

MOVECAT V-MOTION 15/30/40/55/75 Variable Motion Powerpack

compliant with BGV C1 and EN 61508 SIL 1 to SIL 3* (*depending upon configuration)

V-Motion Variable Motion Powerpacks are designed for use in combination with drives of the V series from Movecat. They provide in this combination for intelligent and safe kinetic setups supporting variable speeds, meeting the highest technical standards, and complying with BGV C1. The power packs can be configured for a variety of different V series drives: V-Motion 15 for drives up to 1.5 kW, V-Motion 75 for motors rated up to 7.5 kW.

A large backlit LCD shows the operating states as well as the position, load and operating parameters of the connected hoist. Main and safety processors monitor all functions. The requisite contactor switches and safety circuits for overload and underload protection as well as operating and emergency limit switches are integrated. These are complemented by run commands the execution of which and resulting internal operating states are tested and evaluated. In the I-Motion network, these are compared with parallel V-Motion power packs and the correctness of the way, time and load group run tested.

V-Motion power packs support speeds continuously variable from zero to maximum as a closed-loop system with full torque even during runs continuing beyond the null point (true zero speed) and reversal of direction without incursion of the brakes. Way- and time-synchronous group and load runs



as well as complex scenic transformation operations in contemporary studio, theatrical and event productions are therefore possible, with the highest consideration accorded at all times to the demands of safety. The intuitive and easily mastered control elements permit the simple and intuitive configuration and handling of V-Motion power packs. The user is guided by a logical operating structure with display output. Installation and service runs are therefore possible without any need for the connection of ancillary devices via Up and Down buttons as well as an analogue speed control.

The power packs correspond in their basic configuration to BGV C1 and EN 61508 SIL 1, but they can be equipped optionally with a second processor axis board for EN 61508 SIL 3 applications and therefore for overhead scenic runs.

V-Motion Powerpacks are ready-equipped for I-Motion network operation. Up to 120 devices can be operated through an I-Motion network by a central controller (e.g.

I-Motion MRC I series). In network operation, the data is transmitted bi-directionally and the user can follow and control operating parameters centrally.

V-Motion Powerpacks combined with V series drives

are well suited to complex, professional BGV C1, EN 61508 SIL 1 to SIL 3 applications with the most exacting kinetic and safety-technical requirements in studio, theatre, events and tour use.

Technical equipment:

- Backlit LCD, display of operating parameters
- E-Stop button, function-illuminated
- Four function keys for menu control
- Function switch for central start-up (remote, local, bypass)
- Up and down buttons (optionally as a key-switch) as well as a speed control for manual installation / backup operation
- Incremental encoder input: dual-channel, high-resolution
- Absolute encoder input SSI high-resolution
- I-Motion network input, network address software determinable
- Tree digital inputs for ancillary functions*~
- FC data input for frequency-converter parametrisation
- Force-cooling by means of a temperature-controlled, noiseless fan
- Robust metal housing with four handles
- Three M 12 rigging options for couplers when truss-mounted
- Mounting bracket for safety cable

(*optional or via I-Motion network + controller)

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FEATURES:

- Standard configuration according to BGV C1
- Optionally upgradable with dual CPU to EN 61508* SIL 3
- Controls a V series drive with variable speed
- Self-testing of relevant functions prior to system enabling
- Closed-loop system allows runs continuing beyond the null point with full torque („floating state“) as well as reversal of direction without incursion of the brakes.
- Monitoring and display of operating states and self-monitoring safety relay as well as dynamic load analysis
- Load- and hoist-group-transcendent error monitoring and analysis in I-Motion network operation
- Simple, intuitive operation
- Target- and time runs on position
- Way- and time-synchronous group run, permitted tolerance of individual hoists and groups programmable*
- Group-synchronous run (central up/down movement of previously selected hoists) realisable with multiple run groups*
- Software-operation-limit positions for raising and lowering*
- Simple position reference run for calibration*~
- Simple setup possibility for underload and overload definition*
- Targeted service runs beyond the null point in connection with bypass switch
- Testing equipment for limit switch positions in accordance with DIN 56950
- Memory function for the entire setup including all operating parameters even in the event of power failure
- Integration into the I-Motion network system
- Choice of remote or local operation
- Configured via external PC with 100 Mbit network card (Administrator series)

(*optional or via I-Motion network + controller)

Technical data:

- Input 16 A CEE 400 V / 5 PH
- Output 16 A CEE 400 V / 5 PH for Link operation with other V-Motion devices (depending upon the rated power in the case of V-Motion 15, 30 and 40)
- Multipin C8/24-FC output connector (MPC 4IC1-compatible)
- NDC C14-FC input connector for I-Motion network
- XLR-4pin female input connector I/O operation
- XLR-3pin female plug-in connector FC data
- Drive power:
 - V-Motion 15 to 1.5 kW
 - V-Motion 30 to 3.0 kW
 - V-Motion 40 to 4.0 kW
 - V-Motion 55 to 5.5 kW
 - V-Motion 75 to 7.5 kW
- Motor power / asynchronous three-phase drive with 12 kHz pulse frequency
- Dimensions (W x D x H):
 - 435 x 455 x 134 mm V-Motion 15/30/40
 - 435 x 455 x 222 mm V-Motion 55/75
- Weight:
 - V-Motion 15, 15,5 kg
 - V-Motion 30, 16.2 kg
 - V-Motion 40, 16.4 kg
 - V-Motion 55, 18.5 kg
 - V-Motion 75, 19.5 kg
- BGV C1 conformity (optionally up to EN 61508 SIL 3, depending upon configuration)

Options / Accessories:

- Upgrade for operation in accordance with EN 61508 SIL 3
- 19" rack-mounting kit
- I-Motion/MRC and I-Motion Controller
- I-Motion NDB 6 / 12 Network Distribution Box
- I-Motion NMB-14, Network Master Box
- Coupler and safety wire
- Transport case

Subject to technical modifications and typographical errors.