



# Unidrive - The Elevator Drive


....taking you to another level



## One AC Drive To Fit Your Motor Selection

Control Techniques have years of experience designing drives for elevators, and the result is the Unidrive  AC drive specially designed and rated to give optimum elevator performance.

Unidrive  is a thoroughbred drive for elevator applications. The smooth Vector control gives a high quality, low noise, jerk free ride.

**Unidrive  has a flexible integration policy that ensures it is open to all elevator controllers.**

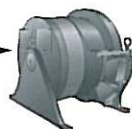
- The drive accepts 12 different feedback devices including Incremental, SinCos, Endat, Hiperface encoders and Resolver.
- Temperature controlled ventilation fan speed for silent operation.
- High switching frequency (up to 16kHz) for quiet motor operation.



**Open Loop**  
- Simple low cost, low speed applications



**Closed Loop**  
- Faster, more dynamic applications with motor feedback



**Gearless**  
- High performance, high speed modern gearless applications



[www.controltechniques.com](http://www.controltechniques.com)

  
**EMERSON**  
Industrial Automation

# Unidrive **SD** - taking you to another level

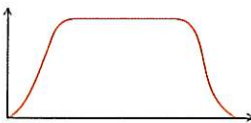
- **Unidrive **SD**** - designed and rated for elevators
- **Program in familiar elevator units** - quick start up with no complex calculations
- **Easy start with standstill autotune** - faster commissioning as no shaft rotation required
- **High switching frequency** - quiet motor for reduced building noise
- **Battery operation as standard** - makes emergency evacuation conformity easy
- **Ideal for geared and gearless applications** - less stock, faster learning, easier maintenance
- **Direct control of motor brake and contactor** - reduced components, less wiring
- **Creep-to-floor or direct-to-floor as standard** - you choose - your customers benefit
- **Active Thermal Management** - tripless operation in high overload conditions
- **Secure Disable** - reduces user cost in machine safety design

## Excellent floor-to-floor travel

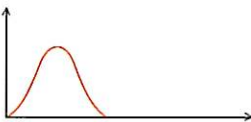
Speed



**CREEP to floor positioning**



**DIRECT to floor positioning**



**SHORT floor positioning**

Time

## Simple to design into your emergency evacuation systems

- DC battery supply can be connected for emergency evacuation on loss of mains power
- Internal load measurement for automatic choice of direction

## SM-Applications offers users real integration possibilities

The most powerful plug-in AC drive application module available to system designers.



This module has built-in elevator profile generators for both geared and gearless systems. Parameters are in elevator industry units - mm, m/s, m/s<sup>2</sup>

- S ramp (jerk) with sectionalised, adjustable profile parameters
- Wide speed selection (7-10 speeds)
- 2 velocity thresholds (eg. 0.3m/s)
- Creep to floor or direct-to-floor travel
- Peak travel or short travel
- Brake controller
- Electronic load measurement
- Calculation of deceleration profile



## Technical Specification

## Designed to EN81-1

Unidrive <b>SD</b>	SP1406	SP2401	SP2402	SP2403	SP2404	SP3401	SP3402	SP3403	SP4401	SP4402	SP4403	SP5401	SP5402
Typical Motor kW	4	5.5	7.5	11	15	15	18.5	22	30	37	45	55	75
Peak Current (5 Seconds) A	16.6	22.7	28.8	40	50.7	56	70	80	105	129	168	217	273
Nominal Current @ 40°C A	9.5	13	16.5	25	29	32	40	46	60	74	96	124	156
Switching Frequency selectable 3 to 16kHz *	8kHz						6kHz						
Maximum Output Voltage	3 phase 380-480V (limited by input voltage)												
Input Voltage	3 phase 380-480VAC, 50-60Hz												
Braking Transistor	Built-in as standard												

\* @ 50% ED

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