



OPTIDRIVE™ elevAtor

Case Studies



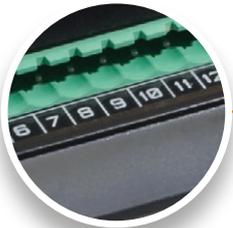
OPTIDRIVE™ eleVator



Optipad Multi Language TFT Display



EnDat, SinCos Encoder modules



Pluggable control terminals



Long life, low noise cooling fans



NFC Connectivity



Free PC and Smartphone Commissioning & Diagnostics Software



Optistick Smart Fast & accurate repeat drive programming



Modbus RTU & CANopen on-board

Elevator Controller



Dedicated Elevator Drive

The Optidrive Elevator Variable Frequency Drive from Inverterk Drives is specifically designed to provide smooth, reliable carriage control in all elevator applications.

The dedicated elevator drive is quickly becoming a firm favourite with OEMs and Systems Integrators that recognise the easy to use, high-performance motor control on offer.

The OEM elevator solution

New to the Optidrive Elevator product range is a new Compact elevator solution, this gives the ability of customisation (Control interface, OEM specific features and Functions) specifically to meet the requirements and specification of OEMs.

Visit www.inverterkdrives.com/elevators to see how Optidrive Elevator provides smooth carriage through the most precise motor control on the market.

- ✓ Full load operation up to 50°C
- ✓ Built-in EMC filter
- ✓ Conformal coated PCB's for protection in harsh environments
- ✓ Easy-learn programming
- ✓ Wireless commissioning over Bluetooth
- ✓ Compact plug-in encoder option module for incremental, EnDat and SinCos encoder support
- ✓ Rescue mode with UPS energy conservation
- ✓ Short floor operation
- ✓ Anti-rollback function and auto pre-torque
- ✓ OEM factory defaults
- ✓ On-board PLC
- ✓ Safe Torque off
- ✓ Brake monitoring (UCM)
- ✓ Multiple jerk adjustment



* Independently approved by TUV.

The Safe Torque Off function complies with the definition of Safe Torque Off as defined by EN 61800-5-2:2007, EN 61508 SIL 2, EN 62061 SILCL 2, IEC60204-1 Stop category 0.

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1

Smooth carriage for Banquet Hall diners

The lift serving eight floors in a newly constructed New Delhi Banquet Hall felt uncomfortable to travel in and customers were complaining.

A variable frequency drive (VFD) from another manufacturer had already been installed to control the 7.5kW PM (gearless) motor, but it was not performing as expected and users were experiencing uncomfortable jerks when the lift started and stopped, as well as vibrations during the transition from high to slow speed.

Solution: The VFD was replaced with an IP20 rated size 3 Optidrive Elevator and the customer noticed an immediate improvement.

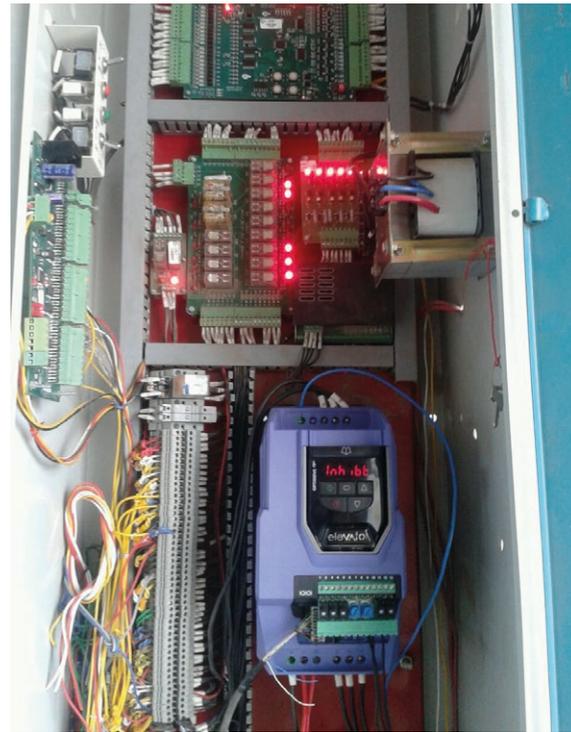
Result: "The ride quality is now spot on throughout the entire journey with smooth start/stop changeovers and no vibrations."

Ashok Patil

Commissioning Engineer at Tros Autotek,
Invertek Drives' sales partner in India

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Optidrive Elevator is designed to address all aspects of lift control including noise levels where the high motor switching frequency (max 32kHz) ensures quiet motor operation – vital in buildings such as the Banquet Hall where the elevator journey must meet the same high standards as the ambiance of the rest of the interior."







Invertek Drives rises to solar lift challenge

A major Greek elevator manufacturer needed an energy efficient high-performance VFD to control the motor in its pioneering solar lifts, the first of their kind in the world.

As an ultra-efficient elevator, these solar lifts require VSDs of the same capabilities in energy management and efficiency. We quickly realised that the Invertek lift drive was the only drive that could match these demanding energy requirements."

Solution: Optidrive Elevator's compact external dimensions and factory parameter settings are perfectly suited to simple elevator applications, and make installation and setup fast and easy, whilst the optional incremental/EnDat encoder feedback interfaces allow compatibility with a wide range of motors.

Result: "Each lift produces the required power and energy from a small autonomous photovoltaic assembly. This is a genuinely energy-autonomous machine that can be used up to 30 times a day and work for three days without charging. Of course, because of our environmental stance the lift components, including the Invertek variable speed drives, must be eco-friendly too."



3

Cypriot grandmother regains independence

An elderly Cypriot grandmother was unable to access parts of her family's four-storey home due to reduced mobility.

Optional incremental/EnDat/SinCos encoder feedback interfaces allow compatibility with a wide range of motors, while Invertek's renowned motor control capability ensures maximum ride comfort under all conditions. And short floor operation, coupled with a high motor switching frequency provides a quick, smooth and quiet journey that's perfect for domestic residencies."

Solution: An Optidrive Elevator drive, supplied by Automation Experts Invertek's sales partner in Greece, was installed in the lift control panel for use in a machine-room-less (MRL) gearless home-lift system.

Result: The lift, which is controlled using an Optidrive Elevator, has enabled the lady to move safely and independently around her family's home.

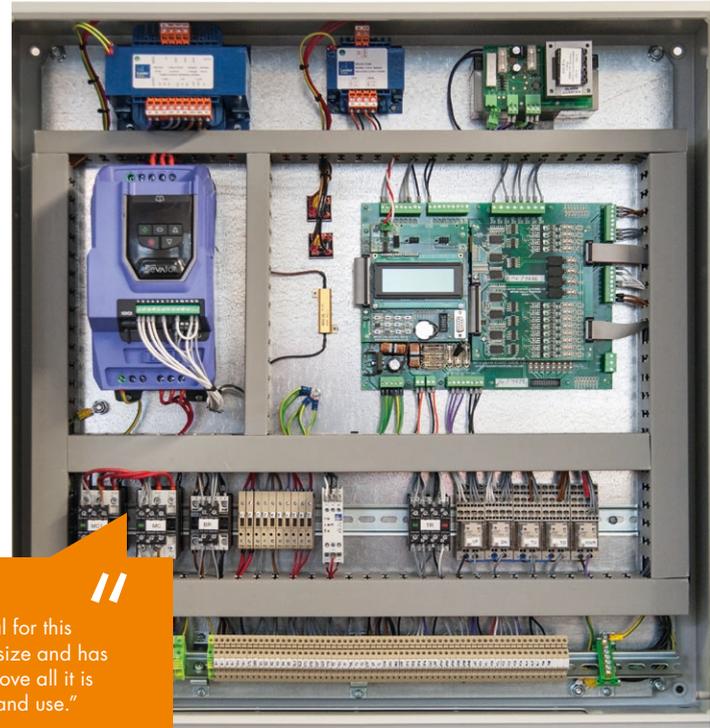
"As an experienced sector player, the customer understood the importance of specifying the most reliable, versatile components. For variable speed drives, that means Invertek.

"For this particular application it meant the proven Optidrive Elevator with IP20 rating, three-phase input and output, and 5,5kW capability working with a closed-loop EnDat PG card."

Theodore Amiridis

Automation Experts' Technical Director and Business Development Manager for North Greece





Optidrive Elevator is ideal for this application. It is small in size and has a built in RFI filter and above all it is extremely easy to set up and use."



Optidrive Elevator powers new Traction Controller

A UK based lift control manufacturer needed a reliable, cost-effective drive that could be easily integrated into its latest product, a Traction Controller.

Solution: Size 3 IP20 Optidrive Elevator VFDs are built into every control unit following successful tests at the company's Surrey HQ.

Result: "The Traction Controller is designed and built specifically to address the need for customers requiring high quality and reliability in basic lift controllers that are delivered to site from stock within a maximum of two weeks."



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Major Turkish lift control manufacturer chooses Inverterk

One of Turkey's largest lift control manufacturers, needed to incorporate a dedicated VFD into its control panels, but previous AC inverters used had caused problems when adjusting settings and with the system parameters.

Solution: Optidrive Elevator is ideal for serving the largest portion of the Elevator market in Turkey – low to mid-range, with an elevator speed of up to 1.5m/s. This market accounts for approximately 80% of the country's elevator business.

IDT Automation, one of Inverterk's sales partners in Turkey, undertook extensive trials with the customer with positive results and the company now installs the dedicated elevator VFD from Inverterk Drives in most of its panels.

Result: "The customer has experienced an increased demand for its control panels thanks to the company's successful partnership with IDT and the proven capability of Optidrive Elevator."

Çağrı Taşkin
Sales Manager, IDT Automation



Our ability to provide fast firmware updates to ensure new industry standards and regulations are met is also a key factor in choosing Optidrive Elevator from Invertek."







Comfortable transit for vulnerable patients

A lift installed at a medical facility in Athens required modernising to ensure it could continue to meet the daily demands of carrying vulnerable passengers in a high traffic environment.



Combining the OTIS motor with the drive from Inverterk gives us excellent results and in this case has ensured a perfect, non-stop working lift."

Solution: A Greek systems integrations company retrofitted the OTIS MCS 321 system with a 37kW Optidrive Elevator variable frequency drive in closed loop mode to control the 18ATF motor.

Result: "The lift installation and renovation company trusts our products and Inverterk's drives are recognised as being the most suitable for renovations of this nature.

"Installing the Optidrive Elevator has resulted in a high efficiency lift with very low energy consumption – this is especially important for a lift that will be used for thousands of journeys over the course of its lifetime."

Theodore Amiridis

Automation Experts' Technical Director and Business Development Manager for North Greece

Call Invertek Drives
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Global Engineered Support

Invertek Drives' Global Engineered Support programme is designed to ensure all of our customers can access a range of support whenever, and wherever, it's needed.

