

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-E Variable Motion Powerpacks with integrated special line and motor filters are designed for operation in connection with the Movecat-V series of drives. In this configuration, they allow the V-Motion unit to be removed to a distance of up to 50/70* metres (C1/C2* EN 61800-3) from the drive, whilst complying at the same time with the EMC and VDE guidelines. The combination of integrated motor, radio and line filter reduces to a considerable degree the leakage current that for technical reasons is endemic to controlled drives, and allows reliable operation with RCD Type B 30 mA earth-leakage circuit breakers. It therefore allows the realization of centralized and decentralized, intelligent and safe, variable-speed kinetic systems at the highest technical level in accordance with BGV C1. The powerpacks can be configured for a variety of different V series drives: from V-Motion 15 (for drives up to 1.5 kW) to V-Motion 75 (for motor capacities 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 Powerpacks and the correctness of the way, time and load group run tested. V-Motion Powerpacks support speeds continuously variable from zero to ma-



ximum 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 Powerpacks. 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 Powerpacks 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 scenic runs over people's heads. V-Motion E-series Powerpacks are ready 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 series). In network operation, the data is transmitted bi-directionally and the user can follow and control operating parameters centrally.

V-Motion E-series Powerpacks in connection with V-series drives are suitable

for complex, and in particular for decentralized, professional BGV C1, EN 61508 SIL 1 to SIL 3 applications imposing the most exacting kinetic and safety-technical requirements in studio, theatre, events and tour use.

Technical equipment:

- Integrated EMC filter consisting of a motor, radio and line filter
- 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), optionally as key switch
- Up and Down buttons 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
- Three digital inputs for ancillary functions*
- FC data input for frequency-converter parametrisation
- Force-cooled by 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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compliant with BGV C1 and EN 61508 SIL 1 to SIL 3* (*depending upon configuration)

FEATURES:

- Standard configuration according to BGV C1
- Optionally upgradable with dual CPU to EN 61508* SIL 3
- Interference Suppression Class C1/C2 EN 61800-3 up to 50/70 m PMC-HV motor cable (at 12 kHz pulse frequency)
- Reduced leakage current
- Unrestricted use in residential and mixed-use areas with separate EMC systems
- Operation of multiple devices with RCD Type B / 30 mA safety switches
- 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 („floating state“) with full torque 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 all 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)
- Multi-pin C8/24-FC output connector (MPC 4IC1-compatible)
- NDC C14-FC input connector for I-Motion network
- XLR-4pin female input connector Digin operation
- XLR-3pin female plug-in connector FC data
- Drive power:
 - V-Motion-E 15 up to 1,5 kW
 - V-Motion-E 30 up to 3,0 kW
 - V-Motion-E 40 up to 4,0 kW
 - V-Motion-E 55 up to 5,5 kW
 - V-Motion-E 75 up to 7,5 kWMotor capacity / asynchronous three-phase drive with 12 kHz pulse frequency
- Dimensions (W x D x H):
 - 435 x 455 x 134 mm V-Motion-E 15/30/40
 - 435 x 455 x 222 mm V-Motion-E 55/75
- Weight:
 - V-Motion-E 15: 16.0 kg
 - V-Motion-E 30: 16.8 kg
 - V-Motion-E 40: 17.0 kg
 - V-Motion-E 55: 18.8 kg
 - V-Motion-E 75: 19.8 kg
- BGV C1 conformity (up to SIL 3 / EN 61508 optional, depending upon configuration)

Options / Accessories:

- Upgrade for operation in accordance with EN 61508 SIL 3
- 19" rack-mounting kit
- I-Motion/V-Motion MRC Remote Controller
- I-Motion NDB 6 Network Distribution Box
- I-Motion NMB-14 Network Master Box
- Truss coupler and safety rope
- Transport case

Subject to technical modifications and typographical errors.