

2011

AC Drives • Lift Control System

# SIEDrive AGL50 Lift



**Comfort-enhancing technology**

English

**GEFRAN**

**SIEIDrive AGL50** is the new range of Gefran inverters specifically designed to meet the application requirements for the lift sector.

The **AGL50** has the latest in low cost inverter lift technology, offering a simple solution for either **new innovative systems** or for the **retrofit market**.

It features an easy to use parameter structure that guarantees rapid system start-up, **high-level lift control** and **travelling comfort**.

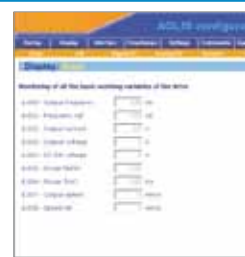
Gefran has developed a cost-effective and immediate solution for the use of electric drives in lift control systems.



## Functions Lift control

- **16** multispeeds
- **4** multiramps (linear, S-shaped with independent jerk settings) **1**
- **Self-tuning** of motor parameters
- **Overload** capability of 170% for 10 seconds
- Integrated **lift sequences** **2**
- Speed expressed in **m/s**
- Management of space calculated by the drive, even offline
- **Short floor** Control **3**
- Motor **contactor** control
- Integrated **brake** control
- Speed regulator **adaptive** gain technology
- **Emergency function** in case of power failure and back-up operation.

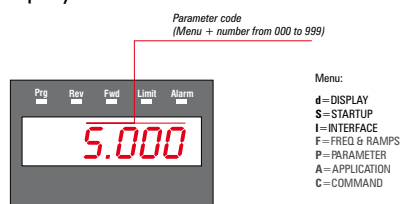
## GF\_eXpress



The GF\_eXpress PC configurator makes programming flexible and intuitive.

## Signal LEDs and display

Menus, parameters, alarms, etc. are shown on the bright and clear LED display.

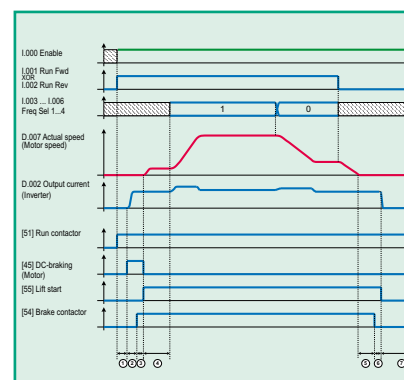
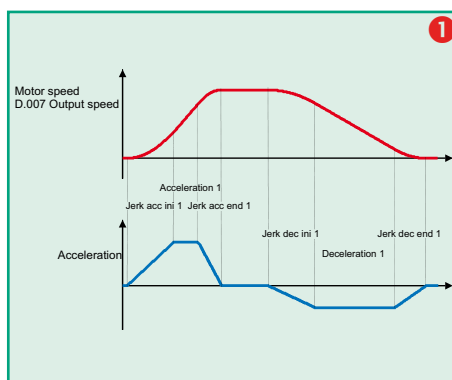


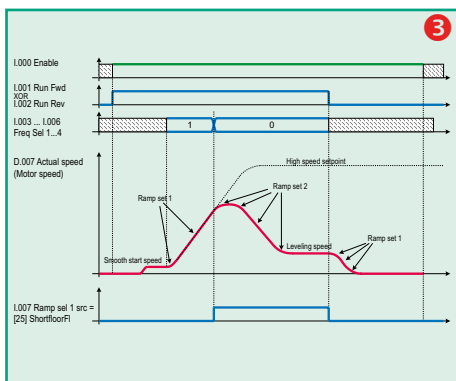
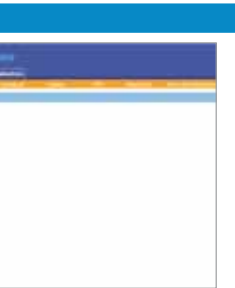
## Programming keypad

The integrated keypad enables simple, fast programming.

## Compact, complete and powerful

- 1 analog input
- 1 analog output
- 6 digital inputs
- 1 digital output
- 2 relay outputs
- RS485 serial line
- Single/dual-channel encoder digital input





## General Features

|                     |                                    |
|---------------------|------------------------------------|
| Power supply        | 3ph 400VAC...480VAC                |
| Ratings             | 4kW – 5.5kW – 7.5kW                |
| Control             | Open and closed-loop space vector  |
| Output frequency    | 500Hz                              |
| Switching frequency | 8kHz                               |
| Temperature control | for motor and drive                |
| Dynamic braking     | integrated (external resistor)     |
| Serial line         | RS485 with Modbus or Jbus protocol |
| Protection class    | IP20                               |

## Electrical and mechanical specifications

| Model • AGL50-...  |       | 2040  | 2055 | 2075 |
|--|-------|---|------|------|
| AC input voltage $U_{LN}$  | [V]   | 400VAC -15% ... 480VAC +10%, 3Ph  |      |      |
| AC input frequency   | [Hz]  | 50/60 Hz $\pm$ 5%   |      |      |
| AC input current for continuous duty $I_N$ @ 400VAC                      |       |   |      |      |
| • Connections with three-phase input choke                               | [A]   | 9   | 13   | 16   |
| • Connections without three-phase input choke                            | [A]   | 11  | 14   | 19   |
| IGBT braking unit  |       | Internal standard (with external resistor); braking torque 150%                         |      |      |
| Inverter output, continuous duty   | [kVA] | 7   | 9    | 12,3 |
| PN mot (recommended motor power):  |       |   |      |      |
| • @ $U_{LN}=400VAC$ ; $f_{sw}=\text{default}$                            | [kW]  | 4   | 5.5  | 7.5  |
| Maximum output voltage $U_2$   | [V]   | 0.98 x $U_{LN}$<br>(AC input voltage)   |      |      |
| Maximum output frequency $f_2$   | [Hz]  | 500   |      |      |
| Rated output current $I_{2N}$ :  |       |   |      |      |
| • @ $U_{LN}=400VAC$ ; $f_{sw}=\text{default}$                            | [A]   | 10.1  | 13   | 17.7 |
| Switching frequency $f_{sw}$ (Default)                                   | [kHz] | 8   |      |      |
| IOVLD (Instant overload current, 170% of $I_N$ for 10s every 100s)       | [A]   | 17.2  | 22.1 | 30   |
| Output current derating factors:   |       |   |      |      |
| • $K_V$ for 460 VAC line voltage   |       | 0,87  |      |      |
| • $K_T$ , for ambient temperature  |       | 0,8   |      |      |
| • $K_{ALT}$ , for installations at more than 1000 metres above sea level |       | 1.2<br>(1.2% for every increase of 100 metres at more than 1000 metres above sea level) |      |      |
| • $K_f$ , for higher switching frequencies (10kHz / 12kHz)               |       | 0,85 / 0,7  |      |      |
| Approvals  |       | CE  |      |      |
| Standard   |       | EN 61800-1, IEC 143-1-1   |      |      |
| Dimensions (Width x Height x Depth)                                      | [mm]  | 130 x 221 x 176.5   |      |      |
| Weight   | [Kg]  | 3   |      |      |

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