

CONTROLS

Smooth, Precision Control Your Way

You selected a Thern electric winch to save time, reduce operator fatigue, and enhance precision. Faster and more accurate lifting, lowering, pulling, and placing is simply more efficient—and that means greater productivity. Why not enhance your productivity with a Thern control that is specifically engineered to match the performance characteristics of your winch as well as the local power supply and demands of your application?

Thern offers a variety of standard controls to complement its line of winches, including a wireless version. Our 10:1 infinitely variable-speed control provides enhanced positioning as well as overload protection and soft starts and stops. Yet, Thern also offers a range of custom solutions that include encoders, operator pedestal stations, as well as concurrent/dependent operation for multiple winches. Every situation and application are different—and Thern gets it. Using only the highest-quality UL-, IEC- and CSA-recognized components and hardware, Thern will design and build a value-added control system to meet your specific application, environment, and needs.

Electric Drum Control Switches

Single-Speed, Reversing-Drum Controls for 1- and 3-phase motors up to 7.5 hp



- **UL and CSA Recognized** components throughout.
- **Enclosures** to suit your application needs. **NEMA 1** (industrial) rated switches provide protection against dirt and corrosion for most indoor applications. **NEMA 4** (watertight) rated switches keep dirt and water out and are approved for most outdoor applications.
- **Wiring Diagram** is supplied inside the enclosure for convenient reference.
- **Two-Year Limited Warranty**

WHEN ORDERING, PLEASE INCLUDE THE FOLLOWING:

- Voltage and phase required
- Motor horsepower

Drum control switches for 115-volt, single-phase motors up to 1.5 hp include 8-foot power cord with grounded plug.

Electric Drum Control Switches—Horsepower Ratings

Model Number	Description	Voltage / Phase / Hertz with Maximum-Rated Motor HP				Approx. Ship Weight	
		115 / 1 / 60 ¹	230 / 1 / 60	230 / 3 / 60	460 / 3 / 60	(lb)	(kg)
10L2A1	NEMA 1	to 1.5 hp	to 2 hp	to 3 hp	to 3 hp	3	2
10L7E1	NEMA 1	to 1.5 hp	to 3 hp	to 5 hp	to 7.5 hp	3	2
10L2A4	NEMA 4—watertight	to 1.5 hp	to 2 hp	to 3 hp	to 3 hp	7	4
10L7E4	NEMA 4—watertight	to 1.5 hp	to 3 hp	to 5 hp	to 7.5 hp	7	4

Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

¹ Controls for 115-volt, single-phase motors up to 1.5 hp include 8-foot power cord with grounded plug.

Variable-Speed Electric Motor Controls

For 3-phase, 230-VAC motors from 1 to 25 hp and 3-phase, 460-VAC motors from 1 to 60 hp

10:1 Infinitely Variable-Speed Controls provide accurate positioning of loads, soft starts, soft stops, and overload protection.

- **Frequencies** greater than 50 Hz are possible in no-load or light-load conditions decreasing rigging time.
- **Diagnostic and Troubleshooting Capabilities:** digital display provides drive status.
- **Programmable Performance** keypad is adjustable to control acceleration and deceleration rates.
- **Steel Enclosure is NEMA 12** rated (indoor). **NEMA 4** rated (watertight) enclosures also available.
- **Pendant Control Switch is NEMA 4X** rated (watertight) with 3-step, infinitely variable-speed push buttons on a 50-foot cord, which allows the operator to stand away from the winch during operation. Pendant control is operated with momentary contact-type push buttons. Cord lengths of less than 50 feet are available. Please specify when ordering.
- **UL, IEC, or CSA Recognized** components throughout.
- **Electronic Thermal Overload Relay** provides motor overload protection and is field programmable.
- **Wiring Diagram** is supplied inside enclosure.
- **Options** available include multiple axis, remote controls, mainline contact, disconnect switch, enclosure temperature controls, indicating lights, selector switches, horn and bells, meters, and limit switches. Contact Thern for more information.
- **Explosion-Proof Controls** also available. Please contact Thern for more information.
- **Two-Year Limited Warranty**



WHEN ORDERING, PLEASE INCLUDE THE FOLLOWING:

- Voltage and phase required
- Motor horsepower
- Pendant control cord length—up to 50 feet
- Pendant control labeling—for/rev or up/down
- Indoor or outdoor use
- Lifting or pulling application

Variable-Speed Electric Motor Controls—Horsepower Ratings

Model Number	Maximum-Rated Motor Horsepower for Power Supply Current		Approx. Ship Weight	
	230 / 3 / 60	460 / 3 / 60	(lb)	(kg)
10V1D12L	1 hp	—	100	46
10V2D12L	2 hp	—	100	46
10V3D12L	3 hp	—	100	46
10V5D12L	5 hp	—	100	46
10V7D12L	7.5 hp	—	120	55
10V10D12L	10 hp	—	120	55
10V15D12L	15 hp	—	120	55
10V20D12L	20 hp	—	210	96
10V25D12L	25 hp	—	210	96
10V1E12L	—	1 hp	100	46
10V2E12L	—	2 hp	100	46
10V3E12L	—	3 hp	100	46
10V5E12L	—	5 hp	100	46
10V7E12L	—	7.5 hp	100	46
10V10E12L	—	10 hp	100	46
10V15E12L	—	15 hp	120	55
10V20E12L	—	20 hp	180	82
10V25E12L	—	25 hp	180	82

When ordering winch, specify brake voltage to be the same as motor voltage. Leads must be capable of being wired separate from motor power. Price includes dynamic brake resist or to be mounted and wired by others. Contact Thern to verify drive compatibility to winch and motor. Controls shipped separately to be mounted and wired by others.

Single-Speed Electric Motor Controls

Single-Speed, Reversing-Magnetic Controls for 1- and 3-phase motors up to 60 hp

- **UL, IEC, or CSA Recognized** components throughout.
- **Steel Enclosure is NEMA 4** rated (watertight) to keep the dirt and water out. Approved for most outdoor applications.
- **Pendant Control Switch is NEMA 4X** rated (watertight) on a 50-foot cord, which allows the operator to stand away from the winch during operation. Pendant control is operated with momentary contact-type push buttons. Cord lengths of less than 50 feet are available. Please specify when ordering.
- **Reversing Contactor** is electrically and mechanically interlocked to deliver smooth reversing control.
- **Thermal Overload Relay** trips power OFF to protect motor from overheating. Switch is manually reset.
- **Fused Control Circuit** powers pendant with 115-volt, 2-amp current to help protect against high-voltage shocks.
- **Wiring Diagram** is supplied inside enclosure.
- **Steel Mounting Bracket** secures control box to winch.
- **Explosion Proof Controls** also available. Please contact Thern for more information.
- **Two-Year Limited Warranty**



OPTIONS

- Special Current or Horsepower Ratings
- Special-Rated Enclosures for Explosive or Harsh Environments
- Multi-Speed Controls
- Torque-Limiting Controls
- Power Cord Disconnects
- UL-Listed Controls
- Various Selector Switches and Pilot Lights

Wireless Single-Speed Electric Motor Controls

Single-Speed, Reversing-Magnetic Controls for 1- and 3-phase motors up to 60 hp

In addition to the following, the wireless single-speed electric motor control has all the same features as the standard version, except for pendant-related features.

- **Removes the limitations** of a corded pendant's operating position.
- **Rechargeable** Wireless Transmitter
- A wireless transmitter is easily cloned, if lost.
- **The winch can still be operated using the push buttons** on the controller's receiver if the wireless transmitter is lost.
- **The transmitter** circuit board is epoxy-potted making it watertight and vibration-resistant.
- **Removes the limitations** of a corded pendant's operating position.
- **UL, IEC, or CSA Recognized** components throughout.
- **Steel Enclosure is NEMA 4** rated (watertight) to keep the dirt and water out. Approved for most outdoor applications.
- **Reversing Contactor** is electrically and mechanically interlocked to deliver smooth reversing control.
- **Thermal Overload Relay** trips power OFF to protect motor from overheating. Switch is manually reset.
- **Wiring Diagram** is supplied inside enclosure.
- **Steel Mounting Bracket** secures control box to winch.
- **Two-Year Limited Warranty**



OPTIONS

- Special Current or Horsepower Ratings
- Special-Rated Enclosures
- Torque-Limiting Controls
- Power Cord Disconnects
- UL-Listed Controls
- Various Selector Switches and Pilot Lights

Single-Speed Electric Motor Controls—Horsepower Ratings

Model Number	Maximum-Rated Motor Horsepower for Power Supply Current				
	115 / 1 / 60 to 1.5 hp	230 / 1 / 60 to 3 hp	208 / 3 / 60 to 3 hp	230 / 3 / 60 to 7.5 hp	460 / 3 / 60 to 10 hp
10S2A4	—	—	—	—	—
10S3B4	—	—	—	—	—
10S3C4	—	—	—	—	—
10S7C4	—	—	—	—	—
10S10C4	—	—	—	—	—
10S20C4	—	—	—	—	—
10S3D4	—	—	—	—	—
10S7D4	—	—	—	—	—
10S10D4	—	—	—	—	—
10S20D4	—	—	—	—	—
10S30D4	—	—	—	—	—
10S7E4	—	—	—	—	to 7.5 hp
10S15E4	—	—	—	—	to 15 hp
10S20E4	—	—	—	—	to 20 hp
10S40E4	—	—	—	—	to 40 hp
10S60E4	—	—	—	—	to 60 hp

Controls include NEMA 4 enclosure and NEMA 4X push button pendant control on 50-foot cord. Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

Single-Speed Electric Motor Controls—Horsepower Ratings

Model Number	Maximum-Rated Motor Horsepower for Power Supply Current					Approx. Ship Weight (lb)
	115 / 1 / 60 to 1.5 hp	230 / 1 / 60 to 3 hp	208 / 3 / 60 to 3 hp	230 / 3 / 60 to 7.5 hp	460 / 3 / 60 to 10 hp	
10S2A4W	—	—	—	—	—	25
10S3B4W	—	—	—	—	—	25
10S3C4W	—	—	—	—	—	25
10S7C4W	—	—	—	—	—	25
10S10C4W	—	—	—	—	—	28
10S20C4W	—	—	—	—	—	28
10S3D4W	—	—	—	—	—	25
10S7D4W	—	—	—	—	—	25
10S10D4W	—	—	—	—	—	28
10S20D4W	—	—	—	—	—	28
10S30D4W	—	—	—	—	—	60
10S7E4W	—	—	—	—	—	25
10S15E4W	—	—	—	—	—	25
10S20E4W	—	—	—	—	—	28
10S40E4W	—	—	—	—	—	60
10S60E4W	—	—	—	—	—	60

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