

MOVECAT VMB-S 250-0.8-24 band hoist

complying with DGU V17/18 (BGV C1), DIN 56950-1 and EN 61508 SIL 3

The Movecat VMB-S 250-0.8-24 band hoist for universal theatrical, studio, touring and event applications has been tested in accordance with DGU V17/18 (BGV C1), DIN 56950-1 and DGUV Principle 315-390, and approved for the carrying of loads over people as well as complying with EN 61508 SIL 3.

The Movecat VMB-S 250-0.8-24 band hoist weighs only 105 kilogrammes and is designed for working loads of up to 250 kilos, which it moves at speeds ranging from 0 („true zero speed“) to 0.8 m/sec over vertical distances of up to 24 metres using a maintenance-free precision steel band. The operating noise level is a nominal 50 dBA/1 m.

The band hoist features a bobbin implementation, whereby the lifting tackle is wound in coils onto a small drum. This makes possible an extremely compact format with small exterior dimensions and a central, perfectly balanced lifting tackle feed.

The lifting tackle itself takes the form of a high-tensile, precision stainless steel band. Steel bands in kinetic systems make exact positioning possible as well as permitting very smooth movement and extremely low operating noise – during both slow and fast runs. The 0.4-mm „wafer-thin“ steel band of the Movecat band hoist commends itself in particular for applications where the load line needs to be „invisible“. The steel band has specially rounded edges to reduce to a minimum any risk of injury. Thanks to the combination of a flexible band feed and swivel bracket, the steel band can be drawn in through angles of +/- 45° from all directions.

It offers a robust, matt black, aluminium housing, closed all round and equipped with two handles, a swivel-mounted yoke with transport arrestors and half-coupler sockets for 30- and 40-mm trusses. Maintenance-free, or else ultra-low-maintenance, mechanical and functional elements guarantee problem-free professional performance. All important parts are made from corrosion-proof materials for professional use and an extensive range of accessories is available for use on the road.

Reduced noise operation as well as features such as the efficient, highly integrated worm gear motor design with an integrated, TÜV-certified transmission failure protection, two independent maintenance-free noiseless brakes (holding brakes), with contact-free function monitoring, high-resolution independent absolute and incremental encoders, four-level gear limit switches for separate operation and emergency evaluation, dual monitoring of transmission motor temperature and a dynamic load-measuring system with function testing round off this practical package. The closed-loop mode allows hovering (true-zero-speed) and change of run direction without incursion of the brakes. To control the temperature of the transmission and motor, the band hoist is equipped with a closed active cooling system (no contamination of the interior) in a low-noise implementation with redundant supervision.

The tried-and-tested Movecat status board with indicators for the most important function parameters as well as test functions in accordance with DIN 56950-1 for the



independent testing of individual brakes and gear limit switches is also integrated.

The hoist can be integrated effortlessly into Movecat's I-Motion network via the V-Motion 40E or 55E by following C8904a user-friendly, „plug and lift“ procedure. The

band hoist is supplied ready-to-use with certificates for the first UVV test performed at the works and the BGV A3 inspection.

The VMB-S 250-0.8-24 corresponds to DGUV V17/18 (BGV C1) and is intended for SIL 3 applications.



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Technical data:

- Safe working load: 250 kg
- Lifting speed: 0 to 0.8 m/sec. (true zero speed)
- Acceleration: max. 0.8 m/sec²
- Hoisting height: 24 m
- Band: 45 x 0.4 mm
- Motor output: 3.0 kW
- Duty cycle: S3-40 %
- Brakes: 2 (with contact-free monitoring)
- Absolute encoders: 1 (29-bit)
- Incremental encoders: 1
- Protections against thermal overload: 1 (self-resetting)
- Geared limit switch tracks: 4 (independent with LED visualization)
- Load-measuring system: strain gauge with test function
- Slack-band monitoring 1 (contact-free proximity sensor)
- Connector cables: 1.5 m Movecat PMC-HV with C8/24 plug and metal anti-kink protection
- Dimensions: 716 x 450 x 542 mm (Height x Width x Depth) plus 400 mm band length
- Weight: 105 kg

Options / Accessories:

- Swivel adaptor
- Truss coupler
- Transport case
- V-Motion 40E / 55E

Technical features:

- Robust aluminium housing closed on all sides with two handles
- Matt black overall implementation with scratchproof powder coating
- Maintenance-free basic structure
- Swivel-mounted yoke with transport arrestors and half-coupler sockets for 30 and 40 mm trusses
- Bobbin drum
- Maintenance-free precision steel band with flexible band feed +/- 45° x 45°
- Balanced central band feed
- Efficient worm gear concept with integrated TUV-certified transmission failure protection
- Continuous form closure: motor, brakes, transmission, winding drum, lifting tackle
- Closed loop operation (true zero speed)
- Orientation-independent, dynamic load-measuring system with test function
- Maintenance-free silent double brake with contact-free monitoring
- Ultra low noise: nom. 50 dBA
- Integrated closed active cooling system in a low-noise implementation for the transmission and motor with redundant monitoring
- Movecat status board with TLA-LED indicator as well as integrated test functions for brakes, geared limit switches, strain-gauge load measurement
- Conforms to DGU V17/18 (BGV C1), DIN 56950-1 and EN 61508 - SIL 3
- Factory UVV and BGV A3 inspection
- Preliminary, final and handover inspection in accordance with DGUV Principle 315-390 (formerly BGG 9112) (optional)