



OPTIDRIVE™ eleva^vtor

AC Variable Speed Drive

Compact Elevator Drive
Suitable for geared & gearless systems



0.75kW – 37kW / 1HP – 50HP
200–480V Single & 3 Phase Input

Compact Elevator Drive

Dedicated drive for geared and gearless lift applications

Optidrive Elevator is the 2nd generation dedicated elevator drive from Invertek Drives, designed to provide smooth, reliable carriage control in all elevator applications.

The compact external dimensions simplify installation, whilst optional incremental, EnDat & SinCos encoder feedback interfaces allow compatibility with a wide range of motors.

Invertek's renowned motor control capability ensures maximum ride comfort under all conditions, with five independent S-Ramps and dedicated motor holding brake control algorithm allowing fine tuning of the system.

Optidrive Elevator also incorporates Safe Torque Off* as standard, and a range of key elevator features including Rescue Mode with light load detection and short floor operation.



Optipad Multi Language
OLED Display



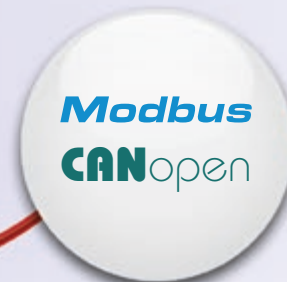
EnDat, SinCos
Encoder modules



Pluggable control
terminals



Long life, low noise
cooling fans



Modbus RTU &
CANopen on-board



Elevator Controller



Optistick
Fast & accurate repeat drive
programming



Free PC Commissioning &
Diagnostics Software



Reliable,
Fast Setup &
Long Life

Elevator Motor

- Gearless Permanent Magnet Motors
- Geared Induction Motors
- No motor manufacturer allegiance for full motor flexibility

Elevator Encoder - Optional feedback

- Incremental Encoders
- EnDat Rotary Encoders (EnDat 2.1 & 2.2) with simulated encoder output
- SinCos Rotary Encoder with simulated Encoder output

Flexibility

- Control of Geared and Gearless elevator systems in a single product
- Open loop or Closed loop vector (with incremental encoder) control of standard IM motors
- Open loop or Closed loop (with SinCos/EnDat encoder) control of PM motors

Comfortable Ride

- Includes 5 independent S-Ramps allowing fine tuning of ride performance and jerk free travel
- Short floor operation reduces carriage travel time
- High motor switching frequency (max 32kHz) for quiet motor operation
- Dedicated motor brake control algorithm for safe and smooth operation of the motor brake

Advanced Features

- Anti-Rollback (Open and closed loop operation)
- Rescue mode operation (Sine wave or square wave UPS), with easiest direction measurement for UPS longevity.
- On-board simple PLC function allows custom application programs to be written and interfacing with a wide variety of control systems built in as standard
- Modbus RTU and CANopen as standard
- Full load operation up to 50°C with no de-rating
- Safe Torque Off function built in as standard
- Brake release monitoring (In compliance with EN81-20 protection against unintended car movement)

Easy to Use

- Easy-learn parameter structure and programming
- Factory parameter settings suited to simple elevator applications for fast start up
- Drive setup using familiar elevator units
- Standstill motor autotune – no shaft rotation – no rope removal required
- Wireless parameterisation (using Optistick with OptiTools studio)

* Independently approved by TUV.

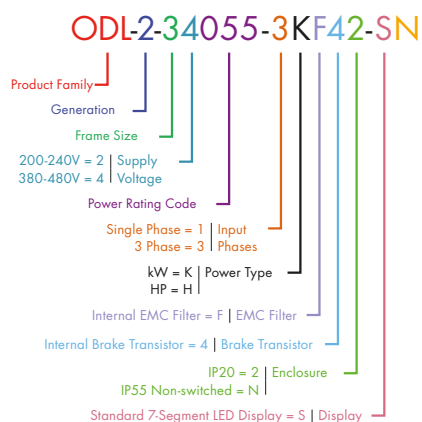
The Safe Torque Off function complies with the definition of Safe Torque Off as defined by EN 61800-5-2:2007, EN 61508 SIL 2, EN 62061 SILCL 2, IEC60204-1 Stop category 0.

	kW	HP	Amps	Size	kW Model Code Product Family Generation Frame Size Voltage Code Power Rating Code Supply Phases Power Type EMC Filter Brake Transistor Enclosure Display PCB Coating <th> HP Model Code Product Family Generation Frame Size Voltage Code Power Rating Code Supply Phases Power Type EMC Filter Brake Transistor Enclosure Display PCB Coating </th>	HP Model Code Product Family Generation Frame Size Voltage Code Power Rating Code Supply Phases Power Type EMC Filter Brake Transistor Enclosure Display PCB Coating		
200–240V ± 10% 1 Phase Input	0.75	1	4.3	2	ODL - 2 - 2 - 2 075 - 1 K F 4	2 - S N	ODL - 2 - 2 - 2 010 - 1 H F 4	2 - S N
	1.5	2	7	2	ODL - 2 - 2 - 2 150 - 1 K F 4	2 - S N	ODL - 2 - 2 - 2 020 - 1 H F 4	2 - S N
	2.2	3	10.5	2	ODL - 2 - 2 - 2 220 - 1 K F 4	2 - S N	ODL - 2 - 2 - 2 030 - 1 H F 4	2 - S N
200–240V ± 10% 3 Phase Input	4	5	15	3	ODL - 2 - 3 - 2 040 - 3 K F 4	2 - S N	ODL - 2 - 3 - 2 050 - 3 H F 4	2 - S N
	5.5	7.5	24	3	ODL - 2 - 3 - 2 055 - 3 K F 4	2 - S N	ODL - 2 - 3 - 2 075 - 3 H F 4	2 - S N
	5.5	7.5	24	4	ODL - 2 - 4 - 2 055 - 3 K F 4	# - T N	ODL - 2 - 4 - 2 075 - 3 H F 4	# - T N
	7.5	10	30	4	ODL - 2 - 4 - 2 075 - 3 K F 4	# - T N	ODL - 2 - 4 - 2 100 - 3 H F 4	# - T N
	11	15	46	4	ODL - 2 - 4 - 2 110 - 3 K F 4	# - T N	ODL - 2 - 4 - 2 150 - 3 H F 4	# - T N
	15	20	60	5	ODL - 2 - 5 - 2 150 - 3 K F 4	# - T N	ODL - 2 - 5 - 2 020 - 3 H F 4	# - T N
	18.5	25	72	5	ODL - 2 - 5 - 2 185 - 3 K F 4	# - T N	ODL - 2 - 5 - 2 025 - 3 H F 4	# - T N
	22	30	90	6	ODL - 2 - 6 - 2 022 - 3 K F 4	N - T N	ODL - 2 - 6 - 2 030 - 3 H F 4	N - T N
	30	40	110	6	ODL - 2 - 6 - 2 030 - 3 K F 4	N - T N	ODL - 2 - 6 - 2 040 - 3 H F 4	N - T N
37	50	150	6	ODL - 2 - 6 - 2 037 - 3 K F 4	N - T N	ODL - 2 - 6 - 2 050 - 3 H F 4	N - T N	
380–480V ± 10% 3 Phase Input	4	5	9.5	2	ODL - 2 - 2 - 4 400 - 3 K F 4	2 - S N	ODL - 2 - 2 - 4 050 - 3 H F 4	2 - S N
	5.5	7.5	14	3	ODL - 2 - 3 - 4 055 - 3 K F 4	2 - S N	ODL - 2 - 3 - 4 075 - 3 H F 4	2 - S N
	7.5	10	18	3	ODL - 2 - 3 - 4 075 - 3 K F 4	2 - S N	ODL - 2 - 3 - 4 100 - 3 H F 4	2 - S N
	11	15	24	3	ODL - 2 - 3 - 4 110 - 3 K F 4	2 - S N	ODL - 2 - 3 - 4 150 - 3 H F 4	2 - S N
	11	15	24	4	ODL - 2 - 4 - 4 110 - 3 K F 4	# - T N	ODL - 2 - 4 - 4 150 - 3 H F 4	# - T N
	15	20	30	4	ODL - 2 - 4 - 4 150 - 3 K F 4	# - T N	ODL - 2 - 4 - 4 200 - 3 H F 4	# - T N
	18.5	25	39	4	ODL - 2 - 4 - 4 185 - 3 K F 4	# - T N	ODL - 2 - 4 - 4 250 - 3 H F 4	# - T N
	22	30	46	4	ODL - 2 - 4 - 4 220 - 3 K F 4	# - T N	ODL - 2 - 4 - 4 300 - 3 H F 4	# - T N
	30	40	61	5	ODL - 2 - 5 - 4 300 - 3 K F 4	# - T N	ODL - 2 - 5 - 4 040 - 3 H F 4	# - T N
	37	50	72	5	ODL - 2 - 5 - 4 370 - 3 K F 4	# - T N	ODL - 2 - 5 - 4 050 - 3 H F 4	# - T N

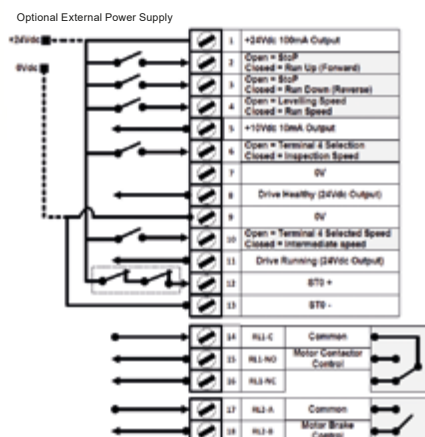
kW Models: Factory Settings
Motor Rated Frequency: 50Hz
Motor Rated Voltage: 400V

HP Models: Factory Settings
Motor Rated Frequency: 60Hz
Motor Rated Voltage: 460V

Model Code Guide



Connection Diagram



Replace # in model code with colour-coded option

Enclosure & Display Types

IP20	
2-SN	With LED Display
2-TN	With OLED Display
IP55	
N-TN	With OLED Display
N-TN	With OLED Display

Options & Accessories



NOT TO SCALE

	IP20				IP55			
Size	2	3	4	5	4	5	6	
mm Height	221	261	418	486	450	540	865	
mm Width	110	131	160	222	171	235	330	
mm Depth	185	205	240	260	252	270	330	
kg Weight	1.8	3.5	–	–	11.5	23	55	



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