



Man Machine Interface
MMI for decentralized inverter

Operating manual



PRODUCTS &
SOLUTIONS



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1. DGM MMI connection

Thank you for choosing an DGM and DGM Modular MMI drive controller!

Important information

The MMI may only be installed and operated by trained and qualified staff. Please observe the additional information provided in the detailed operating manual for the MMI.

Safety instructions

The following warnings, precautionary measures and information are provided for your safety and serve to prevent damage to the drive controller and the components connected to it. This chapter contains warnings and information that are generally applicable when handling drive controllers.

Specific warnings and information applicable to activities can be found in the device's relevant documentation.

Please read through this information carefully because it is intended for your personal safety.

DANGER!



Risk of death due to revolving mechanical parts!

Death or serious injury!

The motor may rotate during programming. Depending on the equipment, this may cause a dangerous situation for persons and the equipment.

Make sure that no one is in hazardous zones and that the motor is disconnected.

DANGER!



Risk of death due to electrical shock!

Death or serious injury!

Hazardous currents are present on the motor and drive controller. These can lead to injury or death.

When working on the device, de-energise the device and secure it from being switched on again.

2. Operating manual for DGM MMI

Proper use

The application and performance parameters of the DGM drive controller are displayed and programmed with the MMI controller. This device may only be used for the DGM Bonfiglioli drive controller and under the permitted environmental conditions.

Incorrect use may cause damage to the device. The MMI may only be used for its intended purpose. Any use that differs from or goes beyond the stated intended purpose is considered inappropriate.

The manufacturer accepts no liability for any damage resulting from this. Modifications to the DGM MMI are prohibited.

Any instance of misuse of the MMI will result in the termination of the guarantee, warranty and general liability of the manufacturer.

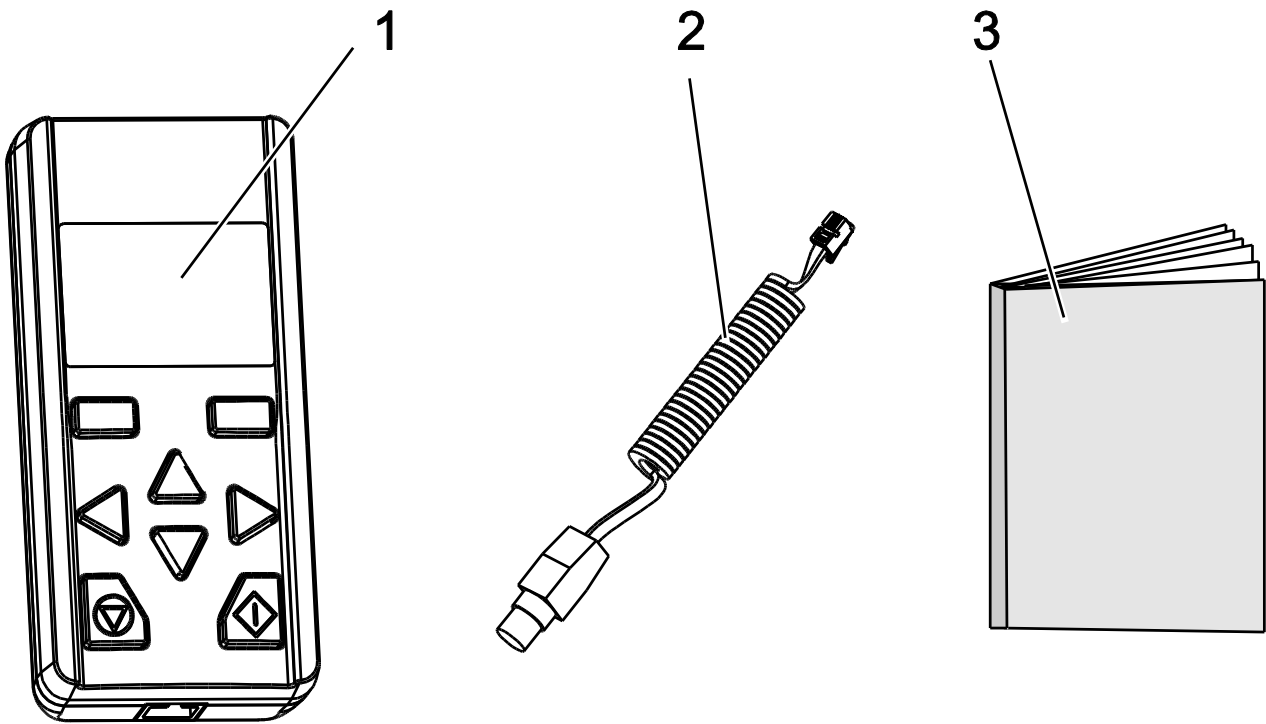
The MMI may not be operated in areas where there is a danger of explosion.

Repairs may only be performed by authorised repair bodies. Independent and unauthorised intervention may result in death, injury or property damage.

The warranty provided will be invalidated in such cases.

3. Scope of delivery

Compare your product with the scope of delivery provided below.

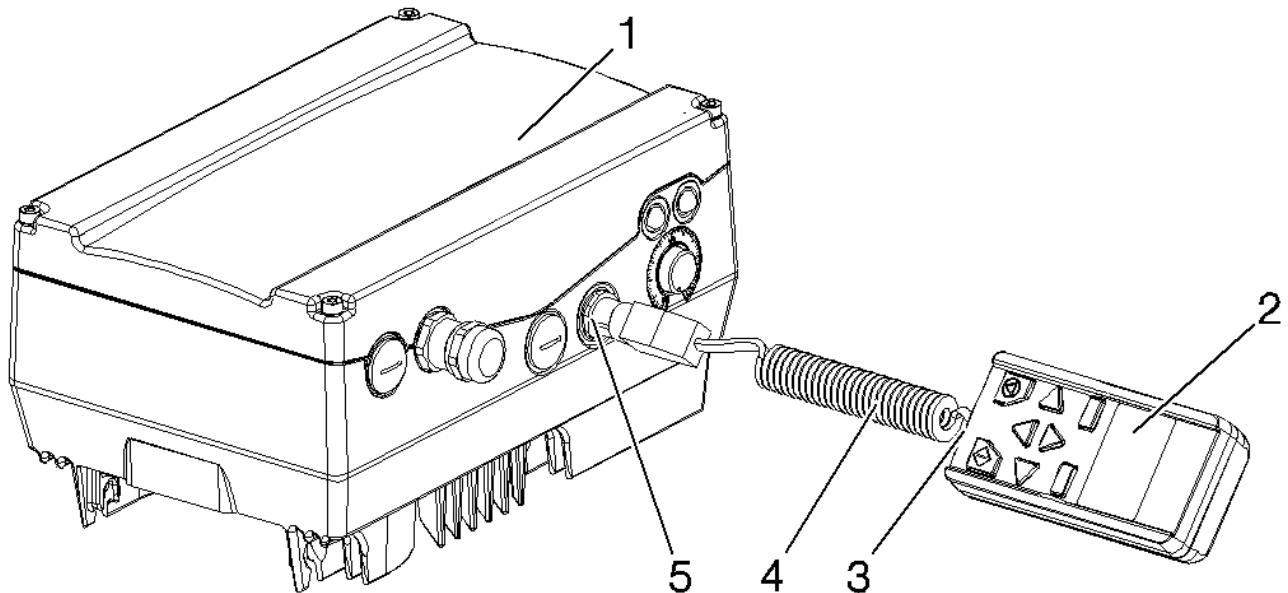


1. DGM MMI handheld controller
2. Communication cable with RJ11 and M12 plug
3. Short manual

4. DGM MMI connection

The DGM MMI is connected to the M12 interface. The handheld controller displays the parameters. The parameters are programmed with the function keys.

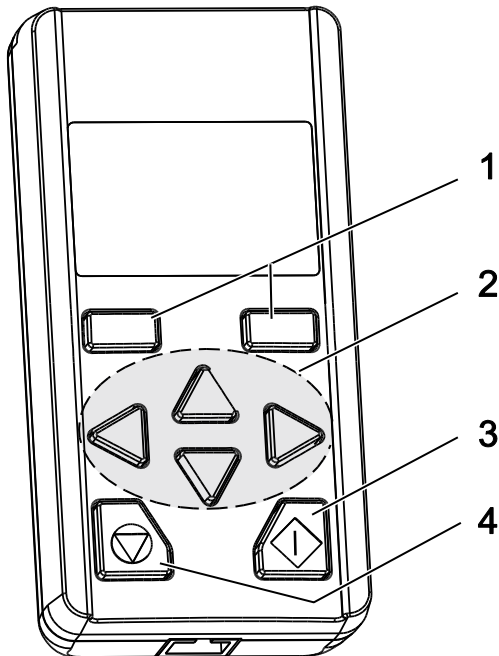
The DGM MMI may only be operated with the DGM drive controller!
Any other connection is not allowed.



1. DGM or DGM Modular drive controller
2. DGM MMI handheld controller
3. RJ11 socket
4. Communication cable
5. M12 socket

5. Operation - the function keys

If the MMI is connected to the decentralized inverter and the DGM is switched on, the menu appears on the display of the handheld controller.



1. Confirm buttons
2. "UP"/"DOWN" arrow keys, "LEFT" / "RIGHT" arrow keys
3. Start (only for control mode)
4. Stop (only for control mode)

Functions

The following functions are possible with the DGM MMI:

- Parametrisation of device configuration
- Control (e.g. locking and releasing)
- Display of various process variables
- Saving parameter sets (max. 8)
- Transferring parameter sets to different DGMs
-

Material ID	710555479 Bonfiglioli
Connection cable	3m RJ11 on M12 plug
Dimensions (L / W / H)	105 / 50 / 25 mm
Weight	83 g
Protectionclass	IP21

6. MMI Parameters

6.1 Actual values

01. Actual Values
 02. Group Parameters
 20. Actual Error
 21. Memory Error
 30. Motor Parameters.
 40. Control
 50. Expert Mode
 80. Read Parameters
 81. Write Parameters
 82. Delete Parameters
 98. SW/HW version
 99. Language

Status Next

01. Actual Values
Frequency Actual
0 Hz

Back ▼

Other parameters that can be selected:

- Frequency nominal [Hz]
- Current motor [A]
- Torque [Nm]
- Speed actual [rpm]
- Shaft power [W]
- Actual Value PID [%]
- Nominal Value PID [%]
- Analog input 1 [V]
- Process variable 1 [%]
- Analog input 2 [V]
- Process variable 2 [%]
- Line Voltage [V]
- Digital Input [hex]
- Digital Output [hex]
- Control word fieldbus [hex]
- Fieldbus ref. [%]
- Soft PLC out.1 [n]
- Soft PLC out.2 [n]
- Soft PLC out.3 [n]
- Soft PLC out.4 [n]

6.2 Group parameters

01. Actual Values
02. Group Parameters
 20. Actual Error
 21. Memory Error
 30. Motor Parameters.
 40. Control
 50. Expert Mode
 80. Read Parameters
 81. Write Parameters
 82. Delete Parameters
 98. SW/HW version
 99. Language

Status Next

02. Group Parameters
Basic Parameters

Back ▼ Next

Other parameters:

- Control Mode
- Process Control
- Control Terminal
- Add. Function
- Field. Parameter
- Motor Parameter
- Controll. Parameters
- Brake Chopper

02. Base Parameters
Minimum Frequency
0 Hz

Back ▼ Modify

Other parameters selectable:

See the complete list in the technical manual of DGM

02. Base Parameters
Minimum Frequency
0 Hz

Delete Save

6.3 Actual error

- 01. Actual Values
- 02. Group Parameters
- 20. Actual Error**
- 21. Memory Error
- 30. Motor Parameters.
- 40. Control
- 50. Expert Mode
- 80. Read Parameters
- 81. Write Parameters
- 82. Delete Parameters
- 98. SW/HW version
- 99. Language

Status ▼ Next

20. Actual Error

01. [11]
Power Time-out

Back

See the complete error list in the technical manual of DGM

6.4 Memory error

- 01. Actual Values
- 02. Group Parameters
- 20. Actual Error
- 21. Memory Error**
- 30. Motor Parameters.
- 40. Control
- 50. Expert Mode
- 80. Read Parameters
- 81. Write Parameters
- 82. Delete Parameters
- 98. SW/HW version
- 99. Language

Status ▼ Next

21. Memory Error

01. [11]
Power Time-out

Back ▼

Here you can see the last 20 errors. See the complete error list in the technical manual of DGM

6.5 Motor parameters

01. Actual Values
 02. Group Parameters
 20. Actual Error
 21. Memory Error
30. Motor Parameters.
 40. Control
 50. Expert Mode
 80. Read Parameters
 81. Write Parameters
 82. Delete Parameters
 98. SW/HW version
 99. Language

Status ▼ Next

30. Aut. Motor. Iden.

Motor Identification

Back Next

30. Aut. Motor. Iden.

Motor Identification ends with reboot

Before starting the identification It is necessary to enter in the motor plate data and activate the enable HW in the terminal board of DGM, also there must be NO errors.

6.6 Control

01. Actual Values
 02. Group Parameters
 20. Actual Error
 21. Memory Error
 30. Motor Parameters.
40. Control
 50. Expert Mode
 80. Read Parameters
 81. Write Parameters
 82. Delete Parameters
 98. SW/HW version
 99. Language

Status ▼ Next

40. Control

Reference Value

0 %

Back

Active only if P1.131 is set to 14: MMI/PC
 Use the arrows to change the reference, the green button is equivalent to START, the red button is equivalent to STOP

6.7 Expert mode

01. Actual Values
 02. Group Parameters
 20. Actual Error
 21. Memory Error
 30. Motor Parameters.
 40. Control
50. Expert Mode
 80. Read Parameters
 81. Write Parameters
 82. Delete Parameters
 98. SW/HW version
 99. Language

Status ▼ Next

50. Expert Mode

1. YES
 2. No

Delete Save

By selecting the expert mode, all the parameters at level 2 will be displayed.
 The expert mode is de-activated every time the MMI is turned on again.

6.8 Read parameters

01. Actual Values
 02. Group Parameters
 20. Actual Error
 21. Memory Error
 30. Motor Parameters.
 40. Control
 50. Expert Mode
80. Read Parameters
 81. Write Parameters
 82. Delete Parameters
 98. SW/HW version
 99. Language

Status ▼ Next

80. Read Parameters

Group Parameters

TEST01

Back Confirm

80. Read Parameters

It is possible to store up to 8 sets of parameters.
 6 of character alphanumeric name can be assigned to each parameter set.

6.9 Writing stored parameters

- 01. Actual Values
 - 02. Group Parameters
 - 20. Actual Error
 - 21. Memory Error
 - 30. Motor Parameters.
 - 40. Control
 - 50. Expert Mode
 - 80. Read Parameters
 - 81. Write Parameters**
 - 82. Delete Parameters
 - 98. SW/HW version
 - 99. Language
-
- Status ▼ Next


81. Write Parameters

Group Parameters

TEST02

Back ▼ Confirm

81. Write Parameters



It is possible to select one of the stored parameter sets.

6.10 Delete of stored parameters

- 01. Actual Values
 - 02. Group Parameters
 - 20. Actual Error
 - 21. Memory Error
 - 30. Motor Parameters.
 - 40. Control
 - 50. Expert Mode
 - 80. Read Parameters
 - 81. Write Parameters
 - 82. Delete Parameters**
 - 98. SW/HW version
 - 99. Language
-
- Status ▼ Next


82. Delete Parameter

Group Parameter

TEST03

Back ▼ Confirm

82. Delete Parameter



It is possible to select one of the stored parameter sets.

6.11 Reading SW / HW version

01. Actual Values
02. Group Parameters
20. Actual Error
21. Memory Error
30. Motor Parameters.
40. Control
50. Expert Mode
80. Read Parameters
81. Write Parameters
82. Delete Parameters
98. **SW/HW version**
99. Language

Status ▼ Next

98. SW/HW Version

Soft.vers.DGM
0382

Back ▼

Other selectable parameters:

- Hard.vers.DGM
- Soft.vers.MMI
- Hard.vers.MMI

6.12 MMI – Language selection

01. Actual Values
02. Group Parameters
20. Actual Error
21. Memory Error
30. Motor Parameters.
40. Control
50. Expert Mode
80. Read Parameters
81. Write Parameters
82. Cancel Parameters
98. SW/HW version
99. **Language**

Status ▼ Next

99. Language

1. Italian

2. English

Delete Save

Research & Development



Bonfiglioli's global research and development create breakthrough solutions that integrate the most advanced mechanical, electrical and hydraulic technologies. They meet the most demanding application requirements and support our customers' growth.

More than 200 employees around the world are involved in the group's research and development.



DESIGN YOUR SOLUTIONS



CO-ENGINEERING

We support our customers' projects from beginning to end.

At Bonfiglioli, we believe that product development relies on passion, efficient processes, and the ability to understand our customers' needs accurately.

First, our team identify the customer's needs after in-depth analysis drawn from our specific application expertise.

Through dedicated calculation tools, we can simulate the transmission's capabilities and performance allowing reducing development time.

The alignment phase allows us then to adapt our proposal according to key factors of performance, installation and maintenance.



The test centers at Bonfiglioli

Bonfiglioli's test laboratories support the various phases of the product life cycle, including development, certification and the production of solutions developed and manufactured in our plants around the world.

Our specialists are true partners to the R&D, technical and quality departments. They help validate each Bonfiglioli product from the smallest critical component to the overall solution.

The test centers regularly conduct additional tests to ensure the product durability and confirm the specifications declared during the official approval stage.



Global Presence



Bonfiglioli is a market force with a presence spanning 22 countries on 5 continents. Our organization makes the most of geographic proximity to offer complete solutions combining efficiency and competence.



3804
EMPLOYEES



20
BRANCHES



13
PLANTS



550
DISTRIBUTORS



80
COUNTRIES

We Are a Global Company

Thanks to an international network of sales branches and closely interconnecting production plants, we can guarantee the same high standards of Bonfiglioli quality anywhere at any given time. Aware that our direct presence in local markets is the key to long-lasting success, our family includes 20 sales branches, 13 production plants and more than 500 distributors around the world.

Our organization is always close by, offering complete and efficient solutions and supporting our customers with dedicated services, such as co-engineering or after-sales assistance.



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 ASSEMBLY

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 SERVICE



We have a relentless commitment to excellence, innovation & sustainability. Our team creates, distributes and services world-class power transmission & drive solutions to keep the world in motion.

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