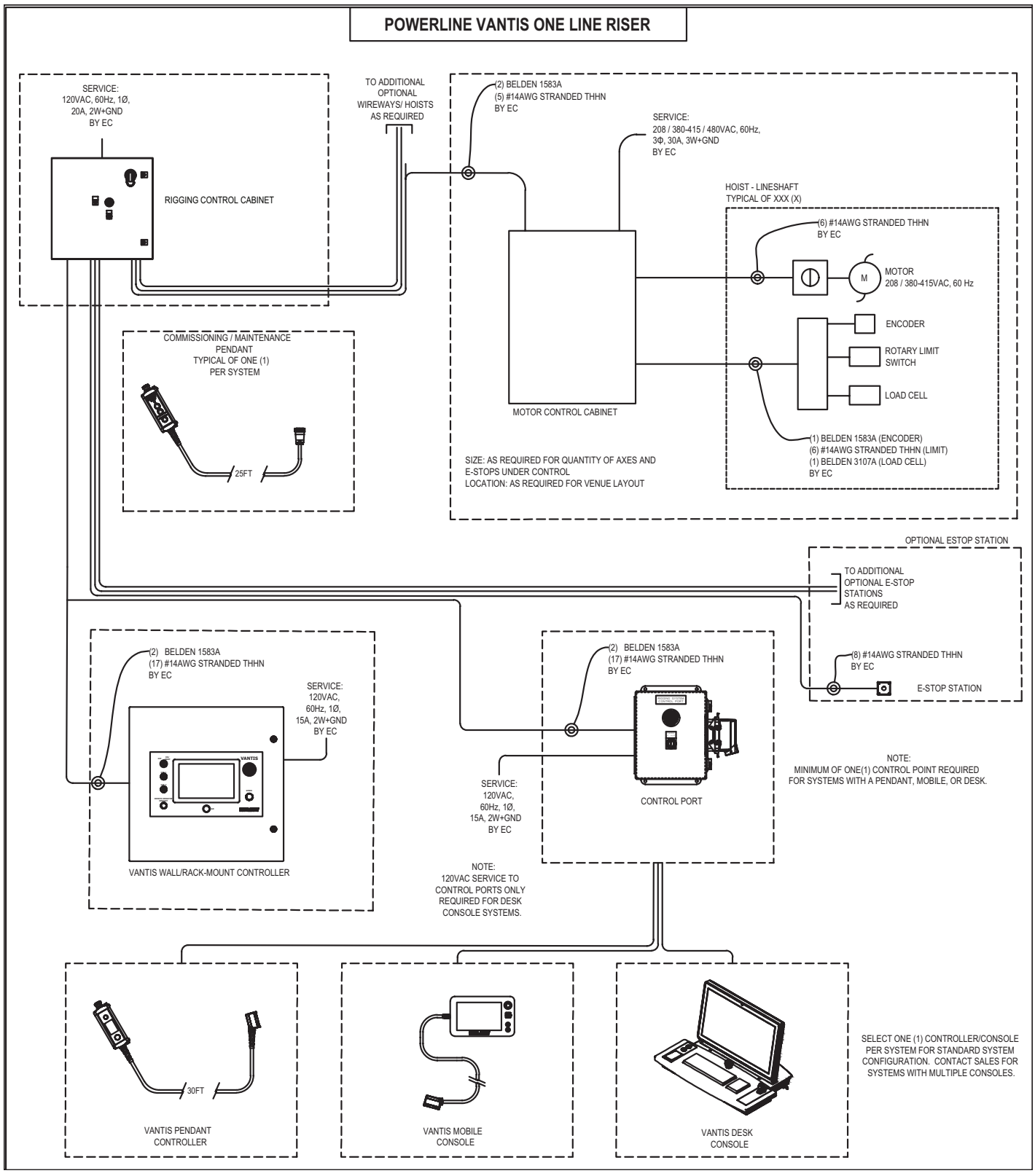
TABLE 1 (Based on 3/16" cable)						
Part Number	**Speed (fpm [m/s])**	**Set Capacity (lb [kg])**	**Motor Assembly Weight (lb [kg])**	**Drive Shaft Wt (lb/ft [kg/m])**	**Hoist Torque (lb-in [n-m])**	**Stalling Torque* (lb-in [n-m])**
018-PL0210	20 [0.1]	1000 [454]	113 [51]	16 [24]	1408 [159]	7348 [830]
018-PL0213	20 [0.1]	1250 [567]	151 [69]	16 [24]	1760 [199]	17440 [1970]
018-PL0216	20 [0.1]	1600 [726]	162 [74]	28 [42]	2252 [254]	26080 [2947]
018-PL0222	20 [0.1]	2150 [975]	197 [89]	28 [42]	3027 [342]	27160 [3069]
018-PL0225	20 [0.1]	2500 [1184]	187 [85]	30 [45]	3379 [382]	30640 [3462]
018-PL1113	0-110 [0-0.56]	1300 [590]	188 [85]	28 [42]	1830 [207]	17996 [2033]
018-PL1420	0-140 [0-0.71]	1950 [885]	312 [142]	28 [42]	2745 [310]	22533 [2546]
018-PL2423	0-240 [0-1.2]	2300 [1043]	538 [244]	28 [42]	3238 [366]	29374 [3319]

The values in this table are for the configuration shown. For other configurations the values may be different. Please contact a J.R. Clancy representative for more information on your configuration.

*Note: Stalling Torque values are only valid for 208V and 480V. Call for 380V data.

PowerLine Riser — Typical

Power and Wiring Information: PowerLine is available for virtually any 3-phase voltage worldwide. Control wiring is dependent on your control system.



Wenger® JRCLANCY GEARBOSS®

Minnesota Location Wenger Phone 800.4WENGER (493-6437) Wenger Worldwide +1.507.455.4100 | Parts & Service 800.887.7145 | wengercorp.com
GearBoss Phone 800.493.6437 | gearboss.com
555 Park Drive, PO Box 448 | Owatonna | MN 55060

New York Location J.R. Clancy Phone 800.836.1885 JR Clancy Worldwide +1.315.451.3440 | jrclancy.com | 7041 Interstate Island Road | Syracuse | NY 13209