



Product Information	
Wilo-ElectronicControl	Nr. : 600 gb Edition : 02 Date : 11.2011

Div.	Pumps & Systems
PBU	Multistage & Domestic
Product Group	14405: Multistage & Domestic Pumps spare parts & Accessories Electrical & Electronical
Series	Wilo-ElectronicControl
Product picture	
Reason for this product information	New frequency inverter for residential applications

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1 Cover letter

Dear colleagues,

We are pleased to announce the launch of ElectronicControl, a water-cooled frequency inverter with built-in pressure & flow sensors.

Also, this device will be proposed as a complete home booster made from MHIL stainless steel pump.


This project was identified in the Market Segment Building Services **as a white spot allowing fast growth** and linked to the Water distribution/Boosting application (Priority 1). We hope this product range will help you in your business for cold water residential market.

Feel free to contact us for any question,

Quentin d'Hérouël

Product Manager

PBU Multistage & Domestic

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2 Product Hierarchy and product portfolio

Accessories (inverter alone)	MM5	MM9	MT6	MT10
Article numbers	4160333	4160334	4160335	4160336
Power supply in:	~1x230V			
Power supply out:	~1x230 V		~3x230 V	
Max. current:	5A	9A	6A	10A



Product Hierarchy for ElectronicControl: **14400 14405**

Home boosters (inverter on a single pump)	Designations	Article numbers
3 m ³ /h nominal flow	EMHIL 303 EM	4161130
	EMHIL 304 EM	4161131
	EMHIL 305 EM	4161132
5 m ³ /h nominal flow	EMHIL 503 EM	4161133
	EMHIL 504 EM	4161134
	EMHIL 505 EM	4161135



Product Hierarchy for EMHIL: **15700 15703**

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3 Applications

ElectronicControl is a frequency inverter to be assembled on the discharge pipe of a pump. It will manage the pump frequency to keep the pressure constant as wished and insure lower power consumption. It includes a pressure and flow sensor that allows to start, stop and protect automatically the pump from dry-running.

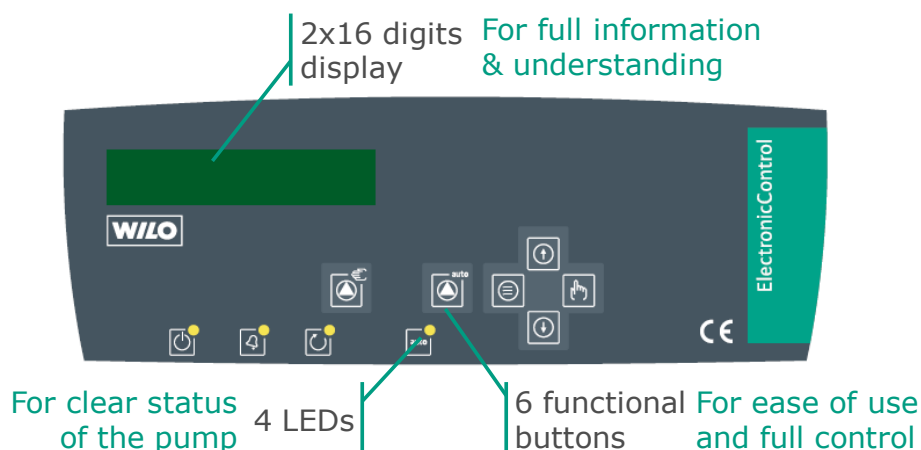
Speed control of pumps for residential applications:


- Water supply
- Rainwater harvesting
- Sprinkling and small scale irrigation

4 USPs and Product Advantages

Its main advantage is the **Ease of use & setting** thanks to:

- A large display (32 digits) with clear explanation
- 4 LEDs giving clear status
- Simplified menu and navigation
- 7 different languages: D, EN, F, ES, I, GR, NL
- Supplied pre-wired




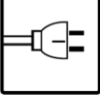



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Additional benefits:

- Fully compliant to residential EMC standards thanks to its inbuilt-in filters (EN61000-6-2 & EN61000-6-3)
- AIS function: automatic short running to avoid hydraulic freezing when temperature <5°C
- ART function: system will try to restart automatically after defaults
- Possible connection of float switch
- Setting memory after an interruption of power supply to keep selected set-up
- Full and automatic protections against:
 - over-intensities
 - dry operations
 - low & high voltage
 - over temperature
 - short-circuit
- Historic memory: working hours, counter of starts, counter of connections to the power supply, type and number of alarms since the starting up of the device



	Automatic & fast regulation	For constant pressure & comfort
	Dry-running and overload protections	For reliable operation
	Automatic reset & anti-freezing functions	For efficient pump management
	Pre-cabled & supplied with EMC filter	For ease of install & time saving
	Large display and easy navigation	For ease of use and setting

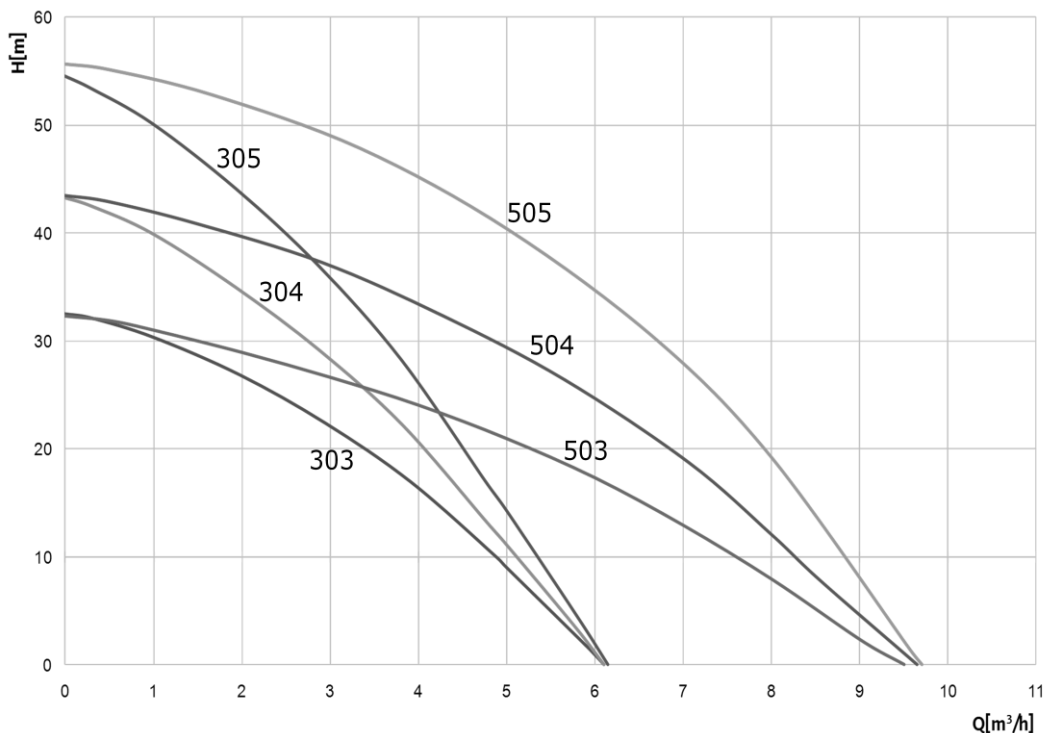
5 EMHIL description and benefits

MHIL pump assembled with ElectronicControl MT6:

- All assembled in factory → **for fast installation**
- With additional check valve & rotating union → **for ease of install & use**
- With plug and filter → **for safe installation in accordance to standards**
- Power supply of system 1~ (MHIL 3~)
- Supplied in individual packaging



6 Curves for EMHIL home boosters



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7 Competitor comparison

Main competitors for water-cooled frequency inverter:



	VSP (WACS)	HCW (MAC3)	SIRIO (ITATELCNICA)	ElectronicControl
Ease of use	--	+	-	++
Display	2 digit	2 lines x 16 digit	2 lines x 8 digit	2 lines x 16 digit
Anti freezing function	Yes	No	No	Yes
Supplied with cable	No	Yes	No	Yes, pre-wired
Supplied with EMC filter	No	No	No	Yes
Fully compliant to EMC	No	No	No	Yes



	TecnoPlus	CME	Teknospeed	Active Driver
Strength	2 models only	Not competitive	Not competitive	Competitive
Weakness	Built-in inverter	Ease of use	Wide range	No ease of use

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8 Product availability

ElectronicControl



ElectronicControl frequency inverter will be available **from July 15th, 2011** as a standalone automatism.

EMHIL home boosters







EMHIL home booster will be available **from September 1st, 2011** as a pre-assembled single-pump system.

ElectronicControl & EMHIL supply availability: **L, on stock**

9 Restrictions

In order to avoid customer claims due to non compatibility of pumps with ElectronicControl, or to avoid cannibalizing effect on commercial pumps (MHIE, MVIE...), it is not authorized to use this device on the following pumps:

				Forbidden developments <i>Reasons: already existing solutions (MVIE...) or not compatible technically</i>
WJ	MVI	MVIS	MHI	

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10 Type Key for ElectronicControl

Ex:	ElectronicControl MT6
ElectronicControl	Automatism type with frequency inverter
M	Electrical supply of the ElectronicControl 1~230V
T (M)	Electrical supply of the motor 3~230V 1~230V
6	Maximal current delivered by the ElectronicControl 6A

11 Scope of delivery



ElectronicControl:

- 1 device pre-wired with 1,4 m power cord, plug and built-in filters
- 1 crimped & pre-wired motor cable
- 1 operating manual
- In a individual packaging

EMHIL:

- 1 MHIL pump fitted with 1 ElectronicControl (1,4 m power cord), 1 rotating union and 1 check valve
- 1 operating manual for MHIL and 1 for ElectronicControl
- In a individual packaging



12 Accessories

The following accessories are mandatory:

- A pressure vessel (>2 liters),
- Check valve (placed directly at the ElectronicControl suction side).

The following accessories are optional:

- Float switch for dry-running protection
- Insulation valves



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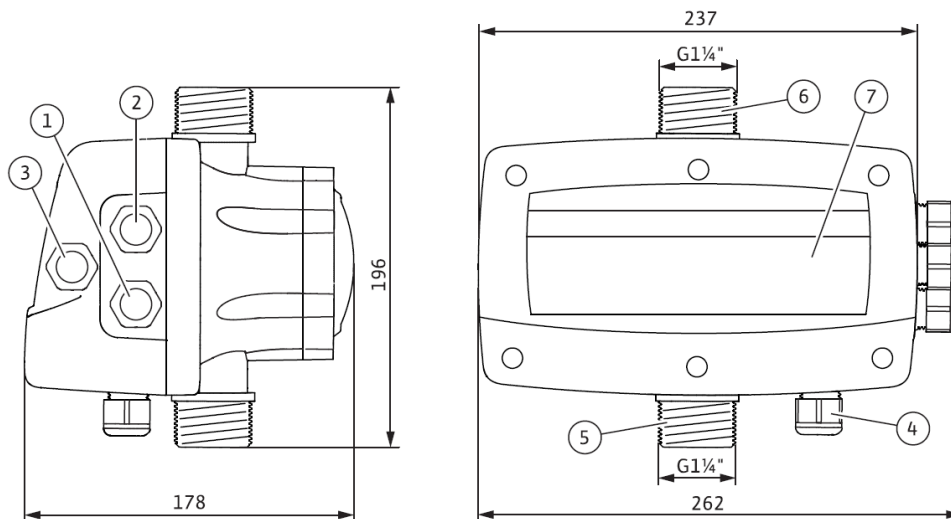
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13 Technical data & operating limits

	ElectronicControl
Maximum operating pressure	MM5, MT6: 10 bar MM9, MT10: 15 bar
Setting range	0.5 up to 12 bars
Maximum flow	15 m ³ /h
Maximum water temperature	40 °C
Minimum water temperature	0 °C
Maximum environment temperature	50 °C
Input voltage	1~230 V, 50/60 Hz
Protection current	+20% of the nominal current as set during 10s
Class of protection	IP55

14 Dimensions & descriptions



Pos.	Description of components
1	Cable gland of the ElectronicControl power supply
2	Cable gland of the ElectronicControl power supply
3	Cable gland of the dry running protection
4	Cable gland of the serial communication (as option)
5	Suction
6	Discharge
7	User interface

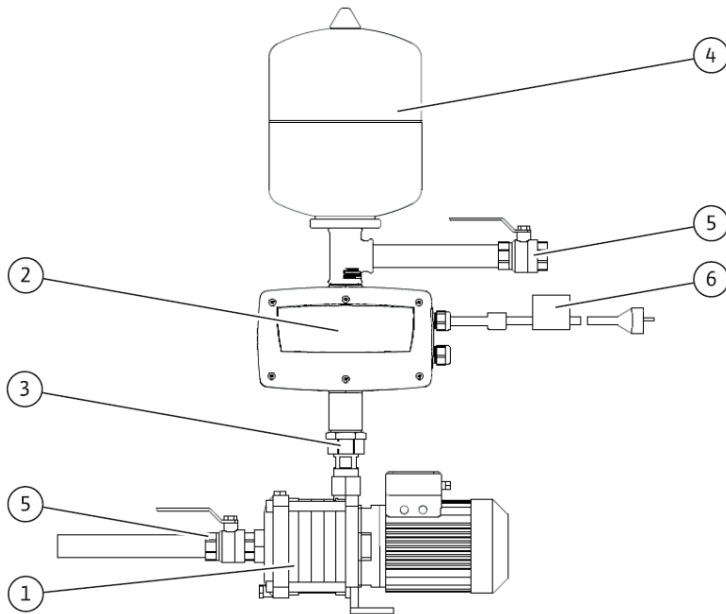
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15 Installation diagrams



Pos.	Description of components
1	Pump
2	ElectronicControl
3	Check valve
4	Bladder tank
5	Insulation valves
6	EMC filter

16 Materials

Part	Material
Safety washer	AISI 304 L
Pressure sensor	Al2O3
Cooling module	CuZn33
Main body, washer and cover	Polyamide 6 - 50% fibreglass
Flow sensor	Acetal resin Hostaform C2521 14
Gaskets	Natural rubber
Cap of minimum flow	Noryl GFN2V

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17 TPL 2011

All TPL are same for every country:

ElectronicControl	MM5	MM9	MT6	MT10
Article numbers	4160333	4160334	4160335	4160336
Max. current:	5A	9A	6A	10A
Power supply in/out:	~1x230V / ~1x230 V		~1x230V / ~3x230 V	
TPL	191 €	199 €	191 €	199 €



EMHIL	Designations	Article numbers	TPL
3 m ³ /h nominal flow	EMHIL 303 EM	4161130	376 €
	EMHIL 304 EM	4161131	381 €
	EMHIL 305 EM	4161132	394 €
5 m ³ /h nominal flow	EMHIL 503 EM	4161133	376 €
	EMHIL 504 EM	4161134	388 €
	EMHIL 505 EM	4161135	397 €



18 Textual description (for Price List)

Applications:

- Water supply
- Rainwater harvesting
- Sprinkling and small scale irrigation

Scope of delivery:

- 1 device pre-wired with 1,4 m power cord, plug and built-in filters
- 1 crimped & pre-wired motor cable
- 1 operating manual

Technical data:

- Maximum operating pressure: 15 bar
- Setting range: 0.5 up to 12 bars
- Maximum flow: 15 m³/h
- Maximum water temperature: 40 °C
- Minimum water temperature: 0 °C
- Maximum environment temperature: 50 °C
- Protection current : +20% of the nominal current as set during 10s
- Class of protection : IP55