

# Pro-Line 28 / 50 FU

USER MANUAL



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## 1. Information

This operating instruction is a supplementary document to the operating instruction Pro Line 28 / 50. Do not change any factory settings without manufacturers guideline and approval.



It is important to follow this installation guide during the installation to ensure correct installation.



Only type B Residual Current Devices (RCD) or Residual Current Monitors (RCM) can be installed.

## 2. Type Plate

**DALMATIC TNV A/S - LÆGÅRDSVEJ 9  
8520 LYSTRUP - DENMARK**

**Mini Std. V7E SR LSis M100**

U (V)	<b>3~230</b>	Ingress protection	<b>IP54</b>
f (Hz)	<b>50 / 60</b>	Motor max (kW)	<b>0.75</b>
I (A)	<b>10</b>	Ambient Temp. (°C)	<b>-5 <math>\lambda</math> + 40</b>
Motor I max. (A)	<b>4.2</b>	Manufacturing date	<b>July - 2020</b>



Version: 1020.1  
Software V7E-K5007 + 7E-ICK4K69-2-SR

### 3. Overview



The frequency converter control generated various frequency which allows soft starting, soft stopping and various speed in up and down direction. Soft start and soft stop protect the door mechanism. Fast speed for opening and closing save building energy.

The manufacturer's specifications for the maximum permissible frequencies / speeds must be adhered to.

- A higher than specified speed puts extra load onto the drive.
- The operating forces must comply with EN 12453.

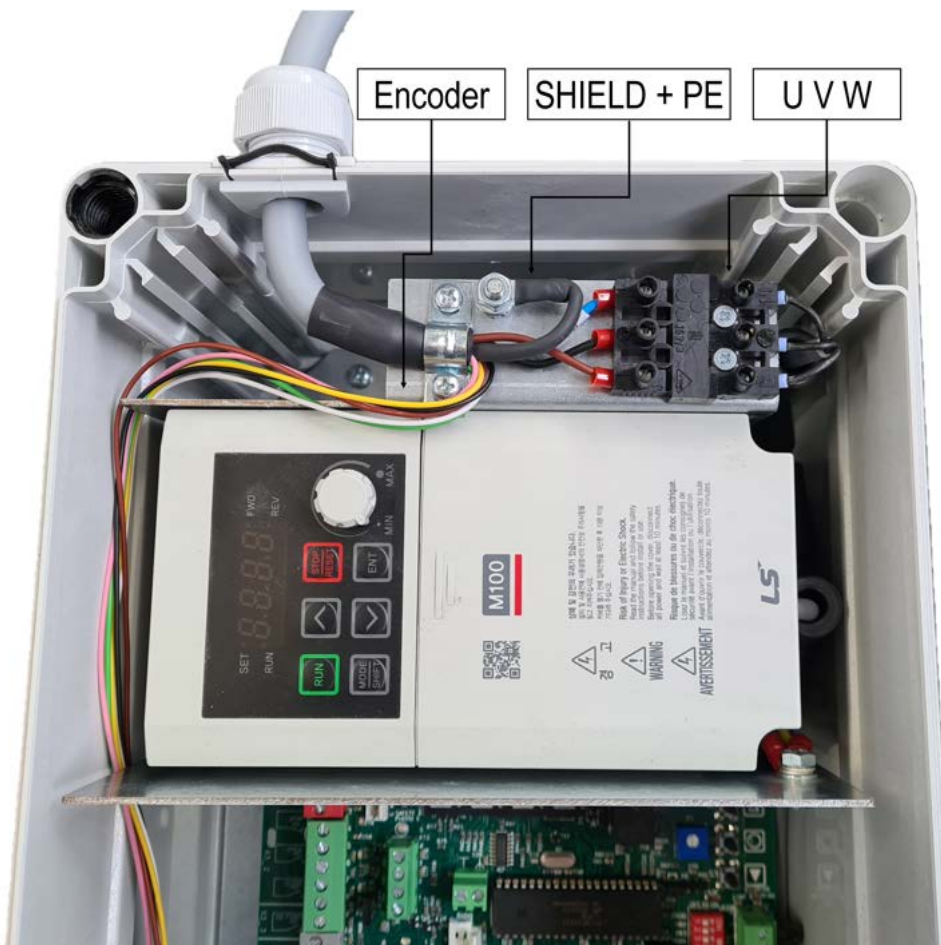
#### 4. Mains supply connections



L1 – N – PE

1x230V +/- 10% - 50/60Hz – max. 10A

#### 5. Motor Connections



## 6. Quick setup of inverter parameters

The inverter is prepared with some parameters already for your easy setup.

For normal setup only mains groups “Operation group” and “Basic functions group (Ba)” are used.

Quick setup:

1	When mains and motor are connected – turn on power and ensure that the inverter display light is on.	Inverter always power up in group – operation.
2	Push – <b>MODE</b> – wanted group	If you can't select new group, you must go to OGr code in operation group and set this to “1”.

Inverter motor settings					
	Description	Adjustment group	Display symbol	Range	Factory set.
3	Rated motor power	Operation	MkW	0.1 to 0.75 kW	0.4
4	Rated motor current	Operation	MrC	0.1 – 150.0 A	2.6
5	Rated motor frequency (max)	Operation	FrM	40.0 – 400.0 Hz	100
6	Rated motor voltage	Operation	IoV	0, 170-264 V	230
7	Number of motor poles	Basic function	BA.11	2 – 12 poles	4
8	Rated motor slip frequency	Basic function	BA.12	0.0-10.0 Hz *	4.0

\*  $f_s = f_r - (\text{rated motor rpm} \times p / 120) = 50 - (1380 \times 4 / 120) = 4.0 \text{ Hz}$   
 $f_r$  = rated motor frequency,  $f_s$  = frequency slip (calculated),  $p$  = pole counts in motor.

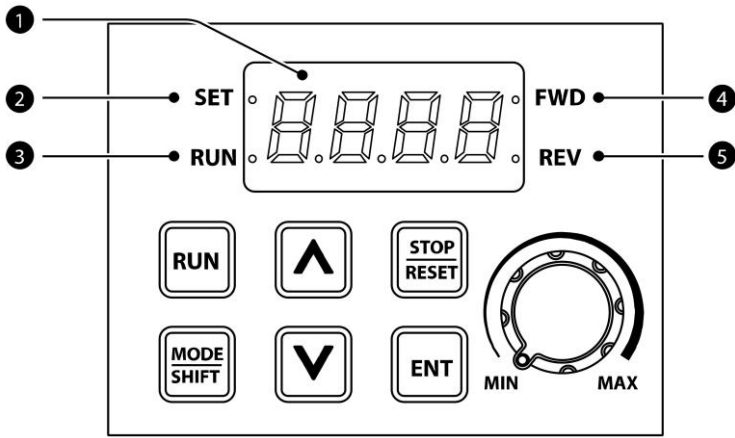
Inverter settings OPEN direction					
	Description	Adjustment group	Display symbol	Range	Factory set.
9	Freq. High OPEN	Operation	0.00	0.0 to Max(FrM) Hz	60
10	Freq. Low OPEN	Basic function	BA.50	0.0 to Max(FrM) Hz	25
11	Acc. Time OPEN	Operation	ACC	0.0 – 6000.0 Sec.	1.0
12	Dec. Time High to Low, Opening	Basic function	BA.71	0.0 – 6000.0 Sec.	3.0
13	Dec. Time to stop	Operation	dEC	0.0 – 6000.0 Sec.	0.3
14	Low speed setp. before open limit	See door control settings below parameter 91			20%

Inverter settings CLOSE direction					
	Description	Adjustment group	Display symbol	Range	Factory set.
15	Freq. High CLOSE	Basic function	BA.51	0.0 to Max(FrM) Hz	50
16	Freq. Low CLOSE	Basic function	BA.52	0.0 to Max(FrM) Hz	25
17	Acc. Time CLOSE	Basic function	BA.72	0.0 – 6000.0 Sec.	1.0
18	Dec. Time High to Low, closing	Basic function	BA.75	0.0 – 6000.0 Sec.	3.0
19	Dec. Time to stop	Same as in OPEN direction			0.3
20	Low speed setp. before close limit	See door control settings parameter 92			20%

Additional settings - for reference only					
	Description	Adjustment group	Display symbol	Range	Factory set.
	Carrier freq.	Control function	Cn.04	1 to 15 kHz	6
	Forward boost	Operation	FtB	0.0 – 20 %	10.0



Do not change inverter motor settings



Key	Name	Description
	[RUN] key	Used to run the inverter (inputs a RUN command).
	[STOP/RESET] key	STOP: stops the inverter. RESET: resets the inverter following fault or failure condition.
	[▲] key, [▼] key	Switch between codes, or to increase or decrease parameter values.
	[MODE/SHIFT] key	Switch between groups, or to move the cursor during parameter setup or modification.
	[ENTER] key	Used to enter the parameter setting mode, apply the set parameter, and enter the operation information screen from the fault notice screen when a fault occurs.
	[Volume] key	Used to set the operation frequency.

No.	Name	Function
①	7-Segment Display	Displays current operational status and parameter information.
②	SET Indicator	LED flashes during parameter configuration.
③	RUN Indicator	LED turns on (steady) during an operation, and flashes during acceleration or deceleration.
④	FWD Indicator	LED turns on (steady) during forward operation.
⑤	REV Indicator	LED turns on (steady) during reverse operation.

The table below lists the way that the keypad displays characters (letters and numbers).

Display	Number/character	Display	Number/character	Display	Number/character	Display	Number/character
	0		A		K		U
	1		B		L		V
	2		C		M		W
	3		D		N		X
	4		E		O		Y
	5		F		P		Z
	6		G		Q		0 (bit)
	7		H		R		1 (bit)
	8		I		S	-	-
	9		J		T	-	-

Group	Display	Description
Operation	-	Configures basic parameters for inverter operation.
Drive (Drive)	dr	Configures parameters for basic operations. These include jog operation, torque boost, and other parameters.
Basic (Basic)	bA	Configures basic parameters, including motor-related parameters and multi-step frequencies.
Advanced (Advanced)	Ad	Configure acceleration or deceleration patterns and to setup frequency limits.
Control (Control)	Cn	Configures functions such as carrier frequency or speed search.
Input Terminal (Input)	In	Configures input terminal-related features, including digital multi-functional inputs and analog inputs.
Output Terminal (Output)	OU	Configures output terminal-related features such as relays and analog outputs.
Communication (Communication)	Cn	Configures communication features for RS-485 or other communication options. *Available only for models equipped with advanced I/O.
Application (Application)	AP	Configures PID control-related sequences and operations.
Protection (Protection)	Pr	Configures motor or inverter protection features.
Secondary Motor (2 <sup>nd</sup> Motor)	M2	Configures secondary motor related features. *The secondary motor (M2) group appears on the keypad only when one of the multi-function input terminals (standard I/O model: In65-67, advanced I/O model: In65-69) has been set to 12 (Secondary motor).
Configuration (Configuration)	CF	Configures various features such as parameter setting,

Opening low speed set point parameter 91

91:00	5% before open limit
91:01	10% before open limit
91:02	15% before open limit
91:03	20% before open limit

Closing low speed set point parameter 92

92:00	5% before close limit
92:01	10% before close limit
92:02	15% before close limit
92:03	20% before close limit