SICORVert

SICOR

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The SICORVert drives, designed for new installations and modernizations, provides maximum safety, comfort, and reliability for all types of civil lift systems and offers customers lower installation and operating costs.
It is available in an Integrated version, which combines the drive and control card in a single solution.
The modern software, developed for gearless systems in closed loop with absolute or incremental encoder, provides outstanding control.

Precise landing at the floor, with both direct landing and creeping, and load compensation at start give passengers an extremely comfortable ride.
The SICORVert's compact size can be integrated in contactor or contactorless configuration that make it perfect for Machine Room-Less (MRL) applications.

Features

- Available in a power range 5,5-75kW
- Control in Speed
- Control in Position
- Short Floor Management
- Off-floor detection
- Emergency single-phase power supply for floor return
- Flexible ramps management
- CANopen Protocol
- CANopen CiA 417 Protocol
- Integrated Breaking Unit
- External +24Vdc power supply
- CE Marked
- UL and cUL Elevator Accessory E365347
- ASME 17.5 e CSA B44.1

ADL300 • INPUT DATA

Sizes - ADL300-...-4		1055	2075	2110	3150	3185	3220	4300	4370	4450	5550	5750
Uln • AC Input voltage	Vac	three-phase network 230- 400- 480 Vac-15%+10%										
Fln • Input frequency	Hz	50/60 Hz, ± 5%										

ADL300 • OUTPUT DATA

Sizes - ADL300-...-4		**1055**	**2075**	**2110**	**3150**	**3185**	**3220**	**4300**	**4370**	**4450**	**5550**	**5750**
In • Rated output current (fsw = default)												
@ ULN=230 VCA	A	13,5	18,5	24,5	32	39	45	60	75	90	105	150
@ ULN=400 VCA	A	13,5	18,5	24,5	32	39	45	60	75	90	105	150
@ ULN=460 VCA	A	12,2	16,7	22	28,8	35,1	40,5	54	67,5	81	94	135
PN mot (Recommended motor power, fsw = default)												
@ ULN=230 VCA	kW	3	4	5,5	7,5	9	11	15	18,5	22	30	37
@ ULN=400 VCA	kW	5,5	7,5	11	15	18,5	22	30	37	45	55	75
@ ULN=460 VCA	Hp	7,5	10	15	20	25	30	40	50	60	75	100
Reduction factor												
Kt (1)		0,95	0,95	0,95	0,95	0,95	0,95	0,95	0,95	0,95	0,95	0,95
KALT (2)		1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2
Overload		200% * 10 sec con frequenza d'uscita superiore a 3 Hz 150% * 10 sec con frequenza d'uscita inferiore a 3 Hz						180% * 10 sec con frequenza d'uscita superiore a 3 Hz 150% * 10 sec con frequenza d'uscita inferiore a 3 Hz				
Maximum Switching frequency	kHz	10										
U2 • Maximum output voltage		0,98 x ULN (ULN = AC input voltage)										
f2 • Maximum output frequency	Hz	300										
IGBT braking unit		Standard internal (requires external resistor); braking torque 150% MAX										Optional External

(1) Kt : Derating factor for ambient temperature of 50°C (1% every °C above 45°C)
(2) Kalt : Derating factor for installation at altitudes above 1000 meters a.s.l. Value to be applied = 1.2% each 100 m increase above 1000 m.
E.g.: Altitude 2000 m, Kalt = 1.2% * 10 = 12% derating; In derated = (100- 12) % = 88 % In

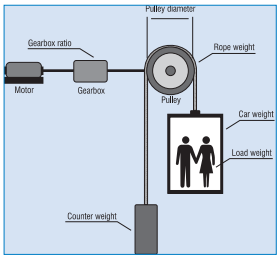
Universal mechanical structure

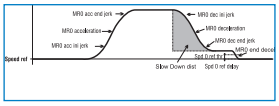
The extremely compact ADL300 reduces the size of conventional lift systems and it is suitable for installation in roomless systems.

Lift control system

Basic and advanced lift functions are incorporated in a single product, to ensure maximum comfort for all systems at all times:

- Speed control: EFC (Elevator Floor Control) function: separate function for
- independent management of short floors, landing zone, re-starting with lift not at
- floor and automatic deceleration point calculation.
- Position control: EPC (Elevator Positioning Control) function: separate function
- for independent management of direct arrival at the floor with internal position
- regulator and saving of floor distances (system autotuning).
- Lift sequence: Typical sequence of input/output signals used in civil lift engineering
- applications such as I/O management, braking, output contactor and door
- control.
- Parameters in linear unit: Possibility of selecting different engineering units (also
- with values for the US) for the main movement parameters, rpm (fpm) or m/s for
- speed, m/s2, m/s3 (ft/s2, ft/s3) for cabin acceleration.
- Lift mechanical parameters: Mechanical system parameters such as pulley
- diameter and speed ratio for converting system units and weights, system for
- calculating inertia and speed regulation for the desired response.
- Ramp generation: Independent configuration of acceleration and deceleration
- ramp parameters and of the 4 jerk values for maximum travelling comfort in the
- lift cabin. Two independent S-shaped ramps, selectable via digital input with 4
- independent jerk settings. Dedicated deceleration ramp corresponding to the stop
- command.



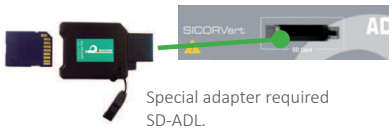


Integrated keypad

- 1-line x 4-character alphanumerical LED
- display with sign
- Simple parameter modification
- Menu and individual parameters displayed in
- numerical format
- Fast navigation keys
- Alarms / messages and startup wizard
- displayed in text format
- Resetting of alarms from keypad.

SD Card port

The SD memory card makes saving and loading data and configurations with the ADL300 very simple.



Special adapter required SD-ADL.

Fieldbuses

The ADL300 integrates the most advanced fieldbus technology used in the lift sector:

- DCP3 for use in EFC (Elevator Floor Control)
- mode
- DCP4 for use in EPC (Elevator Positioning
- Control) mode
- CANopen and CANopen Lift (CiA®417) for lift
- control systems.

Safety" inputs

for use with a single output contactor or in contactorless mode.

Configuration technology

The ADL300 is fitted with RS232 serial communication with **Modbus RTU** protocol.

Back-up power supply

The ADL300 guarantees operation even in the event of a power failure. It features an automatic return-to-floor function managed by an external device such as UPS or buffer battery via a singlephase 230V AC power supply (with EMS module).

Optional programming keypad

- 5 line x 21 character display
- Alphanumeric plaintext
- Complete information regarding each
- parameter
- Fast navigation keys
- Key for displaying the last 10 parameters
- that have been changed
- DISP key for rapid display of operating
- parameters
- Uploading-Downloading and saving of 5
- complete sets of drive parameters

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