

IFM6·2

4921240722A

Communication interface module

Data sheet



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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.

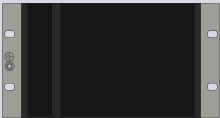
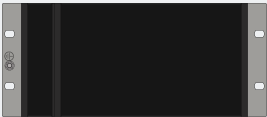
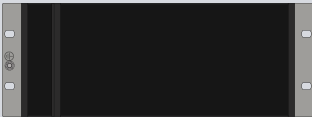
The hardware modules feature:

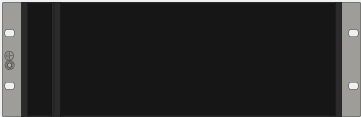
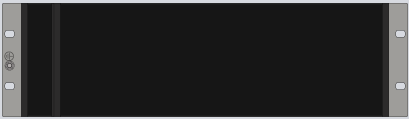
- Placement flexibility in the rack.
- Remove, replace, or add on-site.
- Automatically recognised.
- Configurable input and output functions (digital and analogue):
 - Digital input functions: Commands from operators or 3rd party equipment, changing configuration, operating information.
 - Digital output 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	

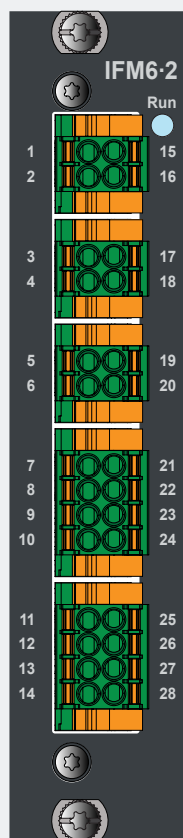
Rack	Slots	Ground plate dimensions HxDxW (mm)	Weight (g)	Rack
Rack6-12	12	122.0 x 113.9 x 385.6	1335	
Rack6-14	14	122.0 x 113.9 x 436.4	1500	

2. Technical specifications

2.1 IFM6·2 module specifications

IFM6·2 is designed for the rough environment in a wind turbine, and communication ports are protected and isolated from other potentials. The IFM6·2 interface and Fieldbus module offer 2 x CAN, 2 x SSI and 2 x High speed counter input.

Communication interface module



Power supply	From backplane	
Power supply, SSI	Input level: 24 V (18 to 32 V) Note 1 : SSI power input must be left unconnected if SSI is unused. Note 2 : SSI power input has a TVS (Transient Voltage Suppression) diode of 33V to shield to protect the connected SSI encoder from damage during surge and burst test. Therefore, the SSI interface is not galvanic isolated from shield.	
Backplane interfaces	1 x EtherCAT IN (Port 0) - LVDS 1 x EtherCAT OUT (Port 1) - LVDS	
Processor	240 MHz industrial grade 32 bit microcontroller	
2 x CAN interfaces	Standards	ISO 11898
	Baud rate	20, 50, 100, 125, 250, 500, 800 or 1000 kbit/s Sample point at 70 to 85 % < 1% error
	Isolation	Isolated from other potentials, 500 V DC
	Termination	Open/120 Ω (software select)
	Protection	24 V DC resistant data lines
	Standards	TIA/EIA-422 shielded twisted copper cable
	Bit rate	250 kbps and 1000 kbps
	Word length	16 - 32 bit (default 25 bit). Binary or Gray-code configurable in SW
	Termination	Fixed
	Communication lines	4 wire (clock and data)
2 x SSI	Protection	24 V DC resistant data lines
	Isolation	Isolated from other potentials, 500 V DC
	Isolation, SSI	SSI power input has a TVS diode of 33V to shield to protect the connected SSI encoder from damage during surge and burst test. Therefore, the SSI interface is not galvanic isolated from shield.
	Isolation, SSI	SSI power input has a TVS diode of 33V to shield to protect the connected SSI encoder from damage during surge and burst test. Therefore, the SSI interface is not galvanic isolated from shield.
2 x digital input with frequency measurement	Input	High: 13 to 30 V Low: -30 V to +5 V
	Load	Typically 6mA (Vin >7V)
	Bandwith	125 kHz hardware low-pass filter
	Isolation	Isolated from other potentials, 500 V DC
Size	25.40 mm	
Weight	92 g (incl. connectors)	
Power consumption	Typical 3.0W	
Connector, grip (included by default)	2 x 2 terminals: 1790483 2 x 4 terminals: 1790506	
Connector, screw	2 x 2 terminals: 1790292 2 x 4 terminals: 1790315	

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)

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