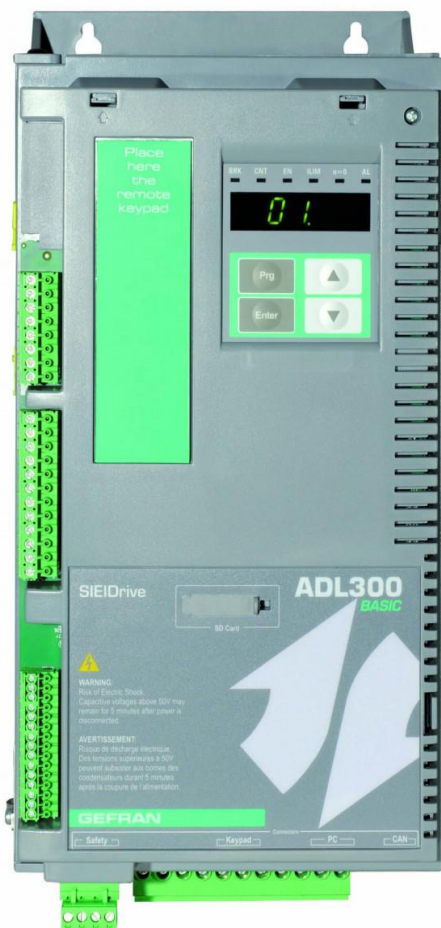


MoviLift

INVERTER GEFRAN ADL300

INSTALLATION MANUAL FOR GEARLESS MOTORS



Last release 25/11/2020

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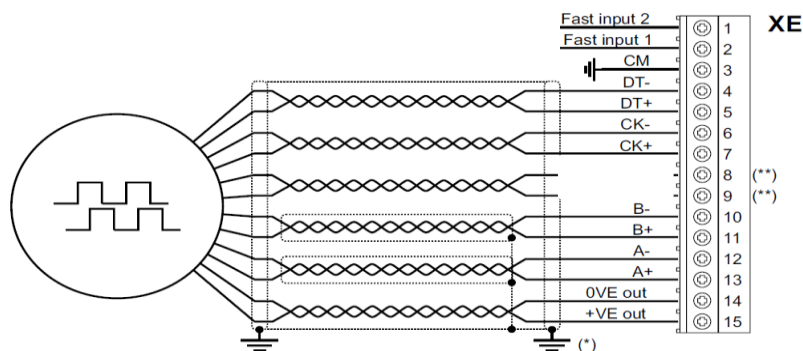
1. INSTALLATION

ATTENTION: IT IS ADVISABLE TO RUN THE MOTORS FIRST TIME **WITHOUT ROPES ATTACHED**

1.1. Motor's cabling

The framework Will be equipped with a link for provisional inspection procedure. Indicated below are various procedures for switching the engine on:

- A. Connect the main power supply line into **R S T** clamps or into **FEM380** switch.
- B. Respecting the phase sequence indicated on the cable, connect the engine cable to clamps **U V W**. The **ground cable** and **cable shielding** must be connected to the ground clamp.
- C. Connect the encoder cable directly on the inverter to the clamp **X3** following below table:



**Endat encoder connection - for other types of encoders consult the complete manual or contact our technical assistance*

***The wires sens+ (VS+) and sens- (VS-) mustn't be connected and must remain isolated from each other*

- D. The **shielding of the encoder** cable must necessarily be **connected** to the metal base under the clamp dedicated to the encoder, as depicted in the photo:



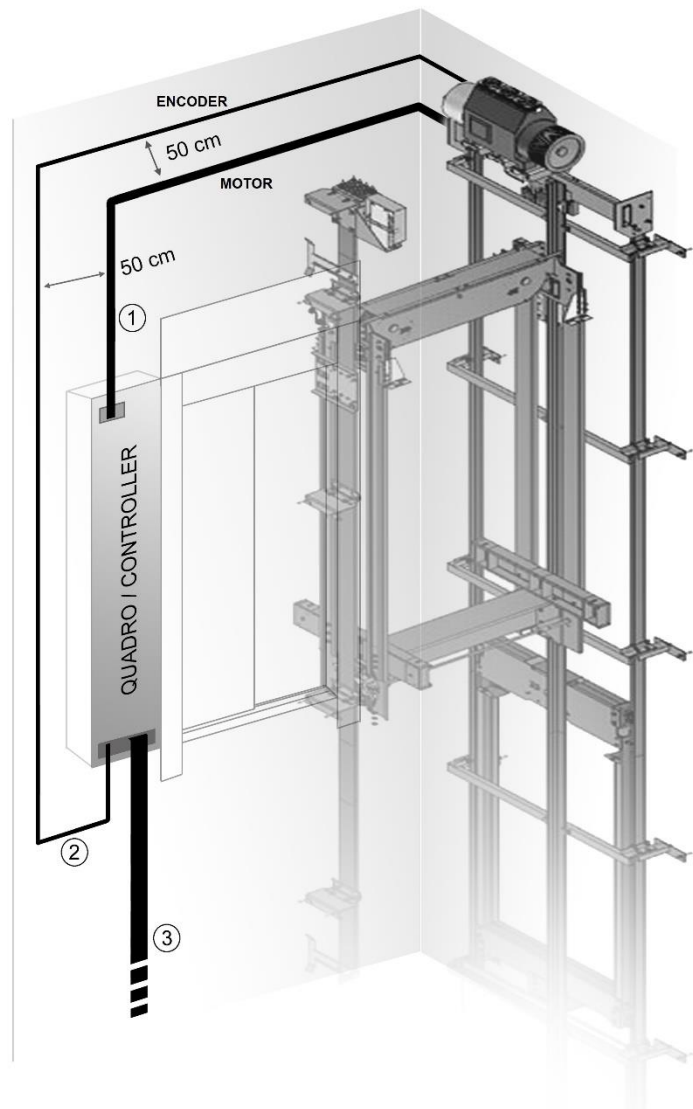
- E. Finally, connect the brake cable to the **FR1 FR2 (+) FR0 (-)** clamps, the thermistors to the **TMS TMS** clamps and microswitches brake to the **CBR (common) BR1 BR2** clamps (nc1, nc2).

Machine room less installation

We recommend routing the cables in two separate ducts for accessing the compartment.

Warning! In order to avoid interference, it is important to lay the motor line (FEM) from the flexible cables and the encoder cable in two separate channels.

- 1 - FEM cables (power line and motor)
- 2 - Flexible cable, external riser, encoder cable etc.



2. AUTOTUNING AND AUTOPHASING

To facilitate the inverter programming process, we recommend that you use the external programming **keypad**

Set on the menu **4 – DRIVE CONFIG > ACCESS MODE = EXPERT**

Although the inverter should already be programmed with engine data as per the default configuration MOVILIFT it is always recommended to check the parameters in menu **3 – STARTUP DRIVEN** before starting the car and pole tuning procedure:



	Operations displayed on the optional keypad	Operations displayed on the integrated keypad
ENGINE NOMINAL DATA	Set motor data?	MOT
START AUTOTUNING	Run autotune still?	STIL
ENCODER PAR. AND START AUTOPHASING	Set encoder param?	ENC
MAX SPEED SET	Set max motor speed?	MSPD
MAX SPEED CABIN	Set max car speed?	CSPD
SAVE PARAMETERS	Save parameters?	SAVE
	End of sequence!	END

DURING THE AUTO AND POLE TUNING PROCEDURE, THE PERCENTAGES OF PROGRESS ARE INDICATED. 100% LOWER THE AUTOMATIC VALVE **VA** TO OPEN ENABLE

Moreover, it is possible to set the parameters for encoder and engine without executing the driven startup procedure:

menu 14 – MOTOR DATA	
Nominal voltage	Par. 2000
Nominal current	Par. 2002
Nominal laps – 120*HZ/poles	Par. 2004
Polar pairs	Par. 2008
Full scale laps	Par. 680
Take parameters	Par. 2020 – press E to execute
Autotune still	Par. 2024 – press E to execute

menu 15 – ENCODER CONFIG	
Encoder pulses	Par. 2100
Encoder voltage	Par. 2102
Static autophasing	Par. 2192

Example of motor data plate:



3. SPEED AND ADJUSTMENT PARAMETERS

It is possible to modify the reference multispeed expressed in m/s by the menu **5 – LIFT > SPEED**

MtlSpd S2	MtlSpd S1	MtlSpd S0	ACTIVE SPEED
0	0	0	Multivelocità 0, PAR 11020
0	0	1	Multivelocità 1, PAR 11022
0	1	0	Multivelocità 2, PAR 11024
0	1	1	Multivelocità 3, PAR 11026
1	0	0	Multivelocità 4, PAR 11028
1	0	1	Multivelocità 5, PAR 11030
1	1	0	Multivelocità 6, PAR 11032
1	1	1	Multivelocità 7, PAR 11034

In the menu **5 – LIFT > RAMPS** is possible to regulate acceleration and deceleration of cabin with parameters **11042** and **11048** in m/s in m/s².

In the menu **5 – LIFT > SEQUENCE** is possible to regulate delays of brake closure and opening with parameters **11064** and **11068** expressed in ms.

NOTE: at the end of each modification press **SAVE** and confirm with key **E** from the keyboard to save the parameters. If the inverter switches off, the unsaved modifications Will be lost!

For any information consult the complete MANUAL GEFRAN ADL300 or contact our technical assistance.



Scan the QR code to see a demonstration video

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