

THE UK'S LARGEST INDEPENDENT LIFT CONTROL PANEL MANUFACTURER

Incorporating the Magnetek HPV1000

The New HPV1000 has the same easy and familiar set up as Magnetek's Quattro $^{\!0}$ and HPV $^{\!0}$ drives.

HPV1000 is designed for more than 70,000 hours of maintenance-free operation, making it the ideal choice for new installations or modernisation projects.

RegenAC and Dynamic Braking Add-Ons

Any time an AC motor is overhauled by the drive load, excess energy is generated and fed back to the inverter. This energy must be properly handled to avoid drive faults or possible equipment damage. Choose between our regenerative RegenAC Braking Product and non-regenerative dynamic braking options to best suit your application.

TRACTION VVVF Incorporating the Magnetek HPV1000

FEATURES

- · Lift-specific application software
- · Magnetek's familiar, user-friendly parameter layout
- Controller interface common with other Magnetek lift drives
- · Parameter naming in familiar elevator terminology
- Anti-rollback software with patented PPT™ technology results in the smoothest elevator start available

SPEED REGULATOR (E-REG)

 Magnetek's unique lift speed regulator, E-Reg, is specifically designed to handle elevator applications. E-Reg is easy to set up and provides the high performance you have come to expect from Magnetek's lift drives.

E-REG BENEFITS

- · Improved speed change transitions
- Elimination of overshoot seen with traditional PI regulators
- Only TWO Parameters to Adjust: RESPONSE and INERTIA

DUAL OPERATOR

The Dual Operator option enables users to configure the HPV1000 using the tried and trusted parameter format used in Magnetek's Quattro and earlier generation HPV drives. The intuitive parameter structure and ease of navigation reduces set-up time.

WIRELESS OPERATOR

The Wireless Operator enables programming access to the HPV1000 using the standard web browser found in any smart phone, tablet, or PC. Creating its own "hotspot," the Wireless Operator is particularly useful in applications where drive access is difficult, such as MRL lift applications.







(Right Top) Traction VVVF w/ Magnetek HPV1000 (Right Bottom) Traction VVVF w/ Magnetek HPV1000 + EN81-20 Compliancy;

(Left Top) Traction VVVF w/ Magnetek HPV1000 + Regeneration Module;

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FEATURES

- Designed and rated for elevator applications
- · No oversizing needed
- · High overload capacity of 250%
- An internal dynamic braking IGBT
- Cooling fans only operate when drive is running
- · Meets the elevator duty cycle
- · Isolated encoder signals

ELEVATOR APPLICATION SOFTWARE AND PARAMETERS

- Ultimate performance features
- Offers a unique speed regulator for best ride quality and improved landing accuracy, complementing the Almega and Almega II advanced DTF features
- Parameters use elevator industry terminology

EASE OF SET-UP

- No need for mechanical disconnect to tune critical motor parameters
- Software for parameter upload/download
- Elevator system inertia calculated by drive
- Configurable I/O channels (removable terminals)
- Digital operator for simple parameter changes

PM MOTOR OPERATIONS

- Incremental (standard) and EnDat (optional) encoder operation
- Align encoder to motor without mechanical disconnect

TRACTION VVVF Incorporating the Magnetek HPV 900 S2

The HPV 900 Series 2 elevator drive is designed for both new installations and modernisation projects, providing advanced closed-loop vector control for superior performance.



An easy-to-install AC drive, it provides accurate acceleration and deceleration, resulting in smooth ride quality. Magnetek's proven technical expertise and customer service are just two of the reasons why Lester Controls supply the HPV 900 S2. For geared installations we recommend the HPV 900 S2 every time.

Direct-to-floor approach using serial communications is standard when used in conjuction with a CEDES or USP Shaft Positioning System.

Motor	Elevator	Max.	Dime	Weight			
power [kW]	duty current rating [A]	operating current [A]*	Height	Width	Depth	[kg]	
3.7	11	20.0	280	185	187	6.7	
4.0	16	30.0	220	230	210	10.5	
5.5	21	40.0	320				
7.5	28	53.0	006	265	227	16.4	
11.0	36	68.0	396				
15.0	45	85.0		224	311	32.5	
18.5	55	103.0	536				
22.0	70	130.0					
30.0	75	165.2		339	345	55.0	
37.0	84	180.0	691				
45.0	111	240.0					

*for 5 second

FEATURES

- Wall mounting in the machine room or elevator shaft
- · Mounting in the switch cabinet
- Line choke, radio interference filter integrated
- Space-saving installation due to compact design
- Operation of synchronous motors (ZETADYN 4CS) and asynchronous motors (ZETADYN 4CA)
- Open-loop operation of asynchronous motors
- Standby function
- 4-line display with clear text display
- Minimal noise generation and low energy consumption through controlled ventilation
- Automatic travel curve pre-assignment
- Switching frequency: 4 to 16 kHz (automatic adaptation)
- EN 12015 and EN 12016
- · Protection class: IP20

INTERFACES

Controller

- Programmable inputs and outputs
- 5 x relay outputs (potential-free)
- 12 x digital inputs (24 VDC)
- DCP
- · CANopen-Lift
- · All interfaces galvanic isolated

Encoder

- Incremental encoder
- HTL / TTL / Sinus
- Absolute encoder
- EnDat / SSI / ERN 1387 / Codeface / Hyperface
- · Encoder simulation for controller

Monitoring

- Temperature monitoring brake resistor
- Temperature monitoring motor (in accordance with EN 61800-5-1:2008-04)
- Motor contactor monitoring (with optional use of motor contactors)
- Brake release monitoring in accordance with EN 81-43
- The ZAdyn4C comes factory equipped with all interfaces

TRACTION VVVF Incorporating the Ziehl Abegg 4CS

The new contactorless ZA 4CS drive is used on all types of installations whether it be for synchronous or asynchronous motors.



The easy-to-use keypad and compatibility with all ZA motors make for an easy solution on many installations.

The recently introduced ZA REC unit makes the combination a perfect match for any regenerative installations. Like the HPV900 S2, direct-to-floor approach using serial communications is standard when used in conjuction with a CEDES or USP Shaft Positioning System.

Motor	Rated	Max. operating current [A]	Duty cycle at nominal current [%]	Dimensions [mm]			Weight [kg]
power [kW]	current [A]			Height	Width	Depth	
4.6	11.0	20.0	60	429 42		190	11.6/11.8
5.5	13.0	24.0	60				12.1/12.3
7.5	17.0	31.0	60		422		12.7/12.9
11.0	23.0	42.0	60				13.9/14.1
14.0	32.0	58.0	60				16.2/16.4
19.0	40.0	72.0	60	628	422	190	32.4/32.6
24.0	50.0	90.0	60				33.3/33.5
30.0	62.0	112.0	60				36.2/36.6
37.0	74.0	134.0	60				36.4/36.6

BENEFITS

- · Designed for easy retrofitting
- · Compatible with axial flux disc-type motors
- · Installation kit includes encoder, rider wheel, feedback sensor and encoder sensor cables
- Axial flux controlled via unique speed regulator - included in factory-installed custom firmware
- · Integrated digital operator provides easy set-up

OPTIONS

- · Built in serial communications
- Optional regenerative unit

CLEAN HARMONICS

Benefits of Quattro's built-in clean utility side drive harmonics (>8% THDI):

- Reduced heating
- · Better utilisation of existing line equipment
- · Prevents interference from other user apparatus

LOWER INSTALLATION COSTS

- No need to upgrade the building's utility feed supplier
- · No isolation transformer or ripple filter required
- · Fewer cabinets to wire on site

FEATURES AND BENEFITS

- Regenerative Power Conversion for DC Motors inclusive
- Clean Utility Side Harmonics
- High Power Factor
- · Multiple Input Voltage Ranges 200 - 480 VAC, 50 / 60 Hz
- Flevator Rated 250% Overload 45°C Amb. (Exterior to Cabinet)
- Designed for 80,000 Hours of Lift Duty

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TRACTION VVVF Incorporating the Axial Flux

Modernise the operation of your axial flux permanent magnet (PM) motor with Magnetek's state-of-the-art HPV® 900AP PM synchronous AC motor control with patented technology.

MAGNETEK AXIAL FLUX

The drive's innovative design allows for operation of disc-type motors via a rider wheel located on the sheave. The HPV900AF is a practical, affordable and convenient solution when retaining PM motors. The HPV 900AF drive is engineered to meet the needs of today's machineroomless (MRL) axial flux disc-type motors.



TRACTION VVVF Incorporating the Quattro® DC&AC **Elevator Drive**

When selecting a drive for DC motor applications, you need look no further than Lester Controls' DC partner. This stand-alone unit offers compatibility with Lester Controls serial communication and DTF operation.

Quattro consumes the lowest energy possible, saving as much as 25% over DC-SCR drives and as much as 45% over Motor Generator (MG) sets. Achieving an impressive unity power factor of over 0.95, Quattro uses current effectively, avoiding the wastage which causes excess heat in the electrical distribution system.

The AC sister drive, mirroring many of the DC features, has recently been introduced. Details are available on application.



(490mm deep)

