MOVECAT

DYNAMIC STAGE TECHNOLOGY

LOOK BOOK

SAFETY FIRST
MADE IN GERMANY

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BGV C1 BGV D8
igvw SQ P2 D8 Plus
EN 61508 SIL 1 - SIL 3

ECOlite

MOVECAT ECOlite (DC and RC model)
chain hoists compliant with BGV D8 and igvw SQ P2

Movecat's ECOlite chain hoists were developed as economical rigging hoists for use in environments containing media equipment. They are the first choice when it comes to the safe and reliable hoisting and positioning of trusses, stages, ground support structures and other devices used in media applications. Despite the attractive price point, even in the basic configuration great importance has been attached to professional quality and first-class safety equipment.

Five-fold safety for the chain as well as a high-quality transmission and an efficient DC brake in combination with a patented overload system, naturally, are standard features of this series. The Basicplate chain guide ensures reliable chain transmission and reduces the risk of the chain jamming. The hoists are exceptionally light as well as compact and are recommended in particular for applications where space is limited.

All hoists can be used without conversion either as climbers or in the standard installation position, and most models can be converted to dual chainfall operation to increase their safe working loads.

ECOlite hoists are supplied as standard with 18 m or 24 m hoisting capacity, a single-hole suspension eyelet, two robust handels, a permanently installed textile chain bag, screwed cable glands with 360° anti-kink protection, DC versions with an H07RN-F connector cable with a black CEE 4-pin plug and RC versions with a black CEE 4-pin plug for power and a yellow CEE 4-pin plug for remote control.

The hoists are available in both DC (direct control 400 V AC) and RC (remote control/ low-voltage 24 V DC) versions and are CE-compliant, tested, and ready for operation at the time of delivery.

The chain hoists are designed for operation with Movecat phase-changing controllers in accordance with DIN 60204-32 and EN 13849-1 and when used accordingly are certified as CE compliant provided the instructions set out in the user manual are adhered to.

A UVV specialist factory inspection prior to first use for mobile applications as well as the VDE 0701/0702 first inspection are also included.

The PLUSlite chain hoists is recommended for day-to-day rigging use when building up and dismantling stage, concert and studio sets in the touring business as well as in the theatrical, studio, multifunction hall and trade fair sectors.

Basic configuration:

- 18/24 m hoisting height
- direct control 400 V AC or remote control 24 V DC
- DC brakes (1)
- overload protection by means of pat. friction clutch
- high-quality, specially hardened transmission
- precision-milled, specially hardened chain-bag wheel with min. 5 chain pockets
- highly robust round steel link chain acc. DIN 5684
- basicplate chain guide
- single-hole eyelet alternatively motor hook
- rotating chain hook
- permanently installed, fold-away textile chain bag
- robust, light alloy cast housing closed on all sides (ECO 250 with plastic covers) with two handles
- black, low-reflective finish RAL 9005
- compact, light construction
- smooth, quiet operation
- convertible to dual chainfall operation (except ECOlite 320)
- use in climbing or standard positions possible without conversion
- 1 m H07RN-F connector cable with CEE 16 A 4-pin plug (black) DC model
  1 m H07RN-F with CEE 16 A 4-pin (black - power) and
  CEE 16 A 4-pin (yellow - remote control) RC model

ECOlite

MOVECAT ECOlite (DC and RC model)
chain hoists compliant with BGV D8 and igvw SQ P2

TECHNISCHE DATEN	ECOlite 250-4	ECOlite 320-4	ECOlite 1000-4	ECOlite 1000-8
SWL (*1 chain-fall, upgradable to 2)	250 kg (*1500 kg)	320 kg	1000 kg (*12000 kg)	1000 kg (*12000 kg)
Hoisting speed at 50 Hz c..	4 m/min (*2 m/min)	4 m/min	4 m/min (*2 m/min)	8 m/min (*4 m/min)
Number of chain falls	1 (*2)	1	1 (*2)	1 (*2)
Motor power	0.18 kW	0.30 kW	0.75 kW	2.20 kW
Duty cycle/Operations per h.	25% / 150	25% / 150	25% / 150	25% / 150
Load chain acc. EN 818-7 DAT	4x12 mm	4x15 mm	7x22 mm	7x22 mm
Weight with 18 m hoist	20 kg	20 kg	51 kg	51 kg
Weight with 24 m hoist	23 kg	23 kg	61 kg	61 kg
Dimensions (LxWxH) w/o chain hook (mm)	317x196x186	317x196x186	374x275x234	374x275x234

TECHNISCHE DATEN	ECOlite 1600-4	ECOlite 1600-8	ECOlite 2500-4	ECOlite 2500-8
SWL (*1 chain-fall, upgradable to 2)	1600 kg (*13200 kg)	1600 kg (*13200 kg)	2500 kg (*15000 kg)	2500 kg (*15000 kg)
Hoisting speed at 50 Hz c..	4 m/min (*2 m/ min)	8 m/min (*4 m/min)	4 m/min (*2 m/min)	8 m/min (*4 m/min)
Number of chain falls	1 (*2)	1 (*2)	1 (*2)	1 (*2)
Motor power	2.20 kW	3.00 kW	2.20 kW	3.00 kW
Duty cycle/Operations per h.	40% / 150	25% / 150	25% / 150	25% / 150
Load chain acc. EN 818-7 DAT	9x27 mm	9x27 mm	11x31 mm	11x31 mm
Weight with 18 m hoist	113 kg	113 kg	145 kg	145 kg
Weight with 24 m hoist	132 kg	132 kg	168 kg	168 kg
Dimensions (LxWxH) w/o chain hook (mm)	506x435x531	506x435x531	643x435x490	643x435x490

Options / Accessories

Suspension	motor hook, optional swivel adapter with ring eyelet, hook block for dual-chain fall operation
Hoisting	height up to max. 60 m (1 chainfall)
Speeds	2 (depends on model and control system)
Internal control	x² kit for the internal evaluation of a 2-track geared limit switch in DC operation
Connector cable	Multicorecable with 6-pin multipin connector – RC models
Limit switching	geared limit switch for RC and DC*2
	incremental encoder*3
	absolute encoder*3
Load-sensing	dynamic LME/LMS system *3 (strain-gauge principle)
	(*2 with x² kit or I-controller, *3 with I-controller and additional equipment)
Running gear	hand and electric
Controllers (DC)	MPC ID8, ED8, LD8, TD8 series and MRC PD8 DC series
Controllers (RC)	MPC ID8, ED8, LD8 RC series
Miscellaneous	transport case, rain cover

Subject to technical modifications and typographical errors.

COMPACT 500-4

MOVECAT COMPACT 500-4 chain hoist (DC and RC model) compliant with BGV D8

The hoists in Movecat's Compact series represent a logical further development of the tried-and-tested ECO series. It was designed to satisfy the requirements of practical rigging applications, combining reliable and safe operation with a compact, lightweight format and simple, service-friendly handling.

Their principal characteristic is a well-balanced central transmission block to which the drive motor is flange-mounted directly at the side. This makes possible, in connection with the protected fan wheel, optimal heat dissipation and thereby an extended duty cycle. Thanks to the off-centre modular structure, it has proved possible to optimize the design of all components to achieve an outstanding laden-to-unladen weight ratio (e.g. Compact 500-4 unladen weight only 29.9 kg incl. 18 m chain).

The compact hoists are equipped with newly developed components such as a maintenance-free brake and a friction clutch to guard against overload; these guarantee safe and reliable operation even during sustained periods of use. The patented safety friction clutch, mounted in front of the brakes, is a BG- and TÜV-approved, force- and form-fitted implementation. Further standard features include a textile chain bag, a robust carrying handle and the new, chain-sparing Easy-Plate chain guide that offers you the choice of using the hoist in a standard installation position or as a climbing hoist.

The Compact 500-4 is available in both DC (direct control 400 V AC) and RC (remote control/low-voltage 24 V DC) versions and is CE-compliant, tested, and ready for operation at the time of delivery.
The chain hoist is designed for operation with Movecat phase-changing controllers in accordance with DIN 60204-32 and EN 13849-1 and when used accordingly is certified as CE compliant provided the instructions set out in the user manual are adhered to.
A UVV specialist factory inspection prior to first use for mobile applications as well as the VDE 0701/0702 first inspection are also included.

The chain hoists of the Compact series are recommended for daily rigging use when setting up and dismantling stage, concert and studio sets in the touring sector as well as in theatres, studios, multi-function halls and trade fair centres – everywhere, in fact, where heavy loads need to be borne by lifting gear that is itself light and where safe solutions are required for professional applications.

Technical data:

Model	COMPACT
Type	500-4
Safe working load	500 kg (1000 kg*1)
Hoisting speed	4 m/min (2 m/min*1)
Hoisting height	18 m/24 m
Chain-falls	1 (2*1)
Power supply	400 V/3 P/50 Hz (+/- 5 %)
Motor power	0.37 kW
Duty cycle	40 %
Mechanism group	(ISO/FEM)
Hoisting gear	1Am/M4
Load chain	2m/M5
Load chain EN 818-7 DAT	5.2 x 15 mm
Protection rating	IP 54
Dimensions (HE version L x W x H) without chain hook and chain bag	455 x 240 x 170 mm
Weight (incl. 18 m chain)	29.9 kg
Weight (incl. 24 m chain)	31.9 kg

COMPACT 500-4

MOVECAT COMPACT 500-4 chain hoist (DC and RC model) compliant with BGV D8

Technical equipment:

Suspension type	single-eyelet, optional motor hook
Hook implementation	rotating chain hook optional swivel adapter with eyelet and hook block for dual-chain-fall operation
Chain-falls	1 (2 *1 can be upgraded to two)
Chain guide	easy-plate
Chain bag	textile (permanently installed)
Handles	2 robust aluminium handles
Motor	forced-air cooled
Connector cable	1 m HO7RN-F connector cable with CEE 16A 4-pin plug (black) DC model 1 m HO7RN-F with CEE 16A 4-pin (black - power) and CEE 16A 4-pin (yellow - remote control) RC model

Options / Accessories:

Suspension	motor hook, optional swivel adapter with ring eyelet, hook block for dual-chain fall operation
Hoisting	height up to max. 60 m (1 chainfall)
Internal control	x² kit for the internal evaluation of a 2-track geared limit switch in DC operation
Connector cable	Multicorecable with 6-pin multipin connector – RC models
Limit switching	geared limit switch for RC and DC*2
	incremental encoder*3
	absolute encoder*3
Load-sensing	dynamic LME/LMS system *3 (strain-gauge principle)
	(*2 with x² kit or I-controller, *3 with I-controller and additional equipment)
Running gear	hand and electric
Controllers (DC)	MPC ID8, ED8, LD8, TD8 series and MRC PD8 DC series
Controllers (RC)	MPC ID8, ED8, LD8 RC series
Miscellaneous	transport case, rain cover

PLUS-C 250-4

MOVECAT PLUS-C 250-4 (DC and RC model)

Chain hoist compliant with igvw SQ P2 D8 Plus

The Movecat Plus-C 250-4 electric chain hoist is based on the tried-and-tested Compact series. It was designed to satisfy the demanding requirements of use with events equipment and to combine safety of operation with a compact, lightweight format to guarantee simple and practice-optimized handling.

Their principal characteristic is a well-balanced central transmission block to which the drive motor is flange-mounted directly at the side. This makes possible, in connection with the protected fan wheel, optimal heat dissipation and thereby an extended duty cycle. Thanks to the off-centre modular structure, it has proved possible to optimize the design of all components to achieve an outstanding laden-to-unladen weight ratio (e.g. Plus-C 250-4 unladen weight only 31 kg incl. 18 m chain).

The Plus-C hoist is equipped with specially developed components such as two independent, maintenance-free brakes and an overload-safety-friction-clutch that guarantees safe and reliable operation even in continuous use. The safety friction clutch mounted in front of the brakes is a force- and form-fitted implementation. All the bearing parts exhibit a design factor of 10:1. The Plus-C hoist corresponds in full with the provisions of the igvw SQ P2 D8 Plus standard. The Movecat Plus-C allows setting-up and dismantling as well as installation operations without any need for the otherwise requisite 'secondary' safety component or the time-consuming 'dead hang' of the system that would otherwise be required for D8 applications. The basic configuration includes a textile chain bag, robust handles and the improved, chain-sparing Easy-Plate chain guide that offers the choice of operation in standard installation positions or as a climbing hoist without conversion.

The Plus-C 250-4 is available in both DC (direct control 400 V AC) and RC (remote control/low-voltage 24 V DC) versions and is CE-compliant, tested, and ready for operation at the time of delivery.
The chain hoist is designed for operation with Movecat phase-changing controllers in accordance with DIN 60204-32 and EN 13849-1 and when used accordingly is certified as CE compliant provided the instructions set out in the user manual are adhered to.
A UVV specialist factory inspection prior to first use for mobile applications as well as the VDE 0701/0702 first inspection are also included.

The PLUS-C chain hoist is recommended for day-to-day rigging use when building up and dismantling stage, concert and studio sets in the touring business as well as in the theatrical, studio, multifunction hall and trade fair sectors.

Technical data:

Model	PLUS-C
Type	250-4
Safe working load	250 kg (500 kg *)
Hoisting speed	4 m/min (2 m/min *1)
Hoisting height	18 m
Chain-falls	1 (2*1)
Power supply	400 V/3 P/50 Hz (+/- 5 %)
Motor power	0.37 kW
Duty cycle	50 %
Mechanism group	(ISO/FEM)
Hoisting gear	1Am / M4
Load chain	2m/M5
Load chain	EN 818-7 DAT 5.2 x 15 mm
Independent DC brakes	2
Protection rating	IP 54
Dimensions (HE version L x W x H)	455 x 250 x 170 mm (without chain hook and chain bag)
Weight (incl. 18 m chain)	31 kg
Weight (incl. 24 m chain):	33.5 kg

PLUS-C 250-4

MOVECAT PLUS-C 250-4 (DC and RC model)

Chain hoist compliant with igvw SQ P2 D8 Plusv

Technical equipment:

Suspension type	single-eyelet, optional motor hook
Hook implementation	rotating chain hook optional swivel adapter with eyelet, hook block for dual-chain-fall operation
Chain-falls	1 (*1 can be upgraded to two)
Chain guide	easy-plate
Chain bag	textile (permanently installed)
Handles	2 robust aluminium handles
Motor	forced-air-cooled
Connector cable	1 m H07RN-F connector cable with CEE 16A 4-pin plug (black) DC model
	1 m H07RN-F with CEE 16A 4-pin (black - power) and CEE 16A 4-pin (yellow - remote control) RC model

Options / Accessories:

Suspension	motor hook, optional swivel adapter with ring eyelet, hook block for dual-chain fall operation
Hoisting	height up to max. 60 m (1 chainfall)
Internal control	x² kit for the internal evaluation of a 2-track geared limit switch in DC operation
Connector cable	multicorecable with 6pin multipin connector – RC models
Limit switching	geared limit switch for RC and DC*2
	incremental encoder*3
	absolute encoder*3
Load-sensing (strain-gauge principle)	dynamic LME/LMS system *3
	(*2 with x² kit or I-controller, *3 with I-controller and additional equipment)
Running gear	hand and electric
Controllers (DC)	MPC ID8, ED8, LD8, TD8 series and MRC PD8 DC series
Controllers (RC)	MPC ID8, ED8, LD8 RC series
Miscellaneous	transport case, rain cover

PLUSlite

MOVECAT PLUSlite (DC and RC model)
chain hoist compliant with igvw SQ P2 D8 Plus

Movecat's PLUSlite chain hoists were developed as economical rigging hoists for use in media equipment environments. They are the first choice when it comes to the safe and reliable hoisting and positioning of trusses, stages, ground support structures and other devices used in media applications. Despite the attractive price point, even in the basic configuration great importance has been attached to professional quality and first-class safety equipment.
It goes without saying that load-bearing parts designed for twice the nominal load and a chain with a safety factor of „10", as well as a high-quality transmission and two efficient DC brakes in combination with a patented overload device, are standard features of this series. The Basicplate chain guide ensures reliable chain transmission and reduces the risk of the chain jamming. The hoists are exceptionally light as well as compact and are recommended in particular for applications where space is limited.
All hoists can be used without conversion either as climbers or in the standard installation position, and most models can be converted to dual chainfall operation to increase their safe working loads. The PLUSlite chain hoists according to SQ P2 D8 Plus allow setting-up and dismantling as well as installation operations without any need for the otherwise requisite 'secondary' safety component or the time-consuming 'dead hang' of the system that would otherwise be required for D8 applications.
PLUSlite hoists are supplied as standard with hoisting capacities of 18 or 24 metres respectively, a single-hole suspension eyelet, two robust handles, a permanently installed textile chain bag, screwed cable glands with 360° anti-kink protection, DC versions with an H07RN-F connector cable with a black CEE 4-pin plug and RC versions with a black CEE 4-pin plug for power and a yellow CEE 4-pin plug for remote control.
The hoists are available in both DC (direct control 400 V AC) and RC (remote control/ low-voltage 24 V DC) versions and are CE-compliant, tested, and ready for operation at the time of delivery.
The chain hoists are designed for operation with Movecat phase-changing controllers in accordance with DIN 60204-32 and EN 13849-1 and when used accordingly are certified as CE compliant provided the instructions set out in the user manual are adhered to.
A UVV specialist factory inspection prior to first use for mobile applications as well as the VDE 0701/0702 first inspection are also included.

Basic configuration:

- 18/24 m hoisting height
- direct control 400 V AC or remote control 24 V DC
- DC brake (2)
- overload protection by means of pat. friction clutch
- high-quality, specially hardened transmission
- precision-milled, specially hardened chain-bag wheel with min. 5 bags
- highly robust round steel link chain acc. DIN 5684
- basicplate chain guide
- single eyelet alternatively motor hook
- rotating chain hook
- permanently installed, fold-away textile chain bag
- robust, light alloy cast housing closed on all sides (PLUSlite 125/160 with plastic covers) with two handles
- black, low-reflective finish RAL 9005
- compact, light construction
- smooth, quiet operation
- convertible for dual chainfall operation (except PLUSlite 160)
- use in climbing or standard positions possible without conversion
- 1 m H07RN-F connector cable with CEE 16 A 4-pin plug (black) DC model
  1 m H07RN-F with CEE 16 A 4-pin (black - power) and CEE 16 A 4-pin (yellow - remote control) RC model

The PLUSlite chain hoists are recommended for day-to-day rigging use when building up and dismantling stage, concert and studio sets in the touring business as well as in the theatrical, studio, multifunction hall and trade fair sectors.

PLUSlite

MOVECAT PLUSlite (DC and RC model)

chain hoist compliant with igvw SQ P2 D8 Plus

TECHNICAL DATA	PLUSlite 125-4	PLUSlite 160-4	PLUSlite 500-4	PLUSlite 500-8
SWL (*1 chain-fall, upgradable to 2)	125 kg (*1250 kg)	160 kg	500 kg (*11000 kg)	500 kg (*15000 kg)
Hoisting speed at 50 Hz c.	4 m/min (*2 m/min)	4 m/min	4 m/min (*2 m/min)	8 m/min (*4 m/min)
Number of chain falls	1 (*2)	1	1 (*2)	1 (*2)
Motor power	0.18 kW	0.30 kW	0.75 kW	2.20 kW
Duty cycle/Operations per h.	25% / 150	25% / 150	25% / 150	25% / 150
Load chain acc. EN 818-7 DAT	4x12 mm	4x15 mm	7x22 mm	7x22 mm
Weight with 18 m hoist	20 kg	20 kg	51 kg	51 kg
Weight with 24 m hoist	23 kg	23 kg	61 kg	61 kg
Dimensions (LxWxH) w/o chain hook (mm)	317x196x186	317x196x186	374x275x234	374x275x234

TECHNICAL DATA	PLUSlite 800-4	PLUSlite 800-8	PLUSlite 1250-4	PLUSlite 1250-8
SWL (*1 chain-fall, upgradable to 2)	800 kg (*11600 kg)	800 kg (*11600 kg)	1250 kg (*12500 kg)	1250 kg (*12500 kg)
Hoisting speed at 50 Hz c.	4 m/min (*2 m/ min)	8 m/min (*4 m/min)	4 m/min (*2 m/min)	8 m/min (*4 m/min)
Number of chain falls	1 (*2)	1 (*2)	1 (*2)	1 (*2)
Motor power	2.20 kW	3.00 kW	2.20 kW	3.00 kW
Duty cycle/Operations per h.	40% / 150	25% / 150	25% / 150	25% / 150
Load chain acc. EN 818-7 DAT	9x27 mm*2	9x27 mm	11x31 mm	11x31 mm
Weight with 18 m hoist	113 kg	113 kg	145 kg	145 kg
Weight with 24 m hoist	132 kg	132 kg	168 kg	168 kg
Dimensions (LxWxH) w/o chain hook (mm)	506x435x531	506x435x531	643x435x490	643x435x490

Options / Accessories

Suspension	motor hook, optional swivel adapter with ring eyelet, hook block for dual-chain fall operation
Hoisting	height up to max. 60 m (1 chainfall)
Speeds	2 (depends on model and control system)
Internal control	x² kit for the internal evaluation of a 2-track geared limit switch in DC operation
Connector cable	Multicorecable with 6-pin multipin connector – RC models
Limit switching	geared limit switch for RC and DC*2
	incremental encoder*3
	absolute encoder*3
Load-sensing	dynamic LME/LMS system *3 (strain-gauge principle)
	(*2 with x² kit or I-controller, *3 with I-controller and additional equipment)
Running gear	hand and electric
Controllers (DC)	MPC ID8, ED8, LD8, TD8 series and MRC PD8 DC series
Controllers (RC)	MPC ID8, ED8, LD8 RC series
Miscellaneous	transport case, rain cover

PLUSlite (2012)

MOVECAT PLUSlite 1000-4 (DC and RC model)

Chain hoist compliant with igvw SQ P2 D8 Plus/DIN 56950:2012-05

The PLUSlite 1000-4 satisfies the wish of many users for a single chain fall D8 Plus rigging hoist with a lifting capacity of 1000 kg at 4 m/min.

The Movecat PLUS 1000-4 is based on DIN 56950-1:2012-5 and satisfies the BG requirements in full. The mechanism is designed for twice the nominal load and the load chain exhibits dynamic and static safety factors of 8:1 and 10:1 respectively.

With its compact aluminium housing, 9 x 27 load chain, two robust handles and total weight of 115 kg with a hoisting height of 18 m, it is suitable for day-to-day touring and rental applications. The Basicplate chain guide ensures reliable chain transmission and reduces the risk of the chain jamming. The hoist can be used in climbing or standard installation positions without conversion. Above all when used as a climbing hoist in combination with Movecat cases, which were developed in close cooperation with users, ideal road operation is guaranteed, as the chain-hoist can climb and retract independently drawing its power from the case.

PLUSlite 1000-4 chain hoists in accordance with igvw SQ P2 D8 Plus/DIN 56950-1:2012-5 allow setting-up, dismantling and installation operations without the 'secondary' safety component required for D8 applications.

The PLUSlite 1000-4 hoists are supplied as standard with hoisting capacities of 18 or 24 metres, a single-hole suspension eyelet, two robust handles, a permanently installed textile chain bag, screwed cable glands with 360° anti-kink protection, DC versions with an H07RN-F connector cable with a black CEE 4-pin plug and RC versions with a black CEE 4-pin plug for power and a yellow CEE 4-pin plug for remote control. The PLUSlite 1000-4 is available in both DC (direct control 400 V AC) and RC (remote control/low-voltage 24 V DC) versions and is CE-compliant, tested, and ready for operation at the time of delivery.

The chain hoist is designed for operation with Movecat phase-changing controllers in accordance with DIN 60204-32 and EN 13849-1 and when used accordingly is certified as CE compliant provided the instructions set out in the user manual are adhered to.

A UVV specialist factory inspection prior to first use for mobile applications as well as the VDE 0701/0702 first inspection are also included.

The PLUSlite 1000-4 chain hoist is recommended for day-to-day rigging use when

building up and dismantling stage, concert and studio sets in the touring business as well as in the theatrical, studio, multifunction hall and trade fair sectors.

Basic configuration:

- 18/24 m hoisting height
- Direct control 400 V AC or remote control 24 V DC
- DC brakes (2)
- Overload protection by means of pat. friction clutch
- permanent form closure in the load line
- High-quality, specially hardened transmission
- Precision-milled, specially hardened chain-bag wheel with at least 5 bags
- Highly robust round steel link chain acc. DIN 5684
- Basicplate chain guide
- Single eyelet alternatively motor hook
- rotating chain hook
- Permanently installed, fold-away textile chain bag
- Robust, light alloy cast housing closed on all sides with two handles
- Black, low-reflective finish RAL 9005
- Compact, light construction
- smooth, quiet operation
- use in climbing or standard positions without conversion
- 1 m H07RN-F connector cable with CEE 16 A 4-pin plug (black) DC model
  1 m H07RN-F with CEE 16 A 4-pin (black - power) and CEE 16 A 4-pin (yellow - remote control) RC model

PLUSlite (2012)

MOVECAT PLUSlite 1000-4 (DC and RC model)

Chain hoist compliant with igvw SQ P2 D8 Plus/DIN 56950:2012-05

Technical data:

Model	PLUSlite (2012)
Type	1000-4 (DIN 56950-1: 2012-05)
Safe working load	1,000 kg
Hoisting speed	4 m / min
Hoisting height	18 m / 24 m (others on enquiry)
Chain falls	1
Power supply	400 V / 3 PH / 50 Hz
Motor power	2.2 kW
Duty cycle	25 %
Mechanism group	(ISO/FEM) 1BM/M3
Load chain	EN 818-7 DAT 9 x 27 mm
Independent DC brakes	2
Protection rating	IP 54
Dimensions (HE version L x W x H) without chain hook and chain container	506 x 435 x 531 mm
Weight (incl. 18 m chain)	115 kg
Weight (incl. 24 m chain)	135 kg

Options / Accessories:

Suspension	motor hook, optional swivel adapter with ring eyelet, hook block for dual-chain fall operation
Hoisting	height up to max. 60 m (1 chainfall)
Internal control	x² kit for the internal evaluation of a 2-track geared limit switch in DC operation
connector cable	multicorecable with 6-pin multipin connector – RC models
Limit switching	geared limit switch for RC and DC*1 incremental encoder*2 absolute encoder*2
Load-sensing	dynamic LME/LMS system *2 (strain-gauge principle)
	(*1 with x² kit or I-controller, *2 with I-controller and additional equipment)
Running gear	hand and electric
Controllers (DC)	MPC ID8, ED8, LD8, TD8 series and MRC PD8 DC series
Controllers (RC)	MPC ID8, ED8, LD8 RC series
Miscellaneous	transport case, rain cover

OMK

MOVECAT OMK fixed-speed chain hoists compliant with BGV C1 and DIN 56950

OMK electric chain hoists were developed in direct connection with Movecat's MPC EC1 and IC1 control systems so as to form with them a single unit offering the maximum in operational safety and functional versatility for professional BGV C1 point hoist applications. The high degree of functional safety, such as the targeted monitoring and supervision of the operational and emergency limit positions, underload and overload* (*optional), power supply and duty cycle of every individual hoist ensures reliable operation. The field of application is assistance with setting-up and dismantling operations in fixed installations and simple stage runs and scene changes, including the suspension of loads over human heads.

In the basic configuration, the safety equipment comprises two independent DC brakes, an adjustable underload cut-out, a four-track geared limit switch, and a patented overload system for the protection of the drive and the chain. Continuous force and form closure without interruption between the brakes and the load as well as the safe suspension of the load are guaranteed under all circumstances and at all times.

OMK hoists are equipped with an internal status and test board. This employs Movecat's ‚traffic light' principle to indicate without ambiguity the current operating status and contains the testing equipment required by DIN 56950 for the operating and emergency limit switches, load-measuring system and brakes.

The standard version of the OMK hoists is equipped with a single eyelet suspension, with an integrated underload cut-out on the motor side, and with a hook on the chain side. The use of a special gear in connection with a chain-bag wheel plus five or more chain-link bags makes smooth and quiet operation possible. Incremental and absolute encoders, thermal overload protection, dynamic load measuring systems, additional chain storage capacity and trolleys are available as options for OMK hoists. The modular component set permits cost-efficient, project-specific adjustments even in the case of complex and highly exacting application and safety demands.

The requisite control contactors and the power electronics are accommodated in the external controllers. Freely scalable, powerful integrated systems in accordance with BGV C1 can be realized even in mounting locations that are hard to access. The operating statuses are indicated by the relevant MPC controller and on the remote controls.

OMK hoists are ready for use with Movecat MPC EC1 and IC1 controllers in accordance with DIN 60204-32 and EN 13849-1 and when used accordingly are certified as CE compliant, provided the instructions set out in the user manual are adhered to.

A UVV specialist factory inspection and the VDE 0701/0702 first inspection are also included.

OMK hoists are the first choice for professional use in theatres and studios as well as conference, trade fair and multi-function halls, clubs, trade fair booths, shows and events.

Basic configuration:

- Hoisting height: up to 30 m
- Convertible to dual chainfall operation (twice the load-bearing capacity, half the speed)
- Standard installation position (optionally as climbing hoist)
- Compact, light construction
- Smooth, quiet operation
- Long duty cycle
- Precision-milled, specially hardened chain-bag wheel with at least 5 bags
- High-quality, specially hardened gear mechanism
- Overload protection by means of a patented friction clutch
- Braking system with two independent DC brakes, individually testable
- BG-tested geared limit switch for raising and lowering, operation and emergency limit
- Underload/slack chain shutdown
- Status board with ‚traffic light' display and test board for the independent testing of brakes and limit switches
- Basicplate chain guide
- Highly robust, roundsteel link chain acc. DIN 5684
- Chain hook, rotatable
- Permanently installed, textile chain bag
- Robust, light alloy cast housing closed on all sides (LMK 125 with plastic cap)
- Black, low-reflective finish RAL 9005
- Protection rating: IP 54 / Class F
- Connection via an internal terminal strip (optional hybrid connected cable with C8/24 multi-pin plug)

OMK

MOVECAT OMK fixed-speed chain hoists compliant with BGV C1 and DIN 56950

TECHNICAL DATA	OMK 500-4	OMK 500-8	OMK 800-4	OMK 800-8	OMK 1000-4
SWL (*1 upgradable to 2 chainfalls)	500 kg (*1 1000 kg)	500 kg (*1 1000 kg)	800 kg (*1 1600 kg)	800 kg (*1 1600 kg)	1000 kg *3
Hoisting speed at 50 Hz c.	4 m/min (*1 2 m/min)	8 m/min (*1 4 m/min)	4 m/min (*1 2 m/min)	8 m/min (*1 4 m/min)	4 m/min
Number of chainfalls	1 (*2)	1 (*2)	1 (*2)	1 (*2)	1
Motor power	0.84 kW	0.84 kW	2.20 kW	3.00 kW	2.20 kW
Duty cycle/Starts per hour	40% / 240	40% / 240	40% / 240	40% / 240	40% / 240
Load chain acc. DIN 5684-8	7x22 mm	7x22 mm	9x27 mm	9x27 mm	9x27 mm
Weight without chain	41 kg	41 kg	80 kg	80 kg	80 kg
Chain weight/m	1.10 kg	1.10 kg	1.80 kg	1.80 kg	1.80 kg
Dimensions (LxWxH) w/o chain hook (mm)	512x361x311	512x361x311	569x480x360	569x480x360	569x480x360

TECHNICAL DATA	OMK 1250-4	OMK 1250-8
SWL (*1 upgradable to 2 chainfalls)	1250 kg (*1 2500 kg)	1250 kg (*1 2500 kg)
Hoisting speed at 50 Hz c.	4 m/min (*1 2 m/min)	8 m/min (*1 4 m/min)
Number of chainfalls	1 (*2)	1 (*2)
Motor power	3.00 kW	3.00 kW
Duty cycle/Starts per hour	40% / 240	40% / 240
Load chain acc. DIN 5684-8	11x31 mm	11x31 mm
Weight without chain	95 kg	95 kg
Chain weight/m	2.70 kg	2.70 kg
Dimensions (LxWxH) w/o chain hook (mm)	599x486x382	599x486x382

*3 DIN 56950-1:2012-05, Chain safety factor dyn.8

Options / Accessories:

Suspension	motor hook, swivel adapter with eyelet and hook block for dual-chainfall operation
Hoisting height	up to 60 m (1 chainfall)
Speeds	2 (depending on model and controller)
Connector cable	hybrid multi-core cable with 8/24-pole multi-pin plug
Limit switching	2-channel incremental encoder*2 high-resolution
	absolute encoder*2 29-bit resolution
Load-sensing	dynamic LME/LMS real-time load measuring system*2
	(strain gauge principle)
Motor protection	protections against thermal overload (self-resetting)
Running gear	manual and electric trolleys
Controllers	MPC EC1 or IC1 series
Miscellaneous	carrier handles, climbing hoist kit, transport case, rain cover (*2 I-Controller and additional equipment)

Subject to technical modifications and typographical errors.

VMK-L

MOVECAT VMK-L chain hoists
for variable and fixed speeds in accordance with BGV C1 and DIN 56950

The VMK-L hoists according to BGV C1 are notable for their innovative feature set and unusually flexible handling, whilst satisfying at all times the highest standards of safety. Particularly remarkable are the two independent DC brakes, an integrated real-time load-measuring module that ascertains the real load and from it the overload and underload values, and a thermosensor that monitors permanently the operating temperature of the motor. No less exceptional is the patented overload system that protects the drive and chain. Continuous force and form closure without interruption between brakes and load is at all times guaranteed. Furthermore, a high-resolution, dual-channel incremental encoder is used that allows exact positioning - better than +/- 1 mm (with V-Motion) - and therefore precise target runs with the highest repetition accuracy.

In conjunction with V-Motion Powerpacks, VMK-L hoists can be controlled at variable speeds for way- and time-synchronous runs or else directly (hoists up to 10 m/min) with the MPC 4IC1 controllers at a fixed speed. These high-speed hoists in combination with V-Motion Powerpacks are capable of speeds ranging from 0 to 40 m/min whilst functioning as a closed-loop system with full torque even during runs continuing beyond the null point (‚floating state') and reversal of direction without incursion of the brakes.

With their remarkable features, VMK-L hoists are recommended for all high-quality applications in locations such as in TV studios, theatres and events venues demanding maximum performance and safety combined with the widest possible bandwidth of uses.

TECHNICAL DATA	VMK-L 125- 40	VMK-L 250-33	VMK-L 500-6	VMK-L 500-12	VMK-L 500-24	VMK-L 1250-10
SWL (*1 chain-fall, upgradable to 2)	125 kg	250 kg	500 kg *1	500 kg *1	500 kg *1	1250 kg *1
Hoisting speed at 50 Hz c.	24 m/min	20 m/min	5 m/min	10 m/min	16 m/min	8 m/min
Hoisting speed with V-Motion	0 - 40 m/min	0 - 33 m/min	0 - 6 m/min	0 - 12 m/min	0 - 24 m/min	0 - 10 m/min
Motor power	1.3 kW	2.6 kW	0.9 kW	2.6 kW	3.0 kW	3.0 kW
Duty cycle	25%	25%	40%	40%	40%	40%
Load chain acc. DIN 5684-8	5x15 mm	7x22 mm	7x22 mm	7x22 mm	9x27 mm	11x31 mm
Weight with 18 m hoist	53 kg	64 kg	64 kg	64 kg	110 kg	138 kg
Weight with 24 m hoist	56 kg	64 kg	64 kg	64 kg	120 kg	166 kg
Dimensions (L x W x H) w/o chain hook (mm)	460x196x275	540 x343x372	540x343x372	540 x343x372	605x486x320	640x486x382

Technical data:

- Hoisting height: 3 - 30 m
- Number of chain falls (optional): 1 (2)
- Power supply: 400 V/3 PH/50 Hz
- Protection rating: IP 54/Class F
- 2 independent brakes
- Dynamic load-measuring system
- Geared limit switch tracks: 4
- 2-channel incremental encoder, high-resolution
- Protection against thermal overload
- Installation position: standard
- Suspension type: load-measuring eyeless/chain hook
- Chain guide: Easy Plate
- Chain container; permanently installed

Options / Accessories:

- Transport/carrying handle
- Absolute encoder SSI 29-bit
- V-Motion Variable Motion Powerpack

Subject to technical modifications and typographical errors.

VMK-S II

MOVECAT VMK-S II chain hoists

for variable and fixed speeds in accordance with BGV C1 and DIN 56950

The VMK-S hoists according to BGV C1, DIN 56950:2012-05 and EN 61508 SIL 3 are notable for their innovative feature set and unusually flexible handling, whilst satisfying at all times the highest standards of safety. Particularly remarkable are the two independent, low-noise and maintenance-free brakes with air gap monitoring, a real-time load-measuring module integrated in the eyelet that ascertains the real load and from it the overload and underload values, and a thermosensor that monitors permanently the operating temperature of the motor. A friction clutch as overload protection is not required by the VMK-S hoists so that continuous force and form closure without interruption between motor and load is at all times guaranteed.

Furthermore, a dual-channel incremental encoder on the motor axis and a high-resolution 29-bit absolute encoder on the chain output axis are used. This allows exact positioning – better than +/- 1 mm – that can be replicated at all times and therefore precise target runs with the greatest repetition accuracy.

All components have been optimized for particularly quiet operation. These are, in detail, the acoustically insulated container and the narrowly calibrated parts and chains. In conjunction with V-Motion Powerpacks, VMK-S hoists can be controlled at variable speeds for way- and time-synchronous runs or else directly (hoists up to 10 m / min at 50 Hz) with the MPC 4IC1 controllers at a fixed speed. These high-speed hoists (from 10 m/min) in combination with a V-Motion Powerpack are capable of speeds ranging from 0 to 40 m / min whilst functioning as a closed-loop system with full torque even during runs continuing beyond the null point (‚floating state') and reversal of direction without incursion of the brakes. For optimal handling ease, the hoists are equipped with two robust handles. For the secure attachment of moving loads, rotatable and tiltable single-hole eyelets are used.

VMK-S hoists are equipped with an internal status- and test-board. This illuminates the relevant operational states and implements the testing systems required by DIN 56950 for the operating and emergency limit switches, load-measuring system and brakes. With their remarkable features, VMK-S hoists represent the elite class on the world market and are recommended for all state-of-the-art applications in locations such as in TV studios, theatres and events venues demanding maximum performance and safety combined with the widest possible bandwidth of uses.

TECHNICAL DATA	VMK-S 125- 40	VMK-S 250-33	VMK-S 500-6	VMK-S 500-12	VMK-S 500-24	VMK-S 1250-10
SWL (*1 chain-fall, upgradable to 2)	125 kg	250 kg	500 kg *1	500 kg *1	500 kg *1	1250 kg *1
Hoisting speed at 50 Hz c.	24 m/min	20 m/min	5 m/min	10 m/min	16 m/min	8 m/min
Hoisting speed with V-Motion	0 - 40 m/min	0 - 33 m/min	0 - 6 m/min	0 - 12 m/min	0 - 24 m/min	0 - 10 m/min
Motor power	1.30 kW	2.60 kW	0.90 kW	2.60 kW	3.0 kW	3.00 kW
Duty cycle	25%	25%	40%	40%	40%	40%
Load chain acc. DIN 5684-8	5x15 mm	7x22 mm	7x22 mm	7x22 mm	9x27 mm	11x31 mm
Weight with 18 m hoist	53 kg	64 kg	64 kg	64 kg	110 kg	138 kg
Weight with 24 m hoist	56 kg	64 kg	64 kg	64 kg	120 kg	166 kg
Dimensions (L x W x H) w/o chain hook (mm)	460x196x275	540 x343x372	540x343x372	540 x343x372	605x486x320	640x486x382

Technical data:

- Hoisting height up to 30 m
- Number of chainfalls: 1 (2)*1
- Protection rating: IP 54 / Class F
- 2 noiseless brakes w. function monitoring
- Dynamic real-time load-measuring system
- Geared limit switch tracks: 4
- Absolute encoder 29-bit resolution
- 2-channel incremental encoder, high-res.
- Protection against thermal overload
- Status- and test-board
- Installation position: standard
- Suspension: LME single-hole suspension eyelet
- Load pickup: swivel adaptor with eyelet
- Chain container; permanently installed
- Transport / carrying handles

Options / Accessories

- V-Motion Variable Motion Powerpack
- PMC-HV hybrid cable
- Transport case

Subject to technical modifications and typographical errors.

VMW-S 125-3

MOVECAT VMW-S 125-3 Entertainment Winch
compliance with BGV C1, DIN 56950 and EN 61508 SIL 3

Movecat VMK-S 125-3 – the first device in a new winch series for universal applications in the entertainment, touring and events industries. The VMW-S 125-3 has been tested in accordance with BGV C1, DIN 56950 and BGG 912 and approved for use over human heads and in manned airframes as well as conforming to EN 61508 SIL 3. It transports up to 125 kg at speeds continuously variable from 0 to 3 metres per second. The winch achieves acceleration values up to an astounding 3 m/sec². The hoisting height is up to 24 metres.

Basics
The VMW-S winch series scores with an extremely compact format and is capable of operating in a wide variety of different setting-up and mounting configurations. It has a round-tube frame structure in the 520 mm grid and is mount-compatible with GP and ST 52 trusses. Maintenance-free or else ultra-low-maintenance mechanical and functional elements assure problem-free use even under stressful tour conditions. All important parts feature a matt black finish with a special protective coating to guard against corrosion on tour and an extensive range of accessories is available for use on the road.

Key facts
The technical refinements of the entertainment winch include a dynamic load system that is independent of the installation position and isolated from the drive influences normally encountered. The effective load is ascertained and evaluated in every installation position. An integrated cable guide with a central cable outlet located in the middle of the front side allows optimal central load application when used with trusses and optimal operation of manned airframes with two winches placed opposite, the distance between the two ropes being only 15 cm. Reduced-noise operation as well as such features as two independent noiseless brakes with contact-free monitoring, high-resolution independent absolute and incremental encoders, a four-level gear limit switch for separate working and emergency evaluation, motor temperature monitoring, a dynamic load-measuring system with function testing as well as additional variable receptacles for truss couplers round off this highly practical package. In closed-loop mode, hovering (true zero speed) and a change of run direction are possible without incursion of the brakes. Tried and tested in the Movecat V-series, a status board displaying the most important function parameters is also integrated along with DIN 56950 test functions for the separate testing of the brakes and limit switch functions. Both brakes are equipped with a manual release lever for the controlled lowering of suspended loads in emergency operation.

The VMW-S 125-3 in conjunction with V-Motion 75 can be integrated into the I-Motion network.

Technical data:

- Safe working load: 125 kg
- Hoisting speed: 3 m/sec
- Acceleration: max 3 m/sec²
- Hoisting height: 24 m
- Rope: 5 mm
- Motor power: 5,5 kW
- Duty cycle: 40 %
- Brakes: 2
  (with contact-free monitoring and emergency ventilation function)
- Absolute encoder: 1 (29-bit)
- Incremental encoder: 1
- Protection against thermal overload: 1 (self-resetting)
- Geared limit switch tracks: 4 (independent with visualization)
- Load-measuring system: DMS with test function
- Dimensions: 1050 x 518.3 x 628 (Length x Width x Height)
- Weight: 203 kg

Technical equipment:

- Metal tube frame made of 48.3 mm steel tubing
- Complementary coupler receptacle for 30s trusses
- Movecat C8/24 plug-in connector with 1.5m PMC HV connector cable
- BGV C1, DIN 56950 and EN 61508 - SIL 3 compliant
- Preliminary, final and handover inspection in accordance with BGG 912

Options / Accessories:

- Noise-absorbing plastic cladding elements
- Swivel adaptor
- Cables with a variety of receptacles and lengths
- Transport trolley
- Transport case
- Transport cover
- V-Motion 75

Subject to technical modifications and typographical errors.

LMS-M

MOVECAT LMS-M Mobile Load Measuring System

compliant with BGV D8 and C1, as well as igvw SQ P2 D8 Plus and EN 61508 SIL 1* to SIL 3* (*depending upon configuration)

The Movecat LMS-M load measuring system was developed to accompany the D8, D8 Plus and C1 chain hoists and pre-rigging applications. It will prove useful whenever it is necessary to measure and monitor the effective load on chain hoists and suspension points or other drives and load points. As a versatile ancillary tool, it can simply be hung at any point in the load or transmission line, where it ascertains in real time fully dynamically the effective tractive forces and transmits this information to the controller unit for evaluation and further processing.

The LMS system works on the strain-gauge principle of force measurement along the longitudinal axis.
The strain gauge (DMS) is protected by an aluminium tube sealed with a highly elastic compound from mechanical and other damage. The system is designed to satisfy the most stringent safety requirements, attaining during BGV D8 applications a safety factor of 6 and during igvw SQ P2 D8 Plus as well as BGV C1 applications a safety factor of 12. In the light of these data, the need for an additional secondary safety system for D8 Plus and C1 applications is obviated.
The area of use has been conceived in such a way that the actual rated load is available as a real suspension load and yet the system can ascertain and evaluate overload conditions up to 150%.
Furthermore, a test and calibration system has been integrated. This assures and examines, in connection with a Movecat LMS or controller, the correct functioning of the unit at each start-up.
In the course of the calibration process, the length of the control cable and any temperature fluctuations are taken into account and compensated for. Cable runs of up to 100 m can be realized without problems. A further important advantage of self-checking is the fact that the load does not have to be unhooked but is recognized by the system and has no effect whatsoever on the test process.
Any error in the system is detected by the controller and leads depending upon the controller and its settings to the display and closing down of the drive or the connected load group. The current version corresponds to the provisions of EN 61508 SIL 3.
In connection with the Movecat I-Series and LMS LRC controllers, the load values can be ascertained in real time and shown on the display in kilograms or percentages. In connection with the I-Series controllers, underload and overload conditions can be defined and monitored. Overloading of the connected drives, suspension points or bearing structures is therefore effectively prevented.
For pure load measuring tasks, a battery-driven 1-channel controller (LMS LRC1) is also available as a manual device as well as linkable 4- and 8-channel devices (LMS LC4/8B).
The LMS systems are equipped with rotatable, highly robust ring eyelets The LMS-M systems are available in versions for rated loads of 250, 500 and 1,500 kg according to D8 Plus and C1 or 500, 1,000 and 3,000 kg according to D8. The LMS systems are recommended in combination with Movecat controllers for professional rigging applications in the trade fair, events, theatre, studio and touring sectors.

LMS-M

MOVECAT LMS-M Mobile Load Measuring System

compliant with BGV D8 and C1, as well as igvw SQ P2 D8 Plus and EN 61508 SIL 1* to SIL 3* (*depending upon configuration)

FEATURES:

- State-of-the-art strain-gauge technology: strain-gauge full bridges measure the length change and lateral extension produced by the traction forces. An integrated amplifier sends the measurement signal to the controller for analysis and further processing.
- Axial force transmission
- Integrated calibration and test system
- Self-test corresponding to EN 61508 SIL 3
- Ready for operation with Movecat LMS and MPC I-series* controllers
- **LMS-M 250/500**
  250 kg rated load according to D8 Plus and C1 with safety factor 12
  500 kg rated load according to D8 with safety factor 6
- **LMS-M 500/1000**
  500 kg rated load according to D8 Plus and C1 with safety factor 12
  1,000 kg rated load according to D8 with safety factor 6
- **LMS-M 1500/3000**
  1,500 kg rated load according to D8 Plus and C1 with safety factor 12
  3,000 kg rated load according to D8 with safety factor 6

*Functions depend upon the actual controller configuration

Technical data:

- Measuring range 0 to 150% of BGV D8 nominal load
- Overload: max. 150 % of the BGV D8 rated load
- Collapse load (calc.): 600% of the D8 rated load/1,200% of the C1 rated load
- Calibration tolerance: < 1.0% of FS*~
- Non-linearity: < 0.5 % of FS*~
- Hysteresis: < 0.3 % of FS*~
- Temp. error: 0.04% of FS/K 0,04% of reference value/K
- Operating conditions: - 20° to + 50° C
- 1.5 m DC4 data connection cable with C4M data cable connector
- Dimensions:

LMS-M 250/500	205 x 55 x 32 mm
LMS-M 500/1000	220 x 65 x 32 mm
LMS-M 1500/3000	280 x 90 x 45 mm

(H x W x D, without connector cable)

- Weight:

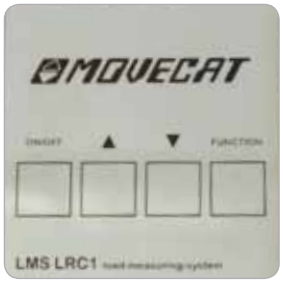
LMS-M 250/500	0.6 kg
LMS-M 500/1000	1.0 kg
LMS-M 1500/3000	2.3 kg

- Protection rating: IP 67
- BGV D8, C1 and igvw SQ P2 D8 Plus as well as EN 61508 SIL 3 conformity

* The values depend upon the use and force transmission They were achieved under favourable conditions according to the user manual. FS = D8 rated load.

Technical equipment:

- Robust aluminium housing with two rotatable, highly-robust eyelets and two securing cotter pins
- Lateral cable outlet with metal kink protection
- Housing in anodized aluminium, ring eyelets painted silver, available optionally in all matt black



Options / Accessories:

- LMS LRC1 1-channel manual controller with computer interface
- LMS LC4/8B 4/8-channel controller, 19" with integrated Movecat D8 M-Link system and outputs for ancillary functions such as warning lights, alarms etc.
- MPC 4ID8 and 4IC1 controllers with LMS input card
- Silver finish and special colours upon enquiry
- Transport case for four or eight devices

Subject to technical modifications and typographical errors.

MPC 2/4/6/8LD8

MOVECAT MPC 2/4/6/8LD8 Motion Power Controller (DC and RC model) compliant with BGV D8 and igvw SQ P2 D8 Plus

The Motion Power Controllers of the Lite series in direct control 400 V AC or remote control 24 V DC version represent an extension to the practice-proven Movecat kinetic controller series. They were designed as simple stand-alone solutions for small rigging applications but without any compromises being made in terms of either ergonomics or safety.

They unite in a robust 3U or else 5U metal housing all the relevant components for the safe control of two to eight asynchronous, three-phase drives such as the electric chain hoists of the Movecat Eco, Plus, Compact, Ecolite, Plus-C and Pluslite series.

Per controller, two to eight hoists or drives can be operated directly without any additional controllers or ancillary devices in an operationally secure and user-proof fashion.

Run direction, raising and lowering are selected using robust rotary controls and the run activated using a central GO button. All safety elements include a latching Emergency OFF button, phase malfunction, phase sequence and low voltage supervision, and four motor protection switches individually adjustable to each motor.

All the safety elements are arranged sequentially to form a 'safety chain', so that an operating failure leads automatically to all four drives coming safely to a halt. The operating status is indicated by means of two signal elements.

A motor plug-in connector CEE 16 A 4-pin, or a multi-pin connector can be directly inserted at rear. The controllers of the Lite series are, all in all, simple and intuitive to use in accordance with the ‚plug and lift' principle. Different versions of the MPC LD8 controller in DC or RC versions are available with motors ranging from 0.25 to 3.0 kW in power.

The controllers comply with the EN 60204-32 and EN 13849-1 standards as well as VDE 0113 and are suitable for the control of lifting gear in accordance with the guidelines set out in BGV D8 and igvw SQ P2 D8 Plus.

The MPC 4LD8 controller is recommended for use with the Eco, Ecolite, Compact, Plus, Plus-C and Pluslite hoists for small professional rigging applications in the trade fair, events, studio and touring sectors.

FEATURES:

- controls and supervises two to eight hoists such as Eco, Ecolite, Compact, Plus, Plus-C and Pluslite or else asynchronous, three-phase drives (400 V / 50 Hz)
- direct control 400 V AC or remote control 24 V DC
- EN 60204-32, EN 13849-1 and VDE 0113 conformity
- implementation according to BGV D8 and igvw SQ P2 D8 Plus
- simple, intuitive operation
- self-testing of relevant functions prior to system enabling

MPC 2/4/6/8LD8

MOVECAT MPC 2/4/6/8LD8 Motion Power Controller (DC and RC model) compliant with BGV D8 and igvw SQ P2 D8 Plus

DC Versions:

- **MPC 2/4/6/8LD8-1**
  (adjustment range 1.0 to 1.6 A motor current consumption, 0.25 to 0.37 kW motor power)
- **MPC 2/4/6/8LD8-2**
  (adjustment range 1.6 to 2.5 A motor current consumption, 0.37 to 0.75 kW motor power)
- **MPC 2/4/6/8LD8-3**
  (adjustment range 2.5 to 4.0 A motor current consumption, 0.75 to 1.5 kW motor power)
- **MPC 2/4LD8-4**
  (adjustment range 4.0 to 6.3 A motor current consumption, 1.5 to 2.2 kW motor power)
- **MPC 2/4LD8-5**
  (adjustment range 6.3 to 10 A motor current consumption, 2.2 to 3.0 kW motor power)

RC Versions:

- **MPC 4/8LD8-1**
  (adjustment range 1.0 to 1.6 A motor current consumption, 0.25 to 0.37 kW motor power)
- **MPC 4/8LD8-2**
  (adjustment range 1.6 to 2.5 A motor current consumption, 0.37 to 0.75 kW motor power)
- **MPC 4/8LD8-3**
  (adjustment range 2.5 to 4.0 A motor current consumption, 0.75 to 1.5 kW motor power)
- **MPC 4LD8-4**
  (adjustment range 4.0 to 6.3 A motor current consumption, 1.5 to 2.2 kW motor power)
- **MPC 4LD8-5**
  (adjustment range 6.3 to 10 A motor current consumption, 2.2 to 3.0 kW motor power)

Technical equipment:

- adjustable motor protection switch per drive
- emergency OFF button, self-latching
- GO button
- rotary control for direct selection of the run direction
- READY and ERROR status indicators
- robust metal housing
- CEE 16 A 4-pin motor connectors female (DC models rear panel)
- HAN 16-E multi-contact connector for four motors (RC models rear panel)
- CEE 16 A/32 A 5-pin phase-changing plug with 1.0 m H07RN-F connector cable

Technical data:

- input 16 A/32 A* CEE with phase-changing plug (*depending upon total current consumption)
- 2/4LD8 dimensions 19", 3U, D 310 mm (without plug-in connector)
- 6/8LD8 dimensions, 19"/ 5U, D 310 mm (without plug-in connector)
- weight 9.0 kg - 9.5 kg, 3 U devices
- weight 11.5 kg - 12.5 kg, 5 U devices
- EN 60204-32, EN 13849-1 and VDE 0113 conformity
- BGV D8 und igvw SQ P2 D8 Plus conformity

Options / Accessories:

- rear panel with HAN 16-E multi-contact connector instead of four CEE 4-pin connectors (4/8LD8 DC)
- transport case

MPC/MRC 4/8/12/16ED8

MOVECAT MPC 4/8ED8 Motion Power and MRC 4/8/12/16ED8 remote controllers (DC and RC model) Compliant with BGV D8 and igvw SQ P2 D8 Plus

The Motion Power and Motion Remote Controllers of the E-series in direct control 400 V AC or remote control 24 V DC version have for years represented the defacto industry standard in the field of asynchronous BGV D8 and igvw SQ P2 D8 Plus 400 V AC rotary current drives and in particular chain hoists such as those of Movecat's Eco, Plus, Compact, Ecolite, Pluslite and Plus-C series.
The robust, respectively 3U or 6U MPC metal housings contain all the contactor switches, safety circuits, under-voltage-, phase- and rotary-field-supervision circuitry and main control switches required for operation, as well as, for each channel, an individually adjustable motor protection switch.
The operation is performed from a detached remote unit belonging to the MRC ED8 series for 4, 8, 12 or 16 drives.
The E-Controller system forms the foundation for Movecat's M-Link system by means of which up to eight MPC controllers forming an integrated network can be centrally controlled and supervised. The integrated safety elements are arranged sequentially to form a 'safety chain', so that any operating failure (such as the tripping of a motor protection switch) leads automatically to all the drives connected via M-Link coming to a stop. Furthermore, the runs of all linked MPC controllers can be activated centrally even if a variety of MRC units are being used. The operating status is indicated by LED signal elements on the front panel.
The controllers comply with the EN 60204-32 and EN 13849-1 standards as well as VDE 0113 and are suitable for the control of lifting gear in accordance with the guidelines set out in BGV D8 and igvw SQ P2 D8 Plus, with which they comply in every respect.
Typical fields of application include rigging applications in the touring sector and as a setting-up aid for professional events and trade fair applications.

FEATURES:

MPC 4/8ED8

- simple, intuitive operation
- controls and supervises, in conjunction with MRC remote units, up to 4 or 8 hoists respectively, including Eco, Ecolite, Compact, Plus, Pluslite or Plus-C or else asynchronous three-phase drives (400 V / 50 Hz)
- direct control 400 V AC or remote control 24 V DC
- conforms with EN 60204-32, EN 13849-1 and VDE 0113
- implementation according to BGV D8 and igvw SQ P2 D8 Plus
- self-testing of relevant functions prior to system enabling

MPC/MRC 4/8/12/16ED8

MOVECAT MPC 4/8ED8 Motion Power and MRC 4/8/12/16ED8 remote controllers (DC and RC model) Compliant with BGV D8 and igvw SQ P2 D8 Plus

Technical equipment:

MPC 4/8ED8

- main control switches lockable
- four or eight adjustable motor protection switches respectively
- under-voltage-, rotary-field, -symmetry- and phase-supervision module
- phase control and error display
- LED channel indicator for raising and lowering
- LED indicator for run-enabled (GO)
- M-Link function for up to eight controllers of the E, I and T series (even in mixed operation)
- robust metal housing with two handles
- CEE 5-pin phase-changing plug with 1.5 m H07RN-F connector cable 400 V/3 P/16 A or 32 A CEE with phase-changing plug. High-power devices with 400 V/3 P/63 A cable plug.
- HAN 16-E multi-contact plug-in connector, 16-pin at DC models and 24-pin at RC models (every four motor outputs), optional 19-pin EU-Socapex compatible plug-in connector (DC models)
- Multipin input connector for MRC devices; if desired, the 4/8/12/16 MRC remote controllers can be plugged directly into an MRC 4/8ED8 controller; direct operation of the number of drives of the MPC controller
- RCD 40A/30 mA circuit breaker (optional for MPC 8ED8)

Technical data:

MPC 4/8/ED8

- dimensions:
  MPC 4ED8, 19", 3U, D 410 mm (without plug-in connector)
  MPC 8ED8, 19", 6U, D 410 mm (without plug-in connector)
- weight:
  17.6 kg, MPC 4ED8
  32.7 kg, MPC 8ED8

Technical data:

MRC 4/8/12/16ED8

- dimensions:
  MRC 4ED8: 135 x 292 x 115 mm (W x L x H)
  MRC 8ED8: 135 x 292 x 115 mm (W x L x H)
  MRC 12ED8: 135 x 370 x 115 mm (W x L x H)
  MRC 16ED8: 240 x 292 x 115 mm (W x L x H)
- weight:
  MRC 4ED8: 2.5 kg
  MRC 8ED8: 2.8 kg
  MRC 12ED8: 3.8 kg
  MRC 16ED8: 4.0 kg
  (without connector cable)

Versions MPC 4ED8 (DC and RC model):

- **MPC 4ED8-1** (adjustable range 1.0 to 1.6 A motor current consumption, 0.25 to 0.37 kW motor capacity), CEE 16 A/5-pin phase-changing plug
- **MPC 4ED8-2** (adjustable range 1.6 to 2.5 A motor current consumption, 0.37 to 0.75 kW motor capacity), CEE 16 A/5-pin phase-changing plug
- **MPC 4ED8-3** (adjustable range 2.5 to 4.0 A motor current consumption, 0.75 to 1.5 kW motor capacity), CEE 16 A/5-pin phase-changing plug
- **MPC 4ED8-4** (adjustable range 4.0 to 6.3 A motor current consumption, 1.5 to 2.2 kW motor capacity), CEE 32 A/5-pin phase-changing plug
- **MPC 4ED8-5** (adjustable range 6.3 to 10 A motor current consumption, 2.2 to 3.0 kW motor capacity), CEE 63 A/5-pin cable plug

Versions MPC 8ED8 (DC and RC model):

- **MPC 8ED8-1** (adjustable range 1.0 to 1.6 A motor current consumption, 0.25 to 0.37 kW motor capacity), CEE 16 A/5-pin phase-changing plug
- **MPC 8ED8-2** (adjustable range 1.6 to 2.5 A motor current consumption, 0.37 to 0.75 kW motor capacity), CEE 16 A/5-pin phase-changing plug
- **MPC 8ED8-3** (adjustable range 2.5 to 4.0 A motor current consumption, 0.75 to 1.5 kW motor capacity), CEE 32 A/5-pin phase-changing plug
- **MPC 8ED8-4** (adjustable range 4.0 to 6.3 A motor current consumption, 1.5 to 2.2 kW motor capacity), CEE 63 A/5-pin cable plug

Technical equipment:

MRC 4/8/12/16ED8

- emergency OFF button, self-latching, function-illuminated
- rotary switch (1-4, 1- 8, 1 -12 or 1-16) for direct selection of the run direction
- illuminated GO button (Ready indicator for the M-Link system)
- robust metal housing, side plates and two stainless steel handles/safety grips
- 10 m connector cable with multi-pin plug-in connector
- operating voltage: 24 V AC

Options / Accessories

- RCD circuit breaker 40 or 63 A/30 mA for MPC 8ED8
- 19-pin EU-Socapex compatible plug-in connector
- MRC 8/12/16 cable-spitting adapter
- transport case

MPC 16/24/32TD8 II

MOVECAT MPC 16/24/32TD8 II Motion Power Controller

compliant with BGV D8 and igvw SQ P2 D8 Plus

The all-in-one touring racks of the Movecat TD8 series set new standards in terms of compact construction, operating ergonomics and safety for motor controllers in accordance with BGV D8 and igvw SQ P2 D8 Plus. They correspond to the current EN 60204-32, EN 13849-1 and VDE 0113 guidelines. The safety systems and power-switching components are supervised in a read-back safety chain to achieve an alltime high in operating safety. In addition, the relevant operating states are systematically illuminated.

The racks unite the control components necessary for operation in a compact, shock-resistant road case. The integrated power station takes over the distribution and protection of the controller modules as well as the supervision of the power supply including any necessary correction of the rotating field.

Both Single mode (Lift/Lower single selection of the hoists) and alternatively Master mode (central Lift/Lower selection of all hoists with a single switch) are available. In addition, a DMB system (enabling/‚dead-man' button) is integrated. Depending upon the rack, up to four external three-stage permission buttons can be connected. Especially with larger rig constructions, it is necessary to supervise these from different positions during the "run" to ensure that, even in the case of systems extending over large areas, runs are performed safely. Series II devices have been further enhanced by a selective bypass system, whereby in the event of a failure in a single module, in the power station or in the MRC, it remains possible to operate the modules and drives not affected.

The safety concept is complemented by the tried-and-tested Movecat M-Link system, which allows up to twelve TD8 racks (max. 384 drives) to be operated in a network. The M-Link is system-compatible with the Movecat MPC 4ID8 and 4/8ED8 controllers. Up to eight devices can be ‚linked' with a single TD8 controller. Even ‚linked' mixed operation can be realized with up to eight devices.

Due to their intuitive operating philosophy and also to their handling and safety features, the racks of the TD8 series are recommended in particular for larger, interdependent rigging systems with more extensive safety requirements in professional rigging applications in accordance with BGV D8 and igvw SQ P2 D8 Plus.

FEATURES:

- controls up to 16 (MPC 16TD8), 24 (MPC 24TD8) or 32 (MPC 32TD8) direct-control hoists such as Movecat Eco, Ecolite, Compact, Plus, Plus-C or Pluslite chain hoists or else asynchronous three-phase drives (400 V/50Hz)
- self-testing of relevant functions prior to system enabling
- supervision and display of operating states such as operating voltage and phase, motor protection switch, run direction and main contactor on „stick", M-Link system, DMB system
- illumination of input devices and important operating states
- simple, intuitive operation, Single (single hoist selection) and Master (all hoists UP or DOWN) modes selectable via key switch
- eight-channel, 19" individual controller plug-in modules with motor protection switches, their own safety supervision and phase and status displays
- power station with 30 mA ground fault circuit interrupters (RCD), automatic over- and under-voltage, phase sequence and symmetry supervision, as well as rotating field detection with automatic rotating field correction
- group-transcending error supervision in Link mode for up to 12 touring racks (max. 384 hoists in one T network)
- M-Link compatible with the MPC 4ID8 and 4ED8 controllers (max. 8 devices)
- DMB system, three-level permission buttons, up to four units with self-detection and active status display
- implementation according to BGV D8 and igvw SQ P2 D8 Plus
- selective bypass design for increased operating safety

MPC 16/24/32TD8 II

MOVECAT MPC 16/24/32TD8 II Motion Power Controller
compliant with BGV D8 and igvw SQ P2 D8 Plus

Technical equipment:

- professional, shockproof road case with six handles and four castors (two lockable)
- control panel with choice of function-illuminated rotary or rocker switches
- E-Stop button, function-illuminated
- separate backlit GO buttons for Single and Master modes (Enabled)
- differentiated error display (Error) for PDU, plug-in controller modules and control panel
- differentiated display of phases L1 to L3 for PSU as well as the plug-in controller modules
- display of the rotating field direction of the voltage feed. Any correction that may be necessary to achieve a clockwise (right-handed) rotating field is performed automatically
- individually adjustable motor protection switch with error display for each motor channel
- power station (PDU) with 30 mA RCD (Personnel and device protection), triple automatic circuit breakers (type C) and separately fused grounding receptacle on the front panel
- enabled display of the active DMB permission switches
- four CEE 4-pin direct out plugs (motor 1-4)
- HAN 16-E 16-pin multicore panel connectors for four drives each (optional 19-pin EU Socapex)
- XLR MX7 and XLR FX6 M-Link system incl. dummy connector
- XLR FX6 panel connector, MPC 16TD8 two, MPC 24/32TD8 four units each, DMB input
- 19“ rack drawer 3U (except MPC 32TD8)

Versions:

- **MPC 16TD8-RS3**, 16-channel with rocker switch (adjustable range 2.5 to 4.0 A motor current consumption, 0.75 to 1.5 kW motor capacity)
- **MPC 24TD8-RS3**, 24-channel with rocker switch (adjustable range 2.5 to 4.0 A motor current consumption, 0.75 to 1.5 kW motor capacity)
- **MPC 32TD8-RS3**, 32-channel with rocker switch (adjustable range 2.5 to 4.0 A motor current consumption, 0.75 to 1.5 kW motor capacity)

- **MPC 16TD8-TS3**, 16-channel with rotary switch (adjustable range 2.5 to 4.0 A motor current consumption, 0.75 to 1.5 kW motor capacity)
- **MPC 24TD8-TS3,** 24-channel with rotary switch (adjustable range 2.5 to 4.0 A motor current consumption, 0.75 to 1.5 kW motor capacity)
- **MPC 32TD8-TS3,** 32-channel with rotary switch (adjustable range 2.5 to 4.0 A motor current consumption, 0.75 to 1.5 kW motor capacity)





Technical data:

- Input: 63 A CEE with 1.5 m connector cable (MPC 16/24TD8)
- Input: 125 A CEE with 1.5 m connector cable (MPC 32TD8)
- Dimensions:
  MPC 16TD8 600 x 970 x 800 mm
  (Width x Height x Depth) closed incl. castors
  MPC 24TD8 600 x 1,100 x 800 mm
  (Width x Height x Depth) closed incl. castors
  MPC 32TD8 600 x 1.250 x 800 mm
  (Width x Height x Depth) closed incl. castors
- Conforms with EN 60204-32, EN 13849-1, VDE 0113, BGV D8 and igvw SQ P2 D8 Plus

Options / Accessories:

- DMB permission switch
- LP version (with 0.37 to 1.0 kW motor capacity upon request)
- HP version (with 1.5 to 3.0 kW motor capacity upon request)
- EU Socapex-compatible plug-in connector

MPC 16/24/32TD8 II - EN 01.2014

MPC 4ID8

MOVECAT MPC 4ID8 Motion Power Controller (DC and RC model) compliant with BGV D8 and igvw SQ P2 D8 Plus

The Motion Power Controller 4ID8 is based on the established industry standard MPC 4ED8 controllers and represents an intelligent control unit for the governance of asynchronous three-phase drives such as the Movecat ECO, PLUS, Compact and Plus-C chain hoists and their Lite counterparts compliant with D8 and D8 Plus. This is an independent control platform by means of which up to four hoists or drives series in direct control 400 V AC or remote control 24 V DC version can be directly operated in an operationally secure and user-safe fashion without any additional control devices. A large, back-lit LCD displays the operating states and parameters. The integrated operating and safety processors monitor all functions, whereby the general evaluation of all safety-relevant parameters, including all run states, is implemented as a superordinate safety chain. Any operating error therefore leads invariably to the shutting-down of the connected drives. The relays and safety circuits required for the operation of up to four chain hoists are integrated.

The system corresponds in its basic configuration to the stipulations of BGV D8 and D8 Plus in accordance with igvw SQ P2. A modular concept adaptable to the prevailing functional and safety requirements has been realized.

The MPC 4ID8 is system-compatible with the existing MPC 4ED8 controllers and can be operated by means of the established Movecat Link system both within a group and also with the well-known MRC controllers. Furthermore, it is ready for I-Motion network operation, and up to 8 devices can be operated in direct link mode or up to 60 devices via I-Motion network in decentralized group mode in combination with a central controller e.g. a controller from the I-Motion series.

The clearly identifiable input buttons in combination with a rotary/push-button encoder permit the simple and intuitive configuration and handling of the controller. The user is guided by a logically structured and intuitive interface with display output. Even target* and group* runs (*depending upon the drive configuration) can be programmed and executed by this means.

The MPC 4ID8 solution is recommended for use with the ECO, PLUS and Compact Plus-C hoists, as well as their respective Lite counterparts series in direct control 400 V AC or remote control 24 V DC version, in particular for professional rigging applications in the trade fair, events, studio and touring sectors.

Technical data:

- input: 16 A CEE 5-pin phase-changing plug with 1.5 m H07RN-F connector cable (32 A CEE 5-pin HP version)
- XLR MX7 and XLR FX6 M-Link system incl. shut-off dummy connector
- drive output connector: HAN E16 16-pin at DC models and 24-pin at RC models (every four motor outputs), optional 19-pin EU-Socapex compatible plug-in connector (DC models)
- MRC input connector HAN 36 modular
- I-Motion-Network NDC-C14FC input connector
- I-/A- encoder input, SUB-D25 male
- I/O inputs and outputs, SUB-D25 female
- load measurement system input, SUB-D15 female
- max. 1 kW per drive (HP versions according to choice with 2 or 4 kW)
- dimensions: 19"/3U, D 470 mm (without plug-in connector)
- weight 16.4 kg (16.6 kg HP version)
- complies with, BGV D8 and D8 Plus (in accordance with igvw SQ P2)

MPC 4ID8

MOVECAT MPC 4ID8 Motion Power Controller (DC and RC model)
compliant with BGV D8 and igvw SQ P2 D8 Plus

FEATURES:

- implementation according to BGV D8 and D8 Plus in compliance with igvw SQ P2
- controls and supervises up to four direct-drive hoists such as ECO, PLUS, Compact, Plus-C and their Lite implementations or else asynchronous three-phase drives
- direct control 400 V AC or remote control 24 V DC
- self-testing of relevant functions prior to system enabling
- night-design, buttons and input devices as well as LCD illuminated
- simple, intuitive operation, basic functions (e.g. raising and lowering hoists) possible without time-consuming configuration
- supervision and display of operating states such as operating voltage and phase, motor protection switch, run direction and main contactor on „stick", correct run direction, link system, position*, operating* and emergency limit*, temperature* as well as dynamic load analysis*~
- supervision of the run direction and target speed when encoder-operated*~
- selection of possible Movecat drive parameters from stored database
- management of drive groups*~
- group-transcending error supervision in M-Link mode up to 8 and in I-Motion network up to 60 MPC 4ID8 controllers
- input of software operating limit positions* for raising and lowering• simple encoder reference run* for calibration
- way-synchronous group run*, permitted tolerance of the individual hoists and groups programmable*~
- „group-synchronous" run (central up/down movement of previously selected hoists)
- „target runs"* on position
- complementary overload ascertainment through evaluation of the nominal speed when encoder-operated*~
- simple set-up possibility for underload and overload definition*, analysis
- targeted service runs in connection with by-pass switch
- retention of all parameters even in the event of power failure
- error warning by means of the display
- integration into the I-Motion network buss system
- configured* via external PC with 100 Mbit network card

*optional, functions depend upon the controller- and drive-configuration

Technical equipment:

- backlit LCD
- backlit buttons and encoders
- LED status display of the device
- four adjustable motor protection switches
- E-Stop button, function-illuminated
- GO button backlit (enabling)
- main switch for central start-up incl. by-pass function
- function keys (1-4) for simple, intuitive handling and direct selection of drives as well as their run directions
- high-resolution rotary encoder with button function for data input
- incremental encoder input*: dual-channel with run-direction detection, high-resolution*~
- load measurement cell input* (LMS + LME)
- eight digital inputs and four outputs for ancillary functions e.g. limit switch
- I-Motion network input, network address software-determinable
- robust metal housing with two handles

Options / Accessories:

- HP version (4 x 2 kW or 4 x 4 kW motor power)
- plug-in card for incremental encoder
- plug-in card for dynamic load measuring system
- MRC D8 series remote control
- I-Motion Controller series
- transport case

Subject to technical modifications and typographical errors.

MPC 4IC1

MOVECAT MPC 4IC1 Motion Power Controller

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

The Motion Power Controller 4IC1 represents an intelligent control unit in a 19“ metal housing for the OMK and VMK* hoists from Movecat according to BGV C1. Thanks to the integrated main processor, this is an independent control platform with which four hoists or drives can be operated directly at a fixed speed without additional control devices or external safety computers in an operationally secure and user-safe manner. A large backlit LCD shows the operating states of the connected hoists including their operating parameters.

The MPC 4IC1 main and safety processors supervise all functions, whereby the general analysis of all safety-relevant parameters including all run states is implemented in an independent safety chain per hoist. Any operating error therefore leads invariably to the shutting-down of the affected hoist and hoist group. All the contactor switches and safety circuits for operating and emergency limit, as well as over- and underload, functions required for the operation of four OMK* or VMK* hoists are integrated. A modular concept has been realized that can be adapted precisely to the demands of the user. The system corresponds in its basic configuration to BGV C1, but can be optionally upgraded for applications up to EN 61508 SIL 3 and therefore for scenic runs over human beings.

The MPC 4IC1 is prepared for I-Motion network operation, and up to 60 devices can be operated in linked, decentralized group mode with the NDB modules via I-Motion network by means of a central controller (e.g. I-Motion Expert-T II or Basic). The clearly identifiable input buttons in combination with a rotary/push-button encoder permit the simple and intuitive configuration and handling of the controller. The user is guided by a logical operating structure with display output. Even target* and group* runs can be programmed and executed by this means. (*depending upon the drive configuration)

The MPC 4IC1 solution is recommended for use with the OMK* or VMK* hoists for professional BGV C1 applications in the trade fair, events, studio and touring sectors.

Technical equipment:

- Backlit LCD, display of operating parameters and states per hoist
- Eight function keys and encoders with rotary/press function, backlit
- LED device status display
- Equipped with four adjustable motor protection switches
- E-Stop button, function-illuminated
- GO button, function-illuminated
- Key switch for central start-up with bypass function
- Run direction and overall run display
- Incremental encoder input dual-channel with run direction recognition, high-resolution*~
- Absolute encoder input SSI high-resolution*~
- Additional digital inputs and outputs for remote functions*~
- I-Motion network input, network address determinable
- Robust metal housing with two handles
- Analogue input for MRC

(*optional)

MPC 4IC1-I - En 01.2014

MPC 4IC1

MOVECAT MPC 4IC1 Motion Power Controller

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

FEATURES:

- Standard configuration according to BGV C1
- Three separate CPUs for input/output, program and network with watchdog for mutual supervision
- Optionally upgradable with dual CPU to EN 61508* SIL 3
- Controls and supervises up to four OMK or VMK* chain hoists or adapted asynchronous three-phase drives (fixed speed)
- Night-design, buttons and input devices illuminated
- Self-testing of relevant functions prior to system enabling
- Simple, intuitive operation
- Selection of possible drive parameters from stored database
- Supervision and display of operating states such as operating voltage and phase, operation and emergency stop, temperature* as well as load* errors, run direction and readiness protection, safety relay, position* and underload or else dynamic load analysis*~
- Supervision of the run direction and target speeds when encoder-operated, error analysis of individual hoist and connected group*~
- Load-group transcending error supervision, even in groups of up to 60 other MPC 4IC1 controllers
- Management of free and closed* drive groups
- Target runs on position*~
- Target synchronous group run*~
- Group-synchronous run (central up/down movement of previously selected hoists*)
- Input of software operating limit positions* for raising and lowering
- Simple encoder reference run* for calibration
- Simple setup possibility for underload and overload definition*~
- Complementary overload ascertainment through evaluation of the nominal speed when encoder-operated*~
- Bypass function for underload and overload conditions*~
- Bypass function for auxiliary run from emergency stop point
- 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
- Error warning by means of the display
- Integration into I-Motion network buss system, remote or local operation selection*~

*Some functions depend upon the actual controller/drive configuration

Technical data:

- Input: 16 A CEE with phase-changing plug (HP Version 32 A)
- Four drive outputs PMC C8/24FC plug system
- MRC 4EC1-I input plug-in connector C40FC
- I-Motion-Network NDC-C14FC input socket
- I/O inputs and outputs, SUB-D25 female
- Max. 2 kW per drive (HP version available with 4 kW each)
- Dimensions: 19"/3U, D 470 mm (without plug-in connector)
- Weight 17.5 kg
- BGV C1 conformity (up to EN 61508 SIL 3 optional, depending upon configuration)

Options / Accessories:

- Plug-in card for incremental encoder
- Plug-in card for SSI absolute encoder
- Plug-in card for LMS dynamic load measuring system
- Upgrade for operation in accordance with EN 61508 SIL 3
- MRC 4EC1-I analogue remote control
- I-Motion digital remote control
- I-Motion Expert-T, I-Motion Basic Show Controller/-S
- I-Motion NDB-6/12, Network Distribution Box
- Transport case DD 3U

MPC 4IC1-I - En 01.2014

V-MOTION-E 15/30/40/55/75

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 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 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)

V-MOTION-E 15/30/40/55/75

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)

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 kW
  Motor 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 / 12 Network Distribution Box
- I-Motion NMB-14 Network Master Box
- Truss coupler and safety rope
- Transport case

V-MOTION 15/30/40/55/75

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)

V-MOTION 15/30/40/55/75

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)

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

I-MOTION BASIC

MOVECAT I-Motion Basic Show Controller

compliant with BGV D8 and C1, as well as igvw SQ P2 D8 Plus and EN 61508 SIL 1* to SIL 3* (*depending upon configuration)

The I-Motion Basic controller constitutes a compact System Controller for the systemic control of kinetic drives in mobile and flexible project applications.
Developed for applications with up to 60 drives, it allows the control and supervision of any application in connection with D8, D8 Plus and C1 drives even in any desired mixed operation at fixed or variable speeds.
Depending upon the drives and controllers used, entire systems can be realized in accordance with EN 61508 from SIL 1 to SIL 3. The option exists of integrating already existing drives and other stage machinery. The controller corresponds in its basic configuration to BGV D8 and BGV C1, for installation work it can optionally be upgraded for applications up to SIL 3 and therefore for overhead scenic runs. The Basic controller controls and supervises by I-Motion network the Movecat MPC and V-Motion Power Controllers and forms with them a closed safety network. An error in one unit is analysed centrally, represented visually and leads depending upon the system configuration to the immediate shutting down of a hoist/drive, the group to which it belongs or even the entire system.
The safe and intuitive entry of key operating and run parameters is facilitated by a user-optimized input keyboard with tactile feedback and a high-resolution rotary encoder with a button function. A large, 12" backlit 4C LCD touchscreen provides further input and takes over the visual display of the operating, input and system parameters in 2D or 3D according to choice. The user therefore has an overview of the rig and instant access to parameters and details. Complex target* and group* runs even in the case of possible interactions can be programmed and executed. (*depending upon the drive configuration)
The Basic controller is system- and software-compatible with the I-Motion Expert controllers and can be used as a backup system. For the immediate triggering of kinetic run activities, a GO button and a rotary/push-button encoder are available for the recall and execution of scene changes and shows as well as adjustment of their speeds. An integrated SSD disk drive as storage medium allows the saving of all system parameters and numerous shows (the actual number depends upon the size of the hard disk). The data can be exported and stored externally. The I-Motion Basic Show Controller is recommended in combination with the MPC and V-Motion Power Controllers for professional kinetic applications in the rigging, trade fair, events, studio and touring sectors.

Technical equipment:

- 12" 4C-LCD touchscreen, backlit
- Keypad for direct input
- E-Stop button, function-illuminated
- Key switch for central start-up with bypass function
- High-resolution rotary encoder with button function
- GO button (Start) backlit
- SSD disk drive
- Internal UPS (3 minutes) with network filter
- 2 I-Motion-Net output sockets
- 3 USB ports for add. mouse/M-stick etc.
- Robust 19"/6U metal housing with two handles

I-MOTION BASIC

MOVECAT I-Motion Basic Show Controller

compliant with BGV D8 and C1, as well as igvw SQ P2 D8 Plus and EN 61508 SIL 1* to SIL 3* (*depending upon configuration)

FEATURES:

- Standard configuration according to BGV C1, EN 60204-1 and -32, EN 13849-1 and EN 61508
- Safety processor with risk structure
- 32-bit high-performance bus system
- Optional dual-channel safety computer in conformity with SIL 3
- Power-saving CPU technology
- Operating states are stored in non-volatile RAMs
- Self-testing of relevant functions prior to system enabling
- Simple intuitive operation using a 12" touchscreen and direct input via a function keyboard as well as a high-resolution rotary encoder with keying function
- 12" 4C-LCD touchscreen, backlit
- Group-transcending error supervision when connected in a network
- Supervision and display of the operating states* of the hoists/drives such as run direction, speed, position, operating and emergency limit, excess temperature, brake gap monitoring, dynamic load analysis as well as load and run groups.

Software:

- Operating system: Win XP Pro
- Software: Movecat I-Motion
- Management of up to 60 drives or network controllers with IP address (standard configuration 24 drives software-expandable to 60 drives)
- 2D/3D representation switchable, zoomable
- Unlimited number of shows and scene changes/cues
- Speed way points for fixed profile
- Profile and snapshot recorder
- Input of software operating limit positions
- Management of free and closed drive groups
- Path- and time-synchronous group run*
- Group-synchronous run (central up/down movement of previously selected hoists/axes) programmable with multiple run groups
- Object generator, simple programming of complex scene changes with multiple drives and inter-connected loads
- Programming and execution of complex, successive show sequences
- Acceleration and braking of drives, groups and cues
- Supervision of the run direction and target speeds and complementary overload ascertainment through analysis of the rated speed when encoder-operated
- Set-up possibility for underload*/overload* definition
- Driver's log function, allows display and export
- Import/export of show files on server and USB memory stick
- Off-line operation

*The functions listed depend upon the actual hoist/drive configuration

Technical data:

- 230 V/50 Hz electricity supply
- Dimensions: 19"/6U,
- 483 x 265 x 220 mm (Width x Height x Depth) without plug-in connector
- Weight 8.5 kg
- BGV D8, BGV C1, igvw SQ P2 D8 Plus and EN 61508 conformity
  (up to SIL 3 oft. depending upon configuration)

Options / Accessories:

- Pull-out 19" keyboard with trackball
- MPC I-Motion Power Controller series
- V-Motion Motion Power Controller
- I-Motion NDB-6/12, Network Distribution Box
- I-Motion NMB-14, Network Master Box
- I-Motion NBB, Network Booster Box

I-MOTION BASIC-S

MOVECAT I-Motion Basic-S Show Controller

compliant with BGV D8 and C1, as well as igvw SQ P2 D8 Plus and EN 61508 SIL 1* to SIL 3* (*depending upon configuration)

The I-Motion Basic-S Show Controller is based on the tried-and-tested Basic controller and constitutes a compact System Controller for the systemic control of kinetic drives in mobile and flexible project applications with extended ancillary features. The additional features are the general dual-channel implementation according to EN 61508 SIL 3, the User ID chip card function as well as additional outputs for the connection of an additional monitor and external remote units for GO, Emergency Off and a control lever/dead-man switch unit.

Due to this feature set, the Basic-S controller is ideally suited to the provision of small- to medium-sized system solutions with variable-speed drives Naturally up to sixty D8, D8 Plus and C1 drives can also be controlled and supervised in mixed operation at fixed or variable speeds. The option exists of integrating already existing drives and other stage machinery.

The controller corresponds in its basic configuration to BGV D8, BGV C1 and EN 61508 SIL 3 and is therefore equipped for overhead scenic runs.

The Basic-S controller controls and supervises by I-Motion network the Movecat MPC and V-Motion Power Controllers and forms with them a closed safety network. The safe, efficient and intuitive entry of key operating and run parameters is facilitated by a user-optimized input keyboard with tactile feedback and a high-resolution rotary encoder with a button function. A large, 12" backlit 4C LCD touchscreen provides further input and takes over the visual display of the operating, input and system parameters in 2D or 3D according to choice. The user therefore has an overview over the entire rig and instant access to parameters and details. Complex target* and group* runs even in the case of possible interactions can be programmed and executed. (*depending upon the drive configuration) The Basic controller is system- and software-compatible with the I-Motion Expert controllers and can be used as a backup system.

For the immediate triggering of kinetic run activities, a GO button and a rotary/push-button encoder are available for the recall and execution of scene changes and shows as well as adjustment of their speeds. An integrated SSD disk drive as storage medium allows the saving of all system parameters and numerous shows (the actual number depends upon the size of the hard disk). The data can be exported and stored externally.

The I-Motion Basic Show Controller is recommended in combination with the MPC and V-Motion Power Controllers for professional kinetic applications in the rigging, trade fair, events, studio and touring sectors.

Technical equipment:

- 12" 4C-LCD touchscreen, backlit keypad for direct input
- E-Stop button, function-illuminated
- User ID chip card reader
- Key switch for central start-up with bypass function
- High-resolution rotary encoder with button function
- GO button (Start) backlit
- SSD disk drive
- Internal UPS (3 minutes) with network filter
- 2 I-Motion-Net output sockets
- 2 USB ports for add. mouse/M-stick etc.
- XGA output, SUB-D for second monitor
- Multi-pin remote input/output
- Robust 19"/6U metal housing with two handles

I-MOTION BASIC-S

MOVECAT I-Motion Basic-S Show Controller

compliant with BGV D8 and C1, as well as igvw SQ P2 D8 Plus and EN 61508 SIL 1* to SIL 3* (*depending upon configuration)

FEATURES:

- Standard configuration according to BGV C1, EN 60204-1 and -32 , EN 13849-1 and EN 61508
- Safety processor with risk structure
- 32-bit high-performance bus system
- 2-channel safety computer according to SIL 3
- Power-saving CPU technology
- Operating states stored in non-volatile RAMs
- Self-testing of relevant functions prior to system enabling
- Simple intuitive operation using a 12" touchscreen and direct input via a function keyboard as well as a high-resolution rotary encoder with key+C4252 function
- 12" 4C-LCD touchscreen, backlit
- Group-transcending error supervision when connected in a network
- Supervision and display of the operating states* of the hoists/drives such as run direction, speed, position, operating and emergency limit, excess temperature, brake gap monitoring, dynamic load analysis as well as load and run groups.
- User ID chip card with level structure

Technical data:

- 230 V/50 Hz electricity supply
- Dimensions: 19"/6U, 483 x 265 x 220 mm (width x height x depth) without plug-in connector
- Weight 6.5 kg
- BGV D8, C1, igvw SQ P2D8 Plus conformity and EN 61508 SIL 3 conformity

Software:

- Operating system: Win XP Pro
- Software: Movecat I-Motion
- Management of up to 60 drives or network controllers with IP address* (standard configuration 24 drives software-expandable to 60 drives)
- 2D/3D representation switchable, zoomable
- Unlimited number of shows and scene changes/cues
- Expanded operating/display level on a second monitor (XGA Out)
- Speed way points for fixed profile
- Profile and snapshot recorder
- Input of software operating limit positions
- Management of open and closed drive groups
- Path- and time-synchronous group run*
- Group-synchronous run (central up/down movement of previously selected hoists/axes) programmable with multiple run groups
- Object generator, simple programming of complex scene changes with multiple drives and inter-connected loads
- Programming and execution of complex, successive show sequences
- Acceleration and braking of drives, groups and cues
- Supervision of the run direction and target speeds and complementary overload ascertainment through analysis of the rated speed when encoder-operated
- Set-up possibility for underload*/overload* definition
- Driver's log function, allows display, importing and exporting of show files on server and USB memory stick
- Off-line operation

*The functions listed depend upon the actual hoist/drive configuration

Options / Accessories:

- External remote units, GO, Emergency Off, control lever/dead-man function
- Pull-out 19" keyboard with trackball
- Var. TFT ancillary monitors
- MPC I-/V-Motion Power Controller
- I-Motion NDB-6/12, Network Distribution Box
- I-Motion NMB-14, Network Master Box
- I-Motion NBB, Network Booster Box

I-MOTION EXPERT-T II

MOVECAT I-MOTION EXPERT-T II System Controller

compliant with BGV D8 and C1, as well as igvw SQ P2 D8 Plus and EN 61508 SIL 3

The I-Motion Expert-T II System Controller: the high-end product for the systemic control of kinetic drives in larger and complex projects. Developed for applications with up to 240 drives, it allows the control and supervision of any application, in the field of rigging for example, in connection with D8, D8 Plus and C1 drives at fixed or variable speeds. Control in mixed operation of D8, D8 Plus, C1 to SIL 3 drives can be realized without problems. The option even exists of integrating already existing drives and other stage machinery.

The controller corresponds in its basic configuration to the BGV C1 and EN 61508 SIL3 standards and is therefore equipped for overhead scenic runs.

The Expert-T II System Controller controls and supervises via I-Motion network the Movecat MPC-4ID8/C1 and V-Motion Power Controller and forms with them a closed safety network. An error in one unit is analysed centrally, represented visually and leads depending upon the system configuration to the immediate shutting down of a hoist/drive, the group to which it belongs or even the entire system.

The safe, efficient and intuitive control of key operating and run parameters is facilitated by an application-optimized, backlit input keyboard with tactile feedback and a multifunctional 3D control knob.

It is further enhanced by a flippable 19" touchscreen. The touchscreen takes over the visual representation of the operating, input and system parameters, in a choice of 2D or 3D displays, whether horizontally or vertically oriented. The user has at all times therefore an overview of the rig and instant access to parameters and details. Complex target* and group* runs even in the case of possible interactions can be programmed and executed. (*depending upon the drive configuration)

For direct operation, two dynamic control levers are available as well as five CUE Start buttons for the recall and execution of scene changes and shows. An integrated SSD disk drive as storage medium allows the storage of all system parameters and numerous shows (the actual number depends upon the size of the hard disk). The data can be exported and stored externally.

The I-Motion Expert-T II system is recommended in combination with the I-Motion and V-Motion Power Controllers in particular for professional, complex as well as scenic kinetic applications in the trade fair, events, studio and touring sectors.

I-MOTION EXPERT-T II

FEATURES:

- Implementation in accordance with BGV C1 and EN 61508 SIL 3
- 32-bit high-performance bus system
- Safety processor with risk structure
- Power-saving Centrino CPU technology
- Passive cooling
- Operating states are stored in non-volatile RAMs
- Self-testing of relevant functions prior to system enabling
- Night-design, buttons and input devices illuminated
- Simple intuitive operation by means of direct input via a function keyboard, multifunctional control knob and 19“ touchscreen
- User hierarchy implemented by means of user ID chip card or password
- Group-transcending error supervision when connected in a network
- Supervision and display of the operating states* of the hoists/drives such as run direction, speed, position, operating and emergency limit, excess temperature, brake gap monitoring, dynamic load analysis as well as load and run groups.
- Multi-user operation, 2 devices
- Internal UPS (3 minutes) with network filter
- Operating system: Win XP Pro

I-MOTION EXPERT-T II

Software:

- Movecat I-Motion
- Management of up to 240 drives or network controllers with IP address*
- 2D/3D representation switchable, zoomable
- Unlimited number of shows and scene changes/cues
- Expanded operating/display level on a second monitor (DVI Out)
- Operation with and without server connection
- Image rotation (flip TFT)
- Chip card evaluation with user level
- Analysis of external setup signals*~
- Download function of the drive parameters
- Speed way points for fixed profile
- Profile and snapshot recorder
- Input of software operating limit positions
- Management of free and closed drive groups
- Path- and time-synchronous group run*~
- Group-synchronous run (central up/down movement of previously selected hoists/axes) programmable with multiple run groups
- Programming and recall of complex, successive show sequences
- Acceleration and braking of drives and groups
- Object mode with 3D object group function
- Supervision of the run direction and target speeds and complementary overload ascertainment through analysis of the rated speed when encoder-operated
- Simple setup possibility for underload and overload definition*~
- Drive patch for the global exchange of hoists/drives in shows
- Driver's log function, allows display and export
- Import/export of show files on server and USB memory stick

*The functions listed depend upon the actual hoist/drive configuration

I-MOTION EXPERT-T II

MOVECAT I-MOTION EXPERT-T II System Controller
compliant with BGV D8 and C1, as well as igvw SQ P2 D8 Plus and EN 61508 SIL 3

Technical data:

- 230 V/50 Hz electricity supply
- Dimensions: 670 x 532 x 180/565 mm
  (Width x Depth x Height with touchscreen lowered/raised)
- Weight 21 kg
- BGV D8, igvw SQ P2 D8 Plus, BGV C1,
  EN 61508 SIL 3 conformity

Technical equipment:

- Flippable 19“ TFT touchscreen
- Pull-out alphanumeric keyboard with trackball
- Direct input keyboard, backlit
- E-Stop button, function-illuminated
- 3D-Space Navigator, multi-functional control knob
- 2 dynamic control levers with dead-man function
- 2 incremental limit controls
- 2 additional dead-man buttons
- 5 cue start keys
- Main switch for central start-up
- SSD hard disk
- Storage surface in full A3 format
- 2 x C14FC I-Motion-Net output connectors
- 2 USB ports for mouse/M-stick etc.
- DVI output for second monitor
- Robust housing with handle

Options / Accessories:

- I-Motion NDB-6/12, Network Distribution Box
- I-Motion NMB-14, Network Master Box
- V-Motion Motion Power Controller
- MPC I-Motion Power Controller series I-Motion I/O-DB 6416, input/output box, 64 inputs 24 V/DC and 16 outputs 24 V max. 50 mA
- Proficase