

H500P-V

PILE WIND 500 500kg MOTORISED HOIST AND CONTROLLER



DESCRIPTION

The Jands H500P-V is a packaged pile wind hoist and control system ready to be used "out of the box", featuring a minimum 500kg lifting capacity, provision for 6 x 5mm wire ropes and 15m of drift.

A rotary limit switch, complying to EN954, is directly coupled to the gearbox output shaft, providing end-of-travel limits, and over-travel limits for connection to an external Emergency Stop system.

An incremental position encoder within the rotary limit assembly is used to monitor safety functions and can be connected to an external control system to allow positional control of the hoist.

An on board electronic inverter drive and Jands proprietary diagnostic circuits allow for the monitoring of overload conditions, and for the connection of an external slack wire detector if required.

The integral inverter drive brings the hoist motor to a safe controlled stop before applying the motor brake. This safety feature, combined with a unique secondary output shaft brake and a self testing motor brake ensures that the highest levels of safety are achieved.

A Jands HCPB-H Hoist Control pushbutton station is fitted to the hoist and features Up/Down controls, "Ready" & "Fault" indicators and a "Brake Test" pushbutton to verify operation of the motor brake.

A 24 pin I/O connector allows for remote connection of the HCPB-H control station, connection of a simple Up/Down pendant control or connection to an external positioning and speed control system.

The Jands H500P-V is designed, built and tested to comply with the requirements for a serial hoist to AS1418.2:1997.

OVERALL SPECIFICATIONS

| | | |
|---------------------|---|---------------------------|
| Number of ropes | : | 5 or 6 |
| SWR type | : | 5mm 6x19 steel core |
| Lifting Capacity | : | |
| @ 15m drift | : | 500kg |
| @ 5m drift | : | 750kg |
| Maximum lift height | : | 15m |
| Speed (Nominal) | : | 8m/min |
| Speed (Maximum) | : | 14m/min |
| Motor Type | : | 4 pole AC Synchronous |
| Motor Power | : | 1100W |
| Control System | : | 1100W VS Inverter |
| Braking system | : | |
| - Holding | : | Failsafe motor disc brake |
| - Dynamic | : | Inverter DC regenerative |
| - Output | : | Solenoid operated sprag |
| Limit Switch | : | 4P Rotary cam to EN954 |
| Encoder | : | 24V 500ppr quadrature |
| Power Supply | : | 230V 50Hz 14.9A |
| Power Connector | : | 15A 3 Pin |
| I/O Connector | : | ILME CDDF24 |
| Dimensions (5 line) | : | 580(w) x 680(h) x 445(d) |
| Dimensions (6 line) | : | 595(w) x 680(h) x 445(d) |
| Net/Shipping weight | : | 100/110 kg |

SUPPLIED ACCESSORIES

- User Manual
- Universal Quick-Fix mounting bracket
- Pushbutton station (local or remote)

OPTIONS

- Remote pendant (pickle) control
- Additional/replacement pushbutton station

ORDERING INFORMATION

| MODEL/PART | PART NUMBER |
|---|-------------|
| 250kg Motorised Hoist & Control Station | JND-H500P-V |
| Additional/Replacement Pushbutton Station | JND-HCPB-H |
| Remote pendant (pickle) control | JND-HCPC |

FEATURES

- Single phase 15A supply
- Integrated control system
- On board Isolator
- Relocatable on board controls
- Direct coupled EN954 compliant limit switches
- Incremental position encoder
- Fail-Safe motor brake
- Secondary output brake
- Regenerative DC braking
- Quick-Fix mounting bracket
- Fault Indicator
- Brake test facility
- Optional slack wire detection, position control, variable speed and E-Stop management



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500kg MOTORISED HOIST
AND CONTROLLER

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ARCHITECT & ENGINEER'S SPECIFICATION

Mechanical

The motorised hoist shall consist of cast and machined aluminium plates designed to accommodate up to six (6) steel cored, 5mm steel wire ropes of 6 x 19 construction, and shall be of a diameter sufficient to accommodate 15m of wire rope plus 2 dead turns.

These aluminium plates shall be coupled via a keyed shaft and retaining bolts to a hollow shaft 148:1 ratio helical worm gearbox.

The motor and gearbox shall be sized to allow a hoist capacity (WLL) range of 500kg (maximum drift) to 750kg (<5m drift).

A failsafe motor input brake shall be fitted, with a dynamic braking capacity of 125% WLL and a static braking capacity of 160% WLL.

A secondary solenoid operated sprag type brake shall be fitted to the output shaft to prevent descent of the hoist load in the event of a primary motor brake failure.

The motorised hoist shall be designed, tested and built as a serial hoist in accordance to AS1418.2:1997.

The motorised shall be the Jands H500P-V

Electrical

The motorised hoist shall be powered by a 1100W, 4 pole AC synchronous motor, driven from an integral electronic inverter drive with a capacity of 1100W.

The hoist shall be powered from a single phase, 230V 50Hz 15A supply and shall be fitted with a captive flexible supply cord fitted with a 3 pin plug to AS3112:2004

A 4 pole rotary limit switch, directly coupled to the gearbox output shaft and complying with EN954-1:1996, shall provide both service and overtravel limit functions to AS1418.1:2002.

The limit switch assembly shall be fitted with a quadrature type incremental encoder. This encoder shall provide a tachometer signal to a control unit which monitors the limit switch coupling and performs a primary brake test of the hoist.

The motorised hoist shall be fitted with a lockable "Drive Safe Off" type control isolator.

An on board control module shall manage the operation of the solenoid operated secondary output brake.

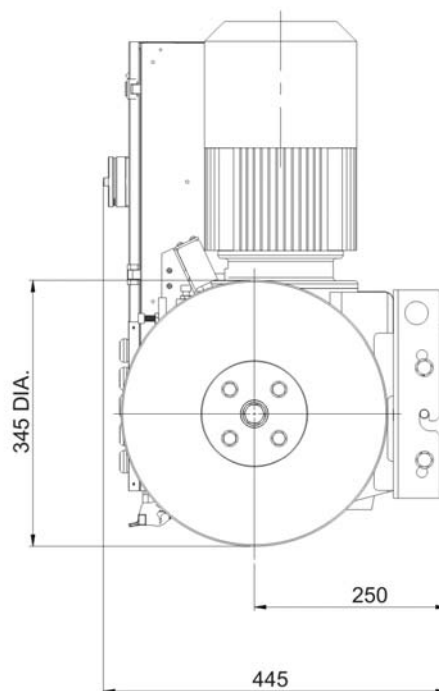
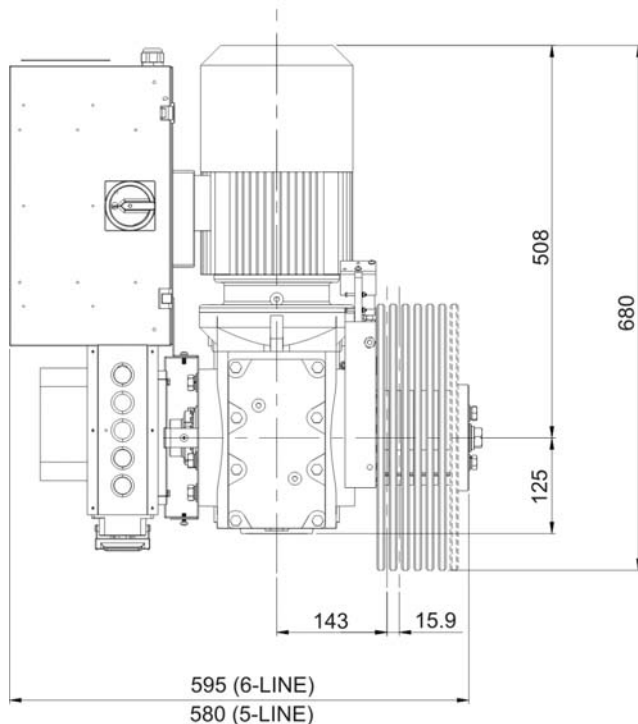
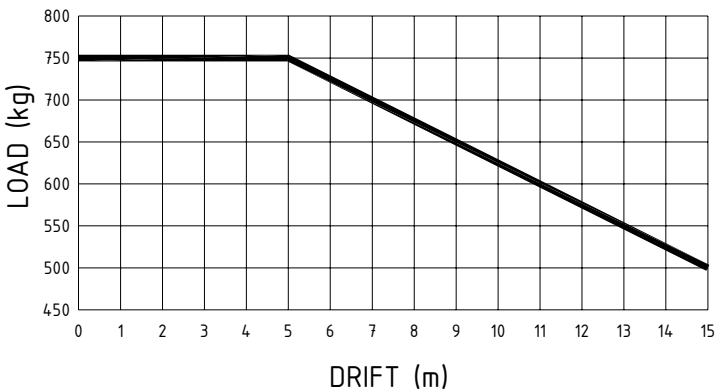
A control station shall be fitted to the motorised hoist, with "Enable" and "Fault" indicators, "Brake Test" pushbutton and a pair of momentary (Dead-Man) action Up/Down pushbuttons.

This control station shall be removable and able to be fitted remotely via a 24 pin I/O connector on the motorised hoist.

The I/O connector shall permit the connection of an (optional) external slack wire detector, external positioning control system, speed controls or a simple Up/Down (pickle) pendant.

"Enable" inputs and overtravel monitor outputs on the I/O connector shall permit connection of the hoist to an external Emergency Stop Management system.

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