



## In-Line Dry Rotor Circulation Pumps

- ✓ EILR Series
- ✓ EILR - HF Series





### **Experience**

With our R&D, production and implementation experience of more than 35 years in the pump technologies field, we protect you and your investments without compromising from quality with our expert sales and after sales services.

We offer complete solutions for building pump systems with our wide product range including in-line dry rotor circulation pumps, horizontal single stage end suction pumps, vertical multi stage centrifugal pumps, horizontal split case pumps, waste water and drainage pumps, waste water lifting units, booster systems for residential and commercial buildings, residential fire fighting booster systems, mobile fire extinguishing and flood discharging pumps and fire pumps complying with EN 12845 and NFPA 20 standard under the brand of ETNA. At the same time our company is "FM listed company" for our end suction pumps. If you request, we would be pleased to service you for fire fighting sets with 500/750/1000 gpm flow and 112-195 psi pressure with FM certificate.

### **Eco-Friendly Engineering**

By combining advanced pump features with innovative technologies, we offer high quality, high performance, energy efficient, eco-friendly and low cost products to the end users.

With the vision of providing latest technology pump systems, ETNA is preferred in prestigious projects both in Turkey and many other countries and is used in confidence.

## ETNA In-Line Dry Rotor Circulation Pumps



### In-Line Dry Rotor Circulation Pumps

- Used in cold & hot water circulation cycles of domestic and industrial heating & cooling, airconditioning, and plumbing.
- Wide product range from 5 - 280 m<sup>3</sup>/h flow rate, and up to 103 mwc pressure
- Production in complying with the Ecodesign directive (ErP 2009/125 / EC)
- Direct connection to the installation with inline connection (inlet and outlet on the same axis)
- Asynchronous triphase IE3 motor with external cooling and 975/1450/2900 rpm motor options
- PN16 pressure class suction and discharge flanges, manometer and measurement ports on the flanges
- Pump body, electric motor support and impeller are made of cast iron
- Advanced hydraulic design
- IP55 protection, F insulation class

### Exact Answer to Your Need

In-line dry rotor circulation pumps supply the system demand by keeping the differential pressure required by the system constant in variable flow rate demands, this is done by integrated frequency control unit, thanks to this device reducing the operating cost and minimizing environmental impact and guaranteeing silent and long operation.

## In-Line Dry Rotor Circulation Pumps



**With EILR & EILR-HF series in-line dry rotor circulation pumps, keep the comfort and the energy efficiency at the highest level**

- Direct connection to the installation with in-line connection (inlet and outlet on the same axis)
- Used in cold & hot water circulation cycles of domestic and industrial heating & cooling, air-conditioning, and plumbing.

### Fluid Property

- Clean, non-hard, non-viscose, chemically neutral water that is free of solid abrasive particles
- The maximum percentage of glycol that can be added to the circulating water is 50%. In case of using glycol-water mixed fluid, please contact our company at the product selection stage.

### Specifications

Max. Flow Rate	: 280 m <sup>3</sup> /h
Max. Head	: 103 mwc
Motor Speed	: 975 rpm (50 Hz), 2900 rpm (50 Hz), 1450 rpm (50 Hz)
Connection flanges	: DN 40 - DN 125
Power	: 0.25 kW - 45 kW
Maximum working pressure	: 16 bar
Max. Ambient Temperature	: 40°C
Temperature of Pumped Liquid	: -10 ÷ +130°C
Protection Class	: IP55
Insulation Class	: Class F

### Design Properties

Pump Body	: GG25 Cast Iron
Shaft	: AISI 420 - Stainless Steel
Impeller	: GG25 Cast Iron
Adapter	: GG25 Cast Iron
Mechanical Seal	: Carbon / Silicium Carbide / EPDM
Support Body	: GG25 Cast Iron
Elastomers	: EPDM



- Triphase asynchronous motor with external cooling
- Recommended to be used with extreme current protection panel for motor protection

## Frequency Control Panels

### AVS Variable Speed Control Panel Specifications



Wall-mounted control panel

- Epoxy coated carbon steel body with IP54 protection
- Low current protection by using electronic thermic relay (addition to dry running protection with float switch) and additional high current protection
- Manual / Auto run option
- Phase absence / unbalance /sequence protection by phase protection relay
- 24V DC external power supply
- Remote control option via dry contact
- Possibility to send Run, Thermal Fault, General Fault data to Building Management System (BMS) for each pump individually
- Possibility to transfer system parameters to Building Management System (BMS) via MODBUS-RS 485 data communication protocol
- Enabling to control up to 6 cascade assembled pumps by 1 frequency inverter and uniquely designed controller with 4,3" TFT touch screen
- Capability of collecting data with high precision using advanced pressure sensor calibration and off-set menu
- Adjustable cyclic change over time
- Booster and circulation mode selection
- Selection mode of with / without driver
- Ability to run pumps with maximum speed via mains supply contactors in case driver in fault mode preventing system blockage
- Adjustable driver running frequency
- Periodic maintenance reminder
- 100 events history logging capacity
- 12 V DC internal isolated 4-20 mA transmitter supply and 2 transmitter inputs
- Turkish / English language option

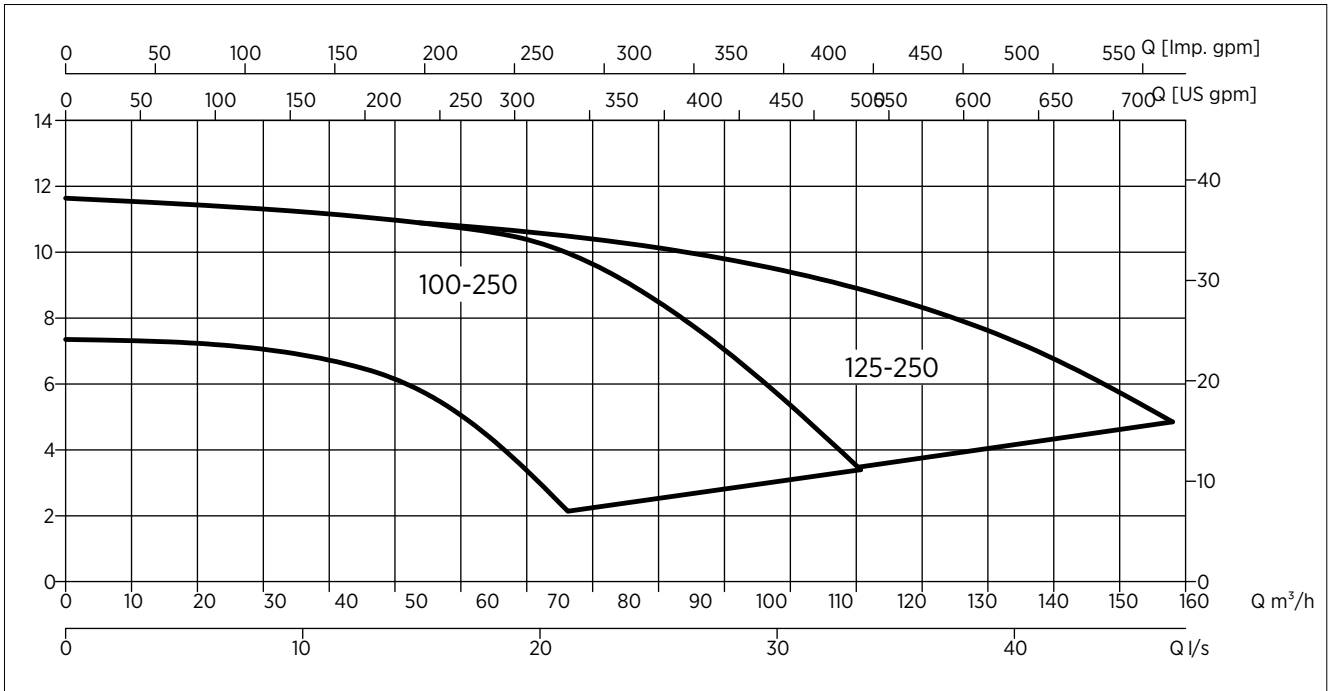
### Hydrokon Speed Control Device Specifications



Hydrokon Frequency Inverter

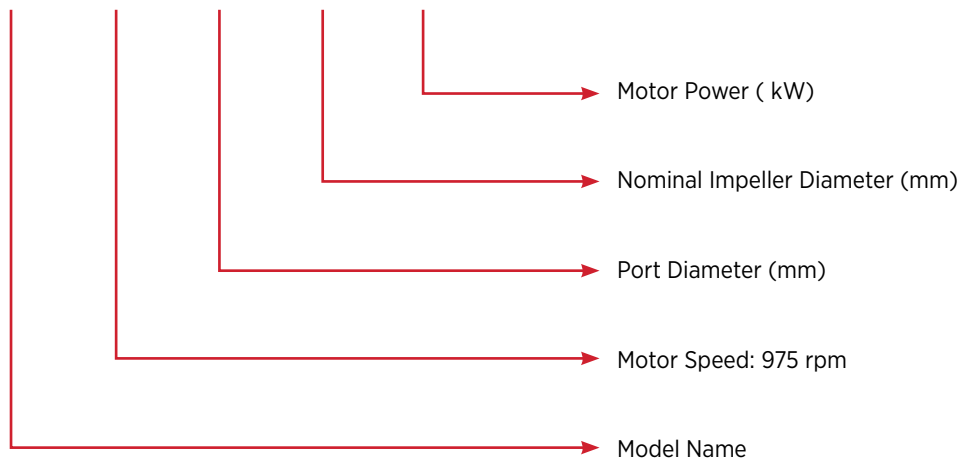
- Easy programming
- 120% loading for 60 seconds
- Operating temperature range between 0°C and 50°C
- Ability to set the output frequency (motor speed) using  $\wedge/\vee$  buttons
- Output frequency can be set by 2 digital inputs
- Programmable start and stop ramps
- High and low voltage protection
- Short circuit protection on motor terminals
- Min. Operating Temperature = 0°C
- Max. Operating Temperature = 40°C
- Device low voltage protection: Low voltage fault is displayed on the screen when mains voltage decreases by 20% of nominal voltage.
- Device high voltage protection: High voltage fault is displayed on the screen when mains voltage increases by 20% of nominal voltage.
- Device overtemperature protection: Temperature fault is displayed on the screen when device enclosure temperature exceeds 80 °C.
- Phase protection: Phase fault is displayed on the screen when a phase is missing for three phase drivers
- Short-circuit protection: Short-circuit fault is displayed on the screen when motor terminals are short-circuited.

## Performance Curves - 6 Pole Motor (975 rpm)- 50 Hz

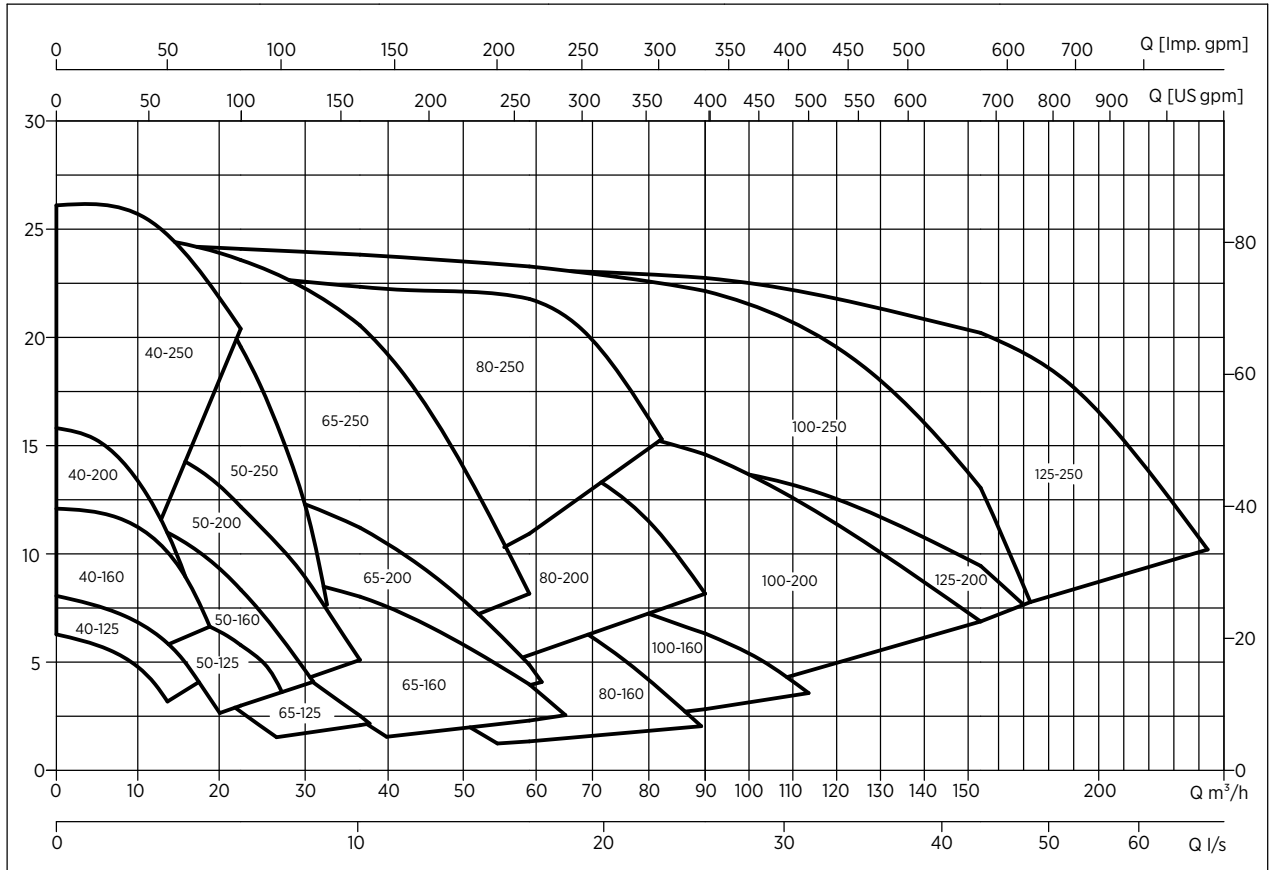


## Identification Code

EILR 6 40 - 125 / 0,37

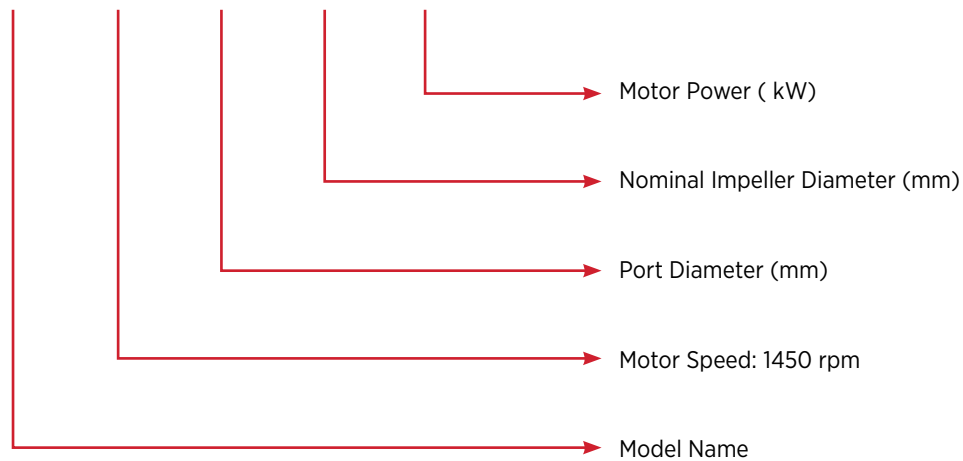


## Performance Curves - 4 Pole Motor (1450 rpm)- 50 Hz

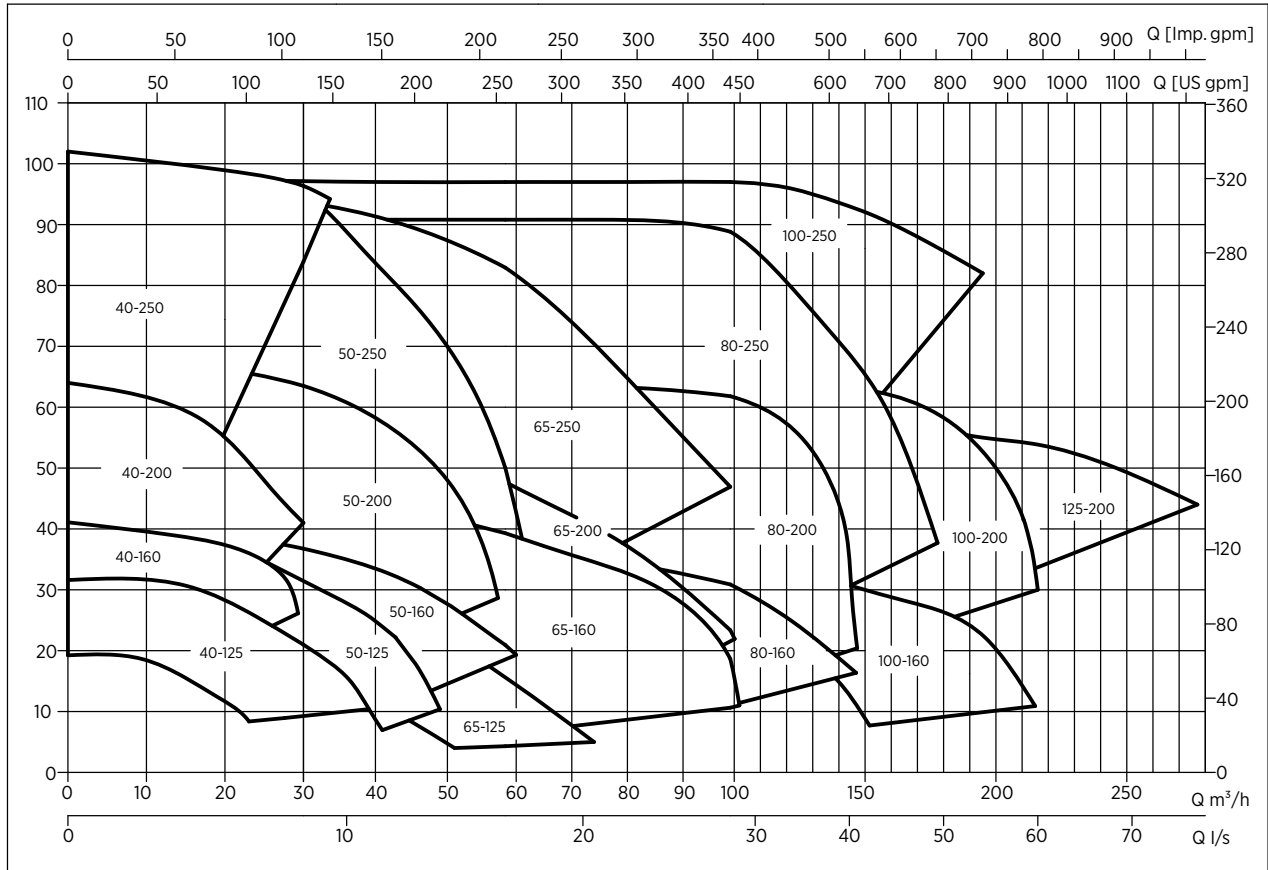


## Identification Code

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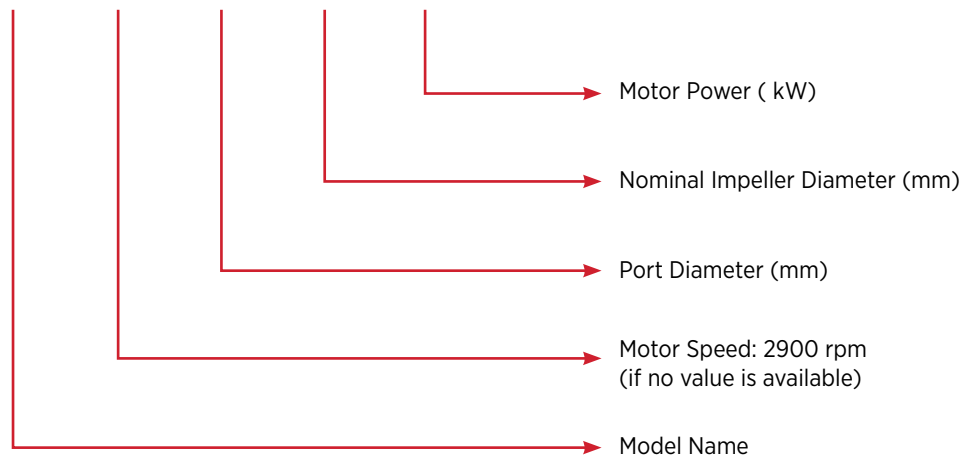


## Performance Curves - 2 Pole Motor (2900 rpm)- 50 Hz



### Identification Code

EILR  40 - 125 / 0,37













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