

LIFTING SYSTEM



REFERENCE : BSL1200

(Height 2.35 m or 3.45 m, for H = 3.45 m, 1.1 m element provided.)

Technical specifications :

Frame :

- Composed of a seat 1620 x 1500 mm, a module (2 or 3 elements).
- Level adjustment possible for uneven floor: ground anchor nuts welded to the 4 corners of the seat.
- Protection: 8 mm expanded sheet metal mesh
- Access: by door located on the seat with electric closing contact and key lock.
- Total mass in working condition (with load 250 kg, motor C.C. and drive plate): 680 kg

Mechanism :

- Geared motor at the base of the set,
- Strength: 350 da N
- Speed: 20 m / min
- Lifting capacity when lifting: 24 m cable diam. 5 mm in 1st layer
- Parallel gear reducer
- Threaded drum
- Electromagnetic brake with lack of current on the slow shaft at the exit of drum
- Rotary limit switch with 6 adjustable contacts
- Load: modular.
- Limit switch up and down.
- Out of race up and down, resumption of orders by key contact.

Instrumentation :

- 1 tachometric dynamo output at the shaft end of the hoist (fast shaft),
- 1 digital speedometer with overspeed stop.
- 1 analog speed output,
- 1 force sensor located at the pulleys, stop in case of overload, 1 analog force output, digital force indicator.

Safety cabinet :

400 V + N + T voltage, 24 V control with separation transformer.
Emergency stop key. Protection: Magnetothermic differential circuit breaker 30 mA + 25A fuses on primary. Fuses 4 A on secondary.
TELEMECANIQUE contactors for supplying the drive controller and for the brake.

Motorization :

- Version 1 : Asynchronous motor - 230/400 V - 4 poles
- Version 2 : DC motor. Induced 400 V, ventilated motorcycle (220 V).
- Version 3 : Asynchronous motor- 230/400 V - 4 pole, equipped with an incremental encoder

Additional equipment :

- Support in mechanically welded structure for the storage of an engine.
- Stem with chain for handling and setting up engines.

OPTIONS :

Option 1: Replacing the Direct Start Board with a Direct Start Deck
 This board is compatible with our BSL1200 lifting systems. The automatic running mode starts a cycle of successive starts to solicit the thermal relay of the motor until it is triggered. The tripping time of the thermal relay is displayed on the programmable module. This plate highlights the thermal constraints of the motor and its protections. The board comes with the software and programming cable of the module.
 Measurements: - Direct measurement of the three motor phases, - Current loop on a motor phase. Didactic program: - Engine service factor, - Thermal constraints applied to the motor protections and verification of the thermal relay trip curve, - Thermal relay technology, - Programming in language with contacts. Characteristics : - Power supply of the board: 3 x 400V by the box of the lifting system, - Pre-equipped to feed forced ventilation. Option 2: Motor with encoder for ATV71 and ATV71 board Removable plate allowing: - Hanging on the structure of the BSL1200 lifting system, - The pose on a work plan. Regulation structure: - Speed ??control by dynamo-tachometer feedback - Speed ??control with incremental encoder - Sensorless torque control - Torque control with sensor Software: - Provides with the software to configure and debug the drive. - Oscilloscope function with visualization of the tracks on PC. Modes of steps: Auto: The board is designed to be connected to a programmable controller by 4 mm double-hole safety plugs. Connections: 0-10V analog speed setpoint, All Or Nothing step commands, Logic state of the end of work. Manu: Local potentiometric setpoint and use of the working stroke of the lifting system. Option 2 bis: ATV71 board and controller box and motor without encoder Option 3: WNTC Platinum and DC Motor for WNTC Removable plate allowing: - Hanging on the structure of the BSL1200 lifting system, - The pose on a work plan. Characteristics: - Three-phase digital dimmer - 4Q25E full bridge bi-directional, - Supply voltage: 220 to 500V, - 4Q operation, - Integrated brake logic, - Galvanic isolation card, - Integrated line reactors. Speed ??instructions: Internal: with integrated potentiometer, External: 0 to 10V delivered by external source Operation of the "working" limit switches of the lifting system: Internal: in series with the up / down commands, External: inputs of a PLC. Option 4: Controller box and WNTC board Removable plate allowing: - Hanging on the structure of the lifting system, - The pose on a work plan. The plate integrates control of direction of march by push buttons: - Brake release enable (by phase detection relay), - Measurement of voltage and motor current in TBT.