



Member of Sumitomo Drive Technologies

OPTIDRIVE™ elevAator CORE



**THE NEXT
GENERATION FOR
ELEVATOR
MOTOR
CONTROL**

INTRODUCING THE NEXT GENERATION FOR ELEVATOR MOTOR CONTROL

Compact

Best in class power density

Space saving design allows easy retrofit to control panels, with front and side mounting options for total flexibility.



Footprint versus competitors

Connected

iConnect

USB-C iConnect allows easy drive programming and analysis with no mains power or specialist connections required.

USB-C iConnect allows seamless connection between the drive; powerful commissioning and set up software; and seamless connection to worldwide data sharing.



Explore Core support now

Diagnostics

Integrated flight recorder

Stores key elevator travel data around any recorded event.

Add your own data recording points and access everything via USB-C, no mains power required.

Optitools Pro software allows data visualisation, analysis and easy data sharing for collaborative working.

THE FINER DETAIL...



Built in EMC filter EN12015 conformant, no need for expensive and bulky external filters.



Support for DC supplies, battery and single-phase UPS to simplify rescue operation.



Conformal coated circuit boards for maximum environmental protection.



Silent operation with temperature controlled variable speed cooling fan.



Large, user friendly buttons for ease of programming.

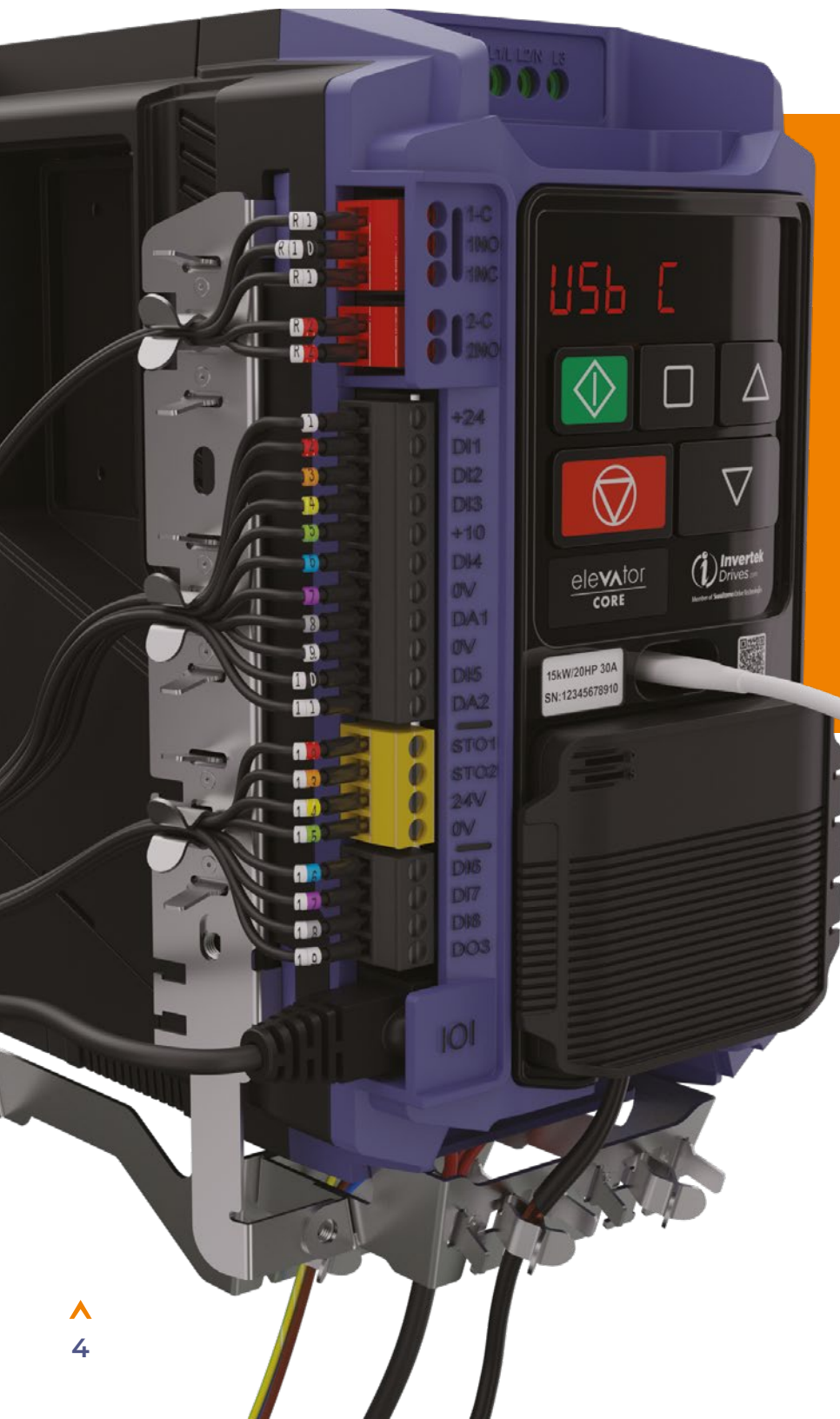


Fully configurable multi step S'ramp supporting both creep and direct to floor profiles for optimum travel comfort.



Universal encoder interface supporting 10 encoder types including the latest fully digital encoders.

PERFORMANCE DELIVERED SAFELY



Easy to install

Intuitive colour coded pluggable terminal layout offering separation between control and power wiring to support best practice EMC layouts.



Compliant to

EN12015\6



Safe to operate

Anti-rollback and anti-stall functions ensure the smoothest operation out of the box.

Built in rescue modes support load direction sensing and rescue direction capability.

Fault detection suppression, no trips between floors.

Powerful performance

- No derating required.
- Best in class acoustic noise profile under extreme conditions.


10kHz
full current operation at
50°C

ALL THE OTHER GOOD STUFF...



Roped autotune for encoder offset detection and current loop configuration.



Motor brake release time measurement for optimum brake release management and jerk free start.



Fully adjustable start, run and stopping gains to fine tune ride comfort under all load conditions.



Zero contactor (SIL 3) capability for maintenance free and silent operation, TuV Nord conformant.



Motor contactor and brake monitoring support from a built in UCM function allowing EN81-A3 support with no additional hardware needed.



User friendly elevator drive menu structure and elevator units accessible through the built in display and keypad as well as the serial port and USB-C interface.



Built-in brake chopper with brake resistor thermal overload protection.

iConnect

Connect to Optidrive Elevator Core with a standard USB-C cable, no mains power required. The easy way to access seamless worldwide data sharing and support.



Optitools Pro

Smartphone App and PC software

Optitools Pro software allows quick and easy drive commissioning, parameter back up and cloning. Review event logs and comprehensive elevator travel data surrounding each event, with powerful data visualisation tools for easy interpretation of data.

Work seamlessly between the App and PC software, with built in data sharing to facilitate worldwide collaborative working and support.

CORE ASSIST

An ecosystem of world class support



Trip code troubleshooter

If the drive trips for any reason simply enter the trip code and follow the step-by-step instructions to rectify the issue. Every trip code on the drive is covered. Support notes and images make sure every step is clear and straight forward, allowing you to get the drive up and running without further delay.



User manual, application guides and support videos

Explore Core support >



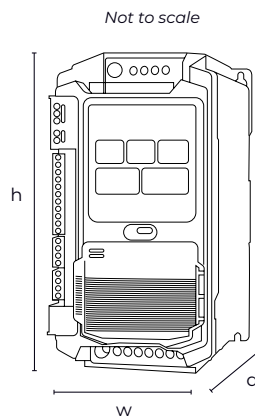
SPECIFICATIONS

	kW	HP	Output Rated Current (A)	Peak Current 200% (A)	Size	Product Family	Generation	Frame Size	Voltage Code	Current Rating	Supply Phase	Brake Transistor	Enclosure	Display	Rescue Mode	Supply Type	Encoder Module		
200–240V ±10% 1 Phase Input	2.2	3	10.5	21	2	ODL	-	3	-	2	2	0105	-	1	4	2	S	B	0
200–240V ±10% 3 Phase Input	4	5	18	36	2	ODL	-	3	-	2	2	0180	-	3	4	2	S	B	0
	5.5	7.5	24	48	2	ODL	-	3	-	2	2	0240	-	3	4	2	S	B	0
	7.5	10	30	60	3	ODL	-	3	-	3	2	0300	-	3	4	2	S	B	0
	11	15	46	92	4	ODL	-	3	-	4	2	0460	-	3	4	2	S	B	0
	15	20	61	122	4	ODL	-	3	-	4	2	0610	-	3	4	2	S	B	0
380–480V ±10% 3 Phase Input	4	5	9.5	19	2	ODL	-	3	-	2	4	0095	-	3	4	2	S	B	0
	5.5	7.5	14	28	2	ODL	-	3	-	2	4	0140	-	3	4	2	S	B	0
	7.5	10	18	36	3	ODL	-	3	-	3	4	0180	-	3	4	2	S	B	0
	11	15	24	48	3	ODL	-	3	-	3	4	0240	-	3	4	2	S	B	0
	15	20	30	60	3	ODL	-	3	-	3	4	0300	-	3	4	2	S	B	0
	18.5	25	39	78	4	ODL	-	3	-	4	4	0390	-	3	4	2	S	B	0
	22	30	46	92	4	ODL	-	3	-	4	4	0460	-	3	4	2	S	B	0

- 1) All ratings continuous at 50°C 10kHz switching frequency
- 2) + and - DC bus terminal allow for a wide range of Regenerative, DC operation and backup configurations

SIZE GUIDE

IP20	Size 2	Size 3	Size 4
Height mm	220	261	459
Width mm	110	131	173
Depth mm	184	207	255



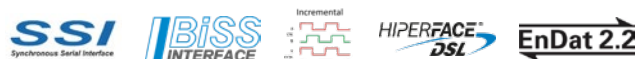
OPTIONS



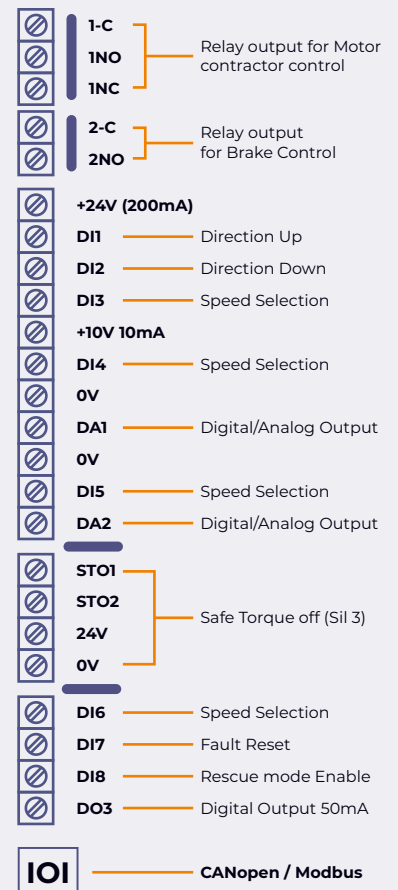
Universal encoder module

OPT-3-ENCU-IN

- On-board encoder power supplies
- Simulated encoder outputs/Shaft Copy
- Additional 2 digital inputs
- Status LED's
- Brake Release monitoring



CONNECTION DIAGRAM



DESIGNED FOR ELEVATORS FROM THE GROUND UP

DESIGN DELIVERED

Robust and built to last



6 million switching
operations tested



Confidence

Elevator Core has been designed from the power stage up as a dedicated elevator drive. Every aspect of the drive has been designed and tested to provide a highly robust solution to the demanding environmental and load conditions of this industry. Our world class Innovation Centre, which includes specialist elevator motors and dynamometers, is backed by investment in dedicated elevator training facilities. Multiple lift simulators and production standard lift motor load rigs mean we support our customers with elevator drive training that is not just a theoretical exercise but built on practical experience.





Best in class

Our elevator drive development starts with listening to the needs of our customers around the world. The result is a dedicated elevator drive that leads the way for compact size, ride comfort, safety, ease of installation and reliability. Using the very latest IGBT technology and thermal design techniques, we have developed a power stage that delivers full current at 10kHz switching frequency with 50°C ambient temperature. Combined with precise thermal management functions, this makes Elevator Core one of the most compact, high performance and robust drives in the industry.



◀ Explore Invertek now

TAKING ELEVATOR MOTOR CONTROL TO THE NEXT LEVEL

The solution for refurbishment and retrofit

Passengers riding elevators in multi-level buildings expect a comfortable and smooth experience.

Optidrive Elevator Core is a perfect solution when refurbishing or retrofitting an elevator system.

The anti-rollback function on Optidrive Elevator Core allows engineers to easily optimise the starting performance to provide the best ride comfort. No special cable is required, just an 'off the shelf' USB-C cable.

Maximise uptime

Our customer research highlighted a priority need for a robust and dependable drive to help minimise expensive downtime and call outs.

Utilising the latest IGBT technology and design practices we have developed one of the most energy dense and robust drives ever brought to the elevator sector, helping make unplanned call outs a thing of the past.

Throughout the development program for Optidrive Elevator Core we have undertaken exhaustive test programmes to ensure robust and reliable performance. At the heart of this programme are elevator motor dynamometers that allow us to test the drive in a wide range of motor and load conditions and to levels of performance that exceed the needs of any common elevator application.

Quiet and reliable

Elevators play a crucial role in enabling residents to access their apartments in multi-storey residential buildings with ease. It's essential for any building developer to ensure that their elevator system operates quietly and smoothly, so as not to cause any disturbance to the residents living in the block, regardless of load and ambient temperature. Optidrive Elevator Core delivers market leading reliability with quiet operation.



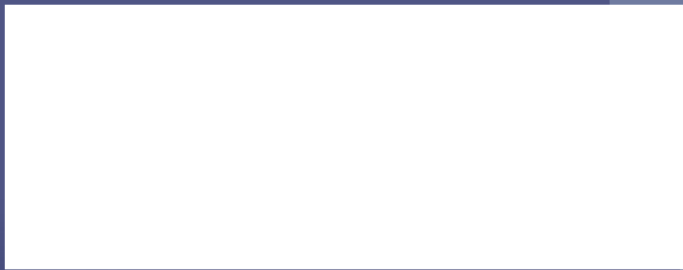
Training and support

Our customers around the world highlight the need for high quality training and support for engineers in the elevator industry. We have invested heavily to ensure we offer a market leading support and training programme. Our dedicated elevator training room within our UK Application and Training Centre includes several elevator control benches that allow us to provide the best practical and in depth training available from elevator drive manufacturers.



OUR DRIVE FOR A COOLER PLANET

*DEDICATING OUR ENERGIES TO
REDUCING CARBON EMISSIONS*



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