EPIC VSD

EPIC is the ideal solution for the production of booster sets with a maximum of 2 pumps connected in COMBO (parallel).

To turn On/Off, the booster simply switch on one of the two inverters.

The two EPIC both with pressure sensor and connected together will automatically enter into the Master/Slave configuration and further settings are not required. EPIC will distribute the work on the basis of the real working time of each pump, ensuring the same load on both pumps.

In case of failure of an inverter and/or the pump connected to it the second inverter automatically takes over to ensure the water supply.

EPIC is a device for the control and protection of pumping systems based on the variation of the input frequency of the pump.

EPIC controls the operation of the pump in order to maintain constant pressure at various conditions of use.

Advantages of the EPIC:

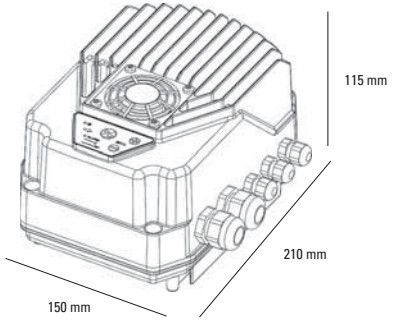
- Energy and cost savings
- Integrated on PENTAX pumps
- Simplified installation and lower installation costs
- Overload protection of the motor with maximum current setting
- Protection against dry running (adjustable power factor cosφ)
- Automatic restart in case of arrest for dry running
- Remote starting and stopping via digital inputs
- Soft start and stop to increase the life of the system and reduce the absorption peaks
- Connection to another EPIC to achieve alternating combined operation
- Fuse for input protection of the device
- Recognition and signalling alarms during operation by blinking frequency of the LEDs
- Contacts (NO or NC) for connection of remote alarms
- Integrated electronic power factor corrector (PFC) to ensure compliance to EN61000-3-2.

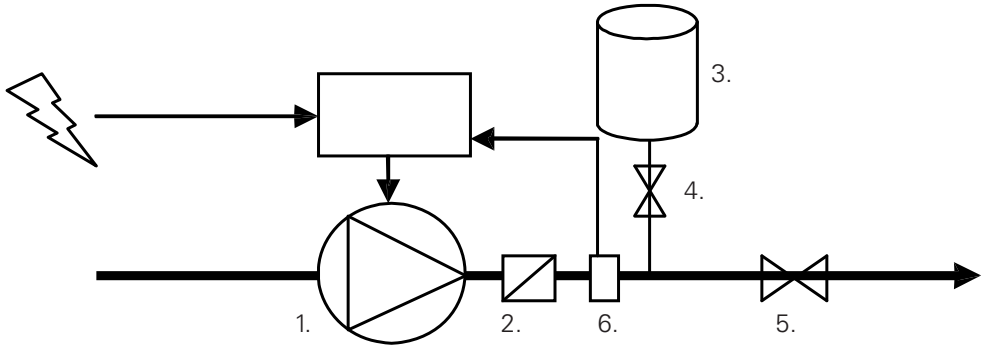
INTEGRATED ON THE PUMP

Epic can be installed on three-phase pumps as per table 1. When provided on board the pump, the inverter is ready to use as the settings are made during the assembly.

60 Hz ENGINES

Epic is designed to control and protect electric pumps with 60 Hz frequency. It is sufficient to set the frequency on the dip switches located in the inverter board.





V in (±15%)	V out	I line max	I out max	P2	Kg
1~230 V	3~230 V	11 A	7,5 A	2,5 HP	2,5

Frequency..... 48-62 Hz
Max ambient temperature..... 40°C (104°F)
Max humidity..... 50% a 40°C (without condensation)
Max altitude..... 1000 m
PWM configurable..... 2,5; 8 KHz
Complies with the electromagnetic conformity directive

1. Pump
2. Non return Valve
3. Pressure Tank
4. Valve – Tap
5. Valve
6. Pressure Sensor

Pressure Tank Volume suggested: 10% of the capacity of the system

IPFC INVERTER

IPFC 109-114-306-309-311

IPFC 314-318-325

Is a frequency changer (Inverter) specifically designed for the control and protection of electric pumps. Connected to any electric pumps it regulates the motor speed in order to manage the pumps performance in relation to the operating conditions and requests of the system. Consists in compact electronic units equipped with microprocessor contained in an aluminium structure that grants compactness, cooling ease, lightness and versatility.

The advantages of the IPFC with any pump:

- Energy saving
- Simple Installation
- Overload protection
- Dry running protection
- Noise reduction
- Soft Start & Stop
- Protection of a second pump, without Inverter, from dry running and overload
- Installation options: directly on the motor cover of the pump or wall installation.

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

SPD

SPD
PRESSURE TRANSDUCER

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