

M SERIES

Modular Winch System



High Power Modular Winch System

The FTSI "M Series" winchs are a completely modular servo winch system featuring motor and control units that are capable of extremely high sustained speeds and loads. Each winch system is composed of three modular elements: The motor unit, the drum or driver unit, and the control unit. The motor and drum units are built into framing that is an exact match for standard 20.5" bolt-together aluminum truss, while the controls are either packaged in similar framing or as standard rack units. The motor and drum units bolt together in exactly the same manner as two pieces of truss, and the unique self-mating coupling assures a secure drive connection between the motor and the drum.

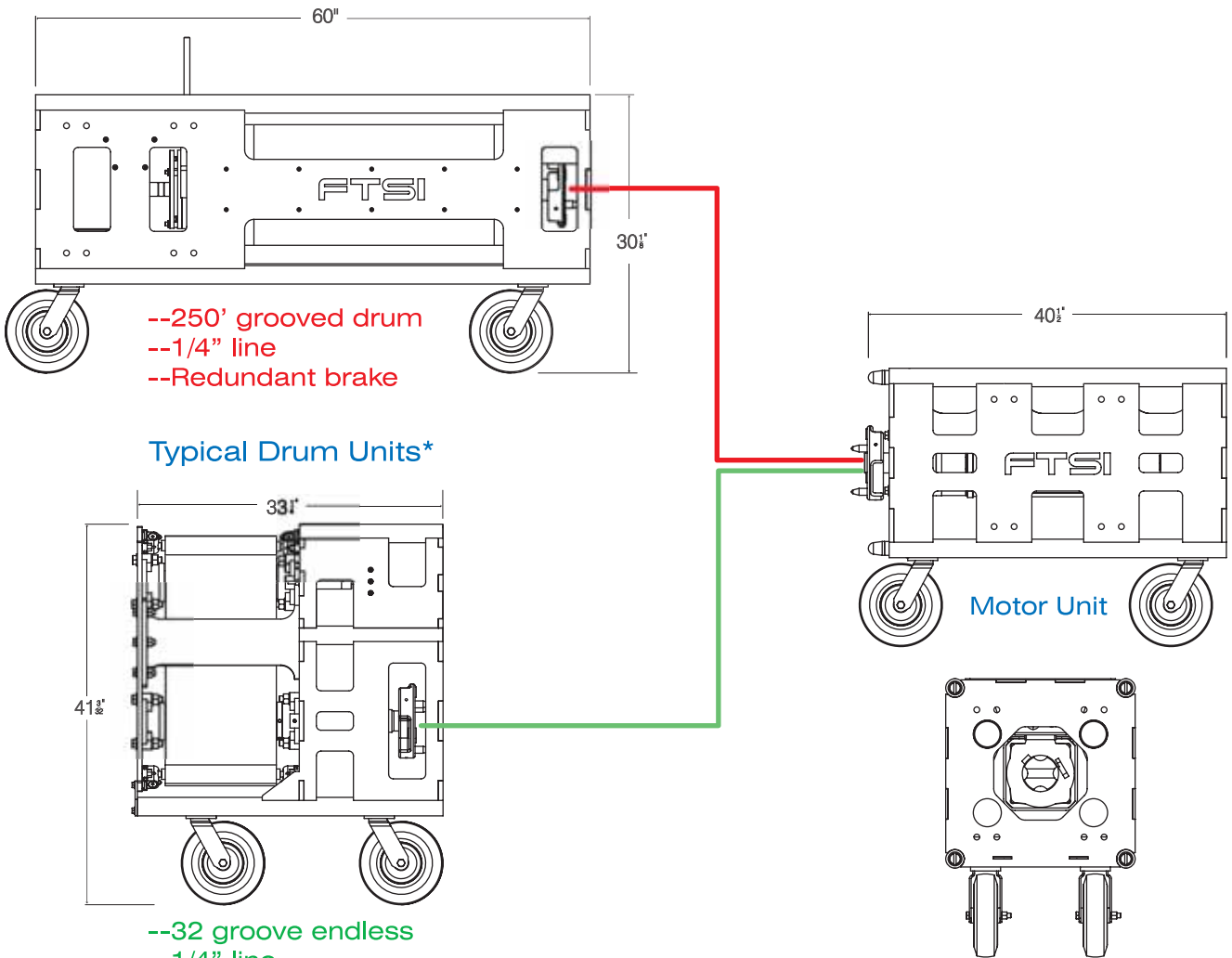
Users may select the power level of the motor unit and the type and size of drum unit or driver assembly that is required for their application. Additionally, multiple drum units may be rented with single motor and control packages to provide users with a variety of drive applications at a minimal cost. The modular nature of the system provides for a wide range of combinations, including standard single drums, multiple ganged drums, "endless" friction drive drums, and belt and chain sprockets. Custom fitments of the couplings are also available for users needing to mate the power and motion control of the motor units to their own custom machinery.



M Series

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FTSI
AUTOMATION



*Subtract 9.25" from height with wheels removed

Unit Specifications

- Motor Module: 410lbs
- 250' Drum Module: 520lbs
- Endless Drum Module: 390lbs
- Control Module: 400lbs
- 480VAC, 3 phase, 100A power required
- Speeds up to 75 feet per second
- Loads up to 500 pounds
- Acceleration up to 1.5G
- Synthetic or wire rope

Key Features:

- High power--High speed
- Modular design for easy transport and configuration
- Multiple motor and drum combinations available
- Redundant braking and safety systems
- Self-mating coupling between motors and drums
- Standard 20.5" box truss framing and bolt patterns
- Multiple spring loaded urethane keeper rollers
- Fully Navigator system compatible
- Clip on caster assemblies for easy transport
- Mount in any position
- Controls can be remote from winch location
- Drums can be "daisy chained" for multiple units

WINCHES

Navigator
automation system

F315/F515

Self-Contained Flying Winches



WINCHES

Fast, Safe, and Flexible

The F315 and F515 model winches are the latest addition to the FTSI "F" Series flying winch family, a line of fully self-contained, high speed winch machines intended for performer flight, stunt, and high speed motion applications.

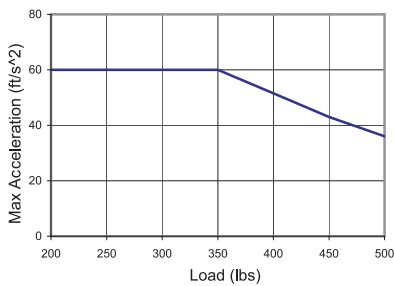
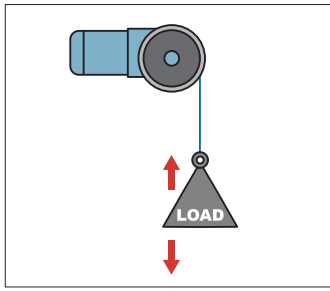
"Self-contained" means that everything necessary to run the winch is built into the robust aluminum frame. The servomotor and gearbox, braking system, cable drum and cable retention system, and all motion control and motor drive equipment reside within the walls of the winch frame. All that is required for operation is the connection of 208V power and a control source, whether it is an independent handheld controller, or a network connection to a larger Navigator system. Winches may be operated as stand-alone, programmable units, or incorporated into a larger multi-winch setup, or both. They are well suited for performer flight effects, stunt and acrobatic work, high speed camera and scenery manipulation, and 3D motion control when grouped with one or more additional units.

All controls and inputs are exposed on the side panel of the unit, allowing for easy networking, external triggers and limits, multiple external control sources, local jog and status control, and a wide range of additional functions.



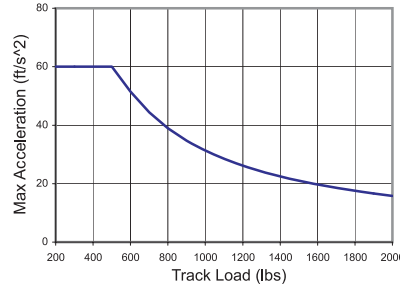
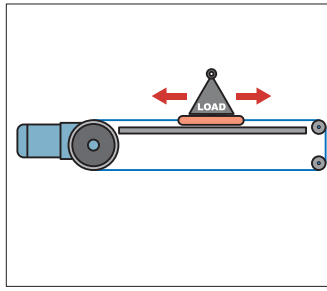
Navigator
automation system

Dead Haul



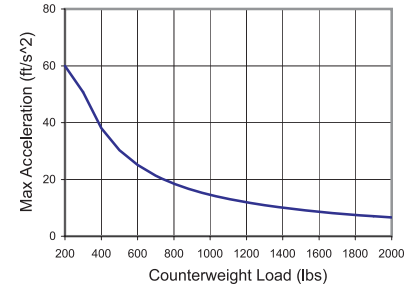
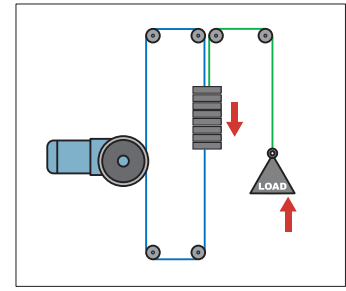
Maximum Speed: 15 ft/sec
Maximum Line Pull: 1000lbs
Rated Load at Max Vel/Max Acc: 500lbs

Horizontal Track

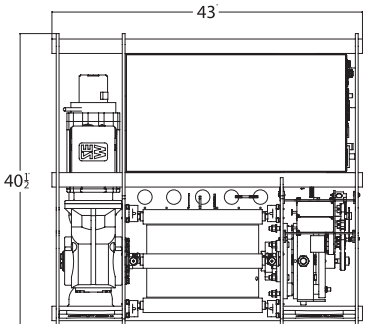
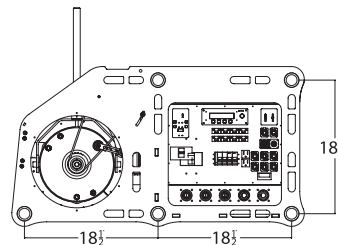
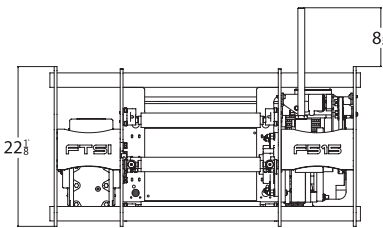


Maximum Speed: 15 ft/sec
Maximum Line Pull: 1000lbs
Graph assumes single FTSI track--derate for less efficient track

Counterweighted



Maximum Speed: 15 ft/sec
Maximum Line Pull: 1000lbs
Graph assumes standard lineset--derate for additional drag/sheaves



F515 Specifications

- Up to 1000lbs line pull*
- 15 feet per second maximum velocity
- Up to 2G acceleration*
- 31.41 inches per drum revolution
- Drum capacity: 125 feet of 1/4" rope
- Network ready or stand-alone
- Power requirement: 100 amps @ 208v 3-phase
- Footprint: 43" wide x 40.50" long x 22.13" tall
- Weight: 740 lbs

**Depending on loading and acceleration applied*

Key Features:

- Variable speed from zero to 15 feet per second
- Variable acceleration and deceleration
- Frame tube spacing matches 20" box truss
- Mount in any orientation
- Full torque available down to zero speed
- Multiple controller options
- Adjustable spring loaded line keeper rollers
- Redundant braking system
- Camlok connectors for power input
- Runs on standard 208V 3-phase power input
- Fully Navigator system compatible
- Completely self-contained

ESE-1

Emergency Stop Controller



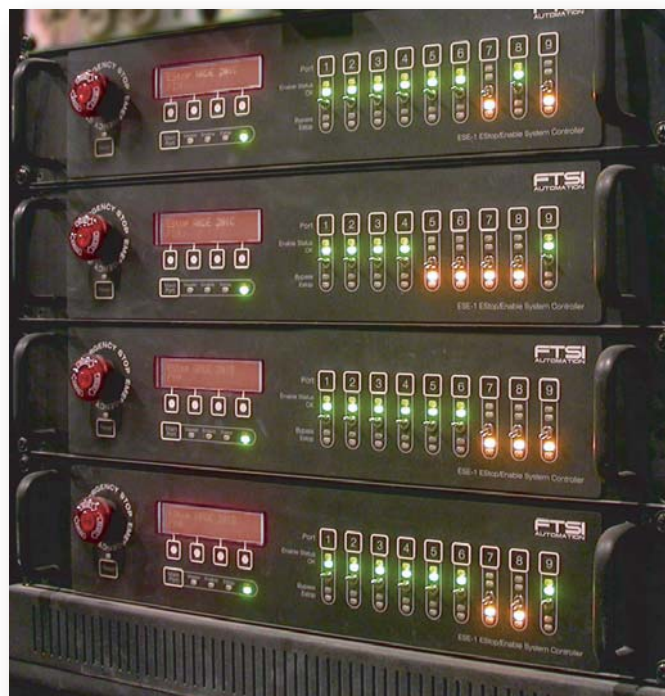
SAFETY

Safety and Flexibility

The ESE-1 EStop Controller is the cornerstone of any FTSI automation safety system. Providing a unique level of configurability, ease of installation, and system reporting, identification, and event logging capabilities, the ESE-1 forms the basis of the most capable and user-friendly safety system available today.

Use as a stand-alone controller, or in a networked group of dozens--the ESE-1 provides the ability to configure, partition, enable, and connect all of the components of your theater safety system, including Estop stations, 'deadman' enables, handheld operator controllers, edge and perimeter guarding systems, and the software-controlled collision monitoring and avoidance tools in Navigator.

Building a safety system that suits the exact needs of your theater or show installation has never been easier: Stay safe with the FTSI ESE-1 and Navigator.

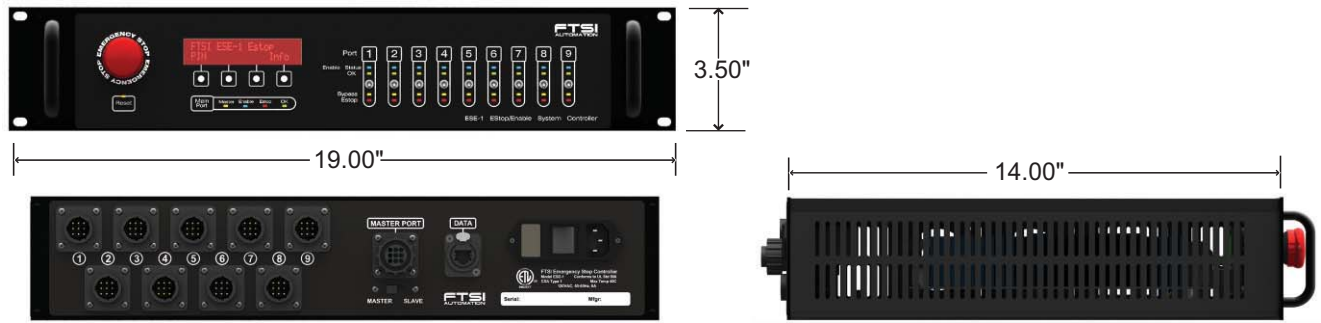


Navigator
automation system

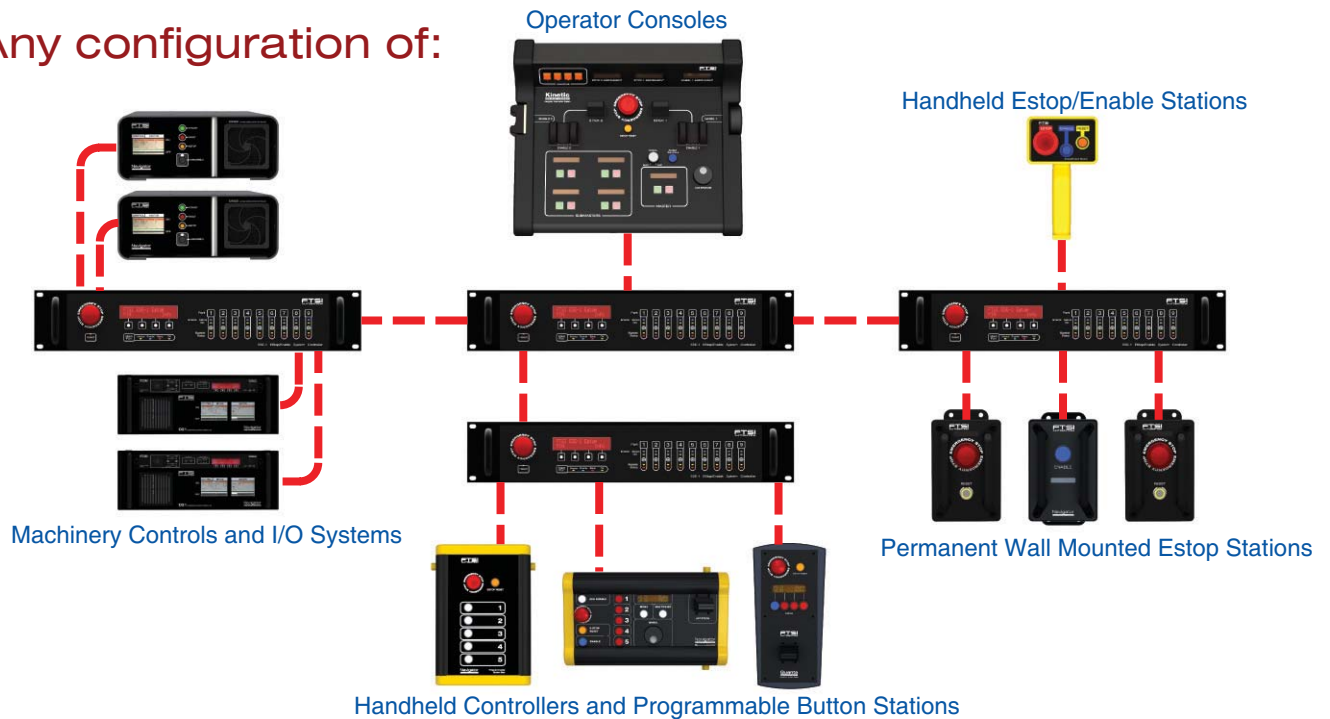
ESE-1

Emergency Stop Controller

FTSI
AUTOMATION



Any configuration of:



Power Channels 24V Power Max. Distance

120VAC, 6A **Nine** **1A per channel** **3000'**
(depending on wire gauge)

Compatible Devices

- Navigator operator interface software, all versions
- Navigator D, V, and C-Series Controllers
- Navigator system I/O devices
- Navigator system consoles and handhelds
- Navigator wall and handheld stations
- 3rd party systems using FTSI estop interface card
- Any system utilizing a 24VDC estop bus

Key Features:

- Navigator System compatible
- Ethernet communication to unit
- Multi-unit star, chain, or mixed topography
- Any channel can source or accept an Estop
- Devices auto-ID when plugged into ports
- Individual port control via software or face panel
- Pushbutton port ID on panel display
- Operates as standalone unit or part of system
- Incorporate outside systems via interface cards
- Ports can be configured for 'deadman' enables
- Continuous hardware and software validation
- Instant identification of Estopped devices