

IFM6·1

4921240721A

Communication interface module

Data sheet



1. About the 600 series
1.1 About the hardware modules **3**

2. Technical specifications
2.1 IFM6-1 module specifications..... **5**

3. Legal information
3.1 Disclaimer and copyright..... **6**

1. About the 600 series

1.1 About the hardware modules

The 600 series is a PLC-based programmable automation controller (PAC) suitable for land, marine, and wind power control applications. It is class approved, designed to marine specifications and can withstand very harsh operating conditions.

The controller is a highly flexible, modular PLC and I/O system that is designed for usage across a wide range of industrial applications. It is reliable, robust and flexible.

EtherCAT is used as native communication protocol both as the backplane communication and as interconnection between multiple 600 series racks via electrical or fibre optical connections. Other DEIF EtherCAT I/O modules or third party EtherCAT I/O modules can also be connected.

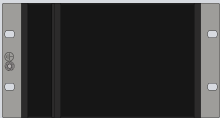
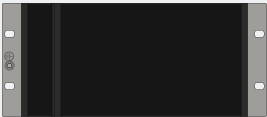
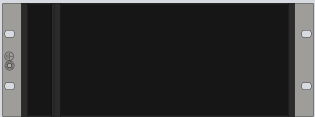
The hardware modules feature:

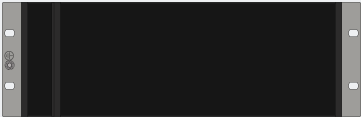
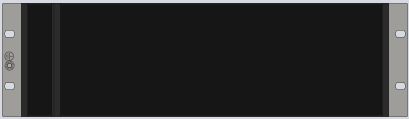
- Placement flexibility in the rack.
- Remove, replace, or add on-site.
- Automatically recognised.
- Configurable input and output functions (digital and analogue):
 - Digital input functions: Commands from operators or 3rd party equipment, changing configuration, operating information.
 - Digital output functions: Alarm status, commands to 3rd party equipment, operating information.
 - Analogue input functions: External set points, operating information, supervised binary inputs.
 - Analogue output functions: Operating information.

NOTE All slots must be covered during operation and blind modules can be used to cover unused slots.

Rack sizes

The controller rack is available in six different sizes:

Rack	Slots	Ground plate dimensions HxDxW (mm)	Weight (g)	Rack
Rack6-4	4	122.0 x 113.9 x 182.4	715	
Rack6-6	6	122.0 x 113.9 x 233.2	870	
Rack6-8	8	122.0 x 113.9 x 284.4	1020	
Rack6-10	10	122.0 x 113.9 x 334.8	1175	

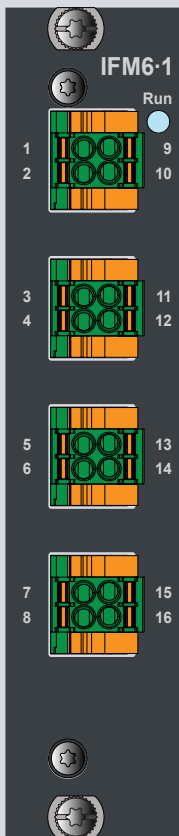
Rack	Slots	Ground plate dimensions HxDxW (mm)	Weight (g)	Rack
Rack6-12	12	122.0 x 113.9 x 385.6	1335	
Rack6-14	14	122.0 x 113.9 x 436.4	1500	

2. Technical specifications

2.1 IFM6·1 module specifications

IFM6·1 is designed for the rough environment in a wind turbine, and all inputs and outputs are protected and isolated from other potentials.

The interface and Fieldbus module offer 2 x Profibus DP master and 2 x RS-485 ports.

Communication interface module				
	Power supply	From backplane		
	Backplane interfaces	1 x EtherCAT IN (Port 0) - LVDS 1 x EtherCAT OUT (Port 1) – LVDS		
	Processor	196 MHz industrial grade 32 bit microcontroller		
	2 x Profibus DP Master	Supported baud rates	9600, 19200, 45450, 93750, 187500, 500000, 1.5M, 3.0M, 6.0M, 12.0M < 1% error	
		Biassing and termination	On or off (software select)	
		Standards	PROFIBUS DP-V0 (cyclic data and diagnostics)	
		Slaves	Max. 5 per Profibus DP Master	
	Com 2 x RS-485 interfaces	Standards	TIA/EIA-485 shielded twisted copper cable	
		Baud rate	2400, 4800, 9600, 19200, 38400, 45450, 57600, 115200, 230400 and 460800 < 1 % error	
		Word length	7 or 8 bits	
		Parity	None, even, odd	
		Stop bits	1 or 2	
		Flow control	None	
		Communication lines	2 wire half duplex	
		Biassing and termination	On or off (software selected)	
	Isolation	Each communication port isolated from other potentials, 500 V DC		
	Size	25.40 mm		
Weight	90 g (incl. connectors)			
Power consumption	Typical 3.25 W (4 ports active)			
Connector, grip (included by default)	2 x 2 terminals: 1790483			
Connector, screw	2 x 2 terminals: 1790292			

3. Legal information

3.1 Disclaimer and copyright

Third party equipment

DEIF takes no responsibility for the installation or operation of any third party equipment, for example, a **genset**. Contact the **manufacturer** or third party equipment company if you have any doubt about how to install or operate the third party equipment.

Open source software

This product contains open source software licensed under, for example, the GNU General Public License (GNU GPL) and GNU Lesser General Public License (GNU LGPL). The source code for this software can be obtained by contacting DEIF at support@deif.com. DEIF reserves the right to charge for the cost of the service.

General warranty

The warranty period for the purchased product is defined in the contract and order acknowledgement. In general, DEIF's Terms and Conditions of Sale and Delivery apply.

The product continuously monitors the operating temperature and stores this information in a log file on the device. DEIF uses this information for service purpose and to validate if issues with the product are covered by the warranty.

The software packages supplied are believed to be of the highest quality. Due to the nature of the software development process, it is possible that there are hidden defects in the software which may affect its use, or the operation of any software or device developed with this software package.

DEIF does not undertake responsibility for determining whether this package is suitable for the application, nor for ensuring the correct operation of the application software and hardware.

The warranty does not cover product wear parts, such as:

- Internal flash disc
- If applicable, SD card (purchased separately)
- Replaceable coil-cell battery, used for the real-time clock (available as a spare part)

Trademarks

DEIF and the DEIF logo are trademarks of DEIF A/S.

BELDEN is a trademark of BELDEN INC.

Bonjour® is a registered trademark of Apple Inc. in the United States and other countries.

Adobe®, Acrobat®, and Reader® are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.

CANopen® is a registered community trademark of CAN in Automation e.V. (CiA).

SAE J1939® is a registered trademark of SAE International®.

CODESYS® is a trademark of CODESYS GmbH.

EtherCAT®, EtherCAT P®, Safety over EtherCAT®, are trademarks or registered trademarks, licensed by Beckhoff Automation GmbH, Germany.

VESA® and DisplayPort® are registered trademarks of Video Electronics Standards Association (VESA®) in the United States and other countries.

Google® and Google Chrome® are registered trademarks of Google LLC.

Linux® is a registered trademark of Linus Torvalds in the U.S. and other countries.

Modbus® is a registered trademark of Schneider Automation Inc.

Torx®, Torx Plus® are trademarks or registered trademarks of Acument Intellectual Properties, LLC in the United States or other countries.

Windows® is a registered trademark of Microsoft Corporation in the United States and other countries.

All trademarks are the properties of their respective owners.

Copyright

© Copyright DEIF A/S. All rights reserved.

Disclaimer

DEIF A/S reserves the right to change any of the contents of this document without prior notice.

The English version of this document always contains the most recent and up-to-date information about the product. DEIF does not take responsibility for the accuracy of translations, and translations might not be updated at the same time as the English document. If there is a discrepancy, the English version prevails.