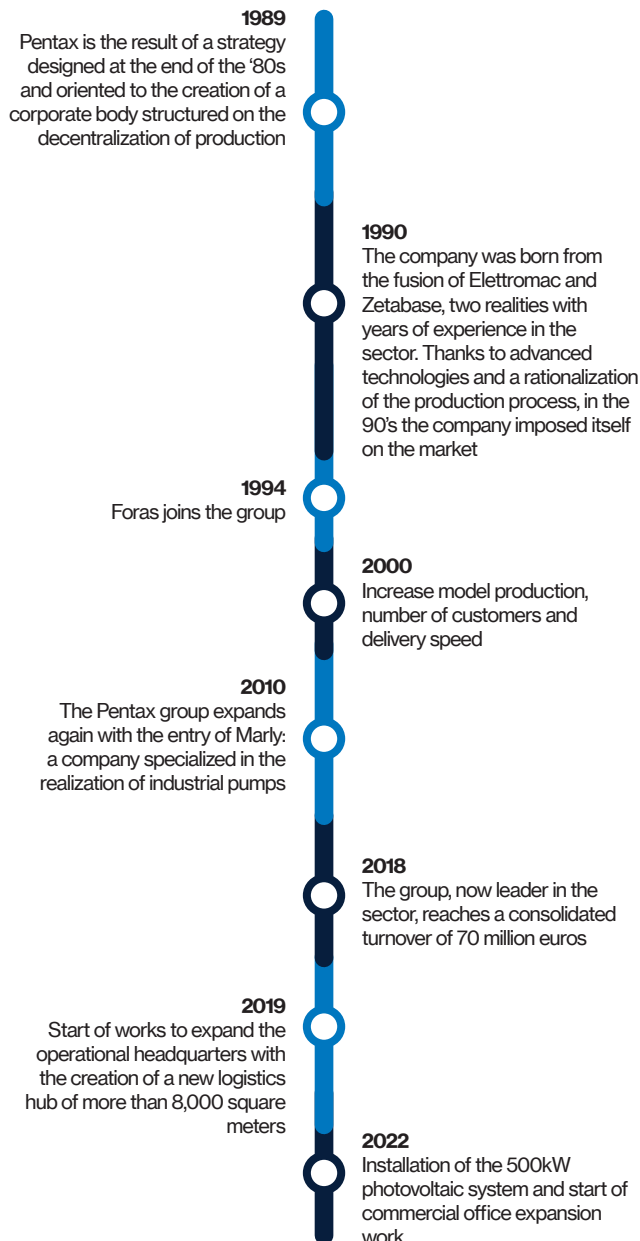**50Hz**

PENTAX
WATER PUMPS

GENERAL CATALOGUE

www.pentax-pumps.it

HISTORY

For many years **Pentax** has held a large share of the world market for motorized pumps. The sales department is constantly working to better serve existing customers and to open up new markets. This is possible thanks to the wide range of products available which allows to cover most of the applications in the pump field. Special attention is also paid to market surveys, so that any new requirements can be immediately transferred to the research and development department: the best way to properly develop and forecast future scenarios.

1989
Pentax is the result of a strategy designed at the end of the '80s and oriented to the creation of a corporate body structured on the decentralization of production

1990
The company was born from the fusion of Elettromac and Zetabase, two realities with years of experience in the sector. Thanks to advanced technologies and a rationalization of the production process, in the 90's the company imposed itself on the market

1994
Foras joins the group

2000
Increase model production, number of customers and delivery speed

2010
The Pentax group expands again with the entry of Marly: a company specialized in the realization of industrial pumps

2018
The group, now leader in the sector, reaches a consolidated turnover of 70 million euros

2019
Start of works to expand the operational headquarters with the creation of a new logistics hub of more than 8,000 square meters

2022
Installation of the 500kW photovoltaic system and start of commercial office expansion work

MISSION

After more than **20 years of activity** we can finally trace the guidelines that have governed and directed the industrial development of **Pentax Industries SpA**. Actions and processes that have intersected with the obvious aim of creating value, benefits to be redistributed to the various components of the production and distribution process.

A rational allocation of available resources, together with a refined program of production decentralization have allowed the company to adapt to changing market conditions, each time with extreme rapidity.

Maximum attention to the markets, therefore, with the commitment to respond in real time to the specific needs of the different markets, paying particular attention to technological progress. All this in the perspective of a careful policy for **customer satisfaction**.

"Creating value is our main goal"

Gianluigi Pedrollo, Chair man

VALUES

Reliability
Choosing Pentax means choosing safety at every stage

Quality
Where there is control, there is reliability: the basis for success

Speed
Impeccable delivery time

Flexibility
Pentax studies each case thoroughly, identifies the best solution and then takes action with security

Variety
The best service: a wide range of Pentax products, one for every need

OFFICIAL JOURNAL OF THE EUROPEAN UNION

Regulation UE 547/2012
ANNEX II

«The benchmark for most efficient water pumps is MEI ≥ 0,70».

«The efficiency of a pump with a trimmed impeller is usually lower than that of a pump with the full impeller diameter. The trimming of the impeller will adapt the pump to a fixed duty point, leading to reduced energy consumption. The minimum efficiency index (MEI) is based on the full impeller diameter».

«The operation of this water pump with variable duty points may be more efficient and economic when controlled, for example, by the use of a variable speed drive that matches the pump duty to the system».

Information on benchmark efficiency is available at:
www.europump.org/efficiencycharts.

VARIABLE SPEED DRIVE

EPIC

115 mm

210 mm

150 mm

EPIC is a single-phase variable speed drive for horizontal and vertical three-phase pumps, designed to maintain the set pressure and protect a pumping system against dry running, over/under voltage and overcurrent.
It is possible to realize a booster set up to 2 pumps in parallel, using 2 EPIC connected together.

- Constant pressure control
- Easy initial configuration
- Installed directly on motor terminal box of horizontal or vertical pumps
- Soft start and soft stop
- Alternance for uniform pump wearing when connected to another EPIC
- Protection against dry running (adjustable power factor cosφ), overload, overcurrent
- Automatic restart in case of stop for dry running
- Fuse for input protection of the device
- Led indicator for standby, run and alarm conditions
- Compatibility for residential environment thanks to an integrated electronic power factor corrector in compliance to EN61000-3-2
- 2 digital inputs (N.O. or N.C.) for motor run/stop
- 2 analog inputs: 4-20 mA and 0-10 VDC
- 1 digital output (N.O. or N.C.) for alarm signal

Input rated voltage	Output rated voltage	Output rated current	Max electric pump current	Weight
1 × 230 V	3 × 230 V	7,5 A	6,8 A	2,5 Kg
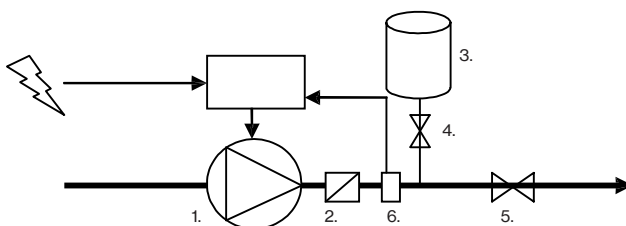
1. Pump
2. Non return valve
3. Pressure tank *(Volume suggested: 10% of the pump flow rate)*
4. Valve-Tap
5. Valve
6. Pressure sensor

| VSD	3~ PUMP TYPE	max nominal power P2	
		HP	kW
EPIC (1~ V-in 3~ V-out)	MPX	1,2	0,88
	INOX, CM, CH, CB, U 3, U 3S	1,5	1,1
	U 18S, U 18V, U 18SV, U 18L, U 18SL	1,8	1,3
	CAM, CAB, MB, CS 2", U 5, U 5S, U 9, U 9S, U 9V, U 9SV, U 9L, U 9SL	2	1,5
	U 3V, U 3L, U 5V, U 5L, U 7, U 7S, U 7V, U 7SV, U 7L, U 7SL	2,5	1,85
	U 3SV, U 3SL, U 5SV, U 5SL	2,8	2,1

VARIABLE SPEED DRIVE

EPIC-A 304-309

EPIC-A 314-344

EPIC-A (Advanced) is a three-phase variable speed drive for horizontal and vertical three-phase pumps designed to maintain the set pressure and protect pumping systems up to 8 pumps connected in parallel.

- Constant pressure control
- Easy initial configuration
- Simplified installation on motor terminal box of horizontal or vertical pumps
- Soft start and soft stop
- Alternance for uniform pump wearing when connected to others EPIC-A
- Built-in protections against overvoltage and undervoltage, overcurrent and no load, dry running, overtemperature
- Led indicator for standby, run and alarm conditions
- Compatibility for residential environment thanks to an integrated electronic power factor corrector in compliance to EN61000-3-2
- Integrated input filter for category C2 (EN61800-3), class A (EN55011)
- 4 digital inputs (N.O. or N.C.) for motor run/stop
- 4 analog inputs: two 4-20 mA and two 0-10 VDC
- 2 digital outputs (N.O. or N.C.) for alarm signal

EPIC-A	304	306	309	314	318	325	330	338	344
Input rated voltage	3 × 400 V ± 15%								
Output rated voltage	3 × 400 V								
Output rated current	4 A	6 A	9 A	14 A	18 A	25 A	30 A	38 A	44 A
Max electric pump current	3,6 A	5,4 A	8,1 A	12,6 A	16,2 A	22,5 A	27 A	34,2 A	39,6 A
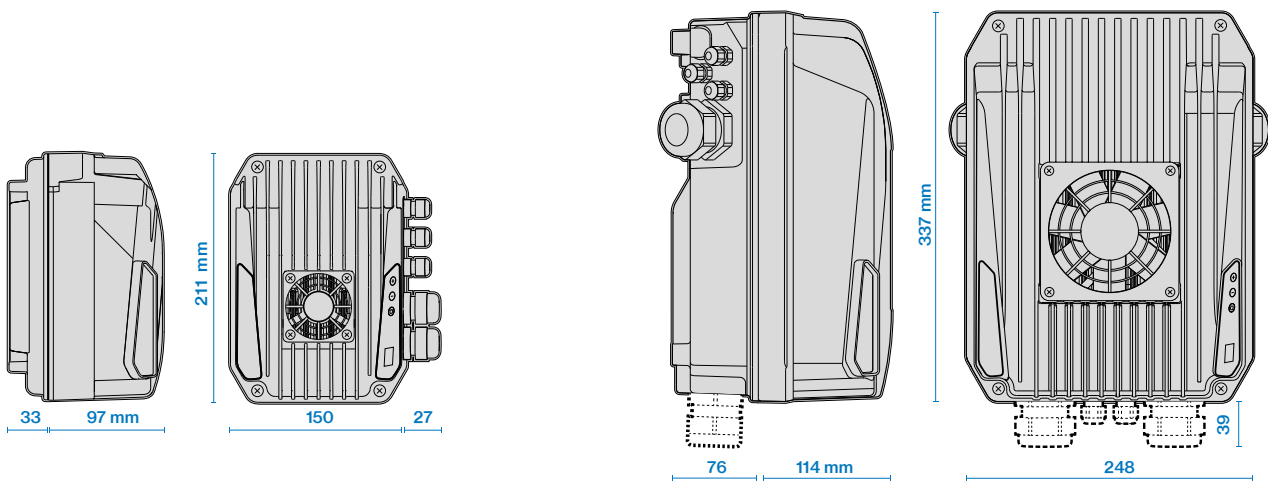
EPIC-A 304 - 306 - 309
max weight 2,5 kg

EPIC-A 314 - 318 - 325 - 330 - 338 - 344
max weight 10 kg

VARIABLE SPEED DRIVE

IPFC is a variable speed drive for vertical pumps designed to control and protect pumping systems up to 8 pumps connected in parallel.
IPFC maintains the set pressure ensuring energy savings and extended lifespan of the system.

- Constant pressure control
- Energy and cost saving
- Protection against overload and dry running
- Greater reliability and longevity of pumping system
- Installed directly on the motor fan cover of vertical pumps
- Indication of input current and supply voltage
- Soft start and soft stop
- Recording running hours and loggings errors and alarms reported by the system
- Connect to other devices to get combined operation with cascade control and pump alteration
- Illuminated liquid crystal display
- Settable digital outputs, N.O. or N.C.
- Protection and analog/digital inputs

IPFC 109-311 **IPFC 314-330** **IPFC 338-385**

IPFC	109	114	306	309	311	314	318	325	330	338	348	365	375	385
Input rated voltage (V)	1 × 230 ± 15%		3 x 400 ± 15%											
Output rated voltage (V)	1 × 230 3 × 230		3 x 400											
Output rated current (A)	(1-) 9 (3-) 7	(1-) 9 (3-) 11	(3-) 6	(3-) 9	(3-) 11	(3-) 14	(3-) 18	(3-) 25	(3-) 30	(3-) 38	(3-) 48	(3-) 65	(3-) 75	(3-) 85
Output rated power (kW)	(1-) 1,1 (3-) 1,5	(1-) 1,1 (3-) 3	(3-) 2,2	(3-) 4	(3-) 4	(3-) 5,5	(3-) 7,5	(3-) 11	(3-) 15	(3-) 18,5	(3-) 22	(3-) 30	(3-) 37	(3-) 45
Max electric pump current (A)	(1-) 7,2 (3-) 6,3	(1-) 7,2 (3-) 9,9	(3-) 5,4	(3-) 8,1	(3-) 9,9	(3-) 12,6	(3-) 16,2	(3-) 22,5	(3-) 27	(3-) 34,2	(3-) 43,2	(3-) 58,5	(3-) 67,5	(3-) 76,5
Input frequency (Hz)	50 - 60													
PWM frequency (kHz)	2,5 - 4 - 6 - 8 - 10 - 12													
Control panel	backlight LCD with 2 x 16 characters and buzer / Bluetooth ® SMART 4,0													
Input analogical signals (mA)	no.4 4-20													
Input digital signals	no.2													
Comunication	RS485 / Bluetooth SMART 4,0													
2 DOL auxiliary pump contacts	clean, N.O., 230 V, Imax, 6 A													
Cooling	auxiliar built-in cooling fan /mot fan													
Protection degree	IP55 (IP54 for IPFC 338 < > IPFC 385)													
Assembly	on motor fan cover with kit / hanged on wall with kit								on motor feet / hanged on wall with kit					
Max ambient temperature (C)	40° C													
Max ambient altitude	1000 m slm / de-rate 2% each 100 m													
Input / Output feeding cable	2 × PG 13,5 + 3 × PG 9													
Dimension (mm)	181 × 181 × 228			260 × 260 × 180					410 × 680 × 260					

SPD pressure transducer

TYPE	Output signal	Input voltage	Working pressure	Maximum pressure
SPD	4... 20 mA	9... 28 V	0 - 16 bar 0 - 25 bar	32 bar

PENTAX IPFC

Dedicated APP for control and programming of Aquadomus and variable speed drives EPIC-A and IPFC

APP FUNCTIONALITY

• **Monitor**: monitoring several operative parameters. Obtaining energy consumption statistics and check alarm history

• **Program**: create programs, save them in the archive, copy them to other devices and share them among multiple users

• **Archive**: create reports with the ability to insert notes, images and send them by e-mail or keep them in the digital archive

• **Remote**: remotely control an Aquadomus via wi-fi or GSM by using a nearby smartphone as a modem

• **Manuals**: access manuals and supplementary technical documentation

• **Guide**: receive online assitance on parameters and alarms

Available on the Google Play

Download on the App Store