



# STAGE HOIST

Light Duty – Heavy Duty

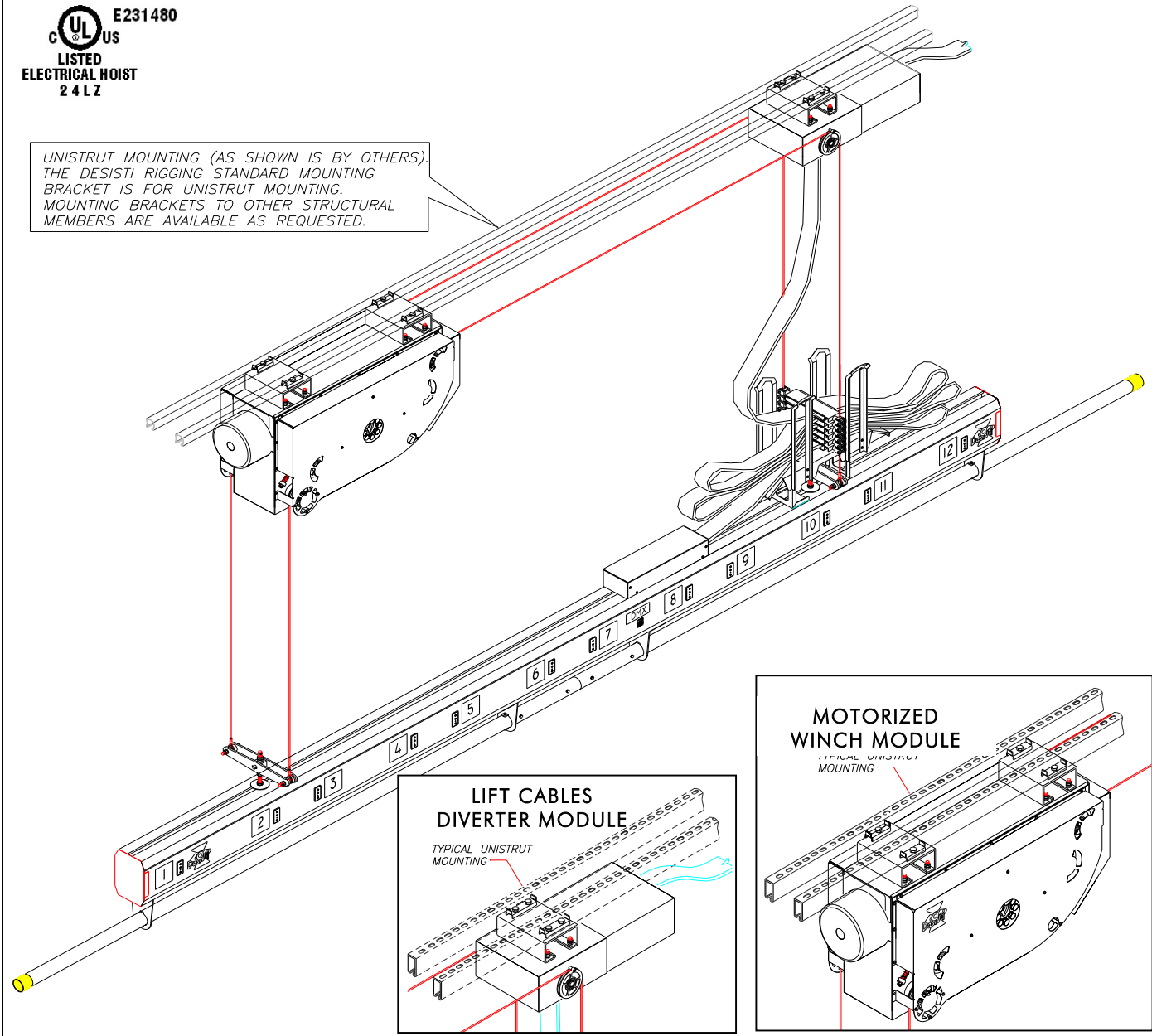


*Mod. 8545*



**UL** E231480  
**US**  
**LISTED**  
**ELECTRICAL HOIST**  
**24LZ**

UNISTRUT MOUNTING (AS SHOWN IS BY OTHERS).  
 THE DESISTI RIGGING STANDARD MOUNTING  
 BRACKET IS FOR UNISTRUT MOUNTING.  
 MOUNTING BRACKETS TO OTHER STRUCTURAL  
 MEMBERS ARE AVAILABLE AS REQUESTED.



## FEATURES

- **SAFETY** - The **STAGE HOIST** complies with all safety standards set forth by the internationally recognized testing authorities of VBG 70, TUV and by Underwriters Laboratories. These standards are directly associated with the safety of suspension systems mounted above an assembly of people. The safety features incorporated into the STAGE HOIST includes self sustaining worm-gear set motor that prevents back winding in a static position and is backed up by a breaking system to stop the hoist when moving. The STAGE HOIST has overload sensors and slack line detection for each wire rope. The system also includes two safety micro switches; there is a limit switch plus an extra emergency safety limit switch for each top and bottom limit.
- **FLEXIBILITY** - The **STAGE HOIST** can be specified in lengths from 10' (3 meters) up to 32' (9.75 meters) and can have a Safe Working Load of 550 lbs (250 kg) or 1000 lbs (456 kg). This hoist can also have a travel distance of up to 40' (12 meters). The hoist is ideal for the raising and lowering of lighting instruments along with their associated circuits and dimmers. The **STAGE HOIST** can provide up to a 32' batten for mounting lighting instruments with up to (18) 20 amp circuits, DMX in /out, CAT 5 outlets, 3 phase circuits for intelligent lights as well as audio and video outlets. All this flexibility and the variety of lengths make this product ideal for **STAGE APPLICATIONS**. This is especially ideal for front of house applications as an alternative to a Catwalk or as Stage Electrics on stage.
- **DESIGN** - The mechanical design being made up of only three elements, a motor compartment, a diverter pulley and pipe batten with extruded aluminum connector strip. This simple design allows for easily handling and quick installation. The main components are all pre-wired and pre-assembled from the factory making the installation an easy task. The special cable management system makes the load circuit handling neat and easily managed when the hoist is raised or lowered.
- **OPERATIONAL** - The **LIGHT DUTY VERSION** of the **STAGE HOIST** (Mod. 8530) is capable of lifting a (SWL) safe working load of up 550 lbs (250 kg), plus the self-weight of the hoist, which is based on the travel distance and the optional features included. The **HEAVY DUTY VERSION** of the **STAGE HOIST** (Mod. 8545) is capable of lifting a (SWL) safe working load of up 1,000 lbs (456 kg), plus the self-weight of the hoist, which is also based on the travel distance and the optional features included. The maximum travel distance for both versions is 40 feet (12 meters). Special travel distance requirements are available as an option.
- **OPTIONAL FEATURES** - The De Sisti STAGE HOIST offers several unique optional features:
  1. **Memorized Positioning Control** memorizes and recalls the position of each hoist and records the information into a preset.
  2. **DMX Up/Down and Positioning Control** via a standard lighting control board or any DMX control system
  3. **IGBT Silent Dimmers** mounted in the hoists as part of the hoist system

## SPECIFICATIONS

The Desisti Rigging and Automation **STAGE HOIST** shall be made up of three elements. The first element, the motor compartment shall be a completely self contained enclosure and house a motorized winch drive unit of monoblock design with dual cable lifting drums, limit and load sensing switches, and terminals for both the motor feed and control terminals. The second element is the diverter pulley section, which houses two diverter pulleys and the load terminals for load circuit connections. The third element is a connector strip and pipe batten combination that together forms a truss system to prevent any deflection between the lifting cables. The extruded aluminum connector strip shall house the outlets, circuit wiring and any accessory items such as DMX in/out, CAT 5 outlets, audio and video outlets or three phase outlets as specified. The pipe batten shall be 1.9-inch O.D. diameter schedule 40 pipe batten. The aluminum connector strip shall have three components that can separate high voltage and low voltage lines. The extruded Aluminum Connector strip exceeds ESTA deflection Standards by more than 13 times, the design and strength of the alloy allows for less than 7mm deflection at the mid-span of 25' hoist. The combination of connector strip and lighting batten shall be

for mounting lighting instruments and be sized to meet the job conditions from 10' (3 meters) to 32' (9.75 meters) as specified. This product shall be U.L. approved as a complete system. Other products that only incorporate a combination of U.L approved components, but are not specifically approved and tested as a complete working system shall not be accepted.

The motor assembly shall house a 1.8 Kw or 3.6 Kw 208 volt, 60 Hz 3-phase motor, integrated with a **self sustaining worm-gear set** to prevent back winding in a static position and backed up by a breaking system when the hoist is moving. The maximum torque shall be 616 Nm for the 550LB motor and 950Nm for the 1000LB motor, with permanent lubrication.

The average lifting speed shall be 30' per minute. The SWL (safe working load) shall be 550 lbs (250 kg) for the Light Duty Version and 1000 lbs (456 kg) for the Heavy Duty Version. The maximum travel distance is 40' (12 meters). It shall have four independent steel lifting cables 4mm in diameter, constructed in 7 groups of 19 wires, with a minimum breaking force on each wire rope of at least 1,200 kg / 2,400 lbs (light duty version) and 5mm in diameter, constructed in 7 groups of 19 wires, with a minimum breaking force on each wire rope of at least 2,000 kg / 4,400 lbs (heavy duty version). Incorporated into the hoist system shall be cut out safety micro switches (**double activated SPRING-LEVER type**) for each cable line for slack line and overload detection, plus travel limit switches, one for the top with an extra safety switch and one bottom limit switch with an extra safety switch.

All circuit protection panel boards, three phase feed to the motors, control wiring and load circuit wiring to the hoist shall be by others. An emergency contactor panel should be supplied by Desisti Rigging and Automation.

The entire device must comply with all the safety standards as set forth by the internationally recognized testing authorized **VBG 70** and carry the **U.L. label** showing that it is approved as a complete system.

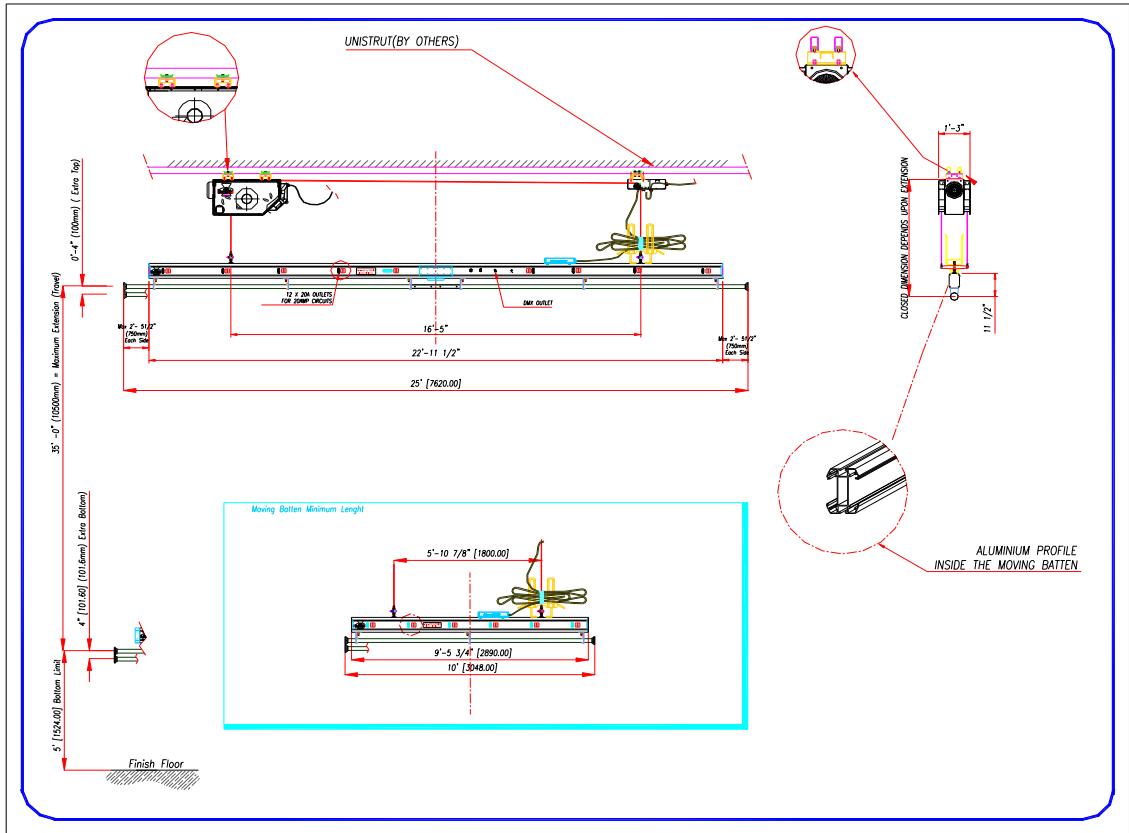
There are several Control Options offered by De Sisti.

- PBS Up /Down Control (push button system).
- DMX Up / Down Control as well as Positioning Control.
- HMC (hoist manual control) with (optional) remote control.
- HDC System (hoist digital control) with manual back up and (optional) remote control.

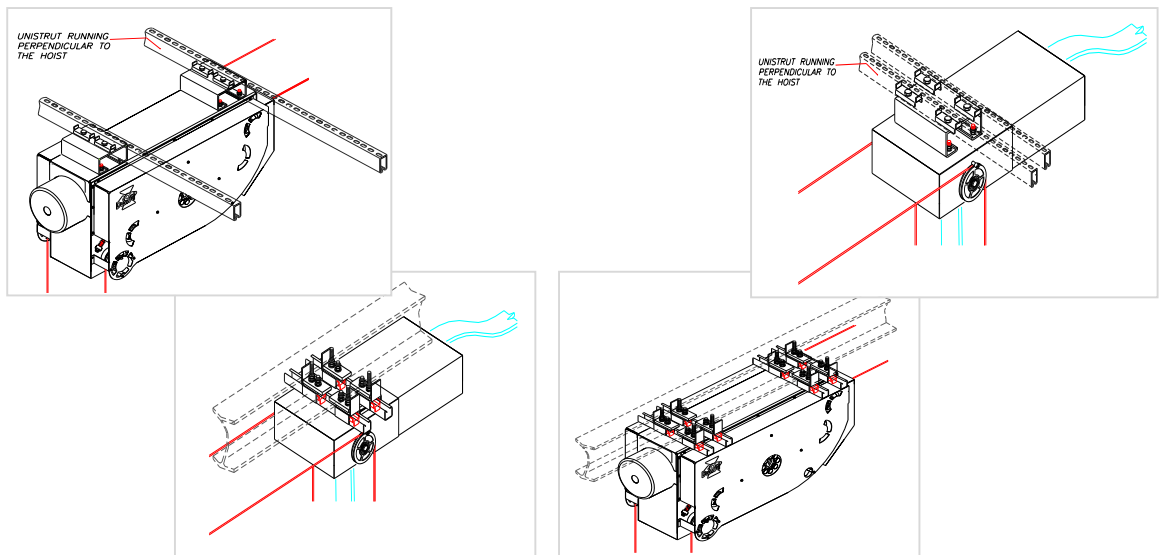
## CHARACTERISTICS & PERFORMANCE DATA

	LIGHT DUTY VERSION MOD. 8530	HEAVY DUTY VERSION MOD. 8545
Total lifting capacity of winch unit:	915 lbs (416 kg)	1,396 lbs (650 kg)
Net lifting capacity of HOIST (PAYLOAD):	Net Capacity = 915 lbs (416 kg) - 330 lbs (150 kg) (Self Weight of the moving parts). The total Safe Working Load is 550 lbs (250 kg)	Net Capacity = 1,396 lbs (650 kg) - 396 lbs (180 kg) (Self Weight of the moving parts). The total Safe Working Load is 1,000 lbs (456 kg)
Number of lift cables:	4 independent steel ropes	4 independent steel ropes
Lift cable specifications:	4 mm diameter, 7 x 19 construction, galvanized steel wire ropes, specific resistance class 200 kg: sq mm UNI 7293-74. Minimum breaking Load 2,400 lbs (1,200 kg)	5 mm diameter, 7 x 19 construction, galvanized steel wire ropes, specific resistance class 200 kg: sq mm UNI 7293-74. Minimum breaking Load 4,400 lbs (2,000 kg)
Lifting speed (average):	30'/min (9 m/min)	30'/min (9 m/min)
Winch Unit specs for Vertical lift:	1.8 kW, 3 phase AC primary supply: 120/208 V 60 Hz +/- 5 %, Transmission ratio 1:60	3.6 kW, 3 phase AC primary supply: 120/208 V 60 Hz +/- 5 %, Transmission ratio 1:60
Load Sensing:	Over/under load sensing mechanism independent on each lift cable	
Travel limit system	TÜV approved mechanism, including 4 fine adjustable safety switches (Resolution of 3 mm. in a 10.5 m. travel), including: ET = EXTRA TOP LIMIT, TL = TOP LIMIT, BL = BOTTOM LIMIT, EB = EXTRA BOTTOM LIMIT The mechanism can be easily retrofitted with positioning sensor.	

### TYPICAL STAGE HOIST DRAWING



### TYPICAL TOP ATTACHMENTS FOR STAGE HOISTS



**STAGE HOIST**

12- 20 Amp Circuits (Light Duty)  
 18- 20 Amp Circuits (Heavy Duty)

550 lbs Light Dty.  
 1000 lbs Hvy Dty.