

50/60 Hz



ecocirc XL and XLplus

HIGH EFFICIENCY WET ROTOR CIRCULATORS
FOR COMMERCIAL HEATING AND COOLING APPLICATIONS

ErP 2009/125/EC

 **LOWARA**
a **xylem** brand

CONTENTS

| | |
|---|-----------|
| Introduction | 4 |
| Identification code | 5 |
| Product Range | 6 |
| Functions | 8 |
| Sectional drawings | 16 |
| Installation | 18 |
| Part numbers | 22 |
| Performance Range | 24 |
| Performance curves and Technical data | 26 |
| Accessories | 77 |
| Documentation | 85 |

ecocirc XL – ecocirc XLplus

High efficiency circulators for commercial heating with electronically commutated permanent magnet technology.



PRODUCT DESCRIPTION

ecocirc XL and ecocirc XLplus circulation pumps are designed for circulating liquids in the following systems:

- Hot water heating systems
- Air conditioning and cooling systems
- Domestic hot water systems.

The pump can be also used for:

- Solar systems
- Geothermal systems.

DUTY RANGE

- Flow rate: up to 70 m³/h for single-head pumps and up to 135 m³/h for twin pumps
- Head: up to 18 m
- Maximum power consumption: 1560 [W]
- Temperature of pumped liquid: -10°C to +110°C
- Ambient temperature during operations: 0 to +40°C
- Maximum operating pressure: 10 bar (PN 10).

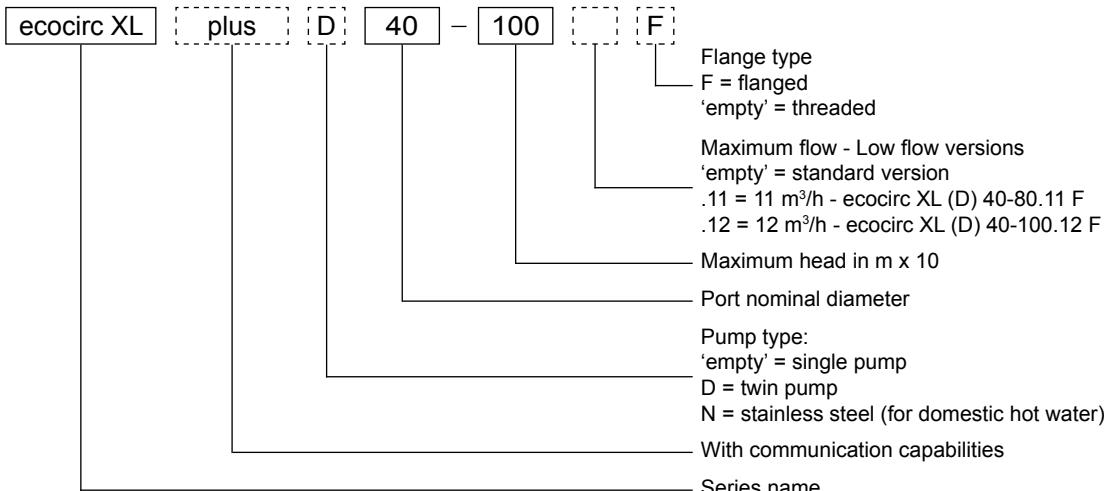
FEATURES

- Proportional pressure control
- Constant pressure control
- Constant speed
- Night Mode
- Constant temperature control (ecocirc XLplus only)
- Differential temperature control (ecocirc XLplus only)
- Additional operating modes for dual pumps (2 single head circulators or twin models) including parallel and alternate operations (ecocirc XLplus only)
- Dry run protection
- Air purge
- Plug for ecocirc XL and ecocirc XLplus 25-40(N), 25-60(N), 32-40(N) and 32-60(N)
- Reading and settings of the pump by digital display and human interface with push buttons
- Insulation shell for single head pumps systems for heating
- Integrated communication capabilities (Modbus and BacNet) for ecocirc XLplus.

BENEFITS

- Low power consumption. ecocirc XL and ecocirc XLplus are compliant to the ErP Directive.
- Easy to set-up
- User-friendly human interface with digital display
- Control panel with push buttons to change circulator status
- Operating status visualization
- Warning and alarm visualization
- Errors and working log history visualization (ecocirc XLplus only)
- Dry running detection
- Multi-pump functions
- External control and monitoring (ecocirc XLplus only)
- Module for wireless communication (ecocirc XLplus only).

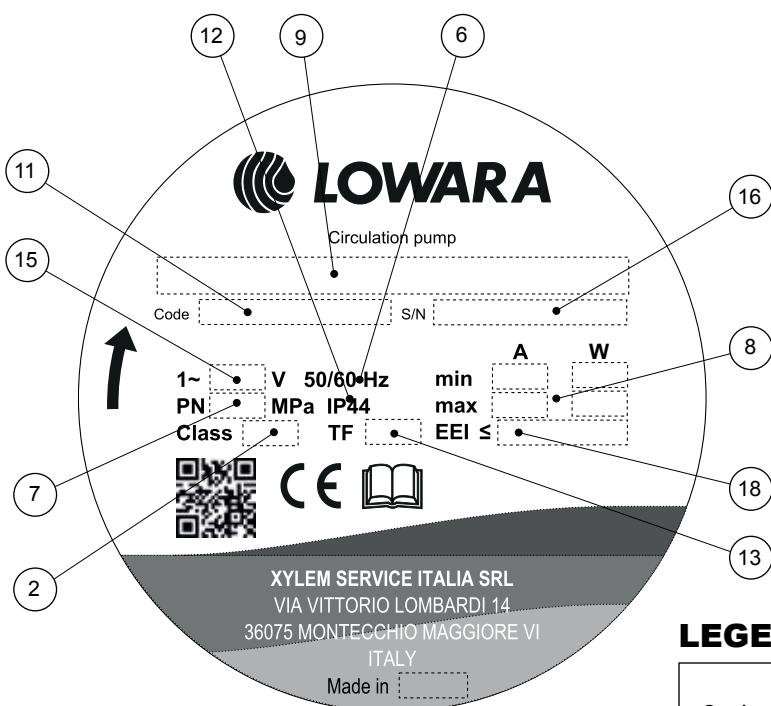
IDENTIFICATION CODE



EXAMPLE: ecocirc XLplus D 40-100 F

High Efficiency electronic circulator ecocirc XL plus with communication capabilities, twin version, port nominal diameter 40, max head 10 m, flanged.

PUMP TYPE RATING PLATE



LEGEND

- 2 - Insulation class
- 6 - Frequency
- 7 - Maximum operating pressure
- 8 - Electric pump consumption
- 9 - Electric pump unit type
- 11 - Electric pump unit / pump part number
- 12 - Protection degree
- 13 - Maximum operating liquid temperature (EN 60335-2-51)
- 15 - Rated voltage range
- 16 - Serial number (date + progressive number)
- 18 - EEI index

Product Range

ecocirc XL

| Single-head Pump type | Port to port (mm) | Connection | Threaded pipe connection | | | | Integrated communication capabilities |
|--------------------------|----------------------|--------------|--------------------------|------|-------|--------------------------|--|
| | | | PN 6/10 | PN 6 | PN 10 | Electrical connection | |
| ecocirc XL 25-40 (N) | 180 | G 1 ½ – Rp 1 | • | | | plug | no communication protocol |
| ecocirc XL 25-60 (N) | 180 | G 1 ½ – Rp 1 | • | | | plug | no communication protocol |
| ecocirc XL 25-80 | 180 | G 1 ½ – Rp 1 | • | | | terminals | no communication protocol |
| ecocirc XL 25-100 | 180 | G 1 ½ – Rp 1 | • | | | terminals | no communication protocol |
| ecocirc XL 32-40 (N) | 180 | G 2 – Rp 1 ¼ | • | | | plug | no communication protocol |
| ecocirc XL 32-60 (N) | 180 | G 2 – Rp 1 ¼ | • | | | plug | no communication protocol |
| ecocirc XL 32-80 (N) | 180 | G 2 – Rp 1 ¼ | • | | | terminals | no communication protocol |
| ecocirc XL 32-100 (N) | 180 | G 2 – Rp 1 ¼ | • | | | terminals | no communication protocol |
| Single-head Pump type | Port to port (mm) | Connection | Flanged connection | | | | Integrated communication capabilities |
| | | | PN 6/10 | PN 6 | PN 10 | Electrical connection | |
| ecocirc XL 32-80 F | 220 | DN 32 | • | | | terminals | no communication protocol |
| ecocirc XL 32-100 F | 220 | DN 32 | • | | | terminals | no communication protocol |
| ecocirc XL 32-120 F (N) | 220 | DN 32 | • | | | terminals | no communication protocol |
| ecocirc XL 40-80.11 F | 220 | DN 40 | • | | | terminals | no communication protocol |
| ecocirc XL 40-80 F | 220 | DN 40 | • | | | terminals | no communication protocol |
| ecocirc XL 40-100.12 F | 220 | DN 40 | • | | | terminals | no communication protocol |
| ecocirc XL 40-100 F | 220 | DN 40 | • | | | terminals | no communication protocol |
| ecocirc XL 40-120 F (N) | 250 | DN 40 | • | | | terminals | no communication protocol |
| ecocirc XL 40-150 F | 250 | DN 40 | • | | | terminals | no communication protocol |
| ecocirc XL 40-180 F | 250 | DN 40 | • | | | terminals | no communication protocol |
| ecocirc XL 50-80 F (N) | 240 | DN 50 | • | | | terminals | no communication protocol |
| ecocirc XL 50-100 F | 280 | DN 50 | • | | | terminals | no communication protocol |
| ecocirc XL 50-120 F (N) | 280 | DN 50 | • | | | terminals | no communication protocol |
| ecocirc XL 50-150 F | 280 | DN 50 | • | | | terminals | no communication protocol |
| ecocirc XL 50-180 F | 280 | DN 50 | • | | | terminals | no communication protocol |
| ecocirc XL 65-80 F (N) | 340 | DN 65 | • | | | terminals | no communication protocol |
| ecocirc XL 65-120 F (N) | 340 | DN 65 | • | | | terminals | no communication protocol |
| ecocirc XL 65-150 F | 340 | DN 65 | • | | | terminals | no communication protocol |
| ecocirc XL 65-180 F | 340 | DN 65 | • | | | terminals | no communication protocol |
| ecocirc XL 80-120 F | 360 | DN 80 | | • | | terminals | no communication protocol |
| ecocirc XL 80-120 F | 360 | DN 80 | | | • | terminals | no communication protocol |
| ecocirc XL 100-120 F | 360 | DN 100 | | • | | terminals | no communication protocol |
| ecocirc XL 100-120 F | 360 | DN 100 | | | • | terminals | no communication protocol |
| Twin-head Pump type | Port to port (mm) | Connection | Threaded pipe connection | | | | Integrated communication capabilities |
| | | | PN 6/10 | PN 6 | PN 10 | Electrical connection | |
| ecocirc XL D 32-80 | 180 | G 2 – Rp 1 ¼ | • | | | terminals | no communication protocol |
| ecocirc XL D 32-100 | 180 | G 2 – Rp 1 ¼ | • | | | terminals | no communication protocol |
| Twin-head Pump type | Port to port (mm) | Connection | Flanged connection | | | | Integrated communication capabilities |
| | | | PN 6/10 | PN 6 | PN 10 | Electrical connection | |
| ecocirc XL D 32-80 F | 220 | DN 32 | • | | | terminals | no communication protocol |
| ecocirc XL D 32-100 F | 220 | DN 32 | • | | | terminals | no communication protocol |
| ecocirc XL D 32-120 F | 220 | DN 32 | • | | | terminals | no communication protocol |
| ecocirc XL D 40-80.11 F | 220 | DN 40 | • | | | terminals | no communication protocol |
| ecocirc XL D 40-80 F | 220 | DN 40 | • | | | terminals | no communication protocol |
| ecocirc XL D 40-100.12 F | 220 | DN 40 | • | | | terminals | no communication protocol |
| ecocirc XL D 40-100 F | 220 | DN 40 | • | | | terminals | no communication protocol |
| ecocirc XL D 40-120 F | 250 | DN 40 | • | | | terminals | no communication protocol |
| ecocirc XL D 40-150 F | 250 | DN 40 | • | | | terminals | no communication protocol |
| ecocirc XL D 40-180 F | 250 | DN 40 | • | | | terminals | no communication protocol |
| ecocirc XL D 50-80 F | 240 | DN 50 | • | | | terminals | no communication protocol |
| ecocirc XL D 50-120 F | 280 | DN 50 | • | | | terminals | no communication protocol |
| ecocirc XL D 50-150 F | 280 | DN 50 | • | | | terminals | no communication protocol |
| ecocirc XL D 50-180 F | 280 | DN 50 | • | | | terminals | no communication protocol |
| ecocirc XL D 65-80 F | 340 | DN 65 | • | | | terminals | no communication protocol |
| ecocirc XL D 65-120 F | 340 | DN 65 | • | | | terminals | no communication protocol |
| ecocirc XL D 65-150 F | 340 | DN 65 | • | | | terminals | no communication protocol |
| ecocirc XL D 65-180 F | 340 | DN 65 | • | | | terminals | no communication protocol |
| ecocirc XL D 80-120 F | 360 | DN 80 | | • | | terminals | no communication protocol |
| ecocirc XL D 80-120 F | 360 | DN 80 | | | • | terminals | no communication protocol |

ecocircXL-modelli-en_h_sc

ecocirc XLplus

| Single-head Pump type | Port to port (mm) | Threaded pipe connection | | | | Integrated communication capabilities | Wireless ** |
|---------------------------|----------------------|--------------------------|---------|------|-------|---|-----------------|
| | | Connection | PN 6/10 | PN 6 | PN 10 | Electrical connection | |
| ecocirc XLplus 25-40 (N) | 180 | G 1 ½ – Rp 1 | • | | | plug | Modbus |
| ecocirc XLplus 25-60 (N) | 180 | G 1 ½ – Rp 1 | • | | | plug | Modbus |
| ecocirc XLplus 25-80 | 180 | G 1 ½ – Rp 1 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 25-100 | 180 | G 1 ½ – Rp 1 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 32-40 (N) | 180 | G 2 – Rp 1 ¼ | • | | | plug | Modbus |
| ecocirc XLplus 32-60 (N) | 180 | G 2 – Rp 1 ¼ | • | | | plug | Modbus |
| ecocirc XLplus 32-80 (N) | 180 | G 2 – Rp 1 ¼ | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 32-100 (N) | 180 | G 2 – Rp 1 ¼ | • | | | terminals | Modbus & BACnet |

| Single-head Pump type | Port to port (mm) | Flanged connection | | | | Integrated communication capabilities | Wireless ** |
|-----------------------------|----------------------|--------------------|---------|------|-------|---|-----------------|
| | | Connection | PN 6/10 | PN 6 | PN 10 | Electrical connection | |
| ecocirc XLplus 32-80 F | 220 | DN 32 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 32-100 F | 220 | DN 32 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 32-120 F (N) | 220 | DN 32 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 40-80 F | 220 | DN 40 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 40-100 F | 220 | DN 40 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 40-120 F (N) | 250 | DN 40 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 40-150 F | 250 | DN 40 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 40-180 F | 250 | DN 40 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 50-80 F (N) | 240 | DN 50 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 50-100 F | 280 | DN 50 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 50-120 F (N) | 280 | DN 50 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 50-150 F | 280 | DN 50 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 50-180 F | 280 | DN 50 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 65-80 F (N) | 340 | DN 65 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 65-120 F (N) | 340 | DN 65 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 65-150 F | 340 | DN 65 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 65-180 F | 340 | DN 65 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus 80-120 F | 360 | DN 80 | | • | | terminals | Modbus & BACnet |
| ecocirc XLplus 80-120 F | 360 | DN 80 | | | • | terminals | Modbus & BACnet |
| ecocirc XLplus 100-120 F | 360 | DN 100 | | • | | terminals | Modbus & BACnet |
| ecocirc XLplus 100-120 F | 360 | DN 100 | | | • | terminals | Modbus & BACnet |

| Twin-head Pump type | Port to port (mm) | Threaded pipe connection | | | | Integrated communication capabilities | Wireless ** |
|-------------------------|----------------------|--------------------------|---------|------|-------|---|-----------------|
| | | Connection | PN 6/10 | PN 6 | PN 10 | Electrical connection | |
| ecocirc XLplus D 32-80 | 180 | G 2 – Rp 1 ¼ | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus D 32-100 | 180 | G 2 – Rp 1 ¼ | • | | | terminals | Modbus & BACnet |

| Twin-head Pump type | Port to port (mm) | Flanged connection | | | | Integrated communication capabilities | Wireless ** |
|---------------------------|----------------------|--------------------|---------|------|-------|---|-----------------|
| | | Connection | PN 6/10 | PN 6 | PN 10 | Electrical connection | |
| ecocirc XLplus D 32-80 F | 220 | DN 32 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus D 32-100 F | 220 | DN 32 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus D 32-120 F | 220 | DN 32 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus D 40-80 F | 220 | DN 40 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus D 40-100 F | 220 | DN 40 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus D 40-120 F | 250 | DN 40 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus D 40-150 F | 250 | DN 40 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus D 40-180 F | 250 | DN 40 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus D 50-80 F | 240 | DN 50 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus D 50-120 F | 280 | DN 50 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus D 50-150 F | 280 | DN 50 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus D 50-180 F | 280 | DN 50 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus D 65-80 F | 340 | DN 65 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus D 65-120 F | 340 | DN 65 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus D 65-150 F | 340 | DN 65 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus D 65-180 F | 340 | DN 65 | • | | | terminals | Modbus & BACnet |
| ecocirc XLplus D 80-120 F | 360 | DN 80 | | • | | terminals | Modbus & BACnet |
| ecocirc XLplus D 80-120 F | 360 | DN 80 | | | • | terminals | Modbus & BACnet |

(**) Available as an accessory.

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Functions

CONTROL MODES

Constant pressure

Proportional pressure

Constant speed

Night mode

Control modes influenced by the temperature

$\Delta P-T$ control

T - Constant temperature control

ΔT - Differential temperature

Additional operating modes for dual-pump setup

Alternate operation

Backup operation

Parallel operation

Reading and settings on the pump

Pump settings

Control panel and display

Communication

External Start - Stop (Digital input)

Signal relay (Digital Output)

Analog input 0-10V

Analog input 4-20mA for external differential pressure sensor

Temperature sensor (ecocirc XLplus)

Communication BUS (ecocirc XLplus)

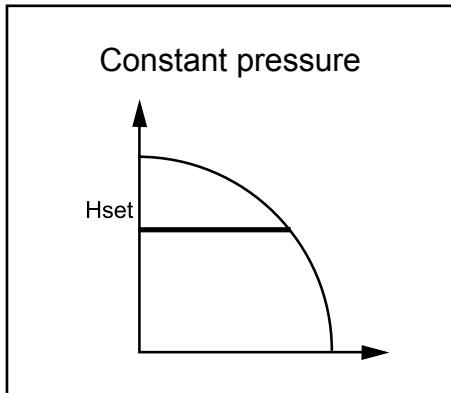
Wireless (ecocirc XLplus)

En-Rev_D

CONTROL MODES

ecocirc XL and XLplus can be operated with 3 different functional modes: Constant pressure, Proportional pressure and Fixed speed. The additional Night Mode function can be activated in combination of the 3 functional modes. The pump has been factory set at constant pressure without Night Mode. The set point is factory set and it is suitable for more installations.

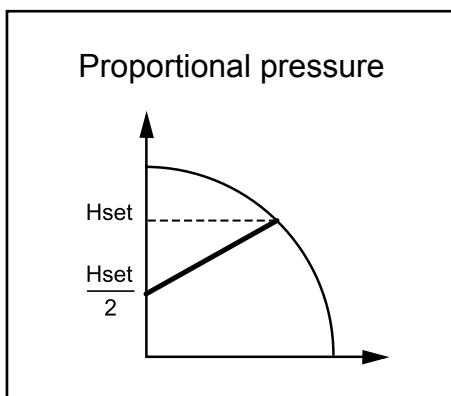
Constant pressure



The pump maintains a constant pressure at any flow demand. The desired head of the pump can be set via user interface.

Constant pressure functional mode is recommended in systems with relatively small pressure losses.

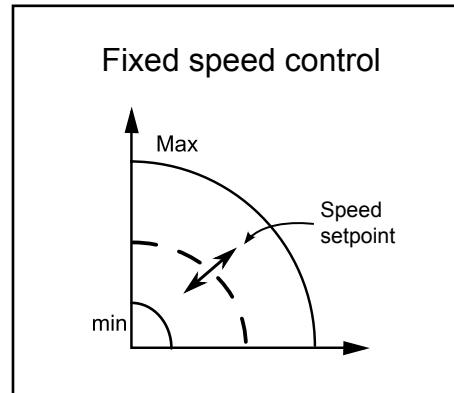
Proportional pressure



The pump pressure is continuously increased / decreased depending on the flow demand. The maximum head can be set via user interface.

Proportional pressure functional mode is recommended in systems with relatively large pressure losses in the distribution pipes.

Constant Speed



The pump maintains a fixed speed at any flow demand. The speed of the pump can be set via user interface. Constant speed is great when used in the primary or boiler loop in a primary/secondary hydronic system.

Night Mode

This function reduces the power consumption of the pump to the minimum when the heating system is not running. An autolearn process detects the proper working conditions. The electronic registers a drop of the water temperature and the circulator automatically decreases the speed. The pump returns to the original set point as soon as the system restarts and the water temperature has increased.

The Night Mode can be activated in combination with:

- Proportional pressure
- Constant pressure
- Constant speed

It cannot be used in cooling systems.

The prerequisite of this functional mode are:

- The pump has to be installed in the supply line;
- The night condition can be detected with good confidence if a higher level control system is set to change the supply temperature.

CONTROL MODES INFLUENCED BY THE TEMPERATURE

ecocirc XLplus version can be used with 3 additional control modes depending on the temperature of the pumped media. The set-up of the control modes as well as of the external temperature sensor, necessary for ΔT control, is available only through Communication BUS or Wireless capabilities by the connection to an external device.

$\Delta P - T$ Control

This function changes the nominal differential pressure set point depending on the temperature of the pumped media.

The temperature is controlled by the built-in temperature sensor or by an additional external temperature sensor (type KTY82).

T – Constant temperature control

The functional mode changes the speed of the pump in order to maintain constant temperature of the pumped media.

The temperature is controlled by the built-in temperature sensor or by an additional external temperature sensor (type KTY82).

It is suitable for heating systems with fixed system characteristics, for example domestic hot water systems.

ΔT – Differential temperature control

The function changes the speed of the pump in order to maintain a constant differential temperature of the pumped media.

This function requires an additional external temperature sensor (type KTY82) that controls, together with the built-in temperature sensor, the differential water temperature in the system.

ADDITIONAL OPERATING MODES FOR DUAL-PUMP SET UP

Each ecocirc XLplus circulator can be configured to work together with another one in dual-pump functionality.

The dual-pump setting is already configured as default with twin pumps, but can also be set in case of two single head circulators if they are connected to each other through the communication port RS485; in this second case the two single head pumps must be of the same model, and once connected it is necessary to establish which one is the main pump (master) and which is the secondary pump (slave).

When the communication ports are to be used for communication between two circulators, and the pump is

also to be connected to an external device (i.e. Building Management System) via port RS485, then it is necessary to install the optional module RS485. This enables the use of the second port (and this must be done on the main pump).

ecocirc XLplus dual pump can be used in different operating modes.

Back-up operation

Only the main pump (master) operates, while the second (slave) pump starts running in case of failure of the main pump. The back-up pump is automatically put into operation once a day for a few minutes in order to prevent rotor-blocking due to long-term inactivity.

In case of a failure of the main pump, the secondary pump starts running immediately, using the same parameters and functionality of the main.

Alternate operation

In this functional mode only one pump runs at a time. The working time is switched every 24 hours so the workload is balanced between both pumps.

In case of failure of one of the two pumps, the other will immediately start operating continuously.

Parallel operation

Both pumps run simultaneously with the same setpoint. The main pump determines the needs of the entire system and it is able to optimize performance; to ensure the required performance with minimum energy consumption, the main pump starts or stops the second pump based on the head and flow demand.

In the case of ecocirc XLplus twin models, there is the possibility that in some situations this functional mode will generate non-optimal behaviour of the circulator, changing the speed of the two motors continuously and generating a noise from the flap valve inside the pump housing. In this situation "forced parallel" can be set to ensure that the pumps operate at the same setpoint with stable behaviour.

READING AND SETTINGS ON THE PUMP

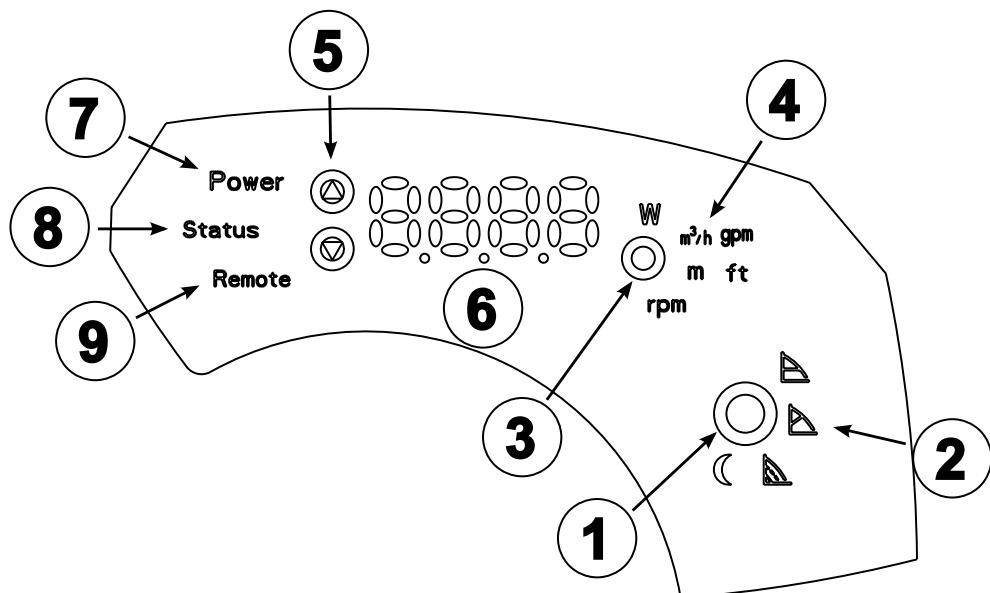
Pump settings

To change the pump settings it can be used one of the following ways:

- User Interface
- Communication BUS (ecocirc XLplus only)
- Wireless capability (ecocirc XLplus only).

Control panel and Display

ecocirc XL and ecocirc XLplus features a 3 or 4 digits display with intuitive and user-friendly interface. The control panel has 4 self-explanatory push buttons and is designed to give quick and easy access to the pump and performance data on installation site.



| Ref. | Function | Description |
|------|--------------------------|---|
| 1 | Control Mode Button | Operating modes are cyclically changed by pressing the button - Constant Pressure - Proportional Pressure - Constant Speed - Night Mode |
| 2 | Control mode indicators | |
| 3 | Parameter Button | The unit of measurement changes by pressing the button The units of measurement displayed are: - Power consumption (W) - Flow rate (m^3/h - gpm) - Head (m - ft) - Speed (rpm) By pressing the "Parameter Button" for more than 1 second the unit of measurement changes to: - Flow: m^3/h <-> US gpm - Head: m <-> ft |
| 4 | Parameter indicators | To change the set point: - Press one of the setting buttons: displays starts to blink the actual set point. - Change the value using the button. - Wait 3 seconds to store and activate the new set point: the display will stop blinking. |
| 5 | Setting Buttons | |
| 6 | Digital Display | |
| 7 | Power indicator | When lighted-up power supply is present - Green: pump is working properly - Orange: alarm for system problem - Red: pump failure |
| 8 | Status / Fault indicator | - Off: remote communication deactivated - On: remote communication activated |
| 9 | Remote Control indicator | |

En-Rev_B

FLOW ESTIMATION ACCURACY

Ecocirc XL has a special software function able to estimate the actual flow rate across the pump. The estimation is based on a calculation by knowing the speed and the hydraulic design of the pump. The estimated flow rate has an accuracy specified as \pm xx % of Qmax determined through laboratory tests using pure water at 20°C. Water/glycol mixture and different fluid temperature can decrease the accuracy. The \pm xx % of Qmax accuracy is valid for a flow rate range up to 70% of the Qmax. In case of low flow rate (< xx% of Qmax) the pump could display "ON" meaning both that the actual flow rate is ZERO or is too low to be properly estimated.

The table below shows the flow accuracy of the complete "ecocirc XL" range. The calculations are based on a single-head pump cast iron model (\pm 15% of Qmax) and single-head pump stainless steel model or twin-head pump (\pm 20% of Qmax).

| Pump type | Q Max | Single-Head Pumps Cast Iron | Single-Head Pumps Stainless Steel Twin-Head Pumps |
|-----------------------------|--------|-----------------------------|--|
| | | \pm 15% | \pm 20% |
| | [m³/h] | [m³/h] | [m³/h] |
| ecocirc XL 25-40 (N) | 4.2 | 0.6 | 0.84 |
| ecocirc XL 25-60 (N) | 5.9 | 0.9 | 1.18 |
| ecocirc XL 32-40 (N) | 4.3 | 0.6 | 0.9 |
| ecocirc XL 32-60 (N) | 6.0 | 0.9 | 1.2 |
| ecocirc XL 25-80 | 9.5 | 1.4 | - |
| ecocirc XL 25-100 | 10.2 | 1.5 | - |
| ecocirc XL (D) 32-80 (N) | 10.2 | 1.5 | 2.0 |
| ecocirc XL (D) 32-100 (N) | 10.7 | 1.6 | 2.1 |
| ecocirc XL (D) 32-80 F | 10.2 | 1.5 | 2.0 |
| ecocirc XL (D) 32-100 F | 10.8 | 1.6 | 2.2 |
| ecocirc XL (D) 32-120 F (N) | 22.5 | 3.4 | 4.5 |
| ecocirc XL (D) 40-80.11 F | 10.7 | 1.6 | 2.1 |
| ecocirc XL (D) 40-80 F | 19.3 | 2.9 | 3.9 |
| ecocirc XL (D) 40-100.12 F | 10.7 | 1.6 | 2.1 |
| ecocirc XL (D) 40-100 F | 20.8 | 3.1 | 4.2 |
| ecocirc XL (D) 40-120 F (N) | 26.8 | 4.0 | 5.4 |
| ecocirc XL (D) 40-150 F | 26.6 | 4.0 | 5.3 |
| ecocirc XL (D) 40-180 F | 28.9 | 4.3 | 5.8 |
| ecocirc XL (D) 50-80F (N) | 29.6 | 4.4 | 5.9 |
| ecocirc XL 50-100 F | 29.7 | 4.5 | - |
| ecocirc XL (D) 50-120 F (N) | 45.8 | 6.9 | 9.2 |
| ecocirc XL (D) 50-150 F | 53.7 | 8.1 | 10.7 |
| ecocirc XL (D) 50-180 F | 54.1 | 8.1 | 10.8 |
| ecocirc XL (D) 65-80 F (N) | 35.2 | 5.3 | 7.0 |
| ecocirc XL (D) 65-120 F (N) | 47.1 | 7.1 | 9.4 |
| ecocirc XL (D) 65-150 F | 61.6 | 9.2 | 12.3 |
| ecocirc XL (D) 65-180 F | 70.6 | 10.6 | 14.1 |
| ecocirc XL (D) 80-120 F | 71.7 | 10.8 | 14.3 |
| ecocirc XL 100-120 F | 62.7 | 9.4 | - |

Zero_flow-en_a

Note: the estimated flow has to be considered valid only as an indication. We recommend to not use the estimated flow for controlling purpose.

Note: in case of twin pump head the estimated flow rate of the right and left head could be different due to the different hydraulic design of the two heads.

COMMUNICATION

ecocirc XL and ecocirc XLplus enables communication by the following:

- External start / stop (Digital input)
- Signal relay (Digital output)
- Analog input 0-10 V
- Analog input 4-20 mA
- Communication BUS (ecocirc XLplus only)
- Wireless capability (ecocirc XLplus only).

External start / stop (Digital Input)

The pump can be started or stopped via an external potential-free contact or a relay.

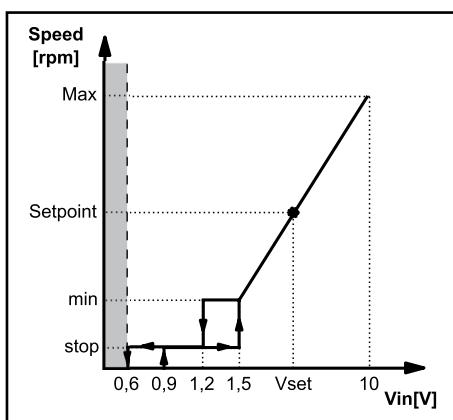
The pump unit is provided by default with the digital input short-circuited.

Signal relay (Digital output)

The pump is equipped with a relay for a potential-free fault signal. If there is a fault the relay is activated together with the red status light and the error code on the user interface display.

Analog input (0-10V)

The pump integrates a 0-10 V analog input. When a voltage input is detected the pump switch to fixed speed control mode automatically and start to work according to the following diagram:



Analog input (4-20mA)

The pump can be equipped with a 4-20mA external differential pressure sensor with the purpose of increasing the precision in operating modes involved with pressure regulation.

Communication BUS

ecocirc XLplus can communicate remotely through a built in RS485 port with the following protocols:

- Modbus RTU
- Bacnet MSTP (not available on ecocirc XL and XLplus 25-40 (N), 25-60 (N), 32-40 (N), 32-60 (N)).

The circulator is factory setting with Modbus protocol. This communication BUS capability offers the possibility to:

- connect two pumps in dual pumps operation;
- connect the pump to a BMS (Building Management System);
- connect the pump to an external device (PC or laptop).

It can be used for the following functions:

- Reading of operating parameters
- Reading of warning and alarm indications
- Setting the control mode
- Setting the set point
- Setting the control modes influenced by the temperature
- Give access to all the parameters that cannot be set-up by the user interface.

To offer a connection to an external BMS or to a generic external device even when the standard communication BUS is used for dual pump operations (in case of twin-head pumps), the pump can be equipped with an additional communication BUS provided as an optional.

Wireless

ecocirc XLplus is designed for wireless communication with Smart-Phone or Tablet by an optional Wireless module.

The Wireless communication capability offers the possibility to read and set up the pump status.

It can be used for the following functions:

- Reading of operating parameters
- Reading of warning and alarm indications
- Setting the control mode
- Setting the set point
- Setting the control modes influenced by the temperature
- Give access to all the parameters that cannot be set-up by the user interface.

OPERATING CONDITIONS

Water conditions

General recommendation:

- Water in heating systems: according to VDI 2035
- Water containing glycol: water/glycol mixture up to 50%.

Ambient conditions

The unit can be transported only in vertical position as indicated on the packaging. The product can be transported at an ambient temperature from -40°C to 70°C with humidity maximum 95% and protected against dirt, heat source and mechanical damage.

The product must be stored at an ambient temperature from -25°C to 55°C and maximum humidity of 95%.

Pumped liquids

The pump is suitable for thin, clear, non-aggressive and non-explosive liquids, not containing abrasive, solid or fibrous substances, toxic or corrosive liquids, potable liquids other than water or liquids not compatible with the pump construction material.

The pump is electronically protected against overloads; for this reason the use of water + glycol in the system can reduce the performance of the circulator, according to the percentage of glycol and the temperature of the fluid.

Minimum inlet pressure at the suction port

The values in the table are the inlet pressure above the atmospheric pressure.

| Nominal Diameter | Fluid temperature 25°C | Fluid temperature 95°C | Fluid temperature 110°C |
|------------------|------------------------|------------------------|-------------------------|
| Rp 1 | 0,2 bar | 1 bar | 1,6 bar |
| Rp 1 1/4 | 0,2 bar | 1 bar | 1,6 bar |
| DN 32 | 0,3 bar | 1,1 bar | 1,7 bar |
| DN 40 | 0,3 bar | 1,1 bar | 1,7 bar |
| DN 50 | 0,3 bar | 1,1 bar | 1,7 bar |
| DN 65 | 0,5 bar | 1,3 bar | 1,9 bar |
| DN 80 | 0,5 bar | 1,3 bar | 1,9 bar |
| DN 100 | 0,5 bar | 1,3 bar | 1,9 bar |

En-Rev_A

NOTICE:

- Do not apply a pressure lower than the values specified as this could cause cavitation and damage the pump.
- The inlet pressure plus the pump pressure against a closed valve must be lower than maximum admissible system pressure.

ELECTRICAL DATA

| | |
|-------------------------------------|--|
| Pump type | ecocirc XL ecocirc XLplus |
| Rated Voltage | 1 x 230 V +/- 10% |
| Frequency | 50/60 Hz |
| IP Protection | IP 44 |
| Insulation class | Class 155 (F) |
| Digital input | External potential free contact Contact load: 5V, 10 mA |
| Digital output | Vmax < 250 VAC Imax < 2 A |
| Analog input | 0-10 V 4-20 mA |
| Communication Bus | Modbus RTU BACnet MS/TP (not available for ecocirc XL and XLplus 25-40 (N), 25-60 (N), 32-40 (N) and 32-60 (N)). |
| Leakage current | < 3.5 mA |
| ECM (Electromagnetic compatibility) | EN 55014-1:2006 + A1:2009 + A2:2011, EN 55014-2:1997 + A1:2001 + A2:2008, EN 61000-3-2:2006 + A1:2009 + A2:2009, EN 61000-3-3:2008, 61800-3:2004+A1:2012. |

En-Rev_B

CONSTRUCTION

The circulator is a wet rotor circulation pump: all rotating components are immersed in the pumped liquid, which cools the motor and lubricates the bearings. The motor has high-efficiency due to the permanent magnet rotor, and it is driven by an electronic drive integrated with the circulator.

ecocirc XL and ecocirc XLplus are of the spherical rotor type for models 25-40, 25-60, 32-40, 32-60: the specific design of these circulators prevents blocked rotors and / or bearing damage caused by the presence of impurities in the water. An automatic air-venting routine allows the perfect filling of water in the rotor zone, to avoid potential dry-runs: this routine can also be manually re-called by the user whenever deemed appropriate.

The remaining models in the ecocirc XL and ecocirc XLplus range have electrical motors of the cylindrical-rotor type.

The pump automatically protects itself from poor lubrication with an automatic air-venting routine during the startup phase (and it can be also manually re-called whenever deemed appropriate), along with the detection of any dry-run; in addition, the circulator prevents itself from potential rotor-locking related to the presence of solid particles suspended in the pumped liquid through a system of internal filters.

In case of stand-by periods, an automatic anti-block routine rotates the rotor for few minutes a day..

The pump features the following:

- Controller integrated in the control box
- User interface on the control box
- Cast iron or stainless steel pump housing
- Twin-head versions
- No external motor protection required
- Insulation shell supplied with single head pumps for heating systems.

Pump connections

Threaded pipe connections according to ISO 228-1
Flange dimensions to EN 1092-2.

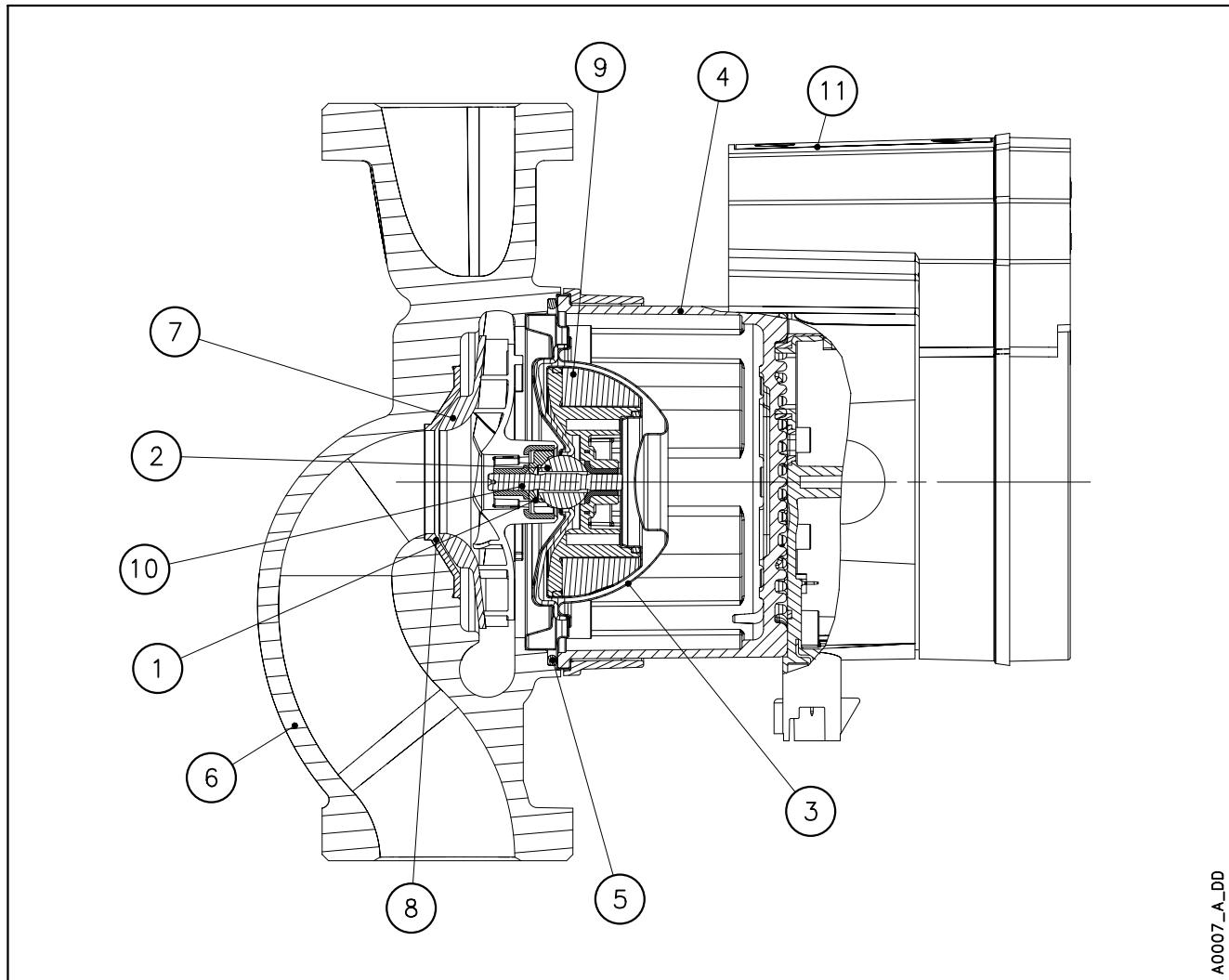
Surface treatment

For heating applications the material is cast iron G250 as standard.

Pump coating (cataphoretic) in black color.

Sectional drawings

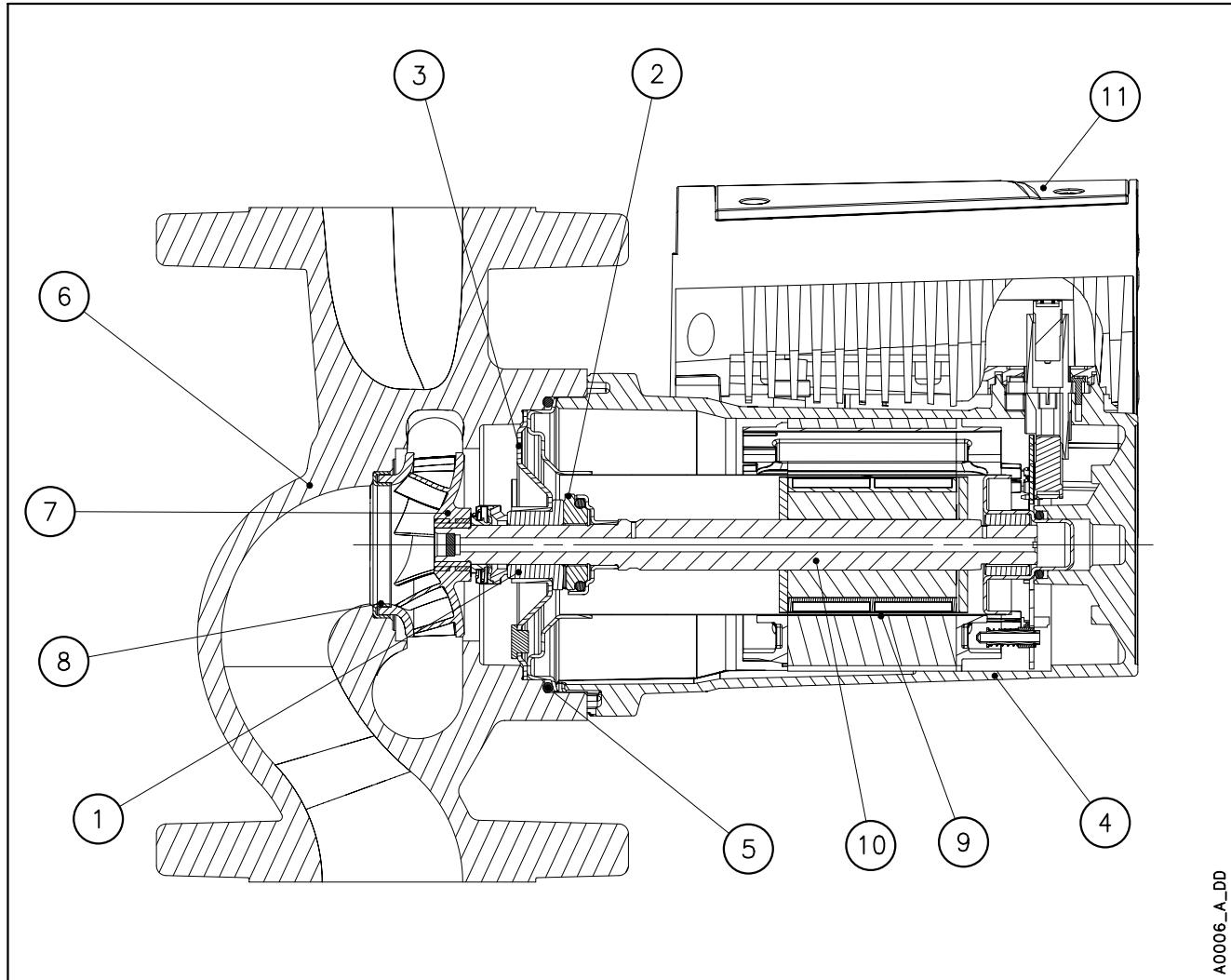
SECTIONAL DRAWINGS (25-40, 25-60, 32-40, 32-60 models)



TABLES OF MATERIALS

| Ref. N. | Name | Material | Reference Standards Europe |
|---------|-------------------|-----------------|----------------------------|
| 1 | Bearing washer | Technopolymer | |
| 2 | Spherical bearing | Aluminum oxide | |
| 3 | Casing plate | Stainless steel | EN 1.4401 |
| 4 | Motor housing | Aluminum | |
| 5 | O-rings | EPDM | |
| 6 | Pump housing | Cast iron | EN 1561-GJL-250 (JL1040) |
| | | Stainless steel | EN 1.4301 |
| 7 | Impeller | PPO | |
| 8 | Neck ring | Stainless steel | |
| 9 | Rotor can | Stainless steel | EN 1.4401 |
| 10 | Shaft | Stainless steel | EN 1.4301 |
| 11 | Control box | Polycarbonate | |

XL1-en_b_tm

SECTIONAL DRAWINGS**TABLES OF MATERIALS**

| Ref. N. | Name | Material | Reference Standards Europe |
|------------|----------------|---------------------------|-------------------------------|
| 1 | Bush Bearing | Carbon, resin impregnated | |
| 2 | Thrust bearing | Aluminum oxide | |
| 3 | Bearing plate | Stainless steel | EN 1.4301 |
| 4 | Motor housing | Aluminum | |
| 5 | O-rings | EPDM | |
| 6 | Pump housing | Cast iron | EN 1561-GJL-250 (JL1040) |
| | | Stainless steel | EN 1.4308 |
| 7 | Impeller | PPS | |
| 8 | Wear ring | Stainless steel | EN 1.4301 |
| 9 | Rotor can | Stainless steel | EN 1.4435 |
| 10 | Shaft | Stainless steel | EN 1.4028 |
| 11 | Control box | Polycarbonate | |

XL2-en_c_tm

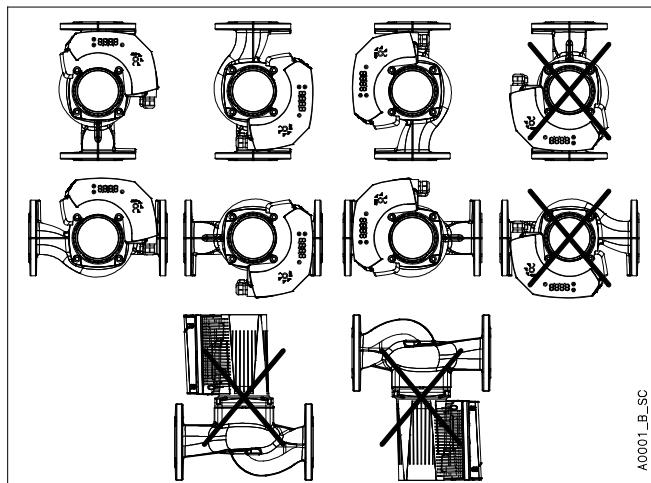
Mechanical installation

ecocirc XL is designed for indoor installations. The pump must be installed with the pump head in a horizontal position, in vertical as well as horizontal pipes. The arrow of the pump housing shows the flow direction through the pump. The pump head can be rotated so the display is in a convenient position.

Pipes and valves must be correctly sized. Pipe work must not transmit any load or torque to pump flanges.

If it's possible and applicable install the thermal shells included on the delivery. Do not insulate the motor housing, the electronics can overheat so that the pump automatically switch off. To ensure adequate cooling of the pump head, position the circulator in such a way that sufficient cooling is ensured. Air temperature must not exceed +40°C (+104°F).

The thermal shells must only be used in hot water circulation applications with fluid temperature above +20°C (+68°F). The thermal shells are not able to enclose the pump housing in a diffusion-proof manner: if the installer creates the diffusion-proof insulation, then the pump housing must not be insulated above the motor flange; the drain opening must not be obstructed so that the accumulated condensation can run out.



Electrical installation

The local regulations in force overrule specified requirements listed here below.

Check that the following requirements for electrical connection are met:

- The electrical leads are protected from high temperature, vibrations and collisions.
- Use cables according to rules with 3 leads (2 + earth/ground). All cables must be heat-resistant up to +85°C (+185°F). Cables should be positioned so that they do not touch the motor housing or pipework.

- The current type and voltage of mains connection must correspond to the data plate on the pump.
- Always connect the external protection conductor to ground (earth) terminal before making other electrical connections. All electrical equipment must be ground (earth) connected. This applies to the pump unit and related equipment.
- The power supply line is provided with:
 - A high-sensitivity differential switch (30 mA) (residual current device RCD) suitable for earth fault currents with DC or pulsating DC content (a Type B RCD is suggested).



- A mains isolator switch with a contact gap of at least 3 mm.

- The number of power on / power off of the pump must be less than 3 times per hour and in any case less than 20 per 24h. In case of frequent start / stop operations required by the application, the use of the dedicated external start / stop input is strongly suggested. Wires connected to supply terminals and fault signal relay (NO, C) must be separated from others by reinforced insulation.

Check that the following requirements for the electrical control panel are met:

- The control panel must match the ratings of the electric pump. Improper combinations could fail to guarantee the protection of the unit.
- The control panel must protect the pump against short-circuit. A time lag fuse or a circuit breaker (Type C model is suggested) can be used to protect the pump.
- The pump has built in overload and thermal protection, no additional overload protection is required.

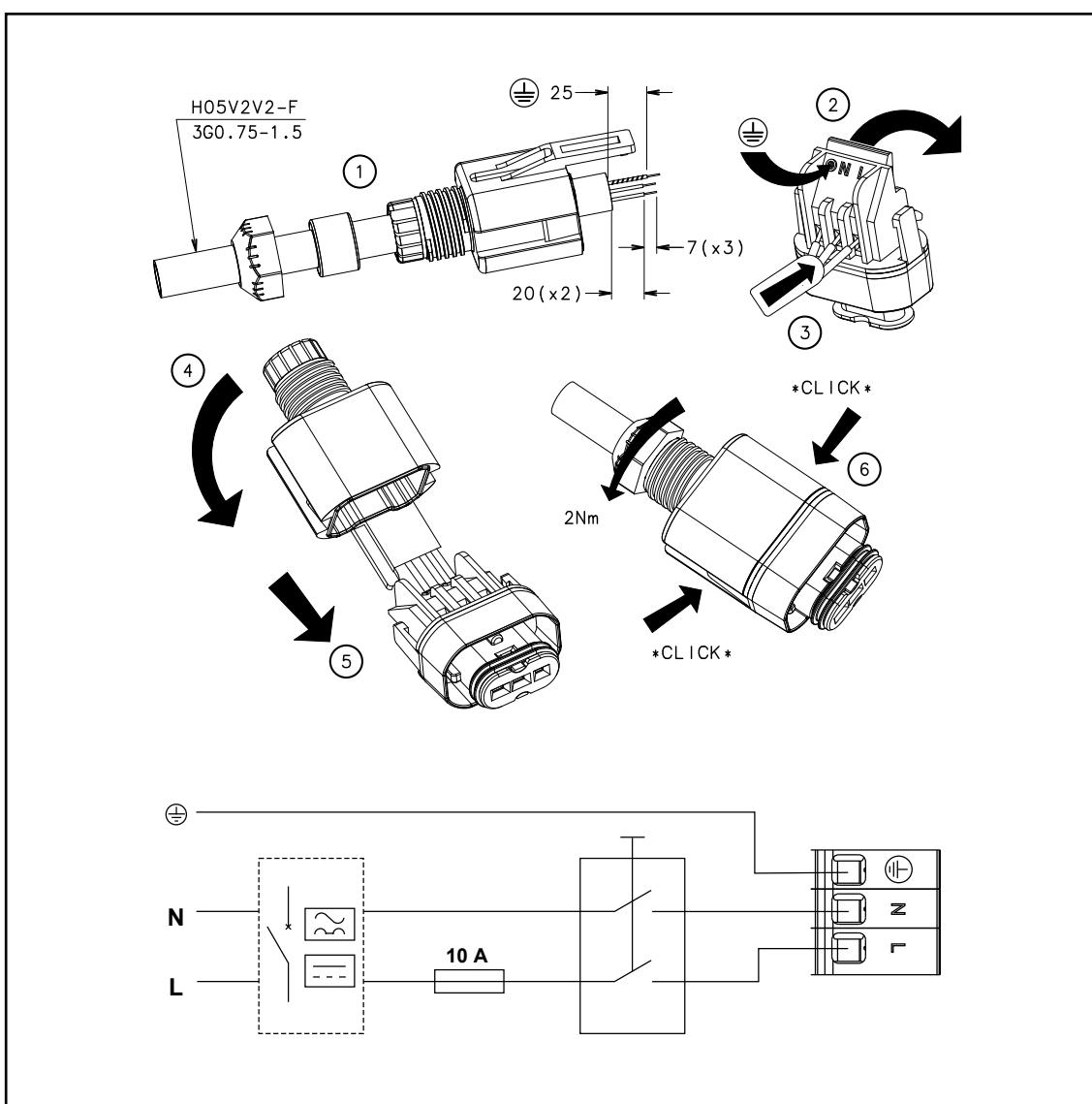
ecocirc XL - XLplus

Models with plug

Power Supply: 1 x 230V ±10%, 50/60Hz

Follow the subsequent steps:

1. Open the connector cover and insert the cable inside the cable gland
2. Pull down the contact retention spring
3. Connect the cable according to the wiring diagram
4. Align the two parts of the connector
5. Push the two parts one inside the other
6. Close the connector and tighten carefully the cable gland



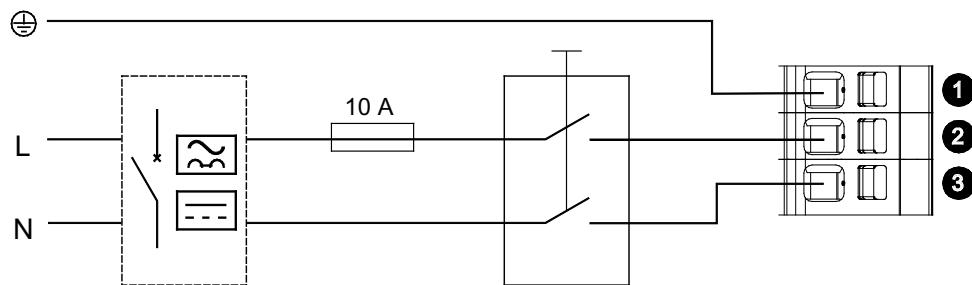
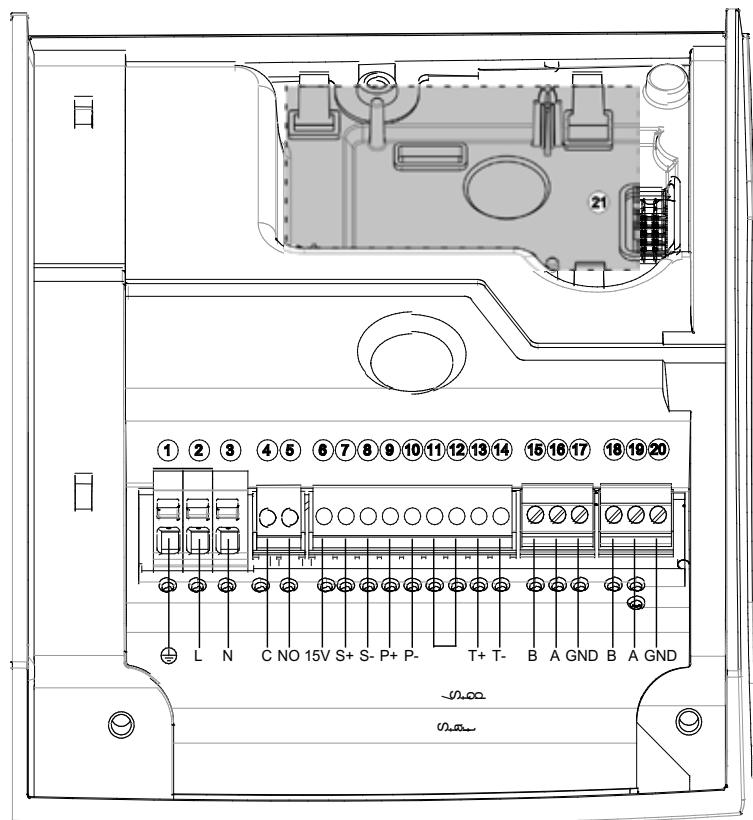
ecocirc XL - XLplus

Models with a standard terminal block connection

Power Supply: 1 x 230V ±10%, 50/60Hz

Follow the subsequent steps to connect:

1. Open the terminal block cover removing the screws
2. Insert the cable inside the M20 cable gland
3. Connect the cable according to the wiring diagram



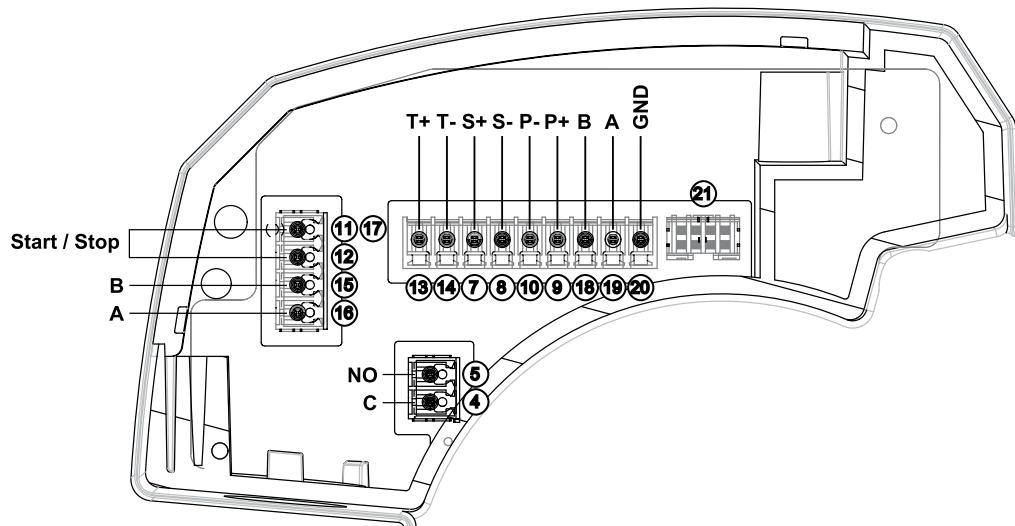
ecocirc XL - XLplus

Input - output Connections

Polarization-keys on terminals are used to prevent wrong insertions.

For models up to 100W refer to the following image.

For all other models refer to the image of the previous page.



| Function | Terminal pair | Contact rating |
|----------------------------------|----------------|---|
| External start/stop | (11) (12) | The drive provides 5VDC through these terminals: no external voltage must be provided! |
| 0-10V external analog input | (7) (8) | |
| Fault signal | (4) (5) | Max 250V at 2A (inductive load) |
| 4-20mA pressure sensor input | (9) (10) | |
| External temperature sensor | (13) (14) | The drive works with a KTY82 temperature sensor (1KΩ at 25°C) |
| Communication bus (standard) | (15) (16) (17) | TIA/EIA RS485 |
| Communication bus (optional) | (18) (19) (20) | TIA/EIA RS485 |
| Optional Wireless / RS485 module | (21) | |

En-Rev_B

Part numbers

ecocirc XL

| Single-head Pump type | Threaded pipe connection | | | | | AISI 304 | |
|--------------------------|--------------------------|--------------|-----------|-----------|-----------|-----------|--|
| | Port to port (mm) | Cast iron | | | PN 10 | | |
| | | Connection | PN 6/10 | PN 6 | | | |
| ecocirc XL 25-40 (N) | 180 | G 1 ½ – Rp 1 | 605009100 | | | 605009300 | |
| ecocirc XL 25-60 (N) | 180 | G 1 ½ – Rp 1 | 605009150 | | | 605009350 | |
| ecocirc XL 25-80 | 180 | G 1 ½ – Rp 1 | E503010AA | | | | |
| ecocirc XL 25-100 | 180 | G 1 ½ – Rp 1 | E503020AA | | | | |
| ecocirc XL 32-40 (N) | 180 | G 2 – Rp 1 ¼ | 605009200 | | | 605009400 | |
| ecocirc XL 32-60 (N) | 180 | G 2 – Rp 1 ¼ | 605009250 | | | 605009450 | |
| ecocirc XL 32-80 (N) | 180 | G 2 – Rp 1 ¼ | E503030AA | | | E510010AA | |
| ecocirc XL 32-100 (N) | 180 | G 2 – Rp 1 ¼ | E503040AA | | | E510020AA | |
| Single-head Pump type | Flanged connection | | | | | AISI 304 | |
| | Port to port (mm) | Cast iron | | | PN 10 | | |
| | | Connection | PN 6/10 | PN 6 | | | |
| ecocirc XL 32-80 F | 220 | DN 32 | E503050AA | | | | |
| ecocirc XL 32-100 F | 220 | DN 32 | E503060AA | | | | |
| ecocirc XL 32-120 F (N) | 220 | DN 32 | E503070AA | | | E510030AA | |
| ecocirc XL 40-80.11 F | 220 | DN 40 | E500800AA | | | | |
| ecocirc XL 40-80 F | 220 | DN 40 | E501130AA | | | | |
| ecocirc XL 40-100.12 F | 220 | DN 40 | E500810AA | | | | |
| ecocirc XL 40-100 F | 220 | DN 40 | E501140AA | | | | |
| ecocirc XL 40-120 F (N) | 250 | DN 40 | E503100AA | | | E510040AA | |
| ecocirc XL 40-150 F | 250 | DN 40 | E501010AA | | | | |
| ecocirc XL 40-180 F | 250 | DN 40 | E501020AA | | | | |
| ecocirc XL 50-80 F (N) | 240 | DN 50 | E501160AA | | | E510050AA | |
| ecocirc XL 50-100 F | 280 | DN 50 | E501150AA | | | | |
| ecocirc XL 50-120 F (N) | 280 | DN 50 | E503130AA | | | E510070AA | |
| ecocirc XL 50-150 F | 280 | DN 50 | E501030AA | | | | |
| ecocirc XL 50-180 F | 280 | DN 50 | E501040AA | | | | |
| ecocirc XL 65-80 F (N) | 340 | DN 65 | E503140AA | | | E510060AA | |
| ecocirc XL 65-120 F (N) | 340 | DN 65 | E503150AA | | | E510080AA | |
| ecocirc XL 65-150 F | 340 | DN 65 | E501050AA | | | | |
| ecocirc XL 65-180 F | 340 | DN 65 | E501060AA | | | | |
| ecocirc XL 80-120 F | 360 | DN 80 | | E503170AA | | | |
| ecocirc XL 80-120 F | 360 | DN 80 | | | E503160AA | | |
| ecocirc XL 100-120 F | 360 | DN 100 | | E503180AA | | | |
| ecocirc XL 100-120 F | 360 | DN 100 | | | E503190AA | | |
| Twin-head Pump type | Threaded pipe connection | | | | | | |
| | Port to port (mm) | Cast iron | | | PN 10 | | |
| | | Connection | PN 6/10 | PN 6 | | | |
| ecocirc XL D 32-80 | 180 | G 2 – Rp 1 ¼ | E502010AA | | | | |
| ecocirc XL D 32-100 | 180 | G 2 – Rp 1 ¼ | E502020AA | | | | |
| Twin-head Pump type | Flanged connection | | | | | | |
| | Port to port (mm) | Cast iron | | | PN 10 | | |
| | | Connection | PN 6/10 | PN 6 | | | |
| ecocirc XL D 32-80 F | 220 | DN 32 | E502030AA | | | | |
| ecocirc XL D 32-100 F | 220 | DN 32 | E502040AA | | | | |
| ecocirc XL D 32-120 F | 220 | DN 32 | E502070AA | | | | |
| ecocirc XL D 40-80.11 F | 220 | DN 40 | E500900AA | | | | |
| ecocirc XL D 40-80 F | 220 | DN 40 | E501170AA | | | | |
| ecocirc XL D 40-100.12 F | 220 | DN 40 | E500910AA | | | | |
| ecocirc XL D 40-100 F | 220 | DN 40 | E501180AA | | | | |
| ecocirc XL D 40-120 F | 250 | DN 40 | E502080AA | | | | |
| ecocirc XL D 40-150 F | 250 | DN 40 | E501070AA | | | | |
| ecocirc XL D 40-180 F | 250 | DN 40 | E501080AA | | | | |
| ecocirc XL D 50-80 F | 240 | DN 50 | E501200AA | | | | |
| ecocirc XL D 50-120 F | 280 | DN 50 | E503450AA | | | | |
| ecocirc XL D 50-150 F | 280 | DN 50 | E501090AA | | | | |
| ecocirc XL D 50-180 F | 280 | DN 50 | E501100AA | | | | |
| ecocirc XL D 65-80 F | 340 | DN 65 | E502100AA | | | | |
| ecocirc XL D 65-120 F | 340 | DN 65 | E503470AA | | | | |
| ecocirc XL D 65-150 F | 340 | DN 65 | E501110AA | | | | |
| ecocirc XL D 65-180 F | 340 | DN 65 | E501120AA | | | | |
| ecocirc XL D 80-120 F | 360 | DN 80 | | E503480AA | | | |
| ecocirc XL D 80-120 F | 360 | DN 80 | | | E503490AA | | |

Pn-ecocircXL-en_i_sc

ecocirc XLplus

| Single-head Pump type | Threaded pipe connection | | | | |
|---------------------------|--------------------------|--------------|-----------|------|-----------|
| | Port to port (mm) | Cast iron | | | AISI 304 |
| | | Connection | PN 6/10 | PN 6 | PN 10 |
| ecocirc XLplus 25-40 (N) | 180 | G 1 ½ – Rp 1 | 605009125 | | 605009325 |
| ecocirc XLplus 25-60 (N) | 180 | G 1 ½ – Rp 1 | 605009175 | | 605009375 |
| ecocirc XLplus 25-80 | 180 | G 1 ½ – Rp 1 | E503210AA | | |
| ecocirc XLplus 25-100 | 180 | G 1 ½ – Rp 1 | E503220AA | | |
| ecocirc XLplus 32-40 (N) | 180 | G 2 – Rp 1 ¼ | 605009225 | | 605009425 |
| ecocirc XLplus 32-60 (N) | 180 | G 2 – Rp 1 ¼ | 605009275 | | 605009475 |
| ecocirc XLplus 32-80 (N) | 180 | G 2 – Rp 1 ¼ | E503230AA | | E510090AA |
| ecocirc XLplus 32-100 (N) | 180 | G 2 – Rp 1 ¼ | E503240AA | | E510100AA |

| Single-head Pump type | Flanged connection | | | | |
|-----------------------------|----------------------|------------|-----------|-----------|-----------|
| | Port to port (mm) | Cast iron | | | AISI 304 |
| | | Connection | PN 6/10 | PN 6 | PN 10 |
| ecocirc XLplus 32-80 F | 220 | DN 32 | E503250AA | | |
| ecocirc XLplus 32-100 F | 220 | DN 32 | E503260AA | | |
| ecocirc XLplus 32-120 F (N) | 220 | DN 32 | E503270AA | | E510110AA |
| ecocirc XLplus 40-80 F | 220 | DN 40 | E501330AA | | |
| ecocirc XLplus 40-100 F | 220 | DN 40 | E501340AA | | |
| ecocirc XLplus 40-120 F (N) | 250 | DN 40 | E503300AA | | E510120AA |
| ecocirc XLplus 40-150 F | 250 | DN 40 | E501210AA | | |
| ecocirc XLplus 40-180 F | 250 | DN 40 | E501220AA | | |
| ecocirc XLplus 50-80 F (N) | 240 | DN 50 | E501360AA | | E510130AA |
| ecocirc XLplus 50-100 F | 280 | DN 50 | E501350AA | | |
| ecocirc XLplus 50-120 F (N) | 280 | DN 50 | E503330AA | | E510150AA |
| ecocirc XLplus 50-150 F | 280 | DN 50 | E501230AA | | |
| ecocirc XLplus 50-180 F | 280 | DN 50 | E501240AA | | |
| ecocirc XLplus 65-80 F (N) | 340 | DN 65 | E503340AA | | E510140AA |
| ecocirc XLplus 65-120 F (N) | 340 | DN 65 | E503350AA | | E510160AA |
| ecocirc XLplus 65-150 F | 340 | DN 65 | E501250AA | | |
| ecocirc XLplus 65-180 F | 340 | DN 65 | E501260AA | | |
| ecocirc XLplus 80-120 F | 360 | DN 80 | | E503370AA | |
| ecocirc XLplus 80-120 F | 360 | DN 80 | | | E503360AA |
| ecocirc XLplus 100-120 F | 360 | DN 100 | | E503380AA | |
| ecocirc XLplus 100-120 F | 360 | DN 100 | | | E503390AA |

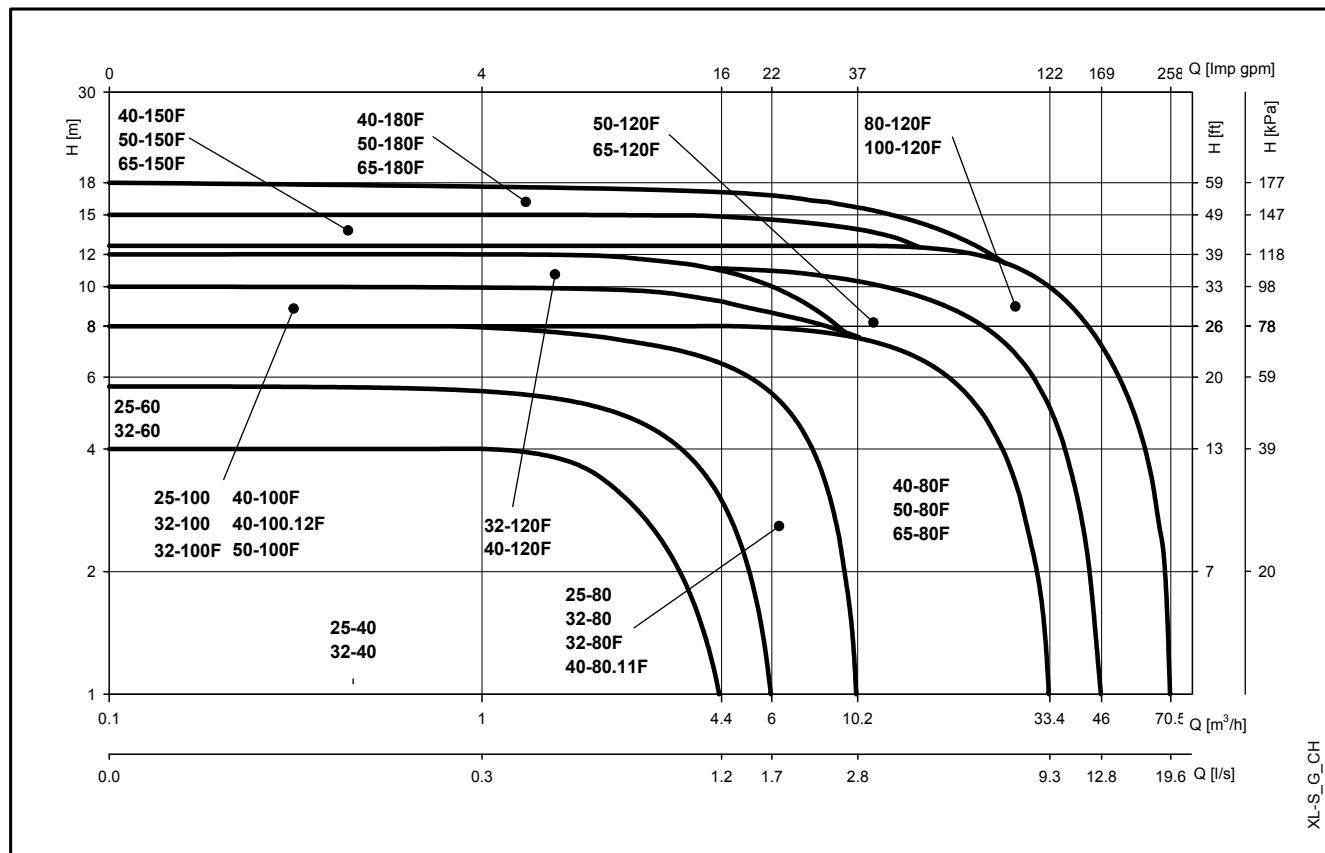
| Twin-head Pump type | Threaded pipe connection | | | | |
|-------------------------|--------------------------|--------------|-----------|------|-------|
| | Port to port (mm) | Cast iron | | | |
| | | Connection | PN 6/10 | PN 6 | PN 10 |
| ecocirc XLplus D 32-80 | 180 | G 2 – Rp 1 ¼ | E502110AA | | |
| ecocirc XLplus D 32-100 | 180 | G 2 – Rp 1 ¼ | E502120AA | | |

| Twin-head Pump type | Flanged connection | | | | |
|---------------------------|----------------------|------------|-----------|-----------|-----------|
| | Port to port (mm) | Cast iron | | | |
| | | Connection | PN 6/10 | PN 6 | PN 10 |
| ecocirc XLplus D 32-80 F | 220 | DN 32 | E502130AA | | |
| ecocirc XLplus D 32-100 F | 220 | DN 32 | E502140AA | | |
| ecocirc XLplus D 32-120 F | 220 | DN 32 | E502170AA | | |
| ecocirc XLplus D 40-80 F | 220 | DN 40 | E501370AA | | |
| ecocirc XLplus D 40-100 F | 220 | DN 40 | E501380AA | | |
| ecocirc XLplus D 40-120 F | 250 | DN 40 | E502180AA | | |
| ecocirc XLplus D 40-150 F | 250 | DN 40 | E501270AA | | |
| ecocirc XLplus D 40-180 F | 250 | DN 40 | E501280AA | | |
| ecocirc XLplus D 50-80 F | 240 | DN 50 | E501400AA | | |
| ecocirc XLplus D 50-120 F | 280 | DN 50 | E503550AA | | |
| ecocirc XLplus D 50-150 F | 280 | DN 50 | E501290AA | | |
| ecocirc XLplus D 50-180 F | 280 | DN 50 | E501300AA | | |
| ecocirc XLplus D 65-80 F | 340 | DN 65 | E502200AA | | |
| ecocirc XLplus D 65-120 F | 340 | DN 65 | E503570AA | | |
| ecocirc XLplus D 65-150 F | 340 | DN 65 | E501310AA | | |
| ecocirc XLplus D 65-180 F | 340 | DN 65 | E501320AA | | |
| ecocirc XLplus D 80-120 F | 360 | DN 80 | | E503580AA | |
| ecocirc XLplus D 80-120 F | 360 | DN 80 | | | E503590AA |

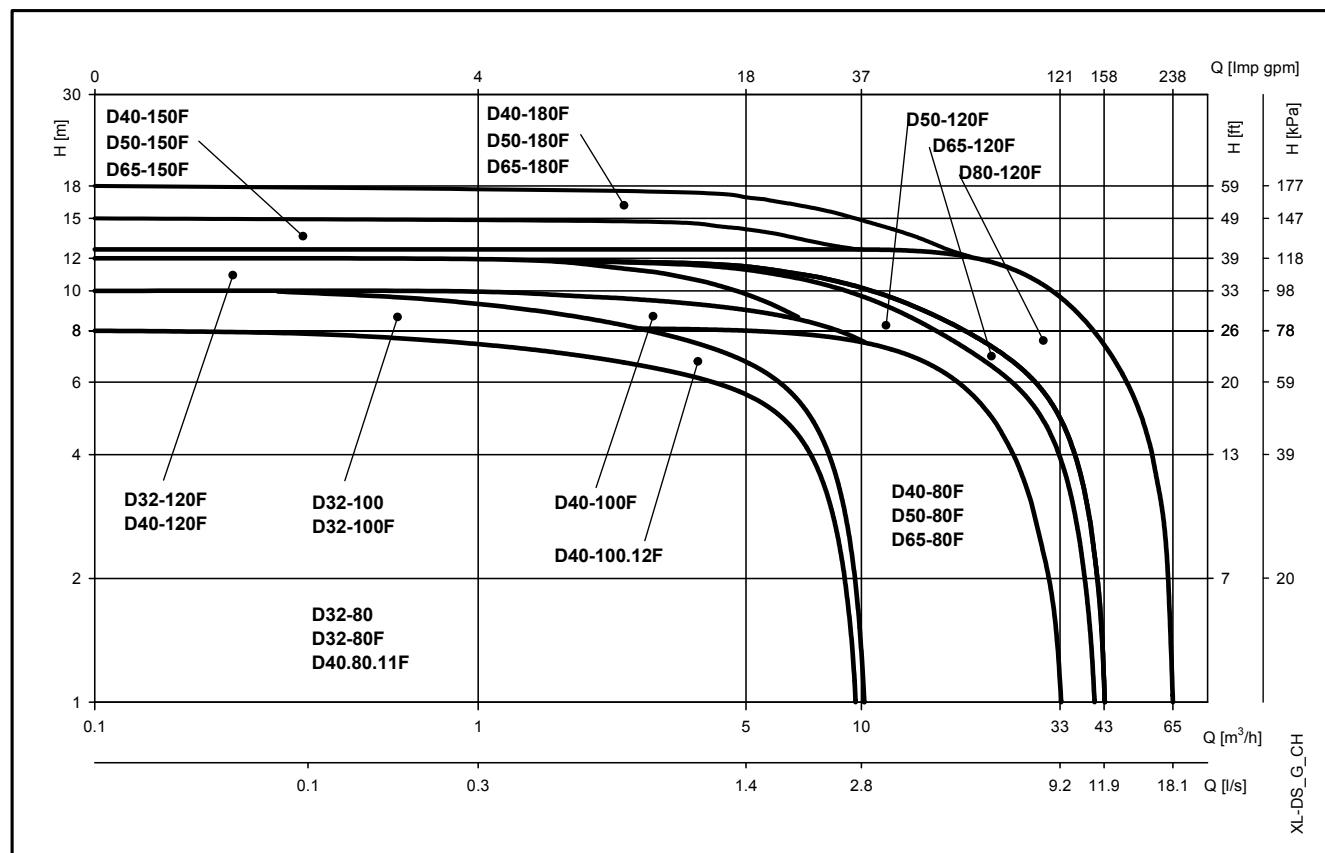
Pn-ecocircXLplus-en_i_sc

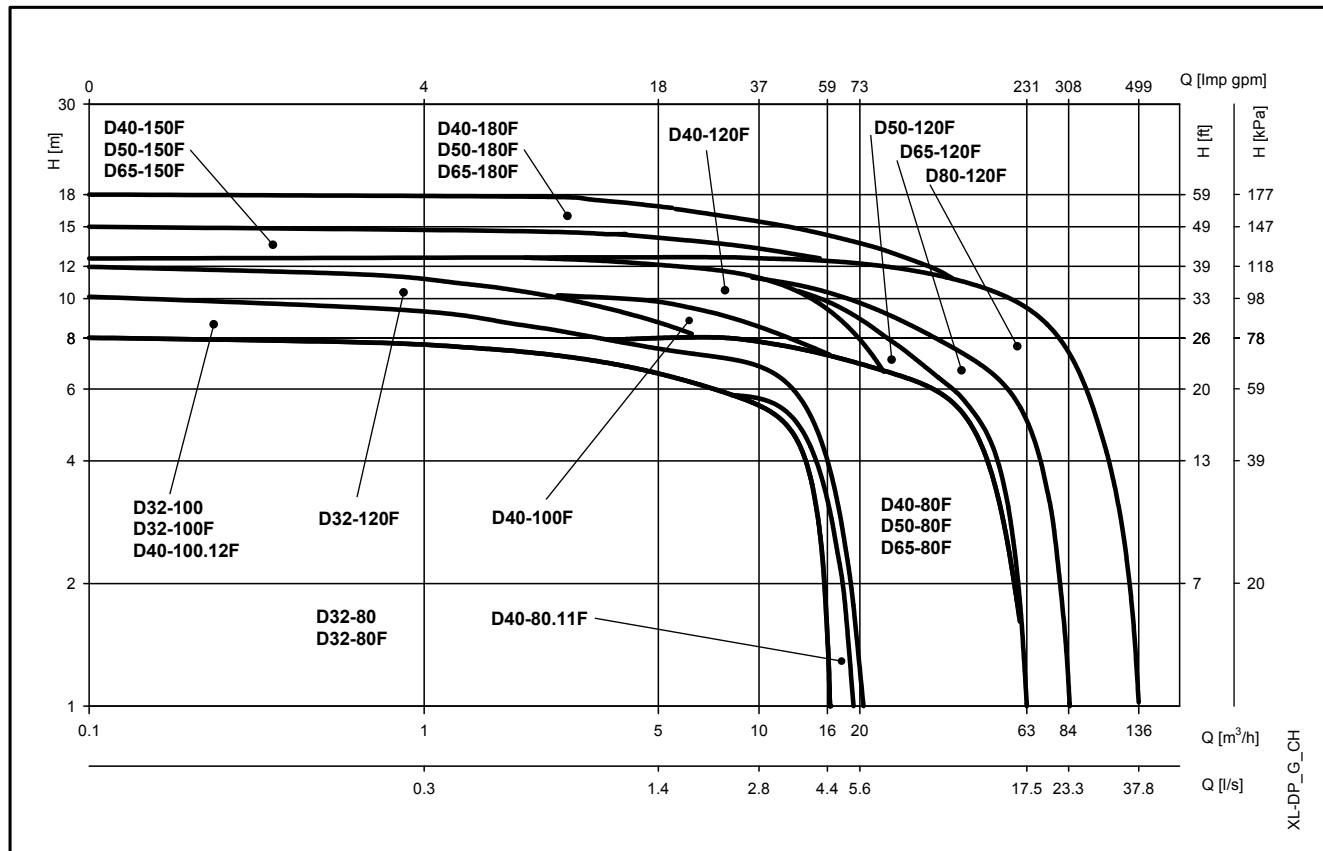
Performance Range

ecocirc XL-XLplus



ecocirc XL-XLplus D (single operation)



ecocirc XL-XLplus D (parallel operation)**Performance curves**

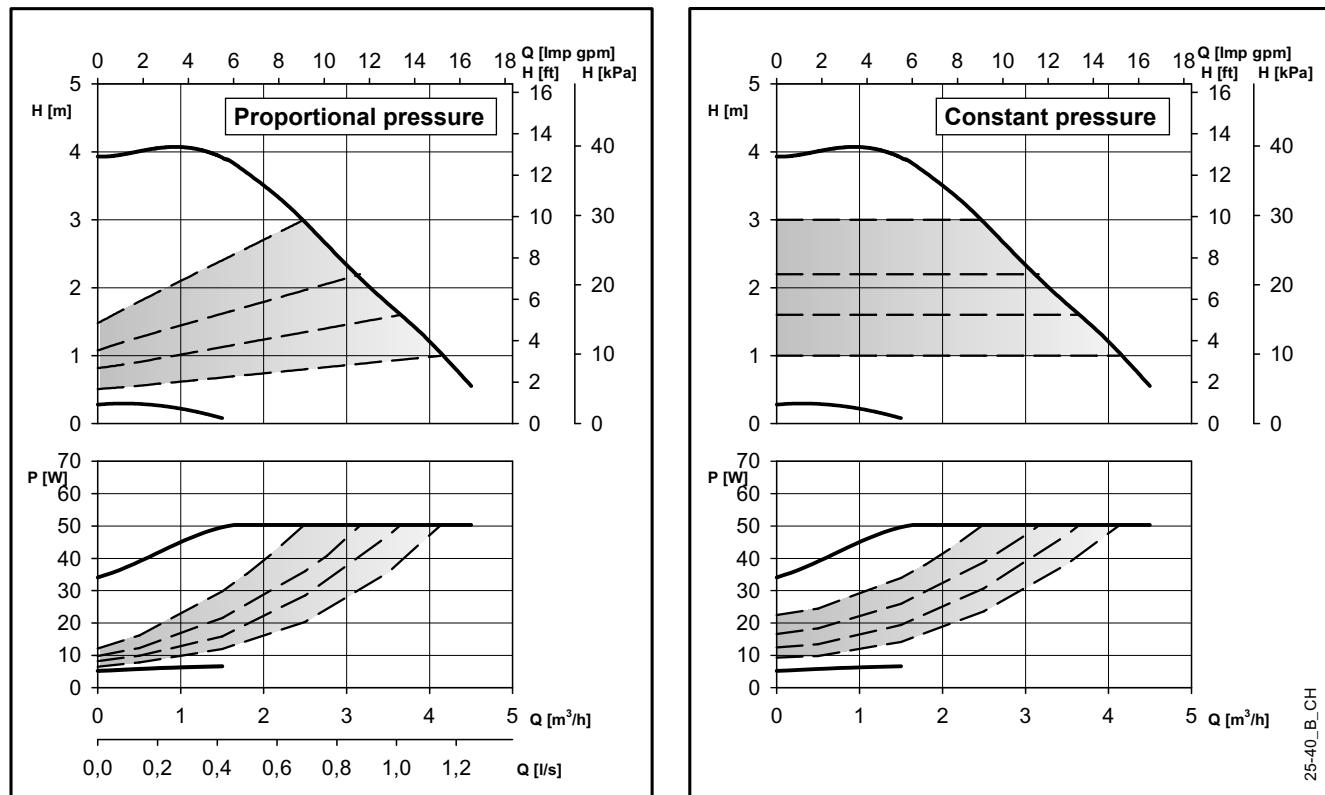
The curves shown in the next pages represent average values and cannot be used as guarantee.

For requirements related to specific minimum performances a specific measurement is necessary.

EEI according to EN 16297.

Performance curves and Technical data

ecocirc XL-XLplus 25-40 (N)



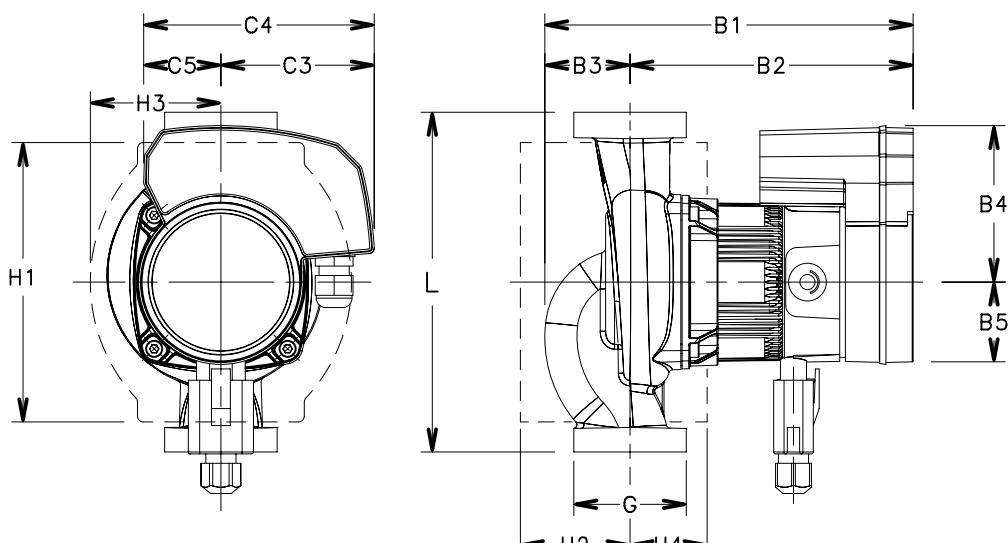
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $v = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus 25-40 (N)

Pump Data

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 5 / 50 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,1 / 0,5 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 38 dB(A) |

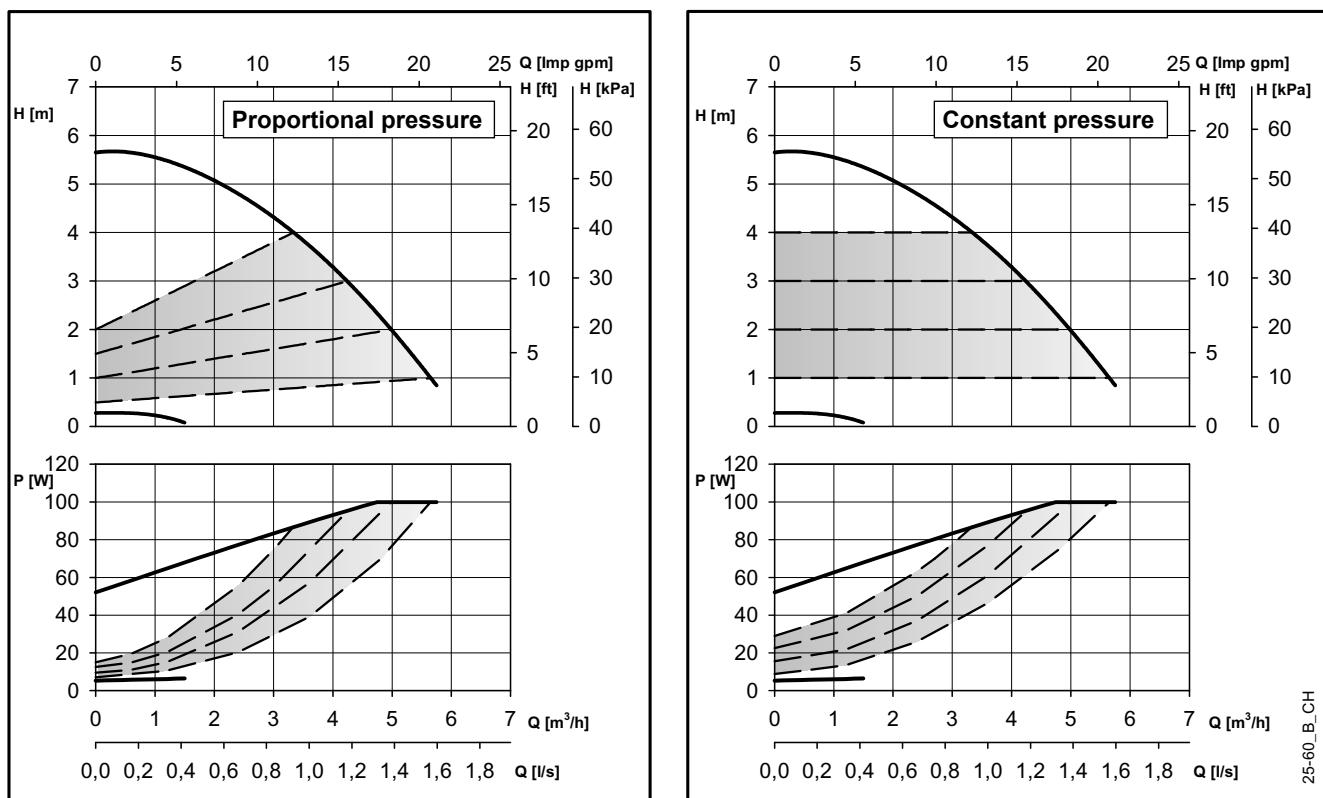
En-Rev_B



A0001_A_DD

| ecocirc XL-XLplus 25-40 (N) | | Dimensions (mm) | | | | | Net weight 2,8 (Kg) - Gross weight 3,6 (Kg) | | | | | | | |
|-----------------------------|--------------|-----------------|-----|----|----|----|---|-----|----|-----|----|----|----|--|
| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | |
| 180 | G 1 ½ - Rp 1 | 191 | 145 | 46 | 83 | 43 | 81 | 120 | 39 | 148 | 59 | 74 | 40 | |

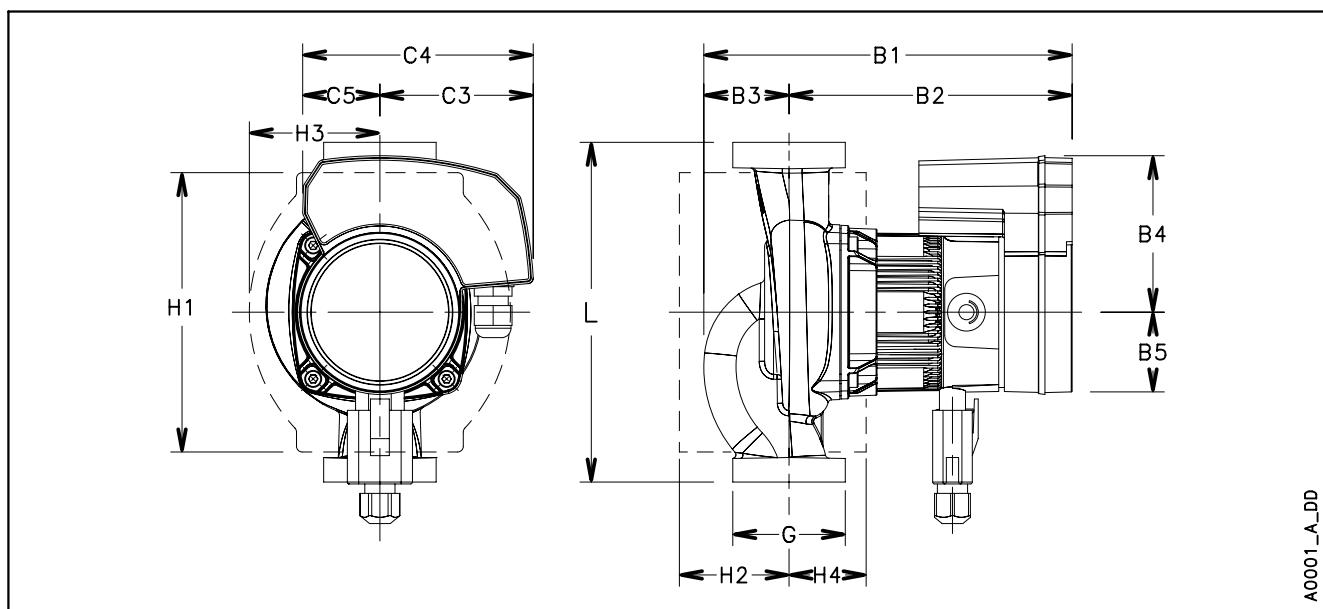
En-Rev_A

ecocirc XL-XLplus 25-60 (N)

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

| ecocirc XL-XLplus 25-60 (N) | | Pump Data | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 5 / 100 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,1 / 1,0 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 38 dB(A) |

En-Rev_B



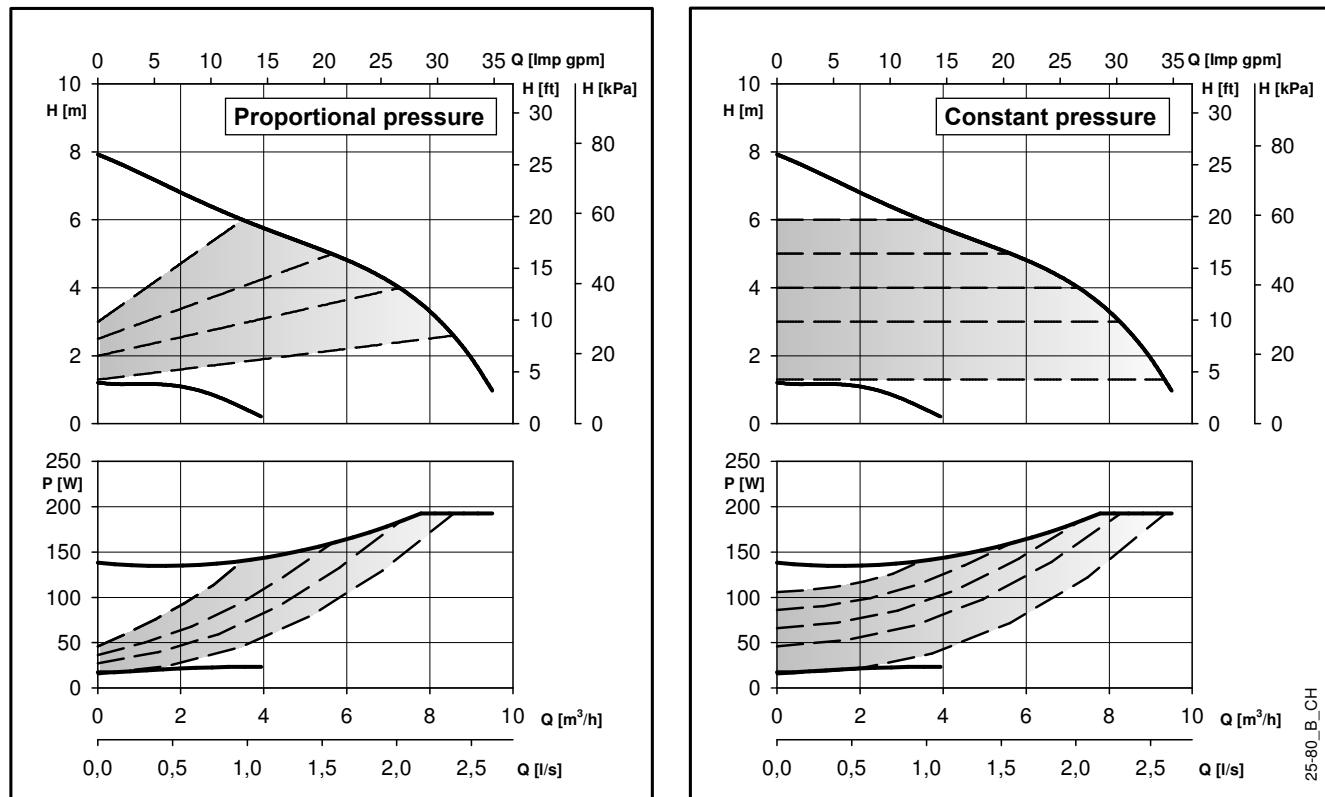
A0001_A_DD

| ecocirc XL-XLplus 25-60 (N) | | Dimensions (mm) | | | | | Net weight 2,8 (Kg) - Gross weight 3,6 (Kg) | | | | | | |
|-----------------------------|--------------|-----------------|-----|----|----|----|---|-----|----|-----|----|----|----|
| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 |
| 180 | G 1 ½ - Rp 1 | 191 | 145 | 46 | 83 | 43 | 81 | 120 | 39 | 148 | 59 | 74 | 40 |

En-Rev_A

Performance curves and Technical data

ecocirc XL-XLplus 25-80



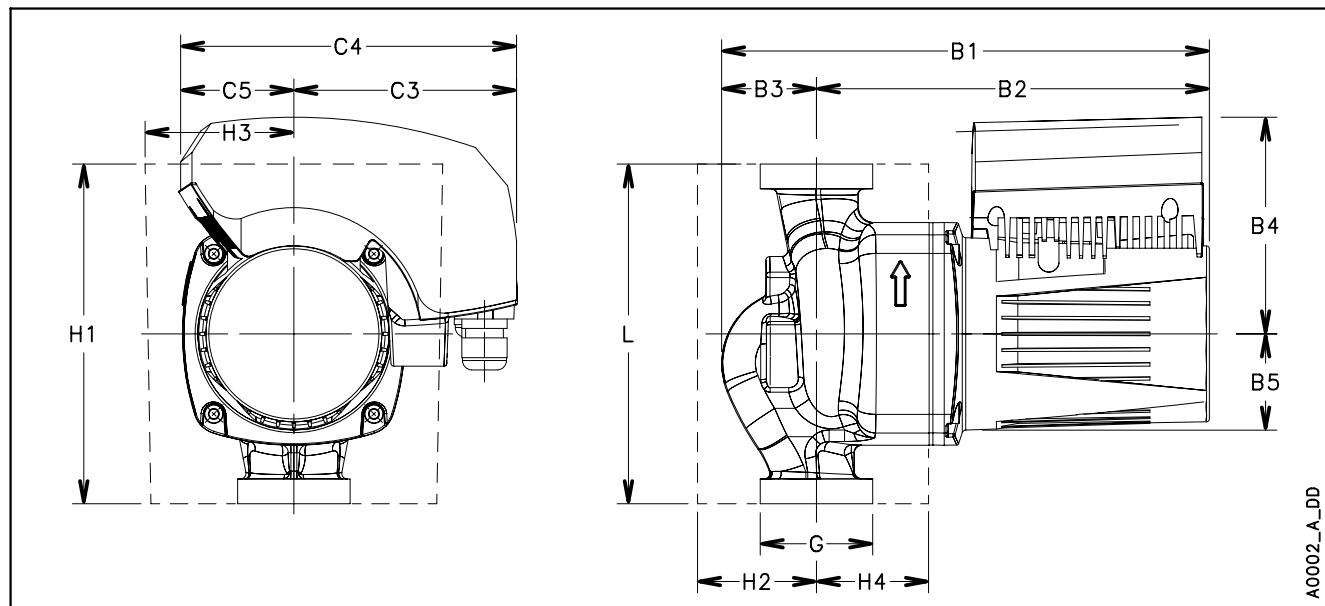
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus 25-80

Pump Data

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 17 / 193 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,2 / 1,4 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 45 dB(A) |

En-Rev_D



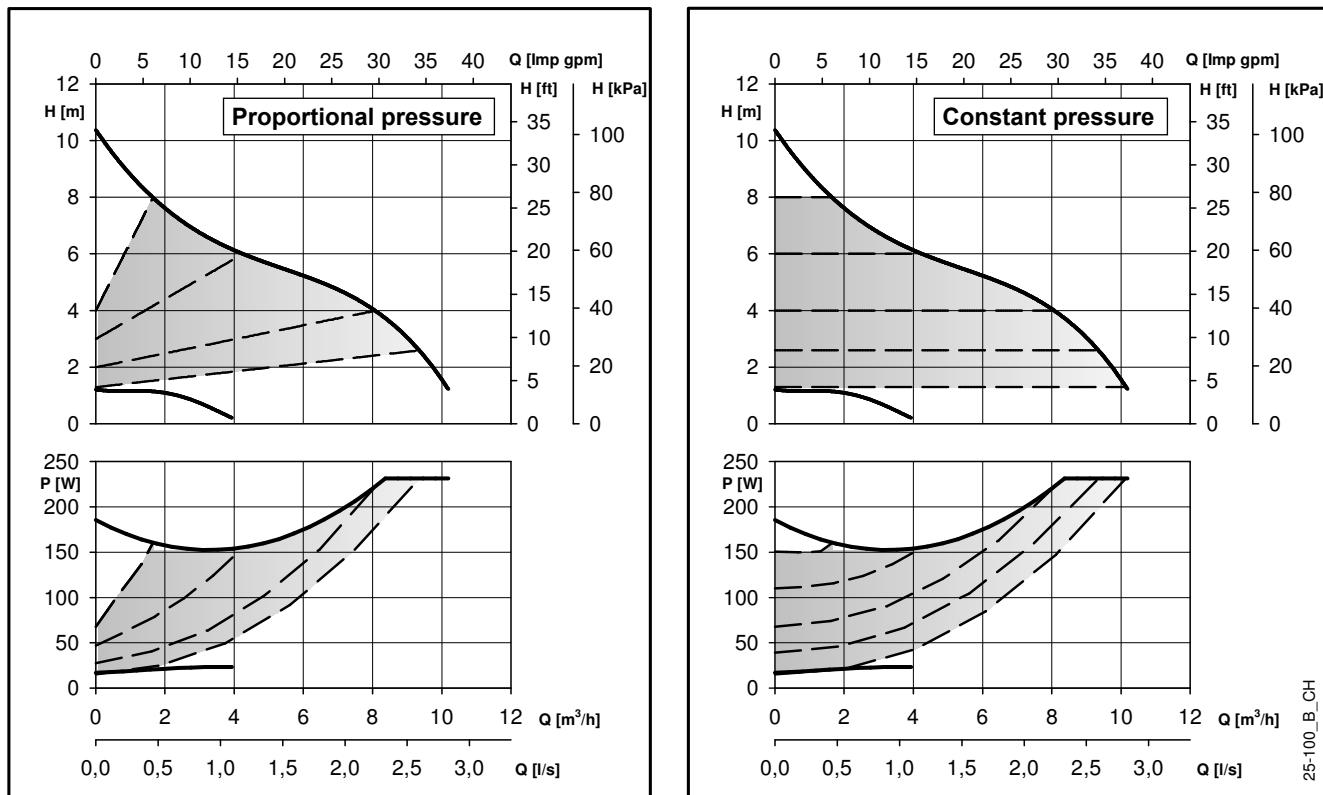
ecocirc XL-XLplus 25-80

Dimensions (mm)

Net weight 7 (Kg) - Gross weight 10,5 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 |
|-----|--------------|-----|-----|----|-----|----|-----|-----|----|-----|----|----|----|
| 180 | G 1 ½ - Rp 1 | 260 | 205 | 55 | 118 | 51 | 116 | 178 | 62 | 180 | 70 | 83 | 55 |

En-Rev_A

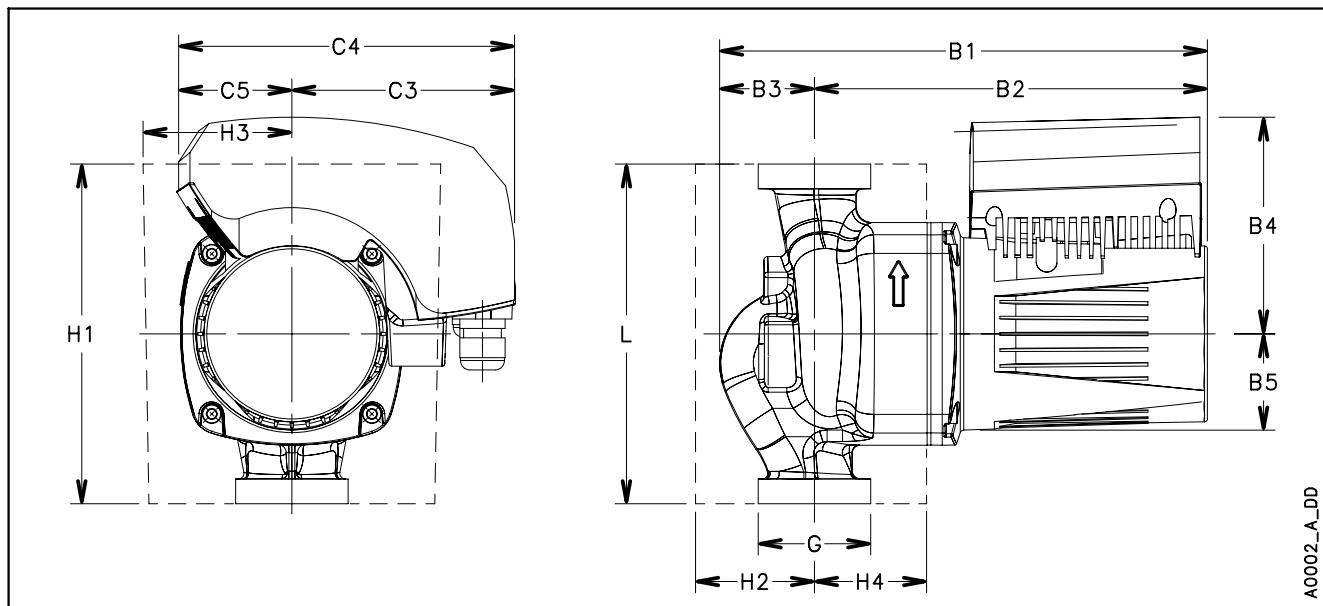
ecocirc XL-XLplus 25-100

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $v = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus 25-100**Pump Data**

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 17 / 231 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,2 / 1,7 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 45 dB(A) |

En-Rev_D

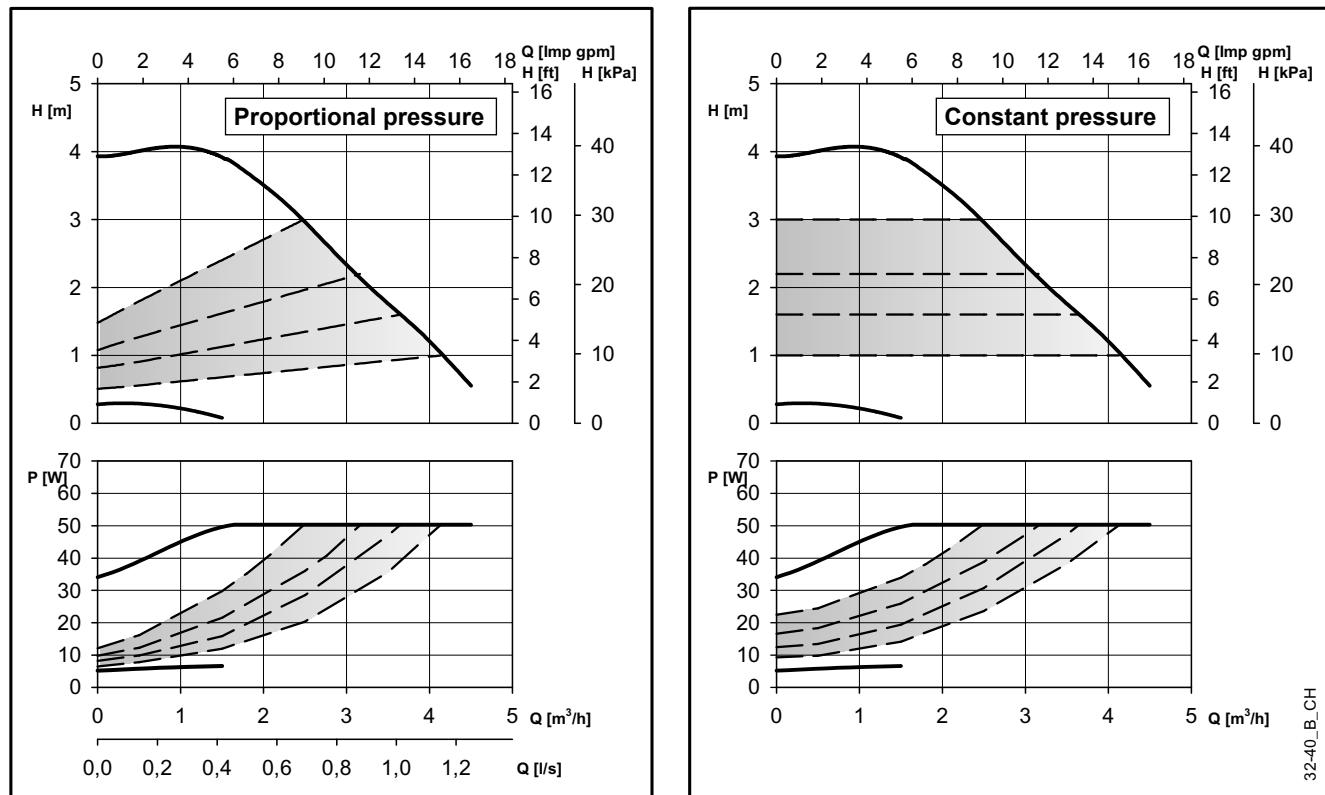
**ecocirc XL-XLplus 25-100****Dimensions (mm)****Net weight 7 (Kg) - Gross weight 10,5 (Kg)**

| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 |
|-----|--------------|-----|-----|----|-----|----|-----|-----|----|-----|----|----|----|
| 180 | G 1 ½ - Rp 1 | 260 | 205 | 55 | 118 | 51 | 116 | 178 | 62 | 180 | 70 | 83 | 55 |

En-Rev_A

Performance curves and Technical data

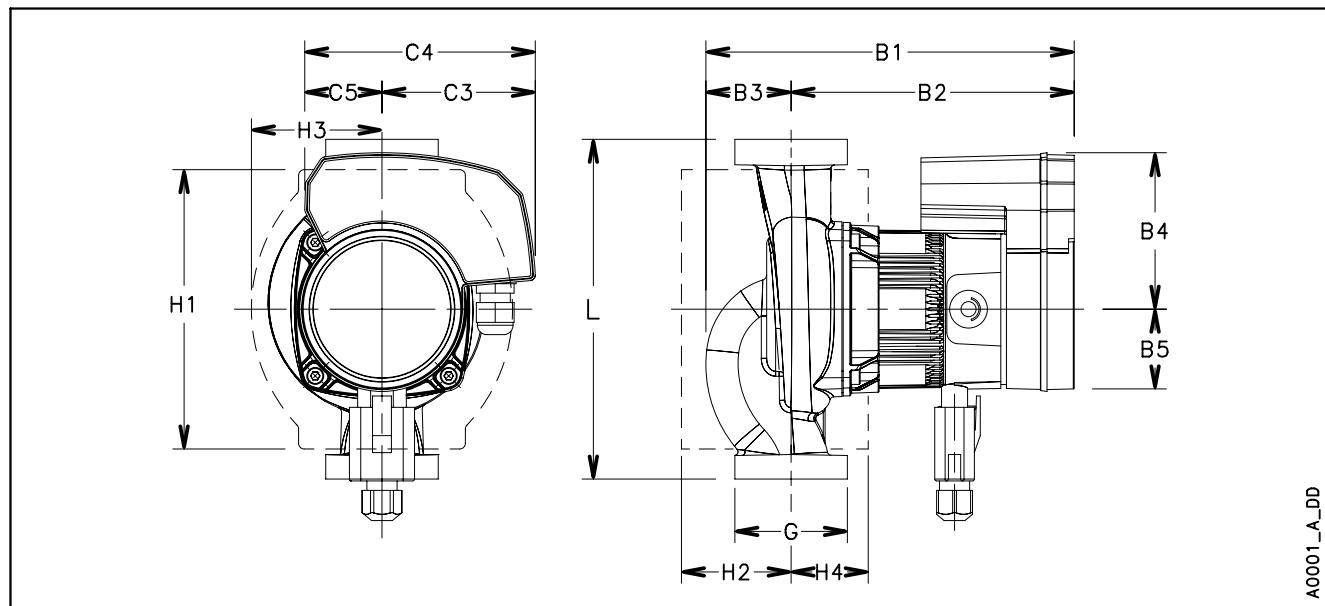
ecocirc XL-XLplus 32-40 (N)



These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

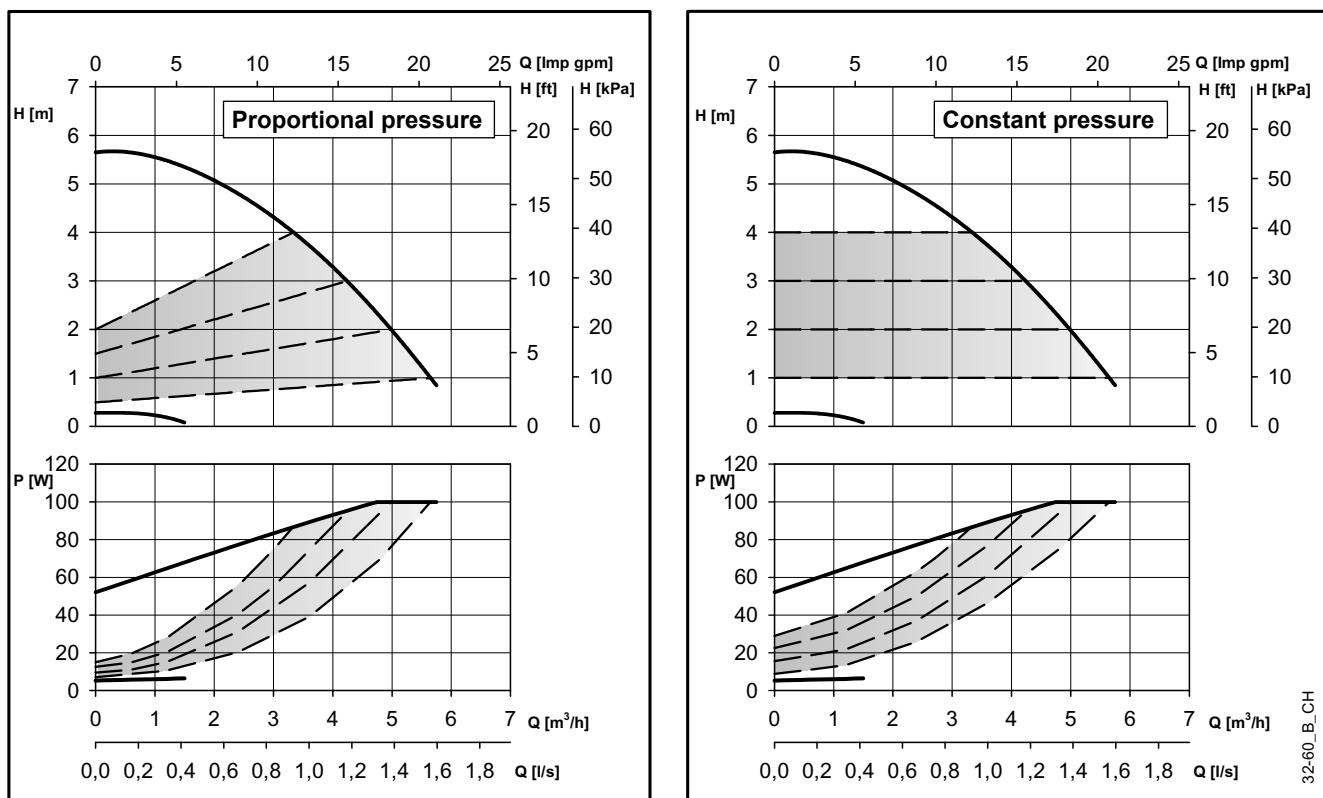
| ecocirc XL-XLplus 32-40 (N) | | Pump Data | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 5 / 50 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,1 / 0,5 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 38 dB(A) |

En-Rev_B



| ecocirc XL-XLplus 32-40 (N) | | Dimensions (mm) | | | | | Net weight 3,0 (Kg) - Gross weight 3,9 (Kg) | | | | | | |
|-----------------------------|--------------|-----------------|-----|----|----|----|---|-----|----|-----|----|----|----|
| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 |
| 180 | G 2 - Rp 1 ¼ | 191 | 145 | 46 | 83 | 43 | 81 | 120 | 39 | 148 | 59 | 74 | 40 |

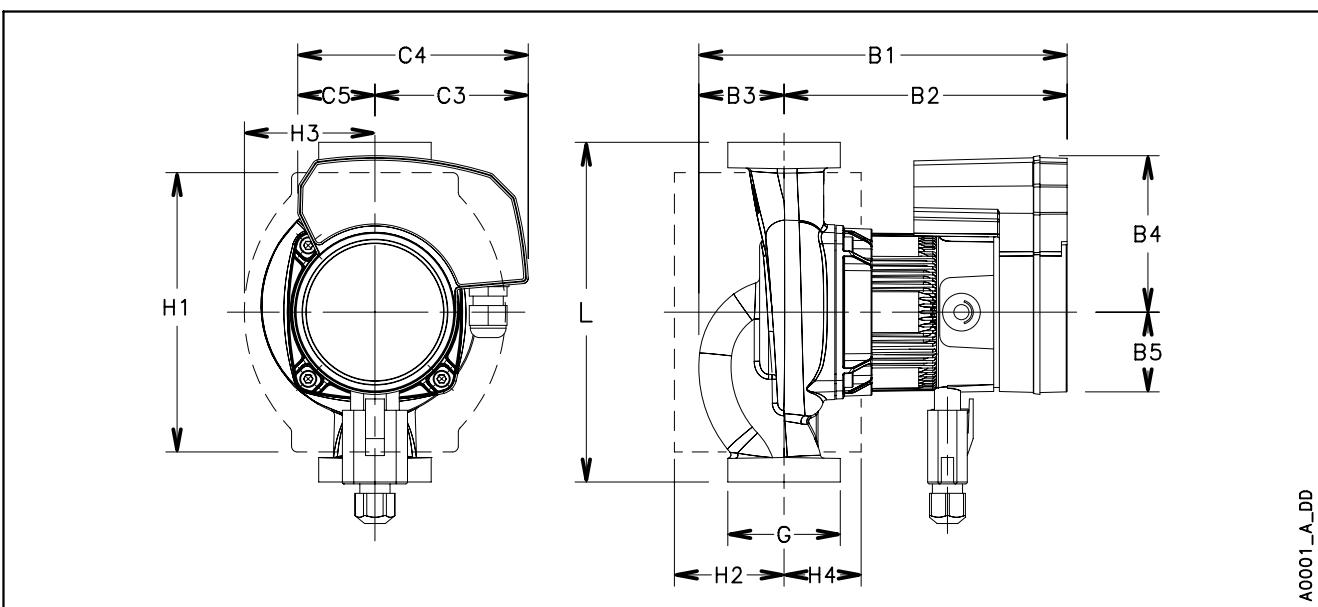
En-Rev_A

ecocirc XL-XLplus 32-60 (N)

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $v = 1 \text{ mm}^2/\text{sec}$.

| ecocirc XL-XLplus 32-60 (N) | | Pump Data | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 5 / 100 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,1 / 1,0 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 38 dB(A) |

En-Rev_B



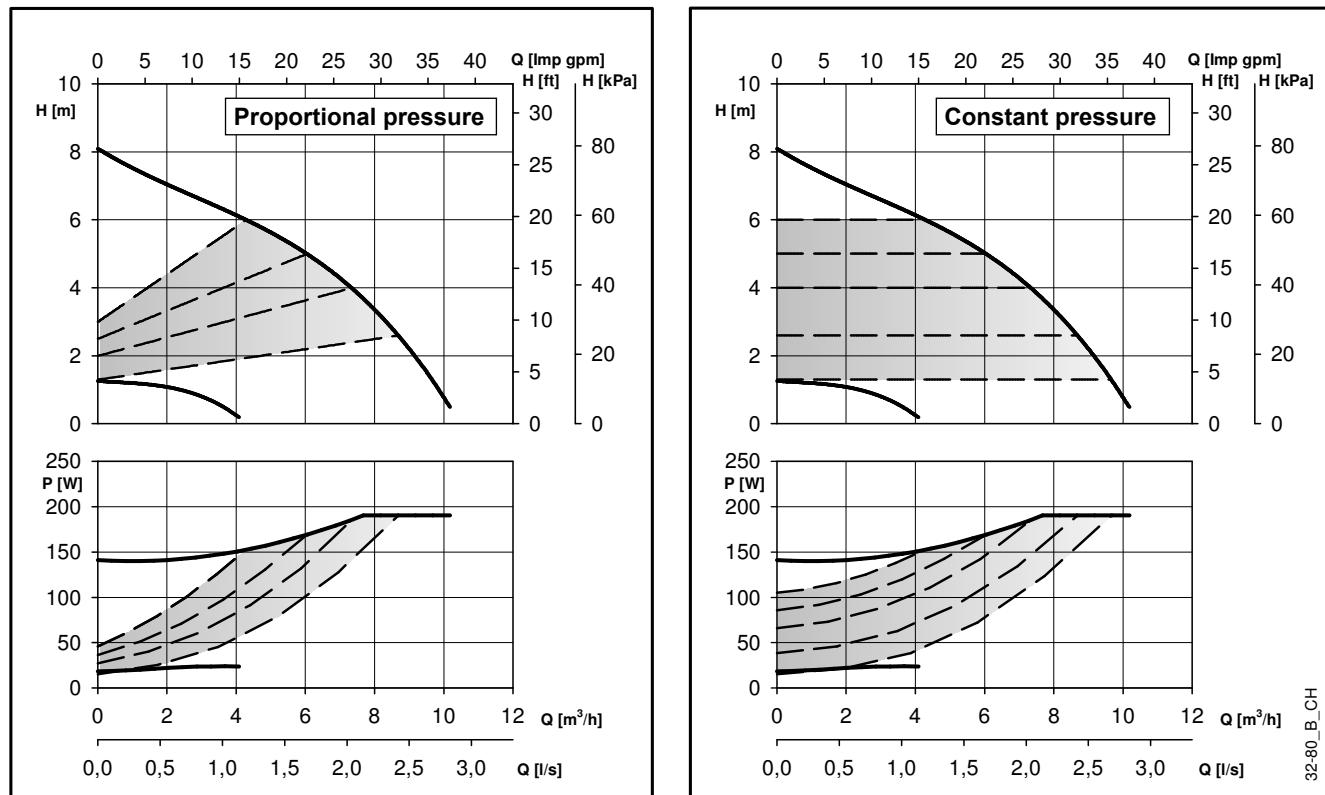
A0001_A_DD

| ecocirc XL-XLplus 32-60 (N) | | Dimensions (mm) | | | | | | Net weight 3,0 (Kg) - Gross weight 3,9 (Kg) | | | | | |
|-----------------------------|--------------|-----------------|-----|----|----|----|----|---|----|-----|----|----|----|
| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 |
| 180 | G 2 – Rp 1 ¼ | 191 | 145 | 46 | 83 | 43 | 81 | 120 | 39 | 148 | 59 | 74 | 40 |

En-Rev_A

Performance curves and Technical data

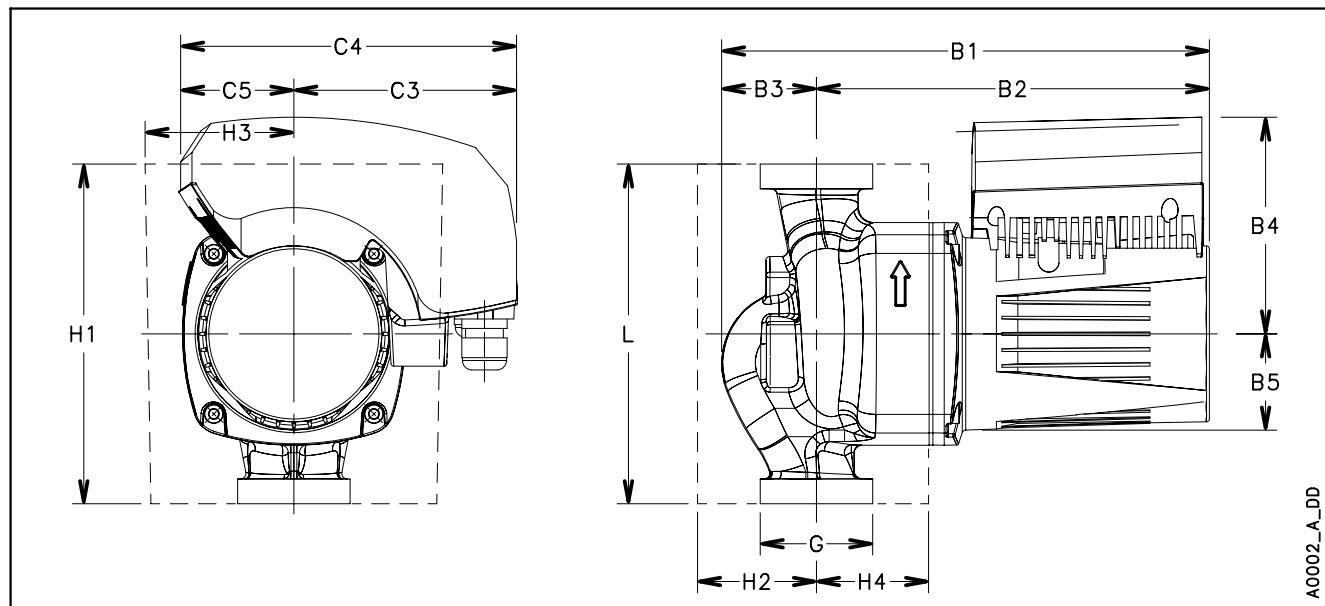
ecocirc XL-XLplus 32-80 (N)



These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

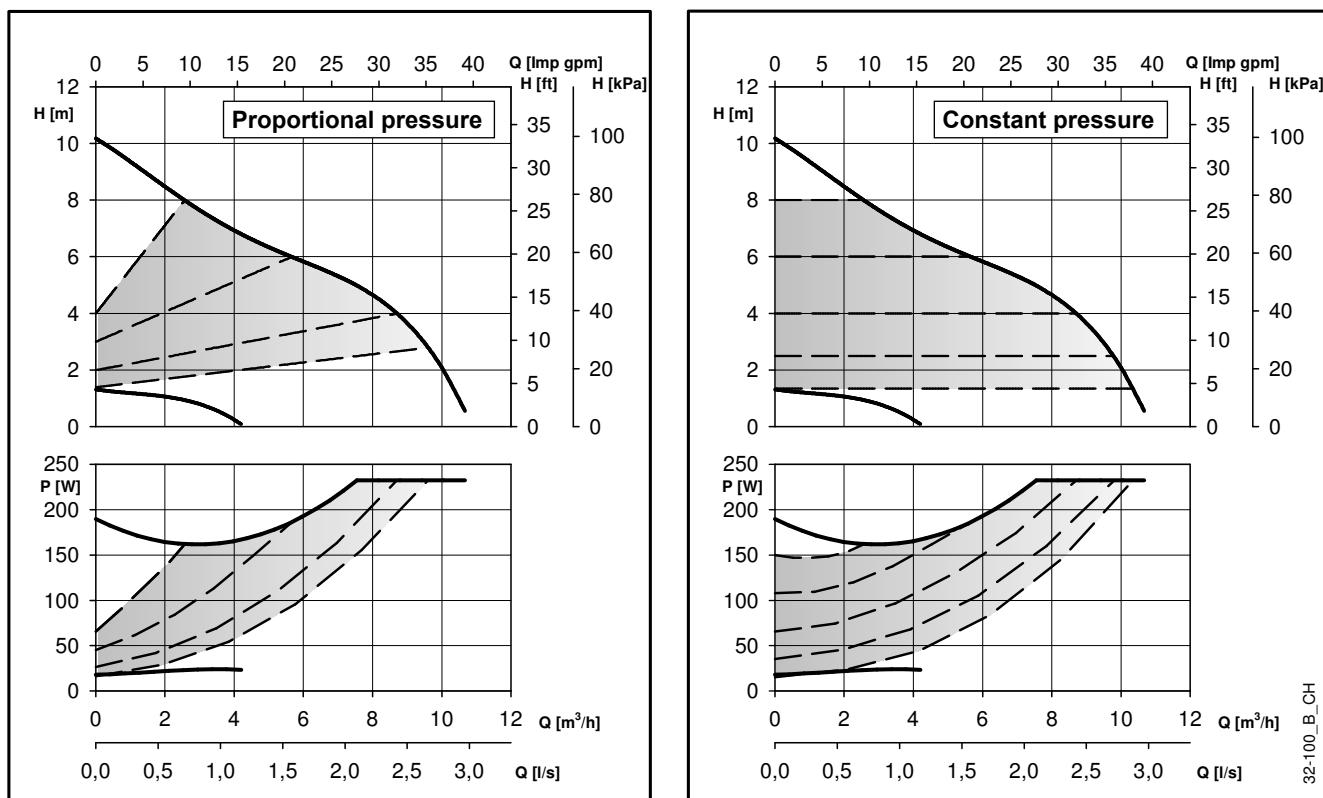
| ecocirc XL-XLplus 32-80 (N) | | Pump Data | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 18 / 191 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,2 / 1,4 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 45 dB(A) |

En-Rev_F



| ecocirc XL-XLplus 32-80 (N) | | Dimensions (mm) | | | | | | | Net weight 7,3 (Kg) - Gross weight 10,8 (Kg) | | | | | | |
|-----------------------------|--------------|-----------------|-----|----|-----|----|-----|-----|--|-----|----|----|----|--|--|
| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | | |
| 180 | G 2 – Rp 1 ¼ | 260 | 208 | 52 | 118 | 51 | 116 | 178 | 62 | 180 | 67 | 83 | 58 | | |

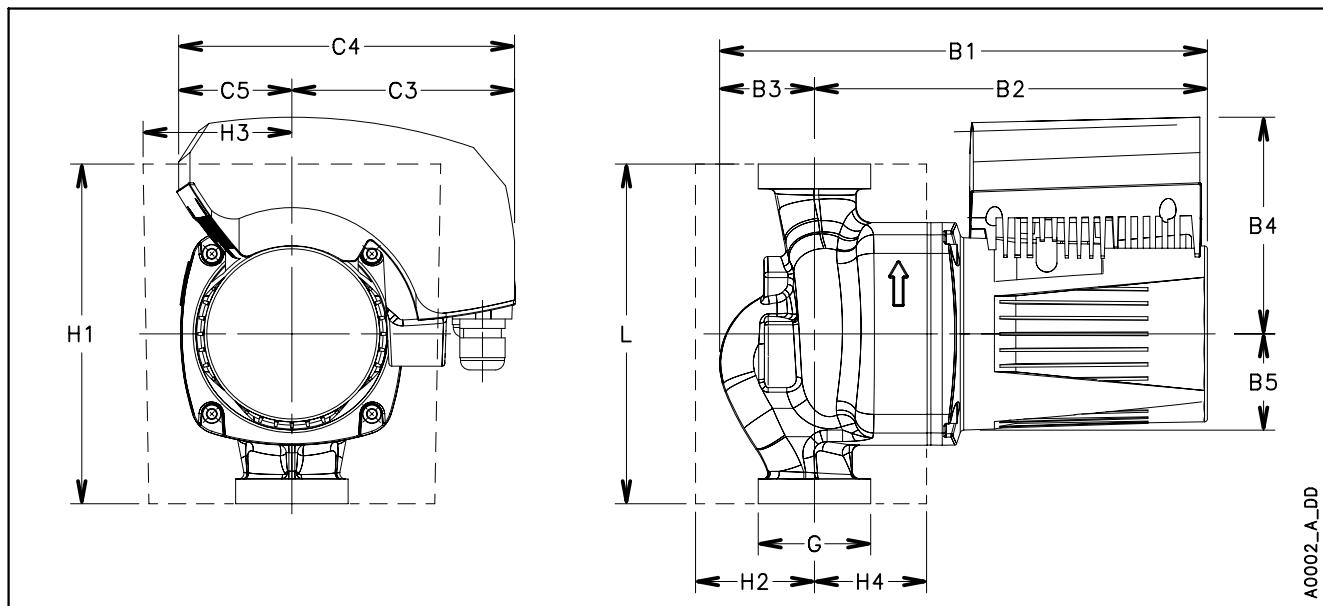
En-Rev_C

ecocirc XL-XLplus 32-100 (N)

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

| ecocirc XL-XLplus 32-100 (N) | Pump Data |
|------------------------------|--|
| Rated voltage | 1 x 230 V ±10% |
| Frequency | 50/60 Hz |
| Power absorbed [W] (min/max) | 18 / 233 |
| Input current [A] (min/max) | 0,2 / 1,7 |
| Specific EEI ≤ | 0,23 |
| | IP protection 44 |
| | Insulation class 155 (F) |
| | Max. working pressure 1,0 MPa (10 bar) |
| | Liquid temperature -10°C (14°F) to +110 °C (230°F) |
| | Sound pressure level ≤ 45 dB(A) |

En-Rev_F

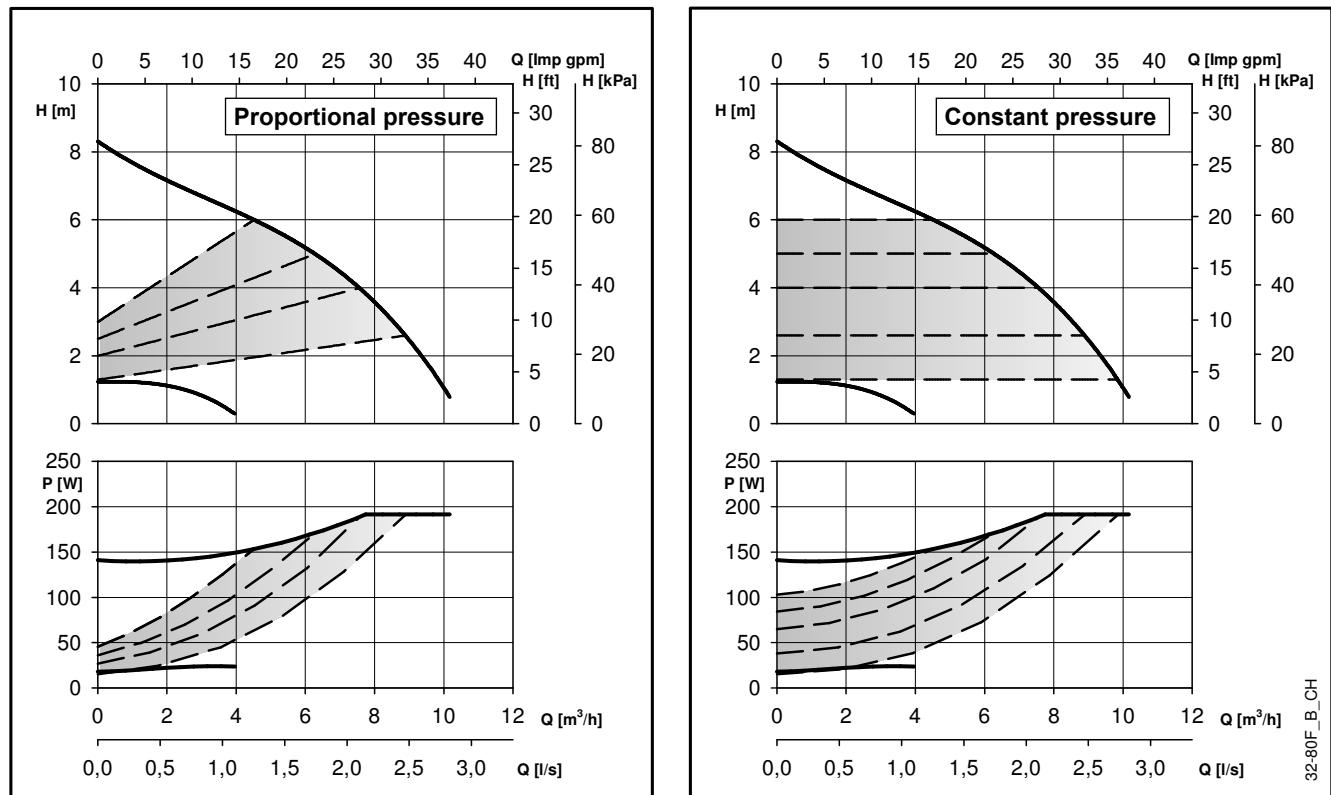


| ecocirc XL-XLplus 32-100 (N) | | Dimensions (mm) | | | | | | | Net weight 7,3 (Kg) - Gross weight 10,8 (Kg) | | | | | | |
|------------------------------|--------------|-----------------|-----|----|-----|----|-----|-----|--|-----|----|----|----|--|--|
| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | | |
| 180 | G 2 – Rp 1 ¼ | 260 | 208 | 52 | 118 | 51 | 116 | 178 | 62 | 180 | 67 | 83 | 58 | | |

En-Rev_C

Performance curves and Technical data

ecocirc XL-XLplus 32-80 F



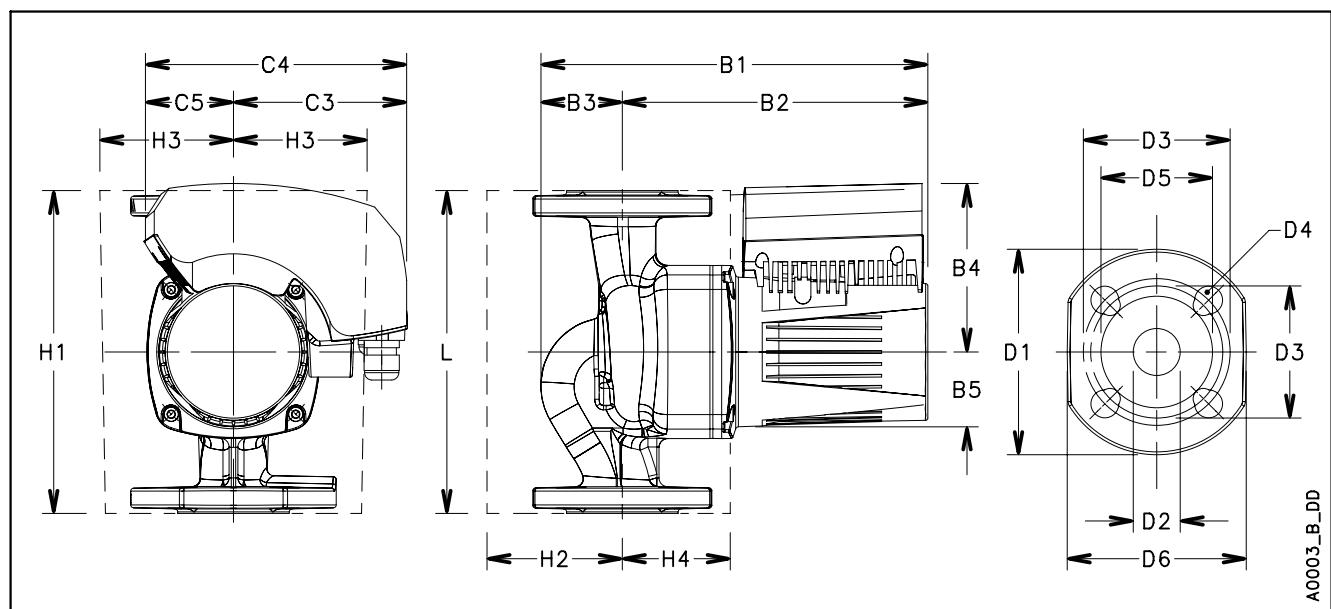
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus 32-80 F

Pump Data

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 18 / 192 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,2 / 1,4 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 45 dB(A) |

En-Rev_D



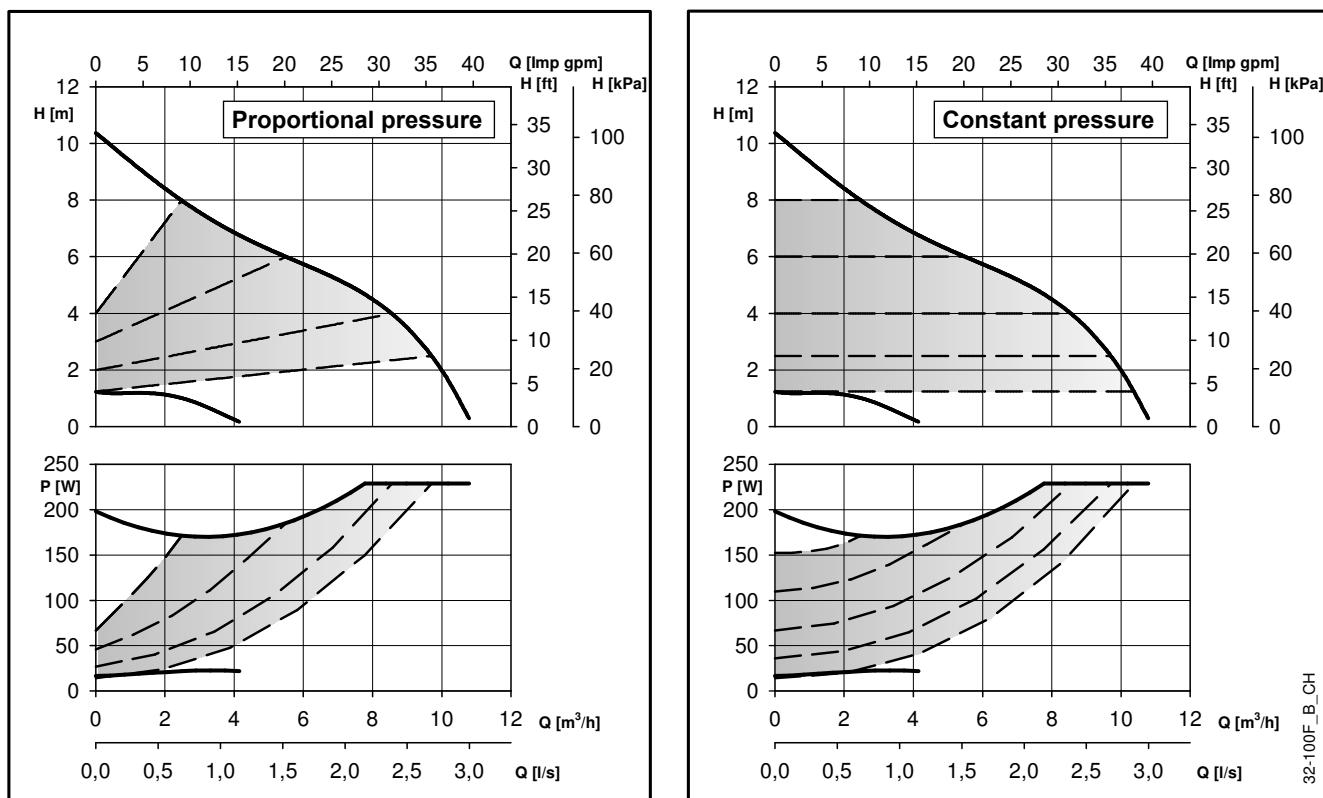
ecocirc XL-XLplus 32-80 F

Dimensions (mm)

Net weight 9,8 (Kg) - Gross weight 13,3 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-----|-----|----|-----|----|-----|-----|----|-----|----|----|----|-----|----|--------|-----------|----|
| 220 | DN 32 | 266 | 208 | 58 | 118 | 51 | 116 | 178 | 62 | 220 | 94 | 96 | 76 | 140 | 32 | 90/100 | 4 x 14/19 | 76 |

En-Rev_A

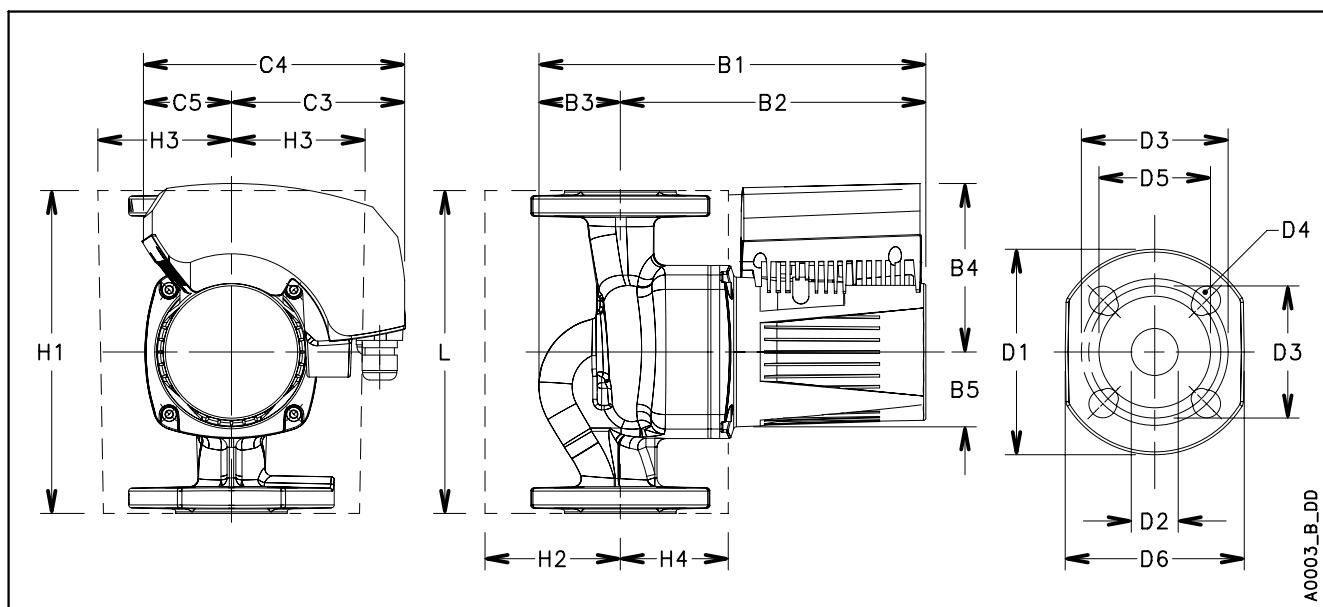
ecocirc XL-XLplus 32-100 F

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $v = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus 32-100 F**Pump Data**

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 17 / 230 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,2 / 1,7 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 45 dB(A) |

En-Rev_D

**ecocirc XL-XLplus 32-100 F****Dimensions (mm)**

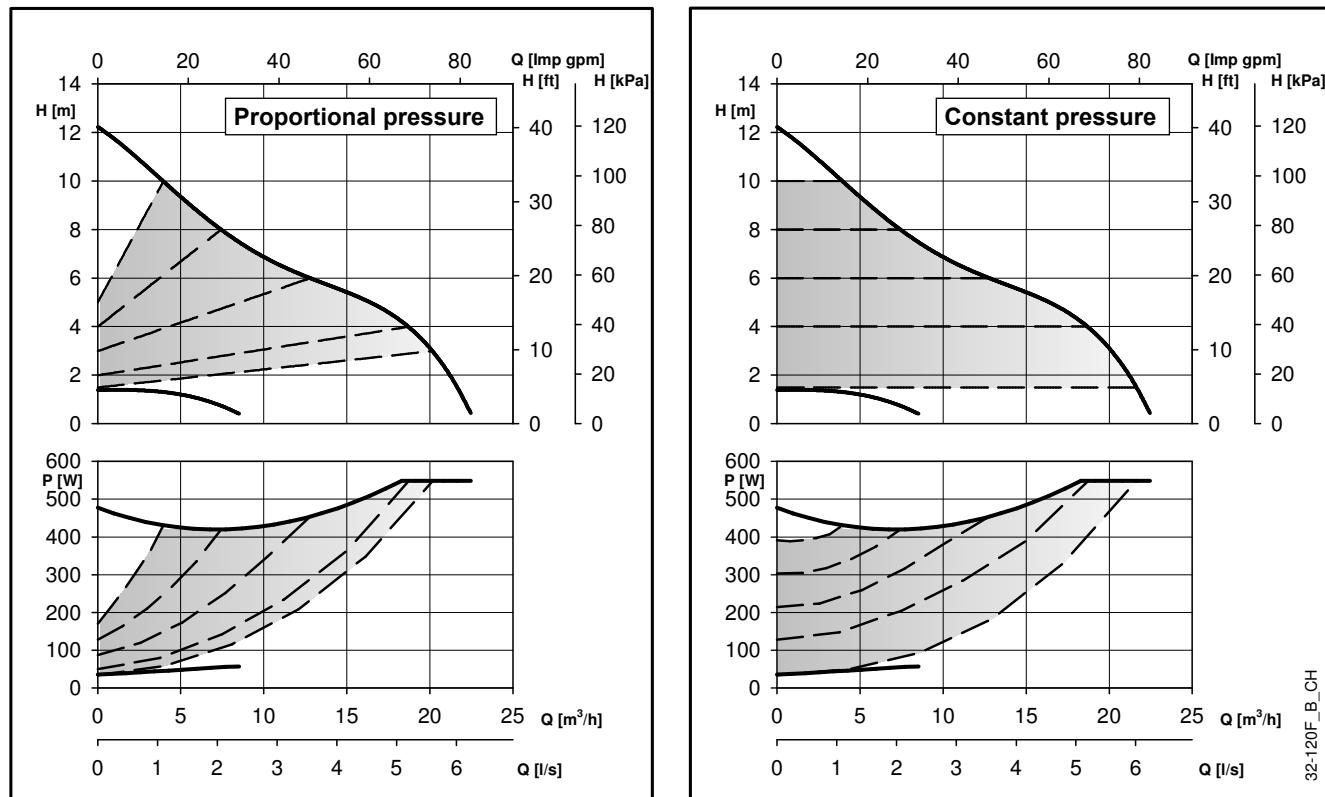
Net weight 9,8 (Kg) - Gross weight 13,3 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-----|-----|----|-----|----|-----|-----|----|-----|----|----|----|-----|----|--------|-----------|----|
| 220 | DN 32 | 266 | 208 | 58 | 118 | 51 | 116 | 178 | 62 | 220 | 94 | 96 | 76 | 140 | 32 | 90/100 | 4 x 14/19 | 76 |

En-Rev_A

Performance curves and Technical data

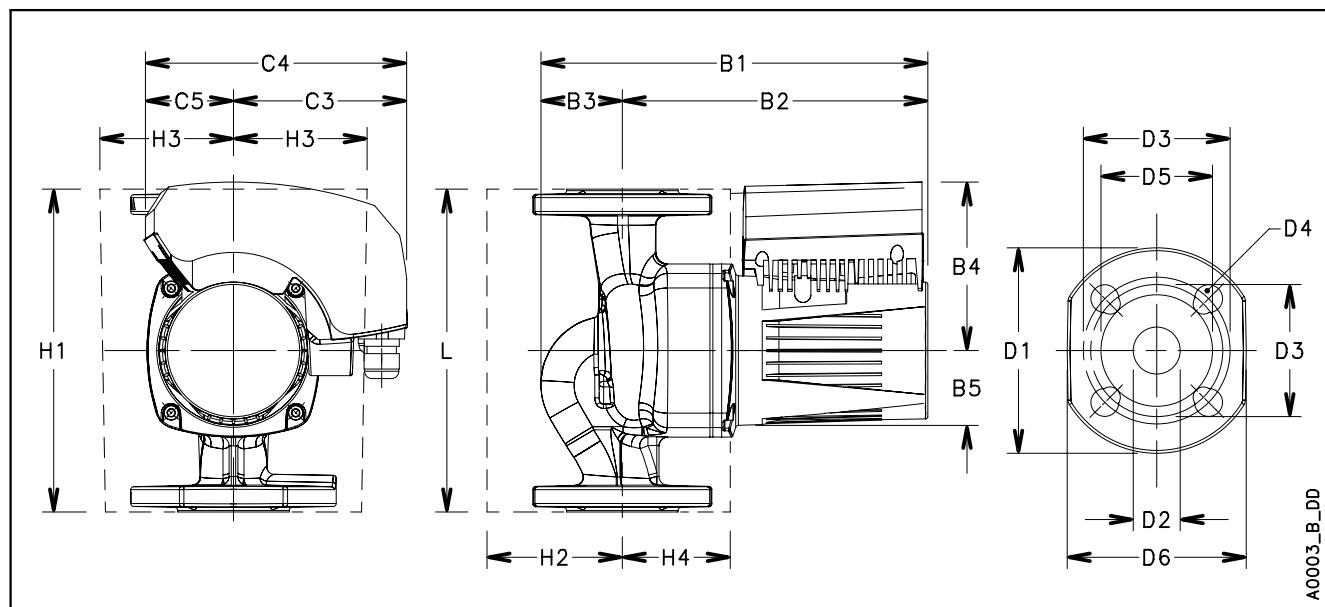
ecocirc XL-XLplus 32-120 F (N)



These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

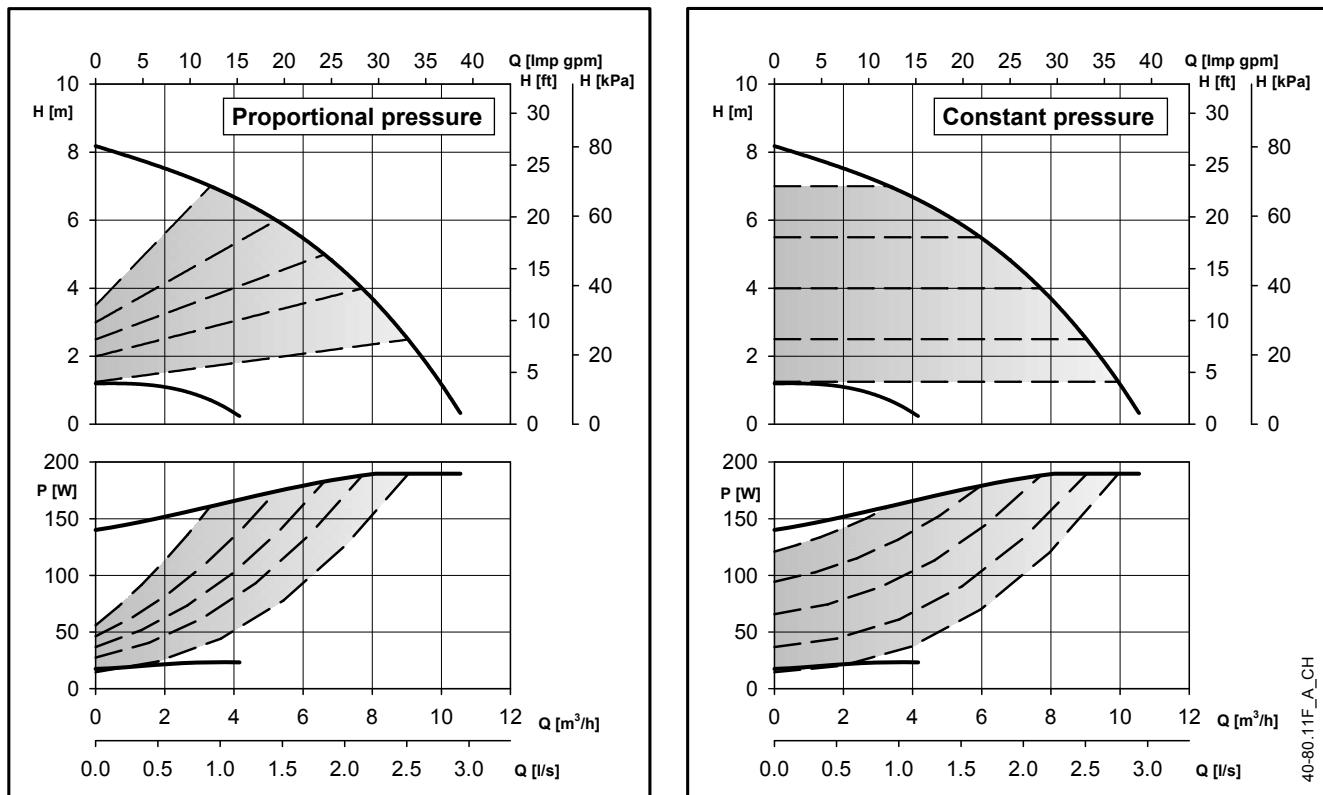
| ecocirc XL-XLplus 32-120 F (N) | | Pump Data | |
|--------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 36 / 549 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,2 / 2,4 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 48 dB(A) |

En-Rev_E



| ecocirc XL-XLplus 32-120 F (N) | | Dimensions (mm) | | | | | | | | | | | | Net weight 13 (Kg) - Gross weight 16,8 (Kg) | | | | |
|--------------------------------|-------|-----------------|-----|----|-----|----|-----|-----|----|-----|----|----|----|---|----|--------|-----------|----|
| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 |
| 220 | DN 32 | 322 | 252 | 70 | 132 | 53 | 128 | 206 | 78 | 220 | 83 | 83 | 83 | 140 | 32 | 90/100 | 4 x 14/19 | 76 |

En-Rev_C

ecocirc XL 40-80.11 F

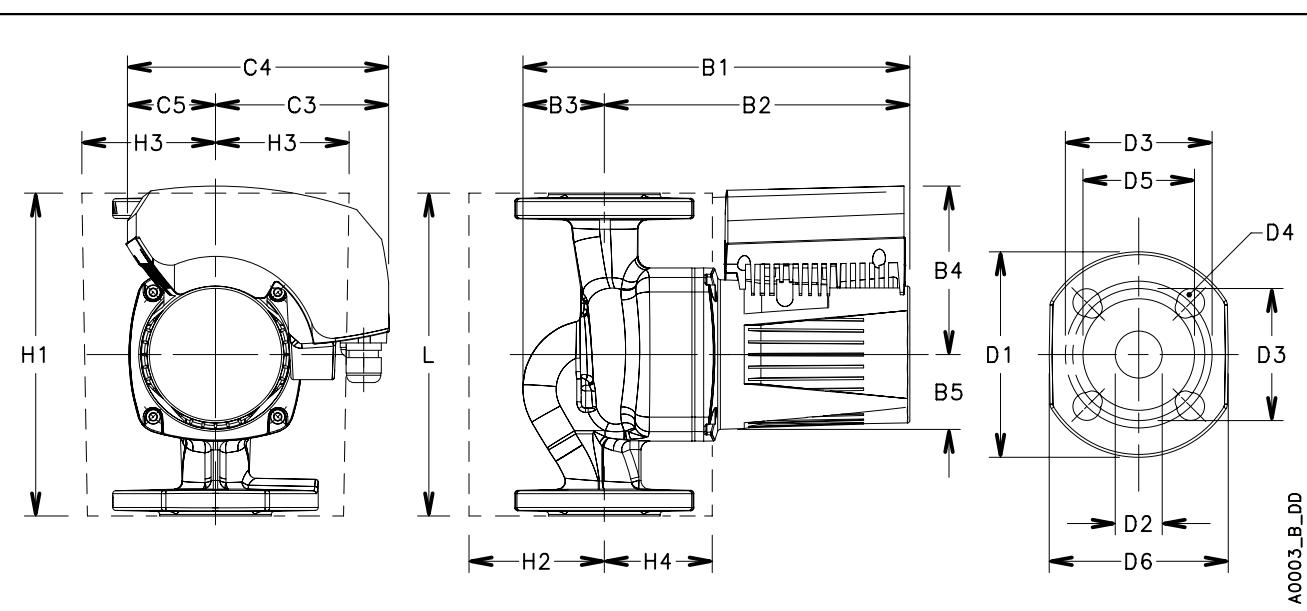
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL 40-80.11 F**Pump Data**

| | |
|------------------------------|----------------|
| Rated voltage | 1 x 230 V ±10% |
| Frequency | 50/60 Hz |
| Power absorbed [W] (min/max) | 18 / 190 |
| Input current [A] (min/max) | 0,2 / 1,4 |
| Specific EEI ≤ | 0,23 |
| IP protection | 44 |

| | |
|-----------------------|--|
| Insulation class | 155 (F) |
| Max. working pressure | 1,0 MPa (10 bar) |
| Liquid temperature | -10°C (14°F) to +110°C (230°F) for heating pumps -10°C (14°F) to +85°C (185°F) for domestic hot water pumps |
| Sound pressure level | ≤ 43 dB(A) |

En-Rev_A

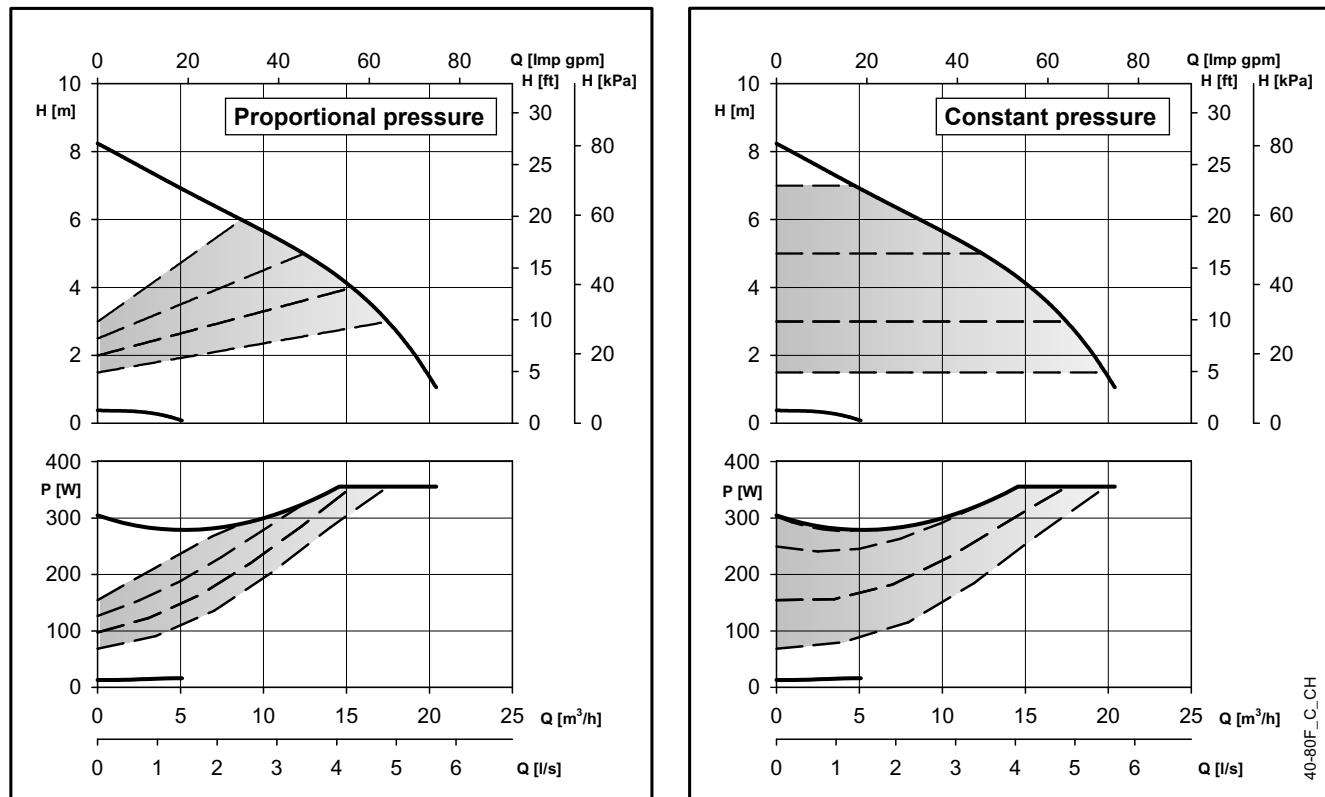


| Dimensions (mm) | | | | | | | | | | | | | | | Net weight 10,7 (Kg) - Gross weight 14,2 (Kg) | | | | |
|-----------------|-------|-----|-----|----|-----|----|-----|-----|----|-----|----|----|----|-----|---|---------|-----------|----|--|
| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 | |
| 220 | DN 40 | 274 | 212 | 62 | 118 | 51 | 116 | 178 | 62 | 220 | 94 | 96 | 76 | 150 | 40 | 100/110 | 4 x 14/19 | 84 | |

En-Rev_A

Performance curves and Technical data

ecocirc XL-XLplus 40-80 F



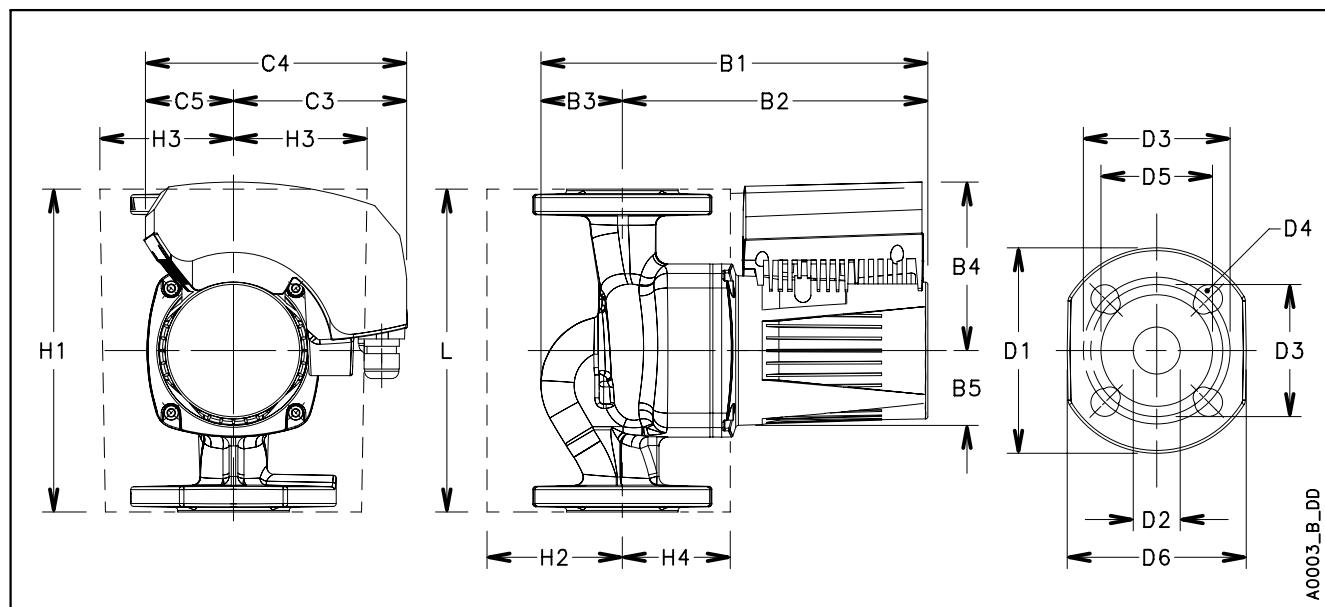
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus 40-80 F

Pump Data

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 13 / 356 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,1 / 1,6 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 48 dB(A) |

En-Rev_D



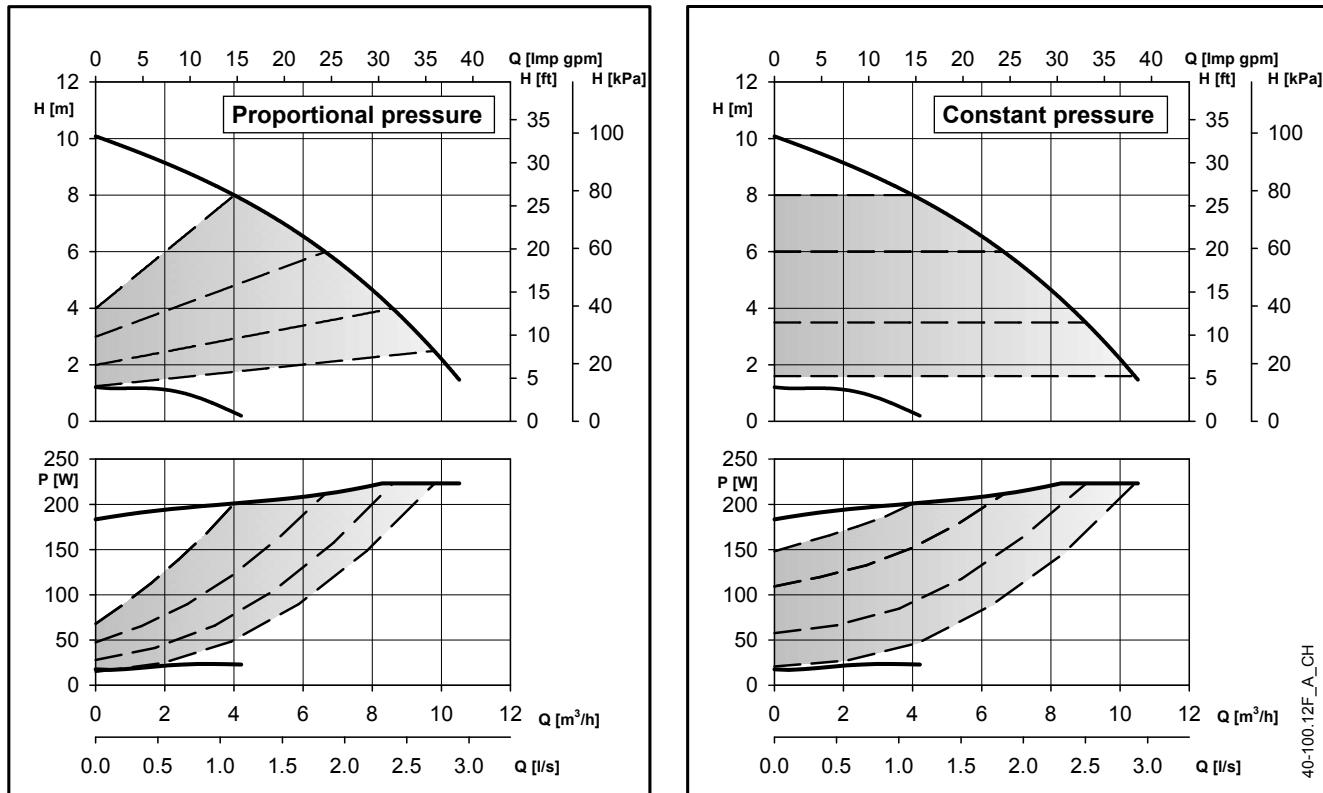
ecocirc XL-XLplus 40-80 F

Dimensions (mm)

Net weight 13,8 (Kg) - Gross weight 17,3 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-----|-----|----|-----|----|-----|-----|----|-----|----|----|----|-----|----|---------|-----------|----|
| 220 | DN 40 | 322 | 256 | 66 | 130 | 51 | 128 | 209 | 81 | 220 | 94 | 96 | 86 | 150 | 40 | 100/110 | 4 x 14/19 | 84 |

En-Rev_B

ecocirc XL 40-100.12 F

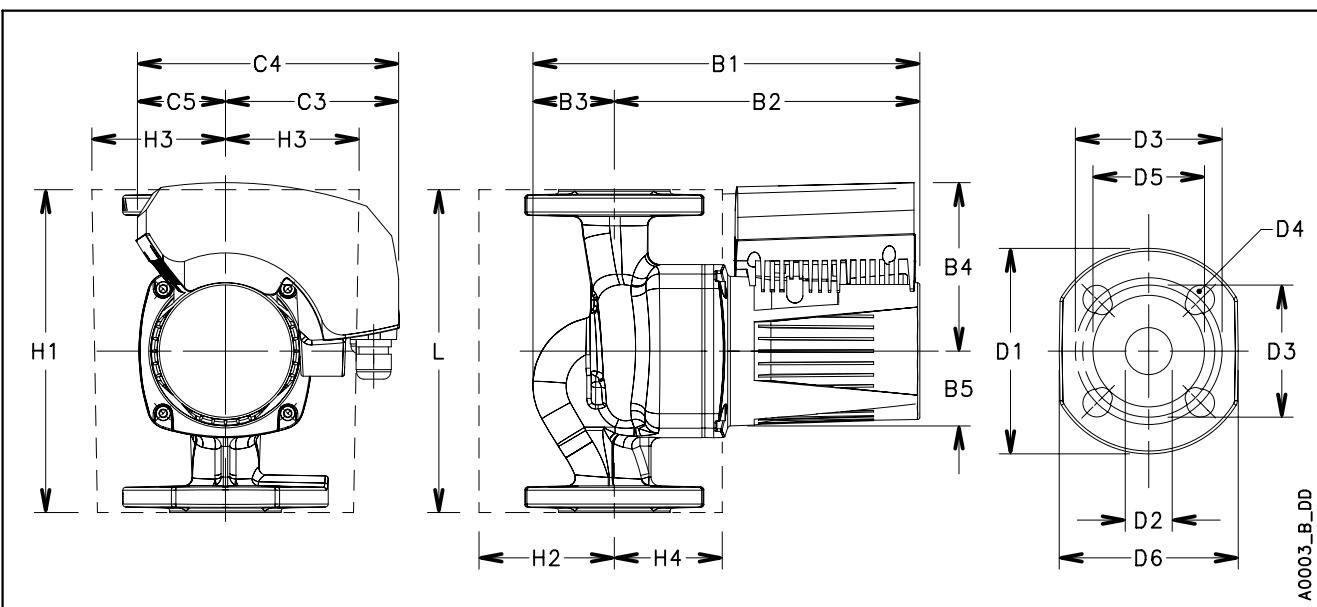
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL 40-100.12 F**Pump Data**

| | |
|------------------------------|----------------|
| Rated voltage | 1 x 230 V ±10% |
| Frequency | 50/60 Hz |
| Power absorbed [W] (min/max) | 17 / 220 |
| Input current [A] (min/max) | 0,2 / 1,6 |
| Specific EEI ≤ | 0,23 |
| IP protection | 44 |

| | |
|-----------------------|--|
| Insulation class | 155 (F) |
| Max. working pressure | 1,0 MPa (10 bar) |
| Liquid temperature | -10°C (14°F) to +110°C (230°F) for heating pumps -10°C (14°F) to +85°C (185°F) for domestic hot water pumps |
| Sound pressure level | ≤ 43 dB(A) |

En-Rev_A

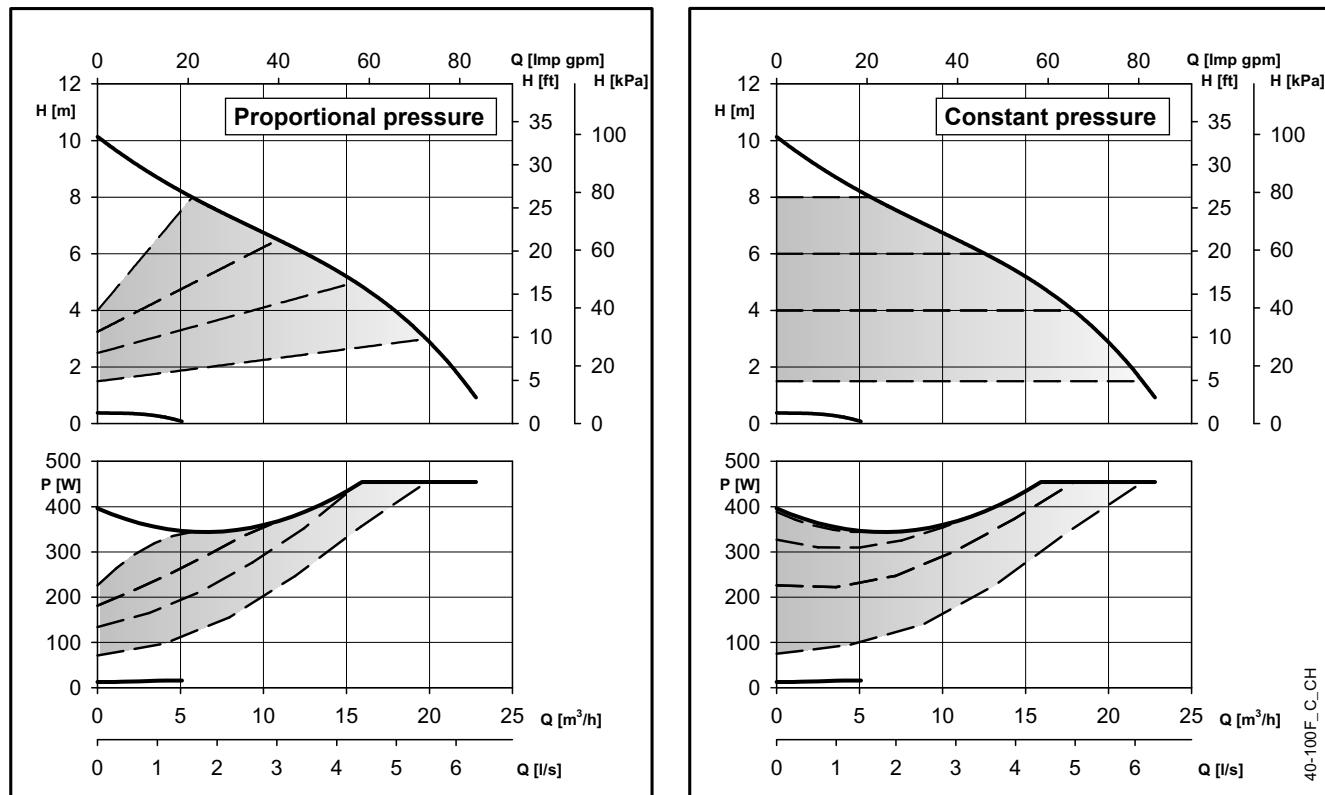


| Dimensions (mm) | | | | | | | | | | | | Net weight 10,7 (Kg) - Gross weight 14,2 (Kg) | | | | | | |
|-----------------|-------|-----|-----|----|-----|----|-----|-----|----|-----|----|---|----|-----|----|---------|-----------|----|
| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 |
| 220 | DN 40 | 274 | 212 | 62 | 118 | 51 | 116 | 178 | 62 | 220 | 94 | 96 | 76 | 150 | 40 | 100/110 | 4 x 14/19 | 84 |

En-Rev_A

Performance curves and Technical data

ecocirc XL-XLplus 40-100 F



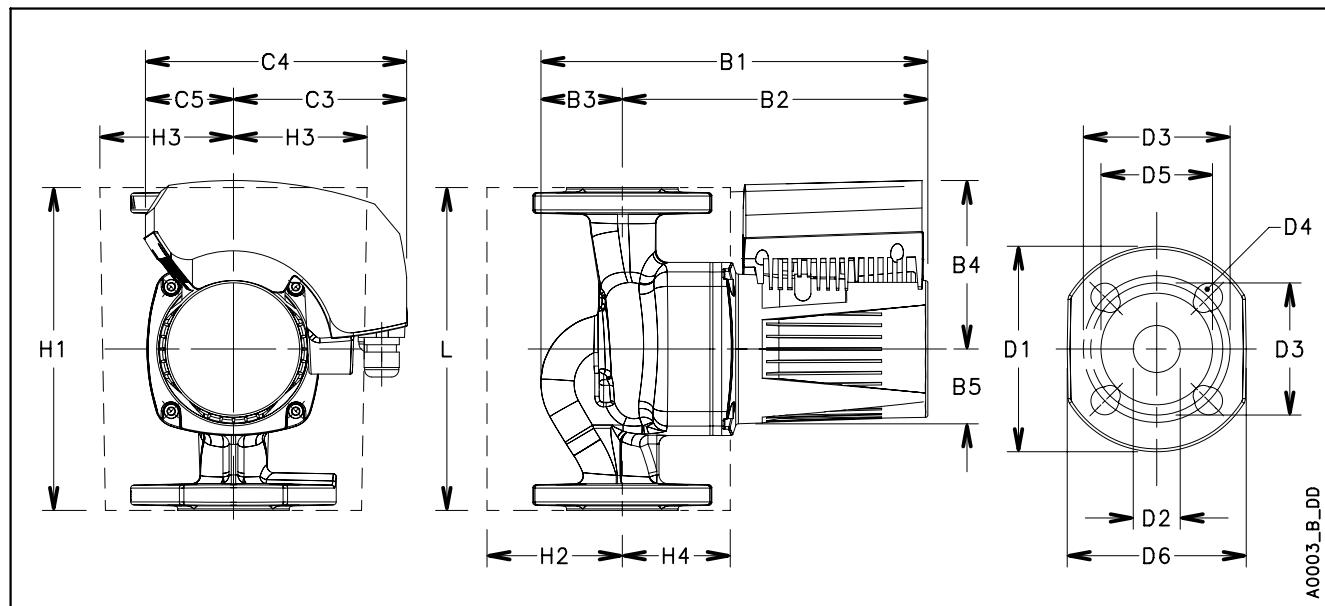
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $v = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus 40-100 F

Pump Data

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 13 / 455 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,1 / 2,1 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 48 dB(A) |

En-Rev_D



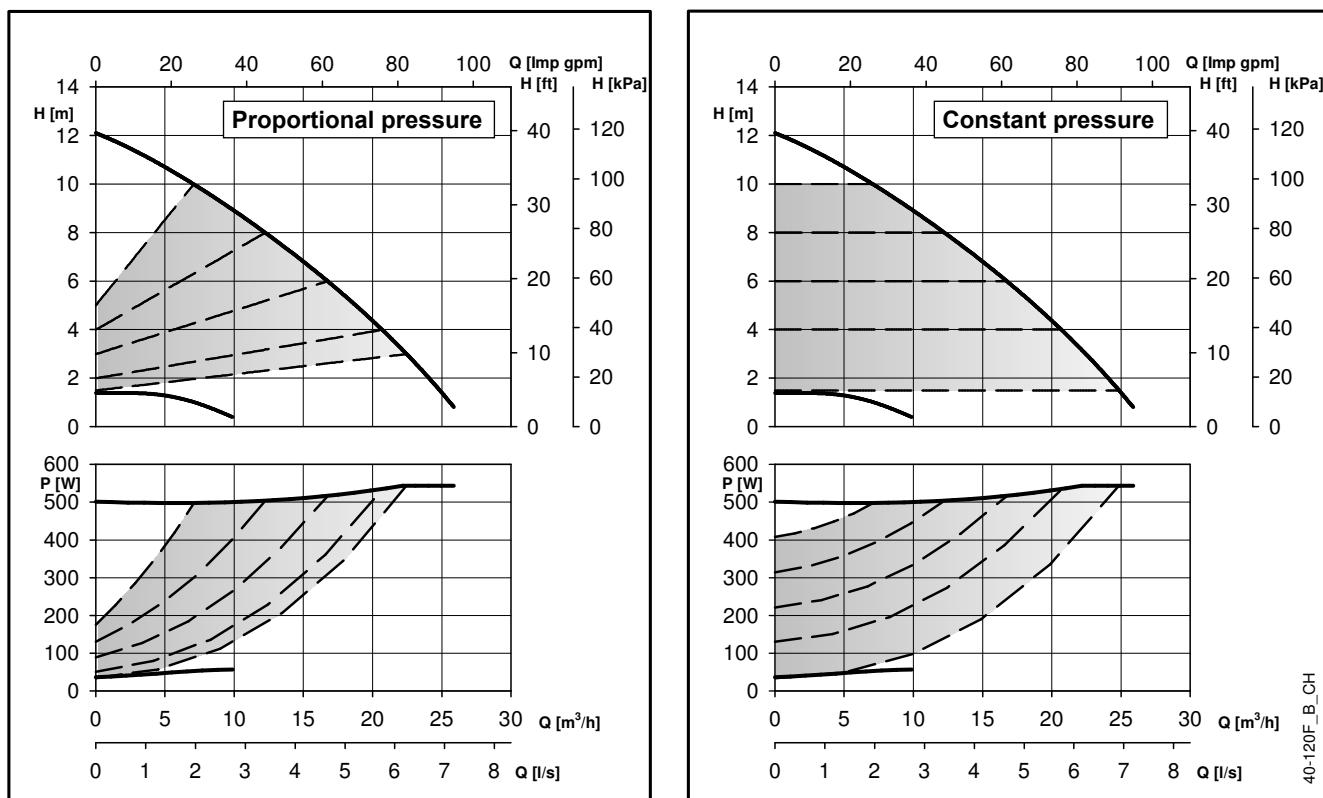
ecocirc XL-XLplus 40-100 F

Dimensions (mm)

Net weight 13,8 (Kg) - Gross weight 17,3 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-----|-----|----|-----|----|-----|-----|----|-----|----|----|----|-----|----|---------|-----------|----|
| 220 | DN 40 | 322 | 256 | 66 | 130 | 51 | 128 | 209 | 81 | 220 | 94 | 96 | 86 | 150 | 40 | 100/110 | 4 x 14/19 | 84 |

En-Rev_B

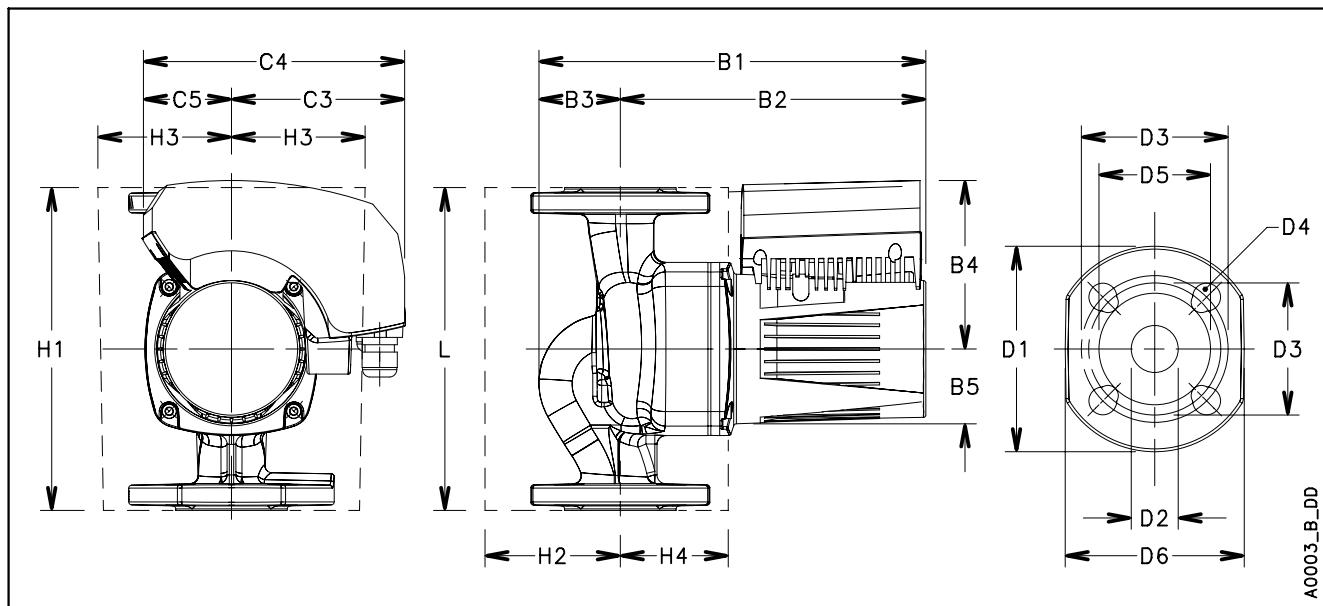
ecocirc XL-XLplus 40-120 F (N)

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus 40-120 F (N)**Pump Data**

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 36 / 544 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,2 / 2,4 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 48 dB(A) |

En-Rev_E

**ecocirc XL-XLplus 40-120 F (N)****Dimensions (mm)**

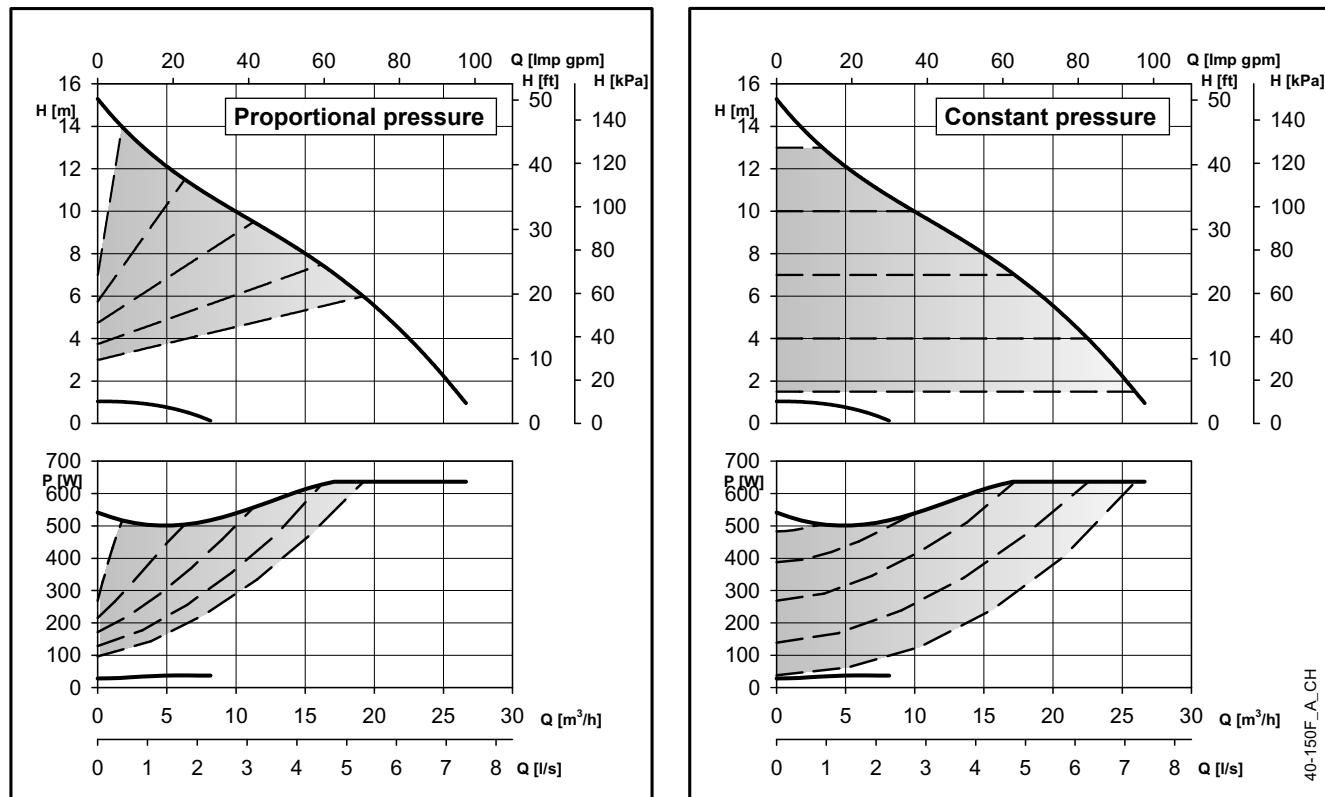
Net weight 13,9 (Kg) - Gross weight 17,7 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-----|-----|----|-----|----|-----|-----|----|-----|----|----|----|-----|----|---------|-----------|----|
| 250 | DN 40 | 338 | 256 | 82 | 132 | 53 | 128 | 206 | 78 | 250 | 87 | 90 | 88 | 150 | 40 | 100/110 | 4 x 14/19 | 84 |

En-Rev_C

Performance curves and Technical data

ecocirc XL-XLplus 40-150 F



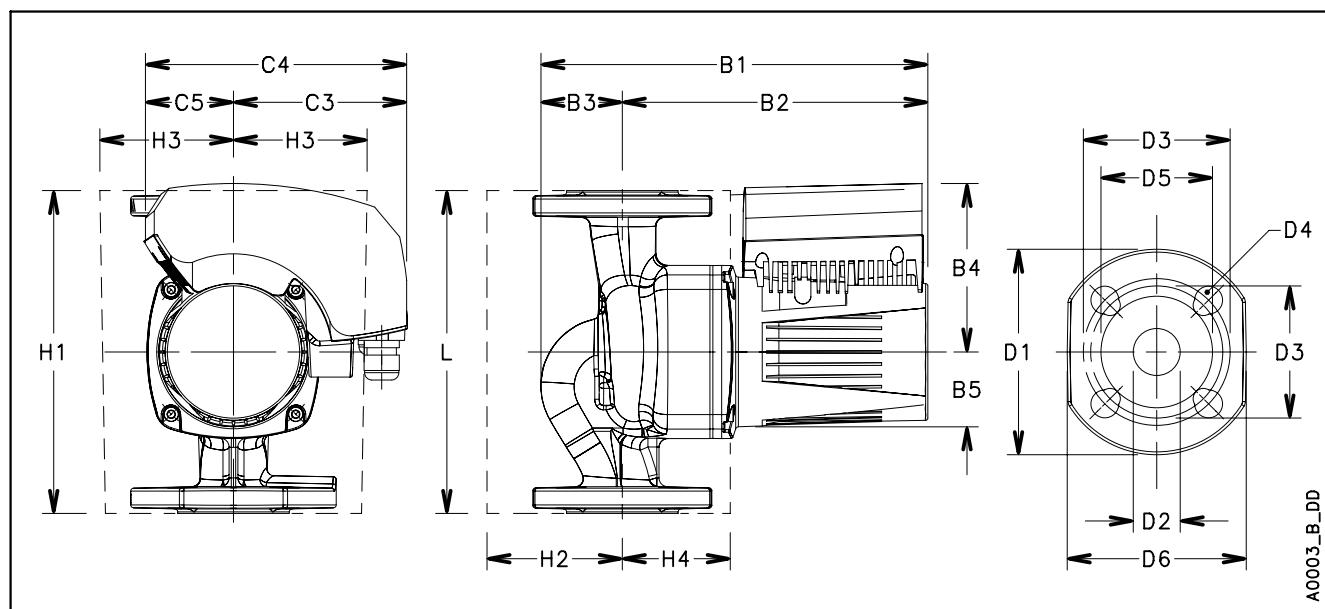
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus 40-150 F

Pump Data

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 28 / 637 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,4 / 2,9 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 52 dB(A) |

En-Rev_A



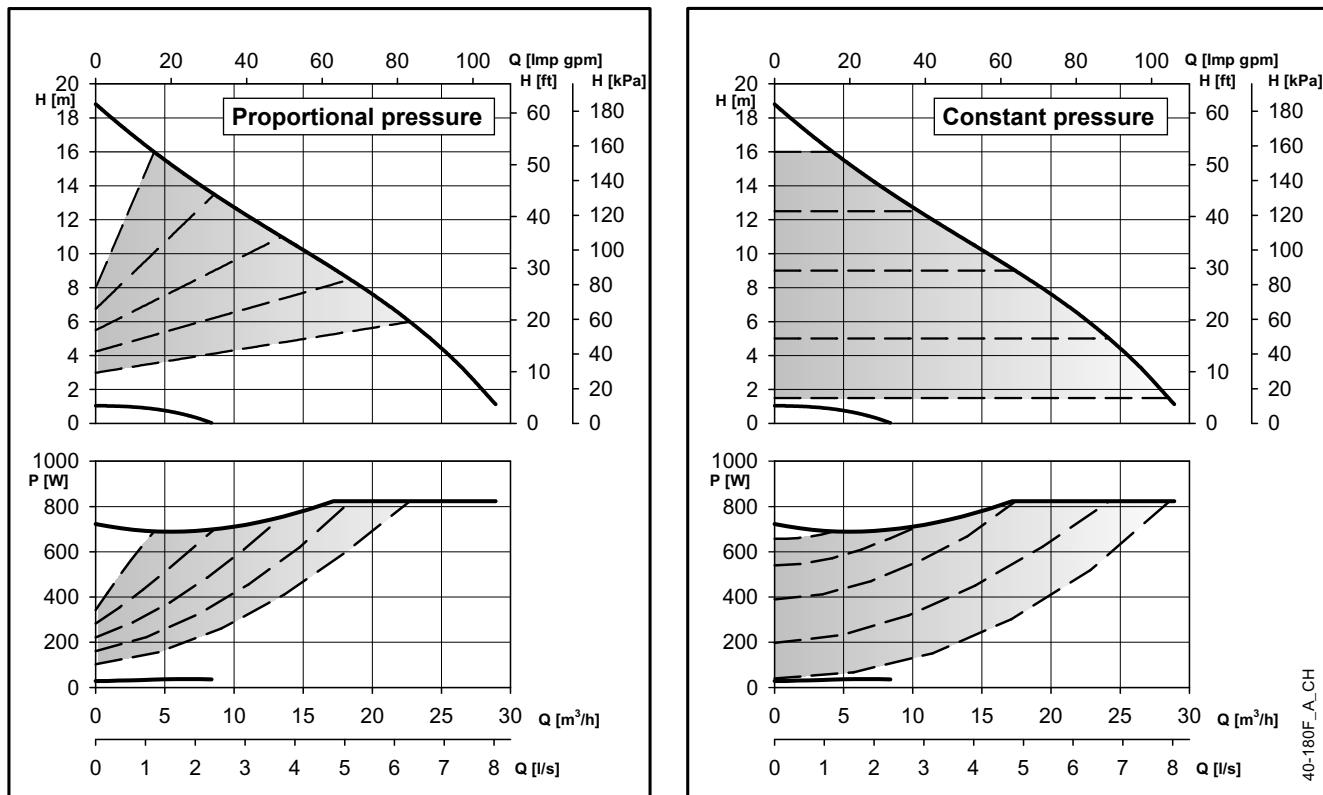
ecocirc XL-XLplus 40-150 F

Dimensions (mm)

Net weight 17,8 (Kg) - Gross weight 21,6 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-----|-----|----|-----|----|-----|-----|----|-----|----|--------|----|-----|----|---------|-----------|----|
| 250 | DN 40 | 365 | 299 | 66 | 147 | 61 | 146 | 239 | 93 | 240 | 86 | 90/102 | 93 | 150 | 40 | 100/110 | 4 x 14/19 | 84 |

En-Rev_A

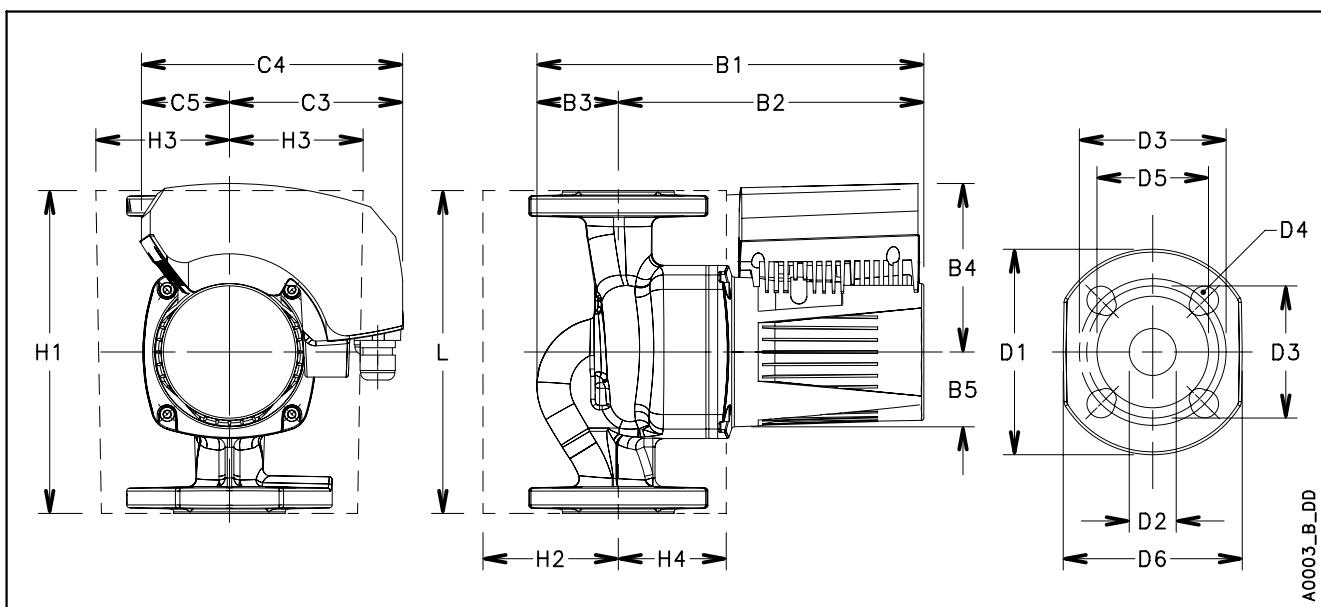
ecocirc XL-XLplus 40-180 F

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus 40-180 F**Pump Data**

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 29 / 823 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,4 / 3,7 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 52 dB(A) |

En-Rev_A

**ecocirc XL-XLplus 40-180 F****Dimensions (mm)**

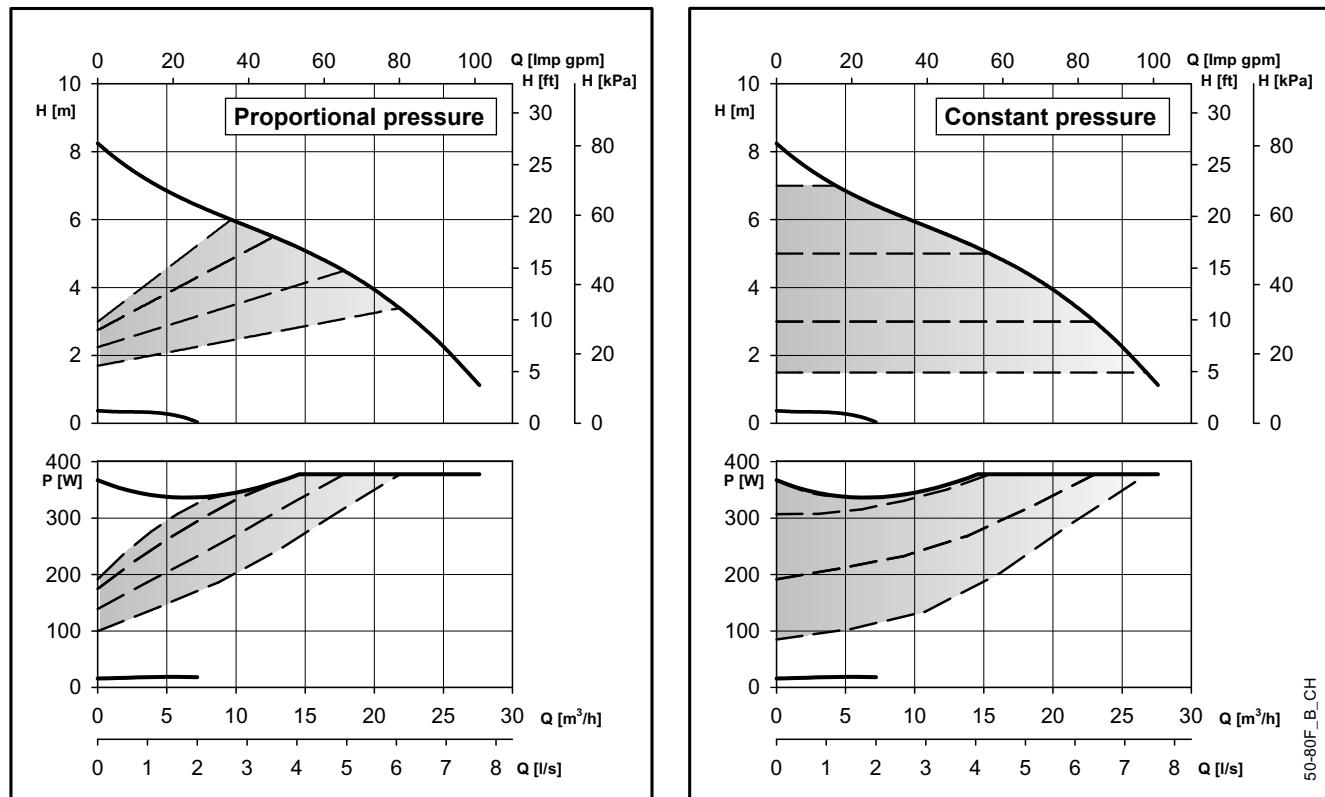
Net weight 17,8 (Kg) - Gross weight 21,6 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-----|-----|----|-----|----|-----|-----|----|-----|----|--------|----|-----|----|---------|-----------|----|
| 250 | DN 40 | 365 | 299 | 66 | 147 | 61 | 146 | 239 | 93 | 240 | 86 | 90/102 | 93 | 150 | 40 | 100/110 | 4 x 14/19 | 84 |

En-Rev_A

Performance curves and Technical data

ecocirc XL-XLplus 50-80 F (N)



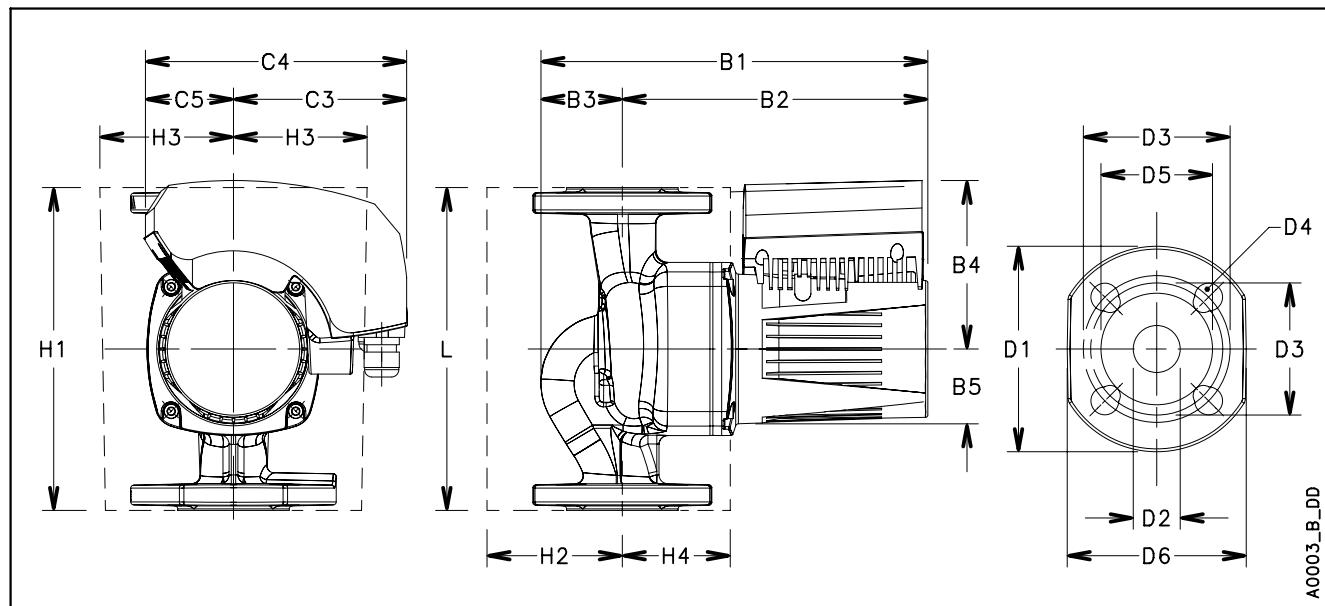
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $v = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus 50-80 F (N)

Pump Data

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 16 / 377 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,1 / 1,7 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 48 dB(A) |

En-Rev_E



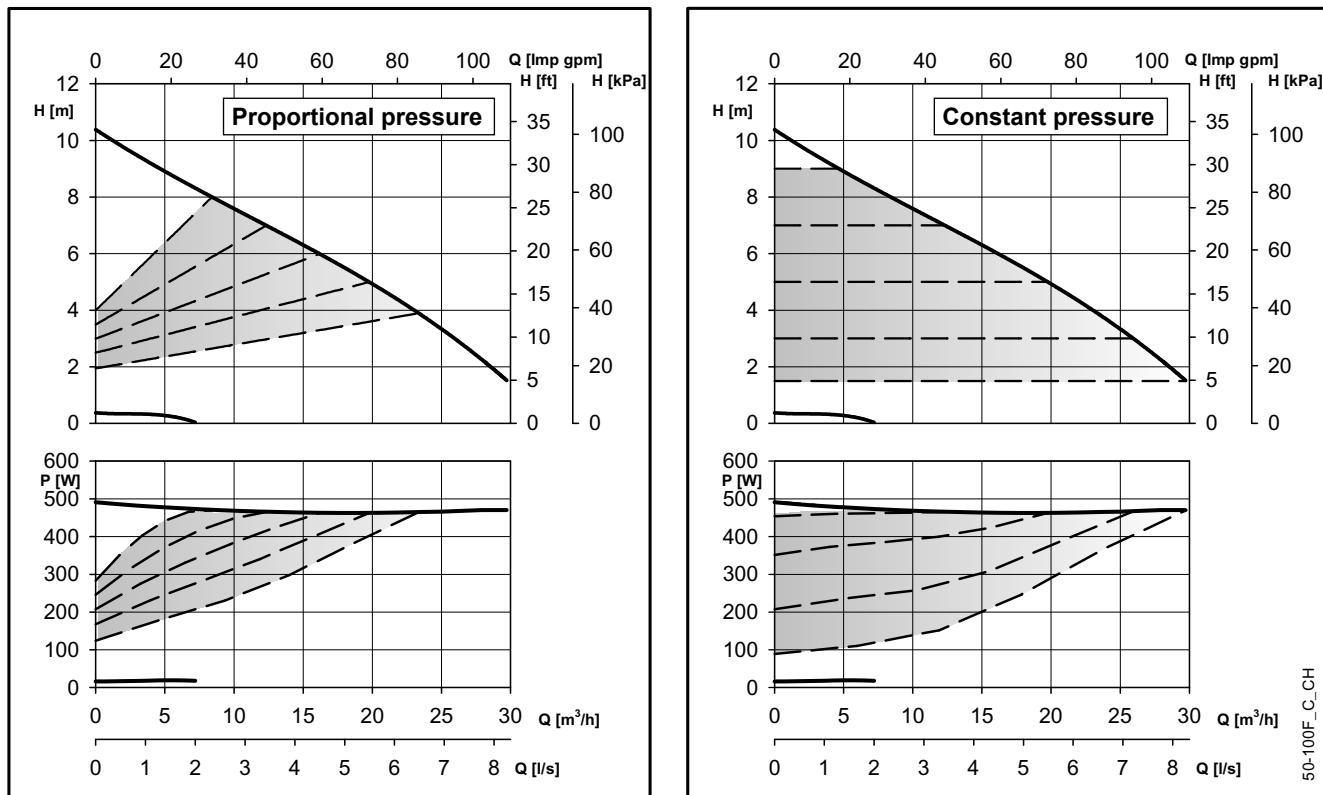
ecocirc XL-XLplus 50-80 F (N)

Dimensions (mm)

Net weight 15,9 (Kg) - Gross weight 19,7 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-----|-----|----|-----|----|-----|-----|----|-----|----|----|----|-----|----|---------|-----------|-----|
| 240 | DN 50 | 355 | 261 | 94 | 132 | 53 | 128 | 206 | 78 | 280 | 93 | 93 | 93 | 165 | 50 | 110/125 | 4 x 14/19 | 100 |

En-Rev_E

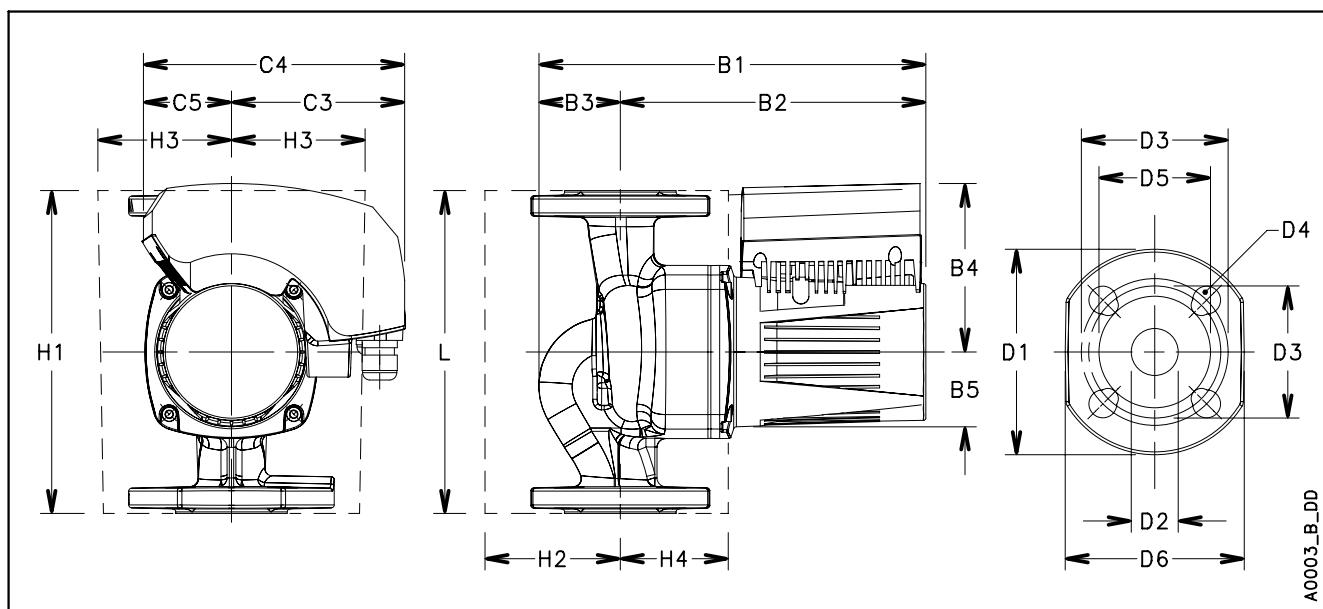
ecocirc XL-XLplus 50-100 F

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $v = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus 50-100 F**Pump Data**

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 16 / 493 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,1 / 2,2 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 48 dB(A) |

En-Rev_D

**ecocirc XL-XLplus 50-100 F****Dimensions (mm)**

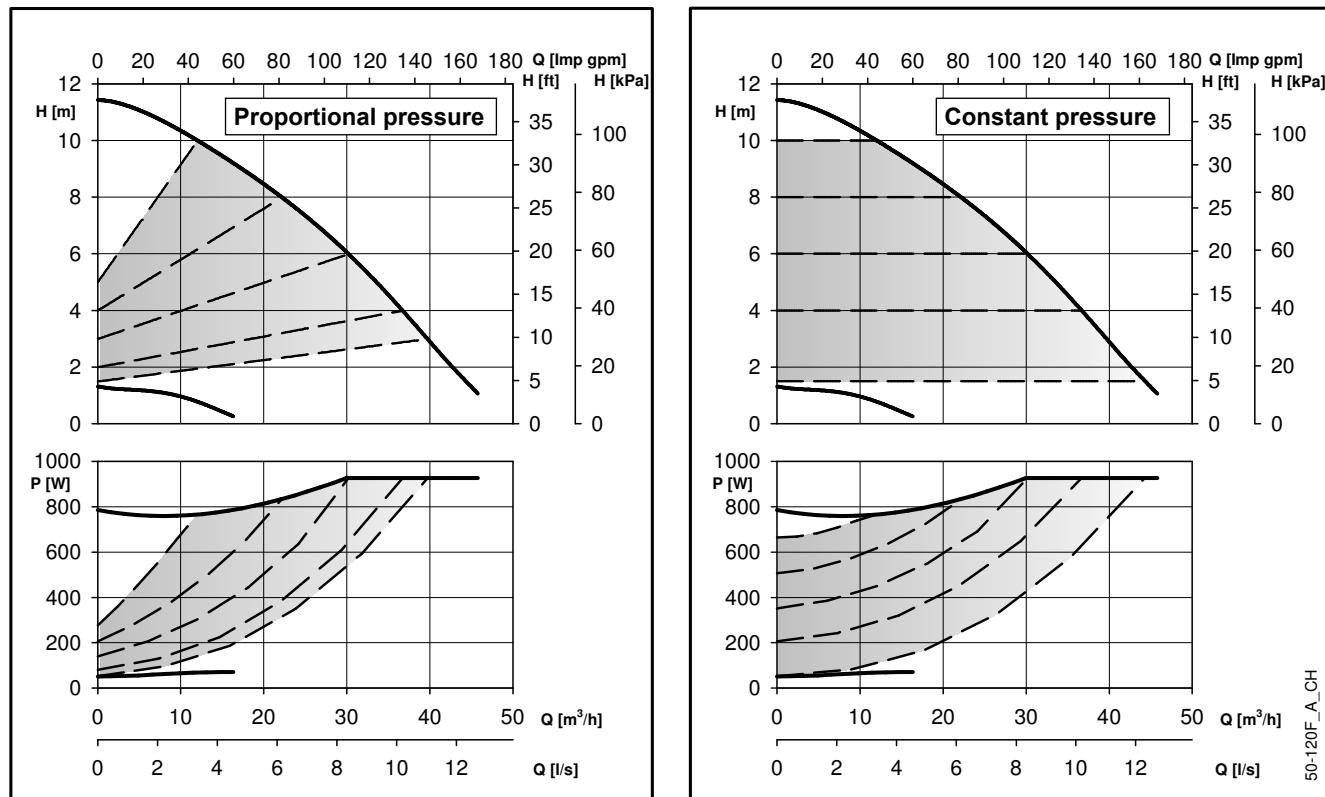
Net weight 16,8 (Kg) - Gross weight 30,3 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-----|-----|----|-----|----|-----|-----|----|-----|----|-----|----|-----|----|---------|-----------|----|
| 280 | DN 50 | 337 | 265 | 72 | 130 | 51 | 128 | 209 | 81 | 280 | 96 | 104 | 95 | 165 | 50 | 110/125 | 4 x 14/19 | 99 |

En-Rev_B

Performance curves and Technical data

ecocirc XL-XLplus 50-120 F (N)



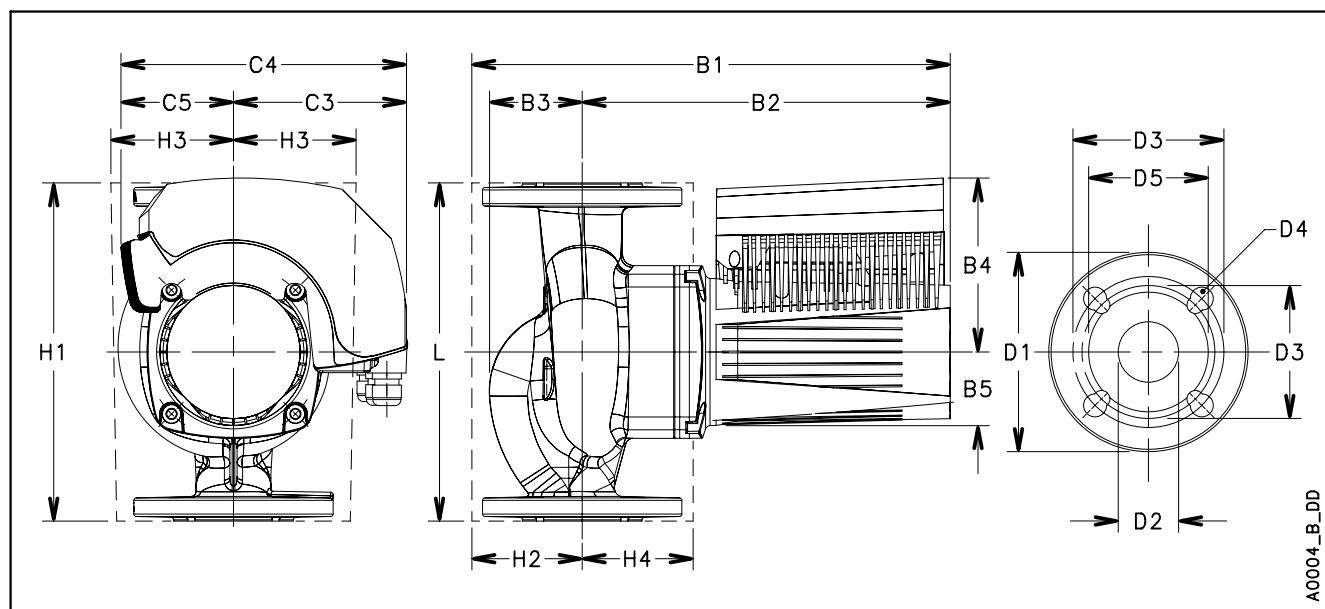
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $v = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus 50-120 F (N)

Pump Data

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 53 / 892 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,4 / 4,0 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 52 dB(A) |

En-Rev_D



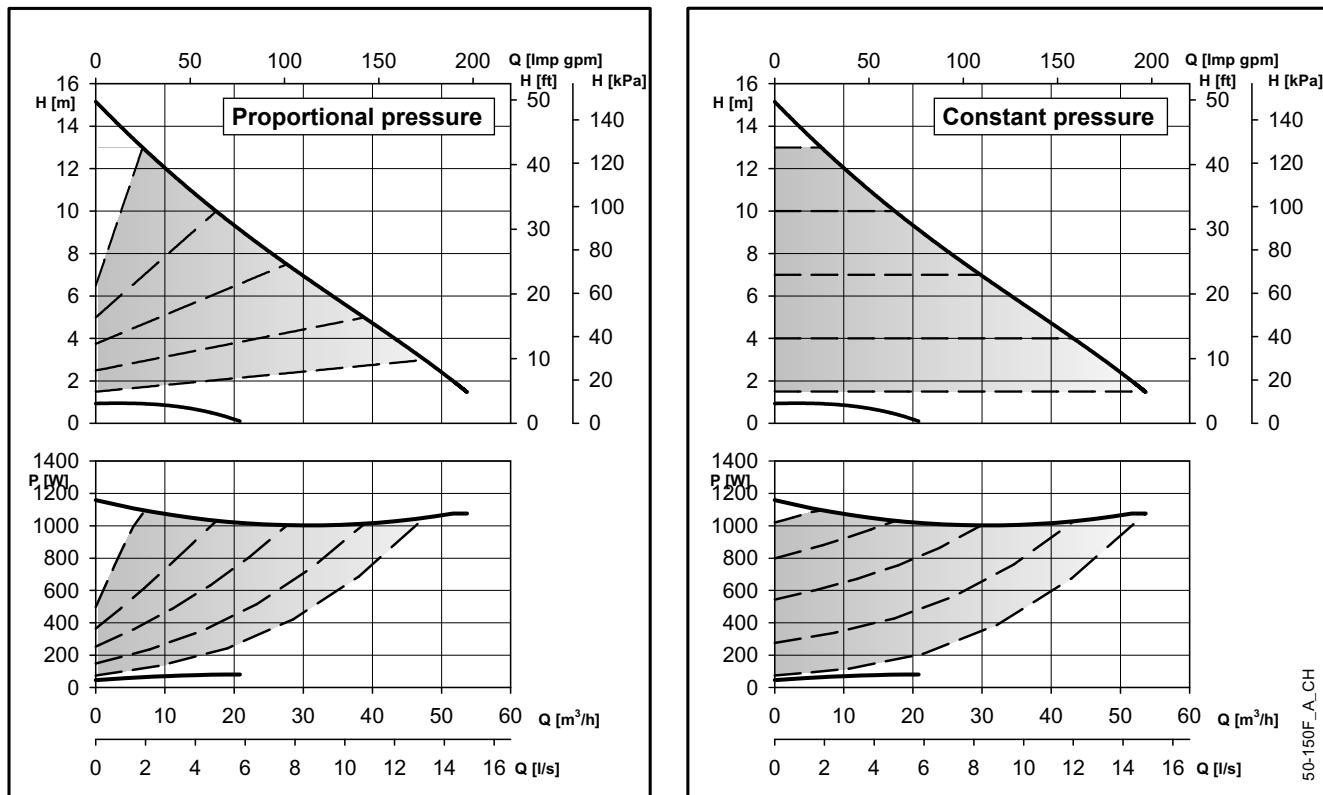
ecocirc XL-XLplus 50-120 F (N)

Dimensions (mm)

Net weight 15,1 (Kg) - Gross weight 19 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 | |
|-----|-------|-----|-----|----|-----|----|-----|-----|----|-----|----|-----|----|-----|----|---------|-----------|-----|
| 280 | DN 50 | 368 | 290 | 78 | 147 | 60 | 148 | 230 | 82 | 280 | 94 | 105 | 95 | 165 | 50 | 110/125 | 4 x 14/19 | 100 |

En-Rev_C

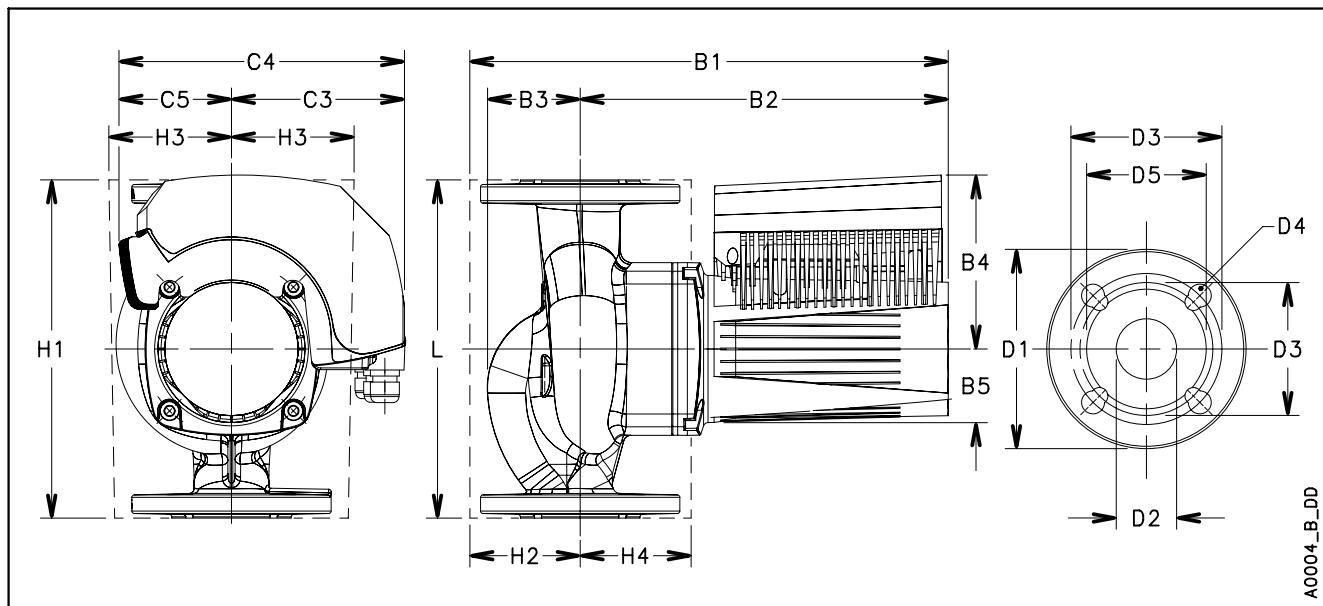
ecocirc XL-XLplus 50-150 F

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus 50-150 F**Pump Data**

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 46 / 1150 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,4 / 5,1 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 52 dB(A) |

En-Rev_A

**ecocirc XL-XLplus 50-150 F****Dimensions (mm)**

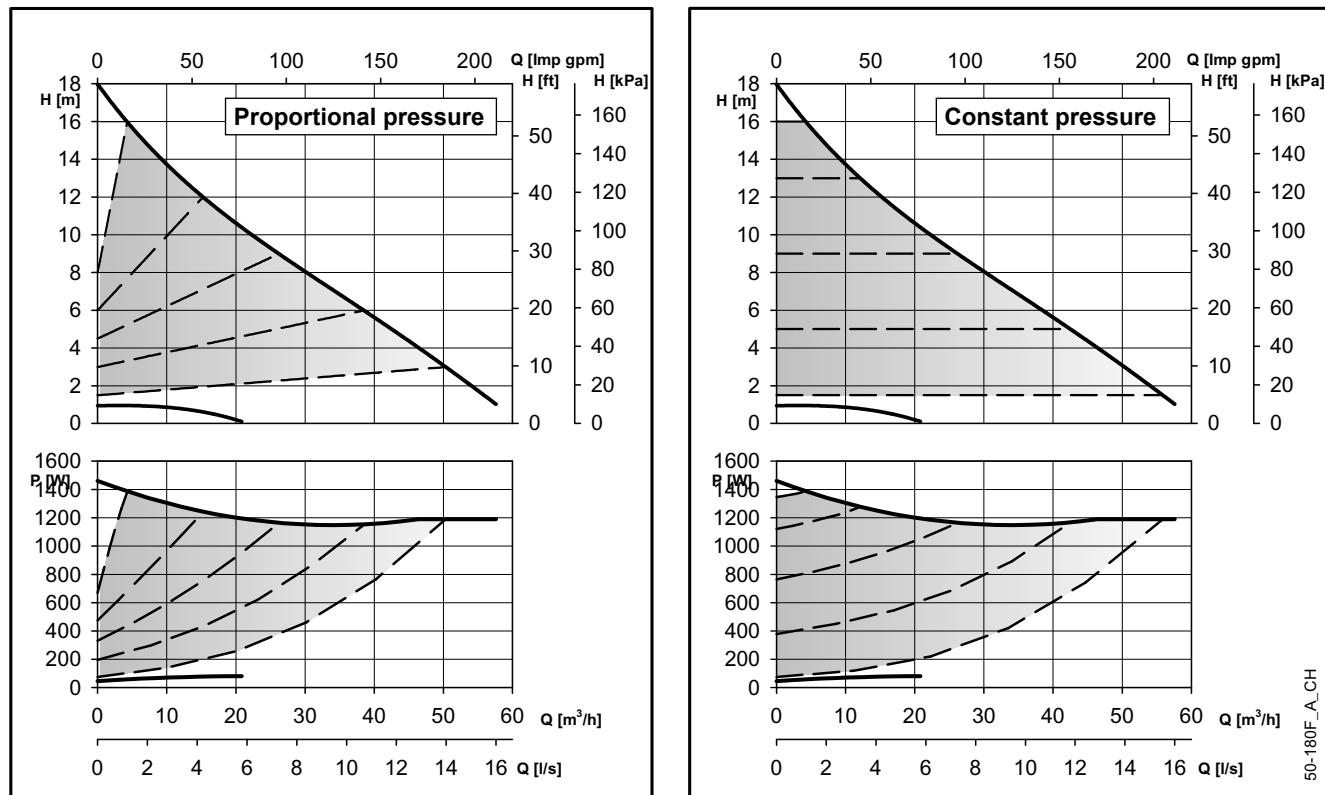
Net weight 22,6 (Kg) - Gross weight 26,4 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 | |
|-----|-------|-----|-----|----|-----|----|-----|-----|----|-----|----|---------|-----|-----|----|---------|-----------|----|
| 280 | DN 50 | 386 | 314 | 72 | 147 | 61 | 146 | 242 | 96 | 273 | 87 | 107/125 | 103 | 165 | 50 | 110/125 | 4 x 14/19 | 99 |

En-Rev_A

Performance curves and Technical data

ecocirc XL-XLplus 50-180 F



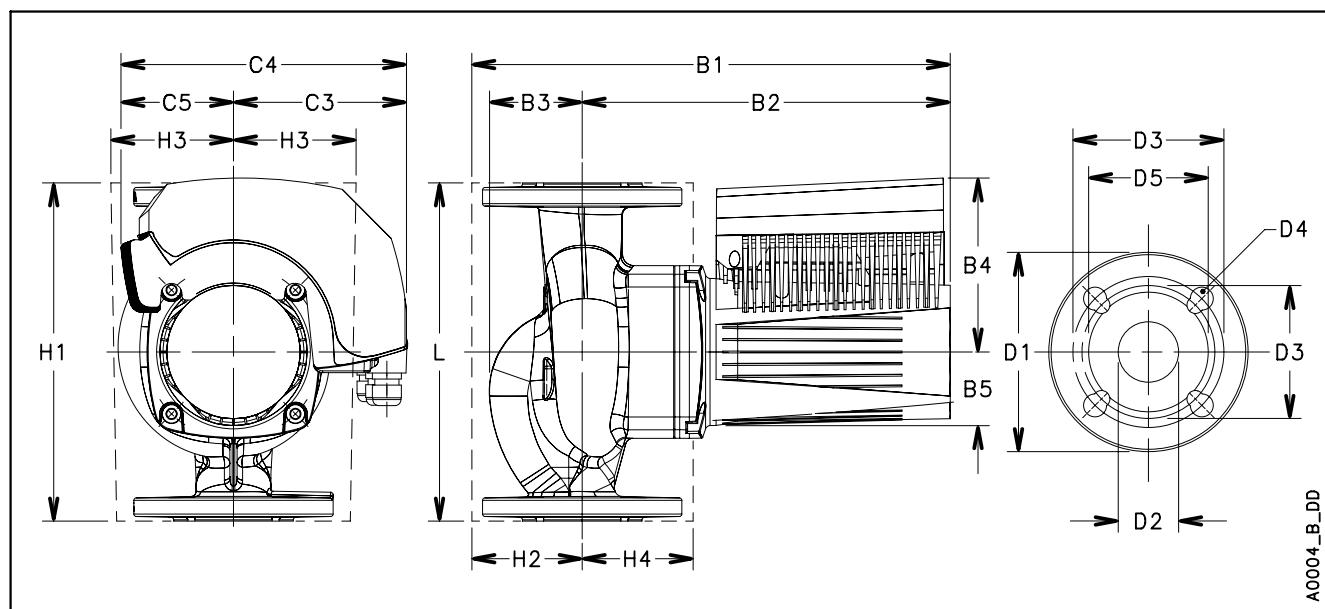
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus 50-180 F

Pump Data

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 46 / 1470 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,4 / 6,9 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 52 dB(A) |

En-Rev_A



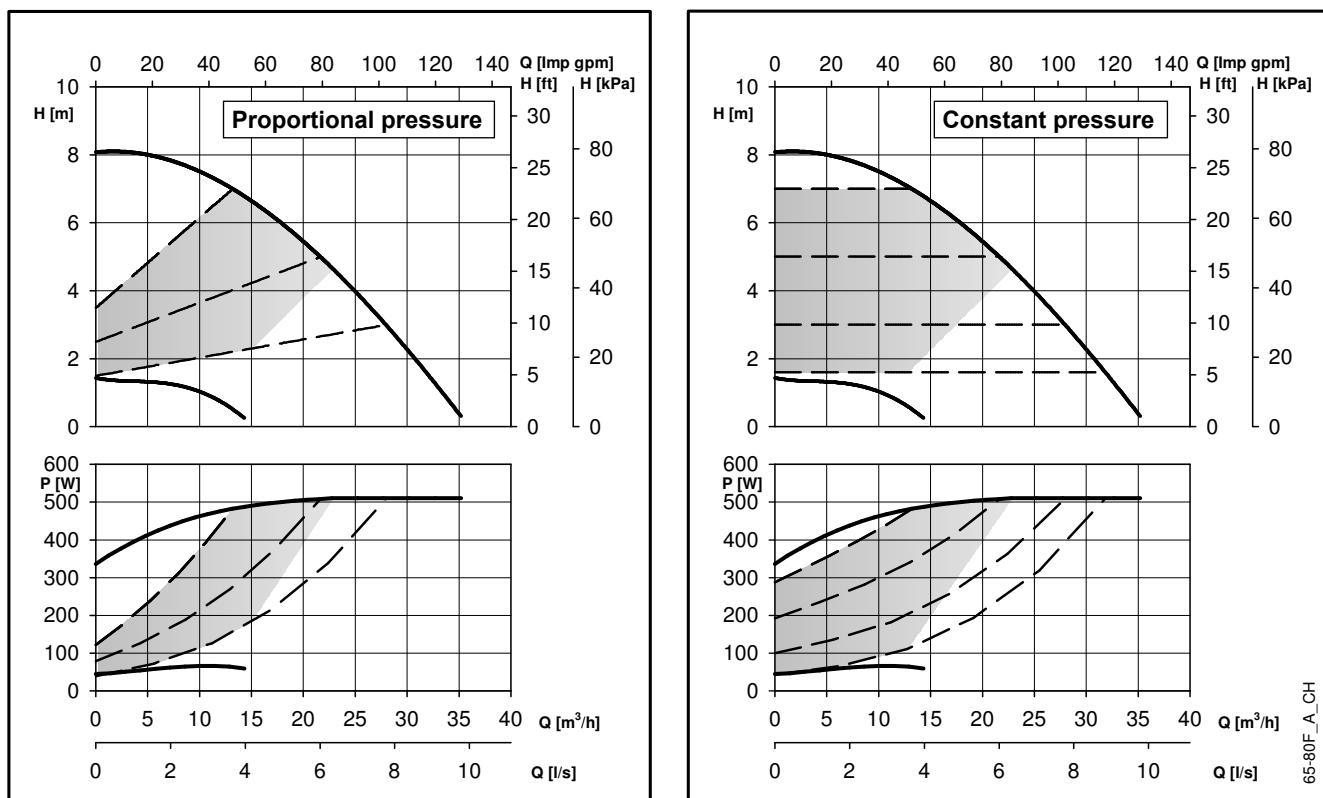
ecocirc XL-XLplus 50-180 F

Dimensions (mm)

Net weight 22,6 (Kg) - Gross weight 26,4 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-----|-----|----|-----|----|-----|-----|----|-----|----|---------|-----|-----|----|---------|-----------|----|
| 280 | DN 50 | 386 | 314 | 72 | 147 | 61 | 146 | 242 | 96 | 273 | 87 | 107/125 | 103 | 165 | 50 | 110/125 | 4 x 14/19 | 99 |

En-Rev_A

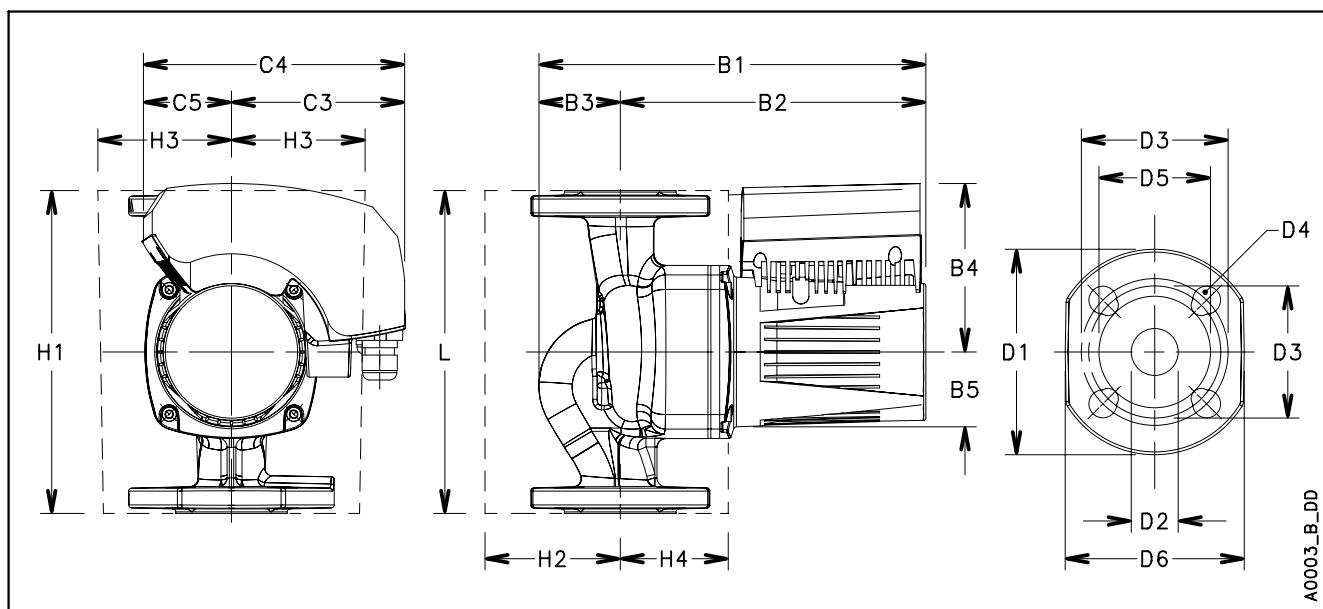
ecocirc XL-XLplus 65-80 F (N)

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $v = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus 65-80 F (N)**Pump Data**

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 45 / 510 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,2 / 2,2 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 48 dB(A) |

En-Rev_D



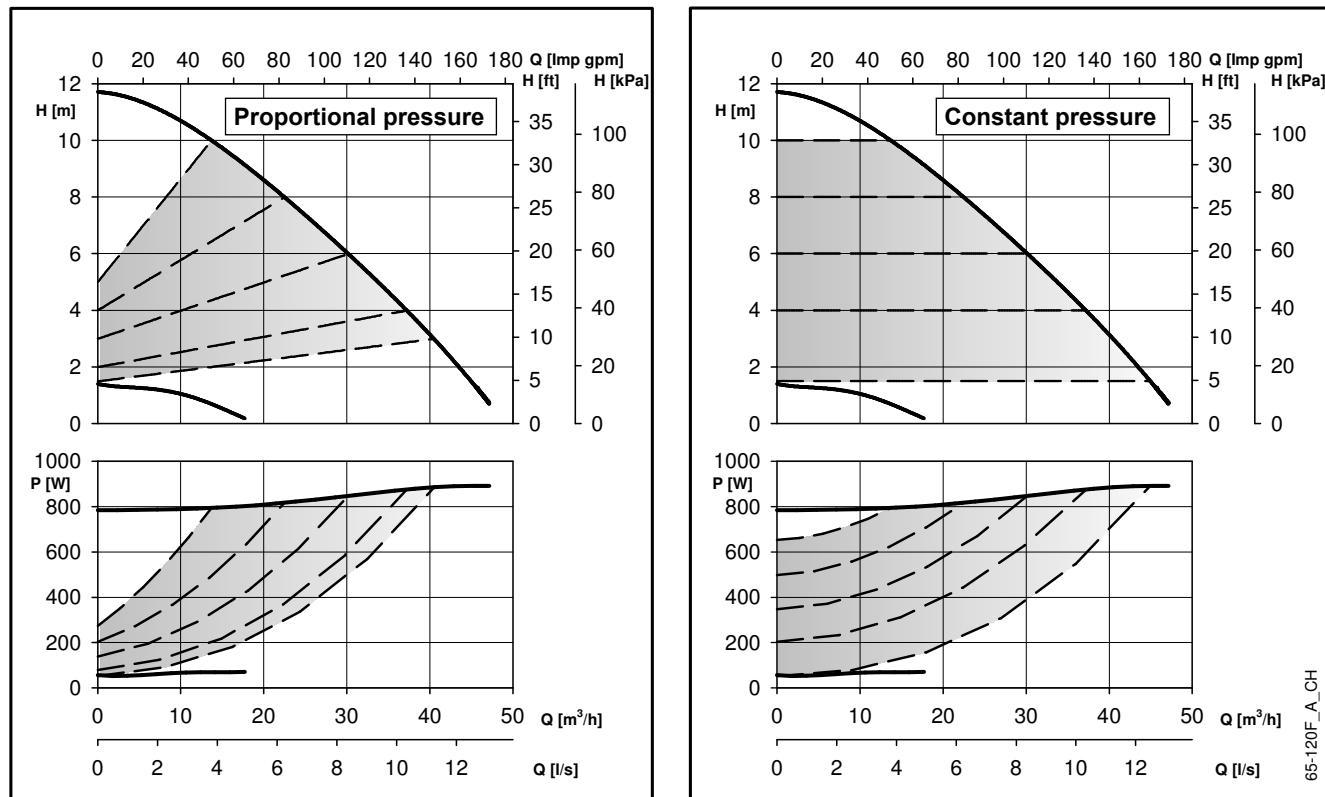
A0003_B_DD

| Dimensions (mm) | | | | | | | | | | Net weight 18,9 (Kg) - Gross weight 24,2 (Kg) | | | | | | | | |
|-----------------|-------|-----|-----|----|-----|----|-----|-----|----|---|-----|-----|-----|-----|----|---------|-----------|-----|
| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 |
| 340 | DN 65 | 364 | 267 | 97 | 132 | 53 | 128 | 206 | 78 | 340 | 112 | 106 | 108 | 185 | 65 | 130/145 | 4 x 14/19 | 118 |

En-Rev_C

Performance curves and Technical data

ecocirc XL-XLplus 65-120 F (N)



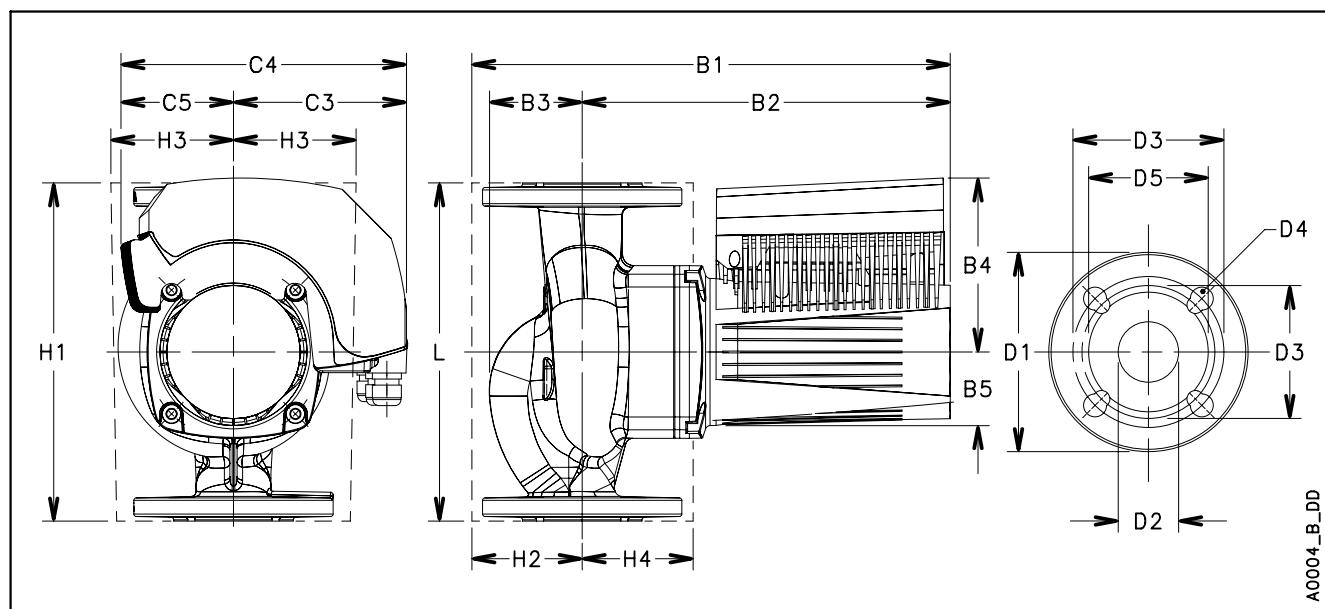
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus 65-120 F (N)

Pump Data

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 52 / 927 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,4 / 4,1 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 52 dB(A) |

En-Rev_E



ecocirc XL-XLplus 65-120 F (N)

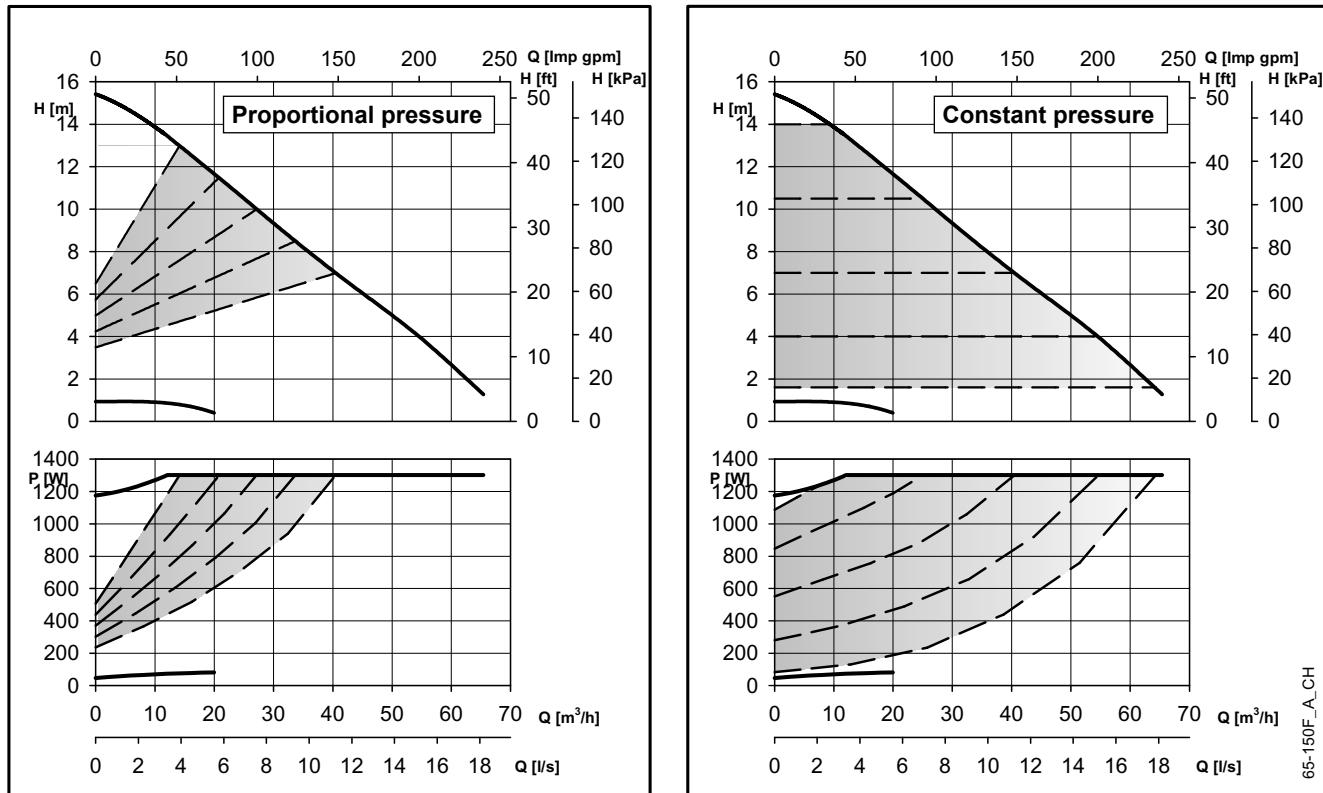
Dimensions (mm)

Net weight 17,9 (Kg) - Gross weight 23,2 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 | |
|-----|-------|-----|-----|----|-----|----|-----|-----|----|-----|-----|-----|-----|-----|----|---------|-----------|-----|
| 340 | DN 65 | 381 | 297 | 84 | 147 | 60 | 148 | 241 | 93 | 340 | 104 | 106 | 104 | 185 | 65 | 130/145 | 4 x 14/19 | 118 |

En-Rev_C

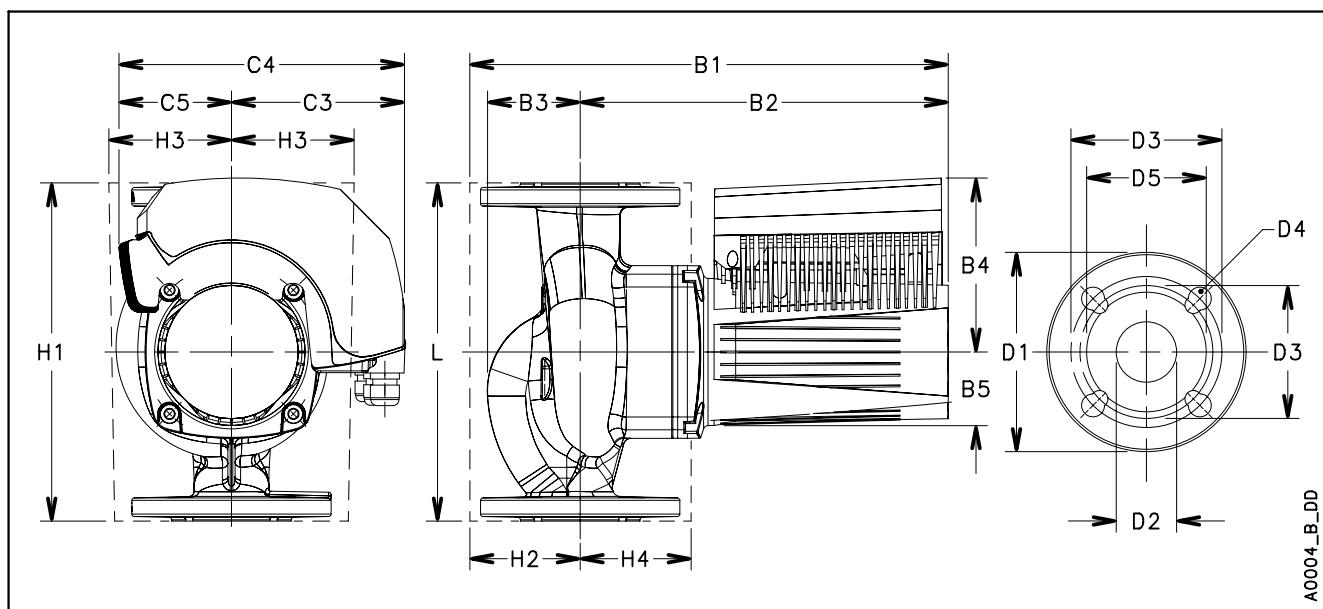
ecocirc XL-XLplus 65-150 F



These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec.}$

| ecocirc XL-XLplus 65-150 F | | Pump Data | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 47 / 1300 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,4 / 5,9 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 52 dB(A) |

En-Rev A



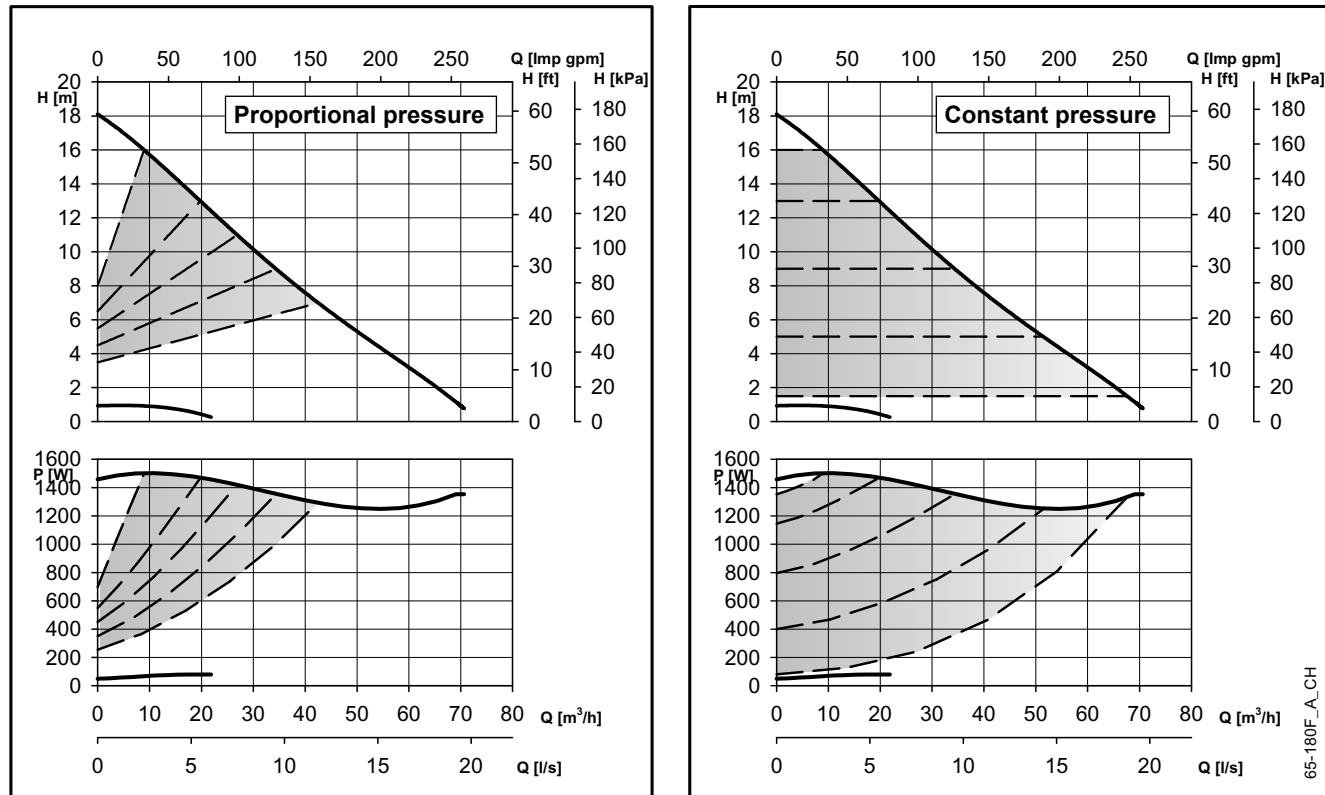
A0004_B_DD

| ecocirc XL-XLplus 65-150 F | | | | | Dimensions (mm) | | | | | | | | Net weight 25,7 (Kg) - Gross weight 29,5 (Kg) | | | | | | |
|----------------------------|-------|-----|-----|----|-----------------|----|-----|-----|----|-----|-----|---------|---|-----|----|---------|-----------|-----|--|
| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 | |
| 340 | DN 65 | 397 | 316 | 81 | 147 | 61 | 146 | 242 | 96 | 340 | 101 | 107/127 | 107 | 185 | 65 | 145/185 | 4 x 14/19 | 118 | |

En-Rev A

Performance curves and Technical data

ecocirc XL-XLplus 65-180 F



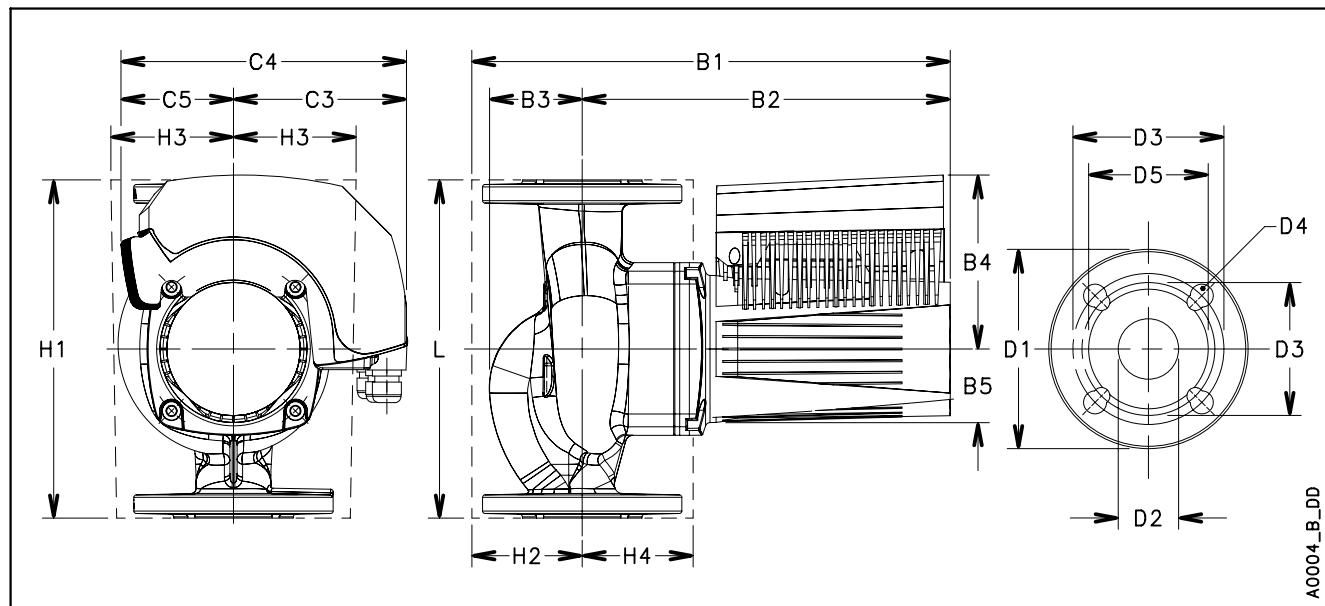
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus 65-180 F

Pump Data

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 50 / 1495 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,4 / 6,6 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 52 dB(A) |

En-Rev_A



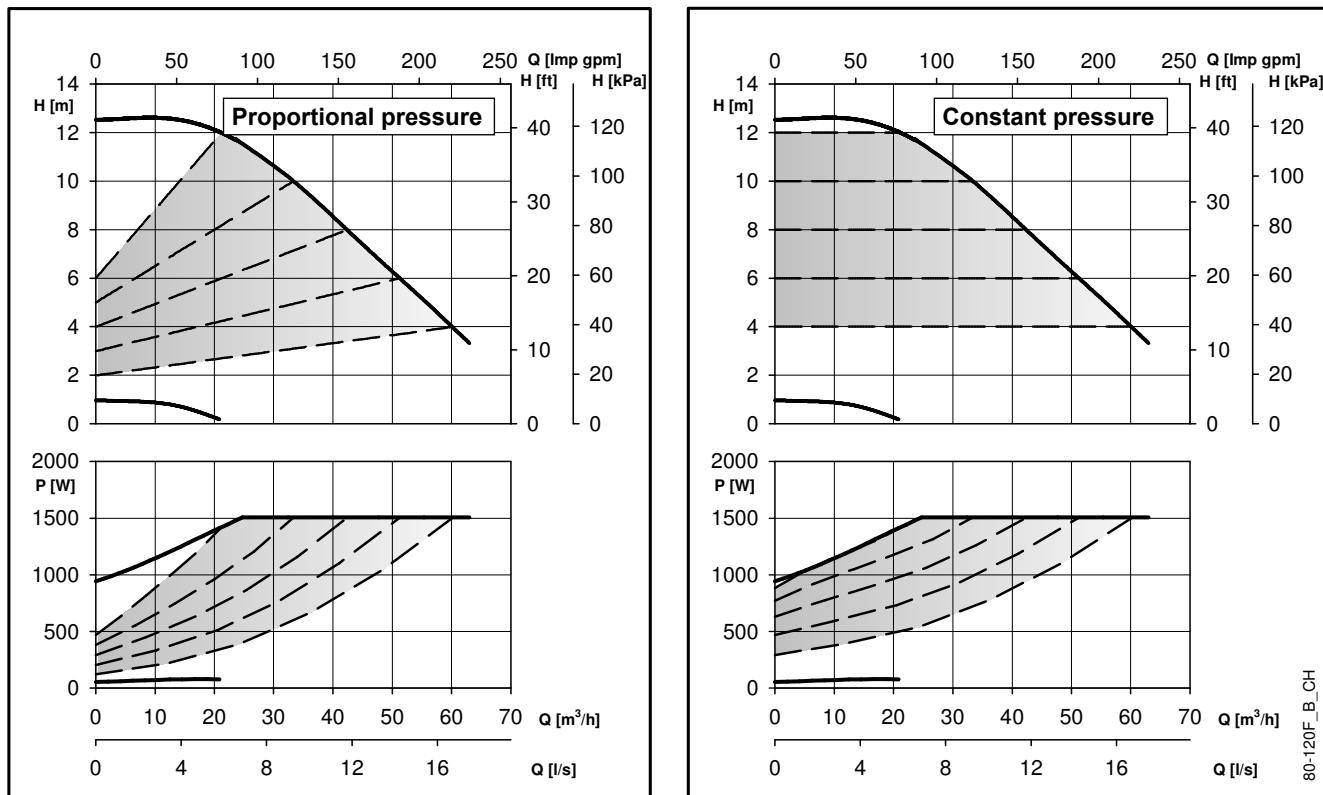
ecocirc XL-XLplus 65-180 F

Dimensions (mm)

Net weight 25,7 (Kg) - Gross weight 29,5 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-----|-----|----|-----|----|-----|-----|----|-----|-----|---------|-----|-----|----|---------|-----------|-----|
| 340 | DN 65 | 397 | 316 | 81 | 147 | 61 | 146 | 242 | 96 | 340 | 101 | 107/127 | 107 | 185 | 65 | 145/185 | 4 x 14/19 | 118 |

En-Rev_A

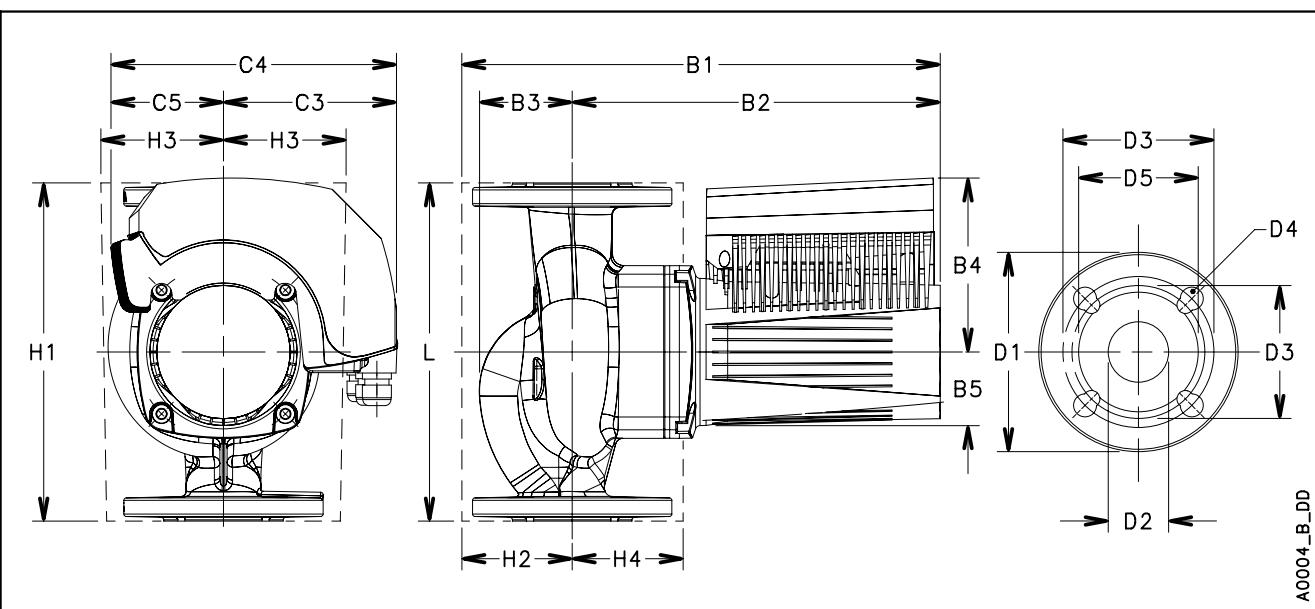
ecocirc XL-XLplus 80-120 F

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec.}$

ecocirc XL-XLplus 80-120 F**Pump Data**

| | | | |
|------------------------------|----------------|-----------------------|-------------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 55 / 1510 | Max. working pressure | 0,6 MPa (6 bar) or 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,4 / 6,6 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 55 dB(A) |

En-Rev_B

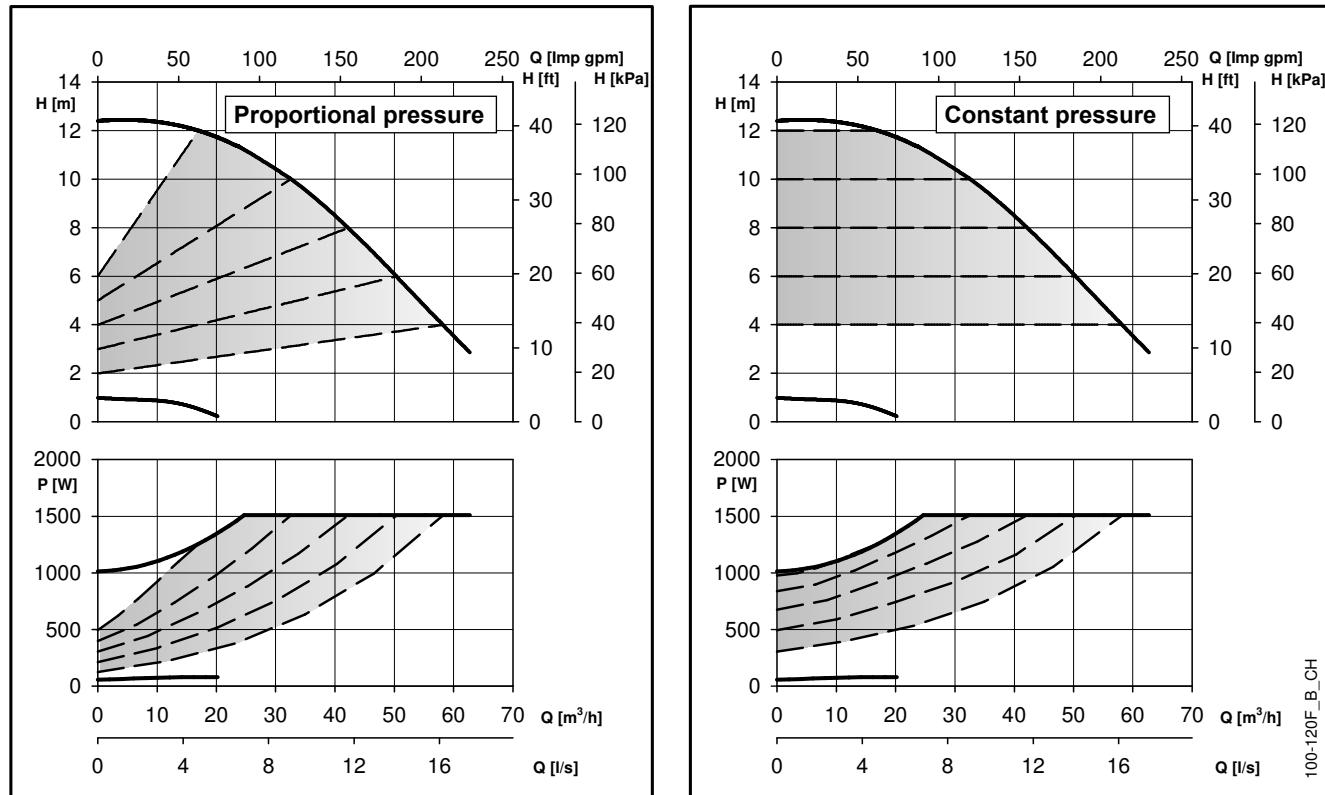


| Dimensions (mm) | | | | | | | | | | | | | Net weight 22,2 (Kg) - Gross weight 27,6 (Kg) | | | | | | |
|-----------------|-----|-------|-----|-----|----|-----|----|-----|-----|----|-----|-----|---|-----|-----|----|-----|--------|-----|
| PN | L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 |
| 6 | 360 | DN 80 | 396 | 306 | 90 | 147 | 60 | 148 | 241 | 93 | 360 | 110 | 110 | 110 | 200 | 80 | 150 | 4 x 19 | 132 |
| 10 | 360 | DN 80 | 396 | 306 | 90 | 147 | 60 | 148 | 241 | 93 | 360 | 110 | 110 | 110 | 200 | 80 | 160 | 8 x 19 | 132 |

En-Rev_B

Performance curves and Technical data

ecocirc XL-XLplus 100-120 F



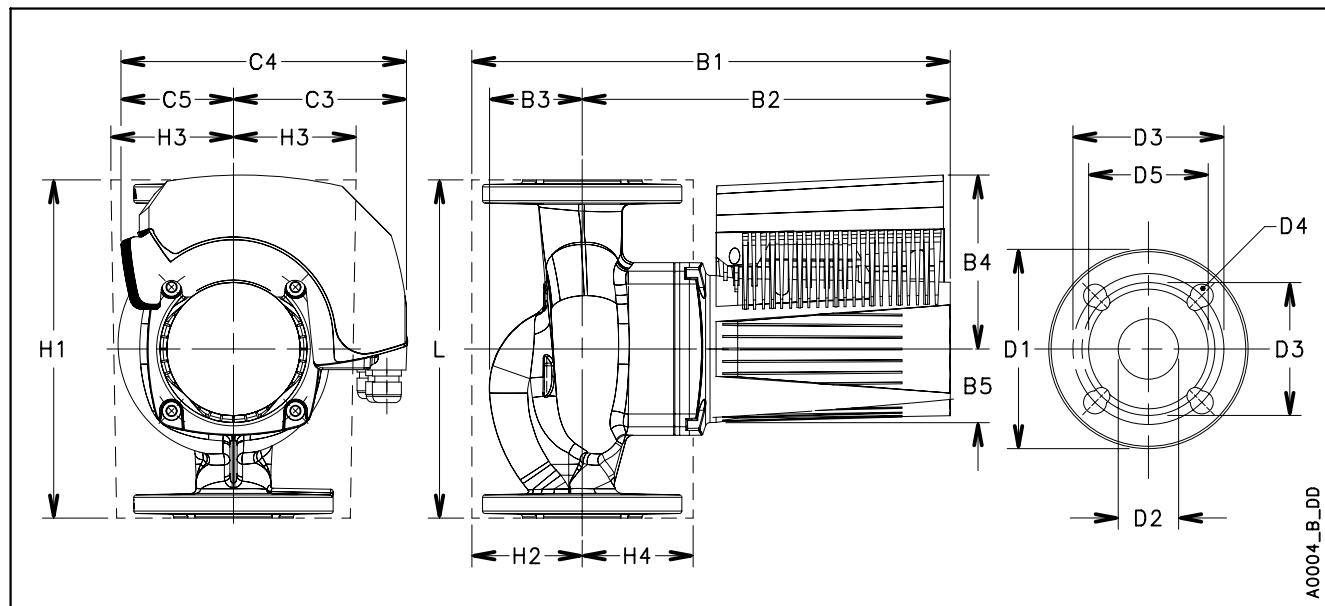
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $v = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus 100-120 F

Pump Data

| | | | |
|------------------------------|----------------|-----------------------|-------------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 57 / 1510 | Max. working pressure | 0,6 MPa (6 bar) or 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,4 / 6,6 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 55 dB(A) |

En-Rev_B



A0004_B_DD

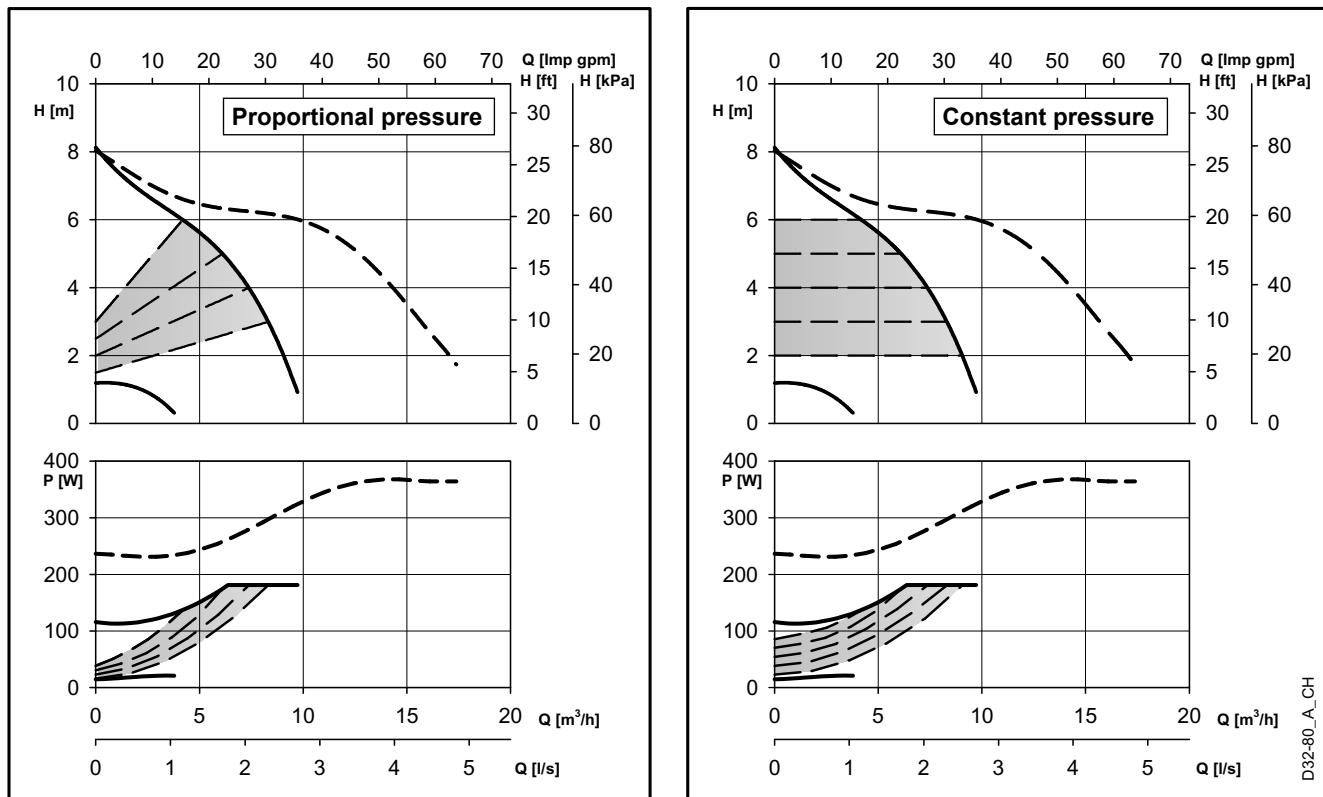
ecocirc XL-XLplus 100-120 F

Dimensions (mm)

Net weight 26,2 (Kg) - Gross weight 31,6 (Kg)

| PN | L | G | B1 | B2 | B3 | B4 | B5 | C3 | C4 | C5 | H1 | H2 | H3 | H4 | D1 | D2 | D3 | D4 | D5 |
|----|-----|--------|-----|-----|----|-----|----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|--------|-----|
| 6 | 360 | DN 100 | 403 | 306 | 97 | 147 | 60 | 148 | 241 | 93 | 360 | 120 | 120 | 120 | 220 | 100 | 170 | 4 x 19 | 156 |
| 10 | 360 | DN 100 | 403 | 306 | 97 | 147 | 60 | 148 | 241 | 93 | 360 | 120 | 120 | 120 | 220 | 100 | 180 | 8 x 19 | 156 |

En-Rev_B

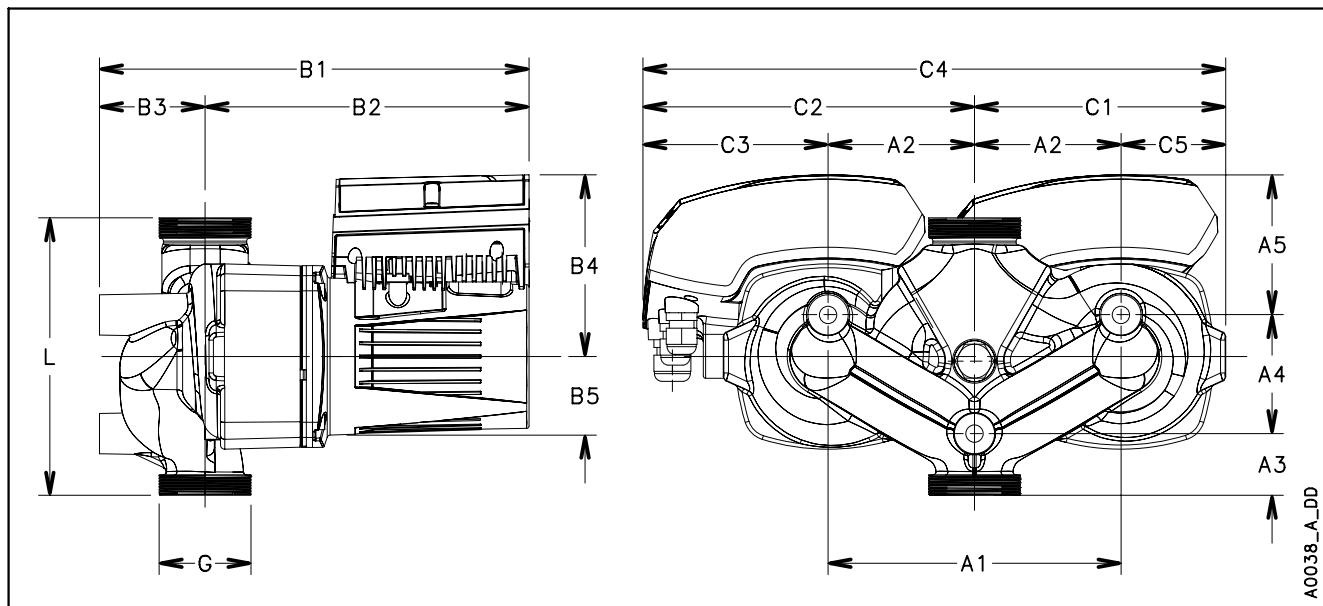
ecocirc XL-XLplus D32-80

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus D32-80**Pump Data**

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 16 / 190 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,1 / 1,4 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 45 dB(A) |

En-Rev_B

**ecocirc XL-XLplus D32-80****Dimensions (mm)**

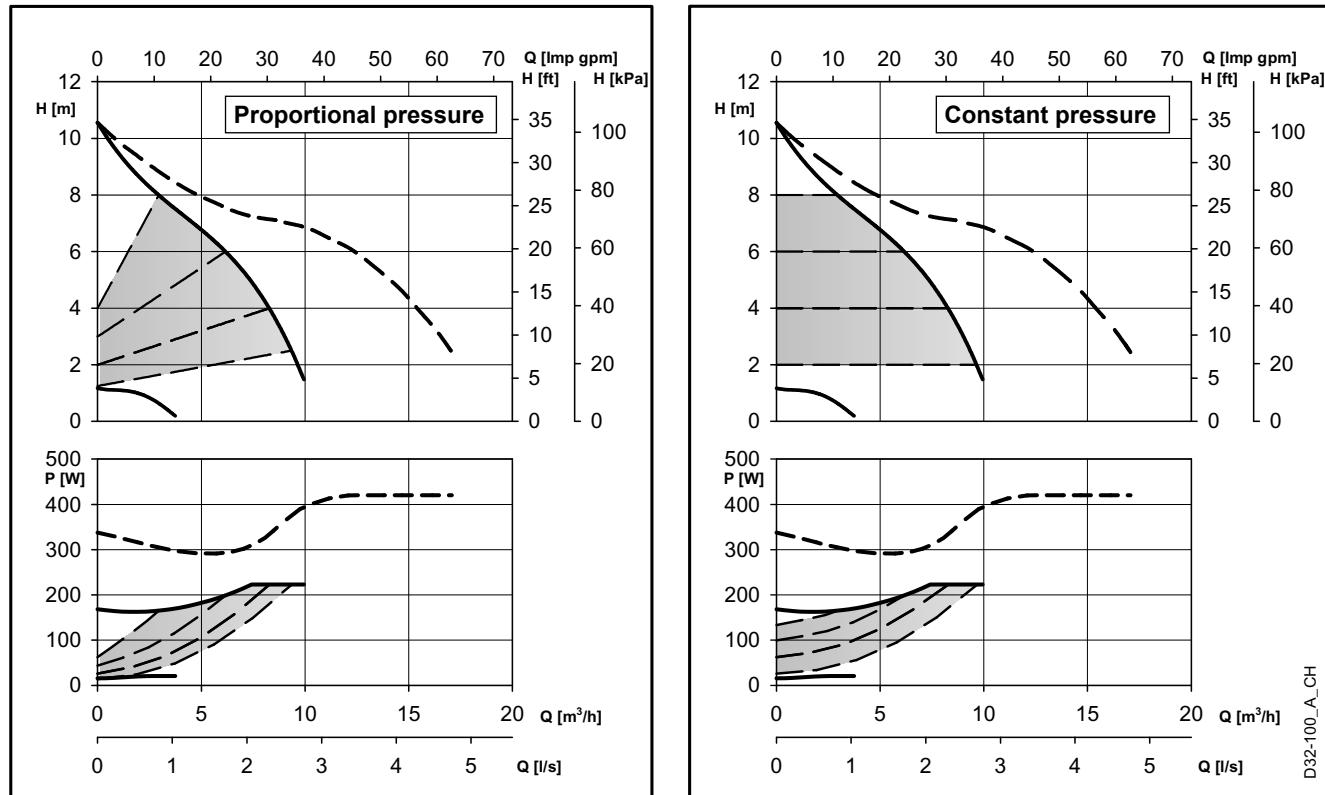
Net weight 20,5 (Kg) - Gross weight 28 (Kg)

| L | G | B1 | B2 | B3 | B4 | C1 | C2 | C3 | C4 | A1 | A2 | A3 | A4 | A5 |
|-----|----------------|-----|-----|----|-----|-----|-----|-----|-----|-----|----|----|----|----|
| 180 | G 2 - Rp 1 1/4 | 279 | 210 | 69 | 118 | 163 | 215 | 120 | 378 | 190 | 95 | 40 | 77 | 91 |

En-Rev_A

Performance curves and Technical data

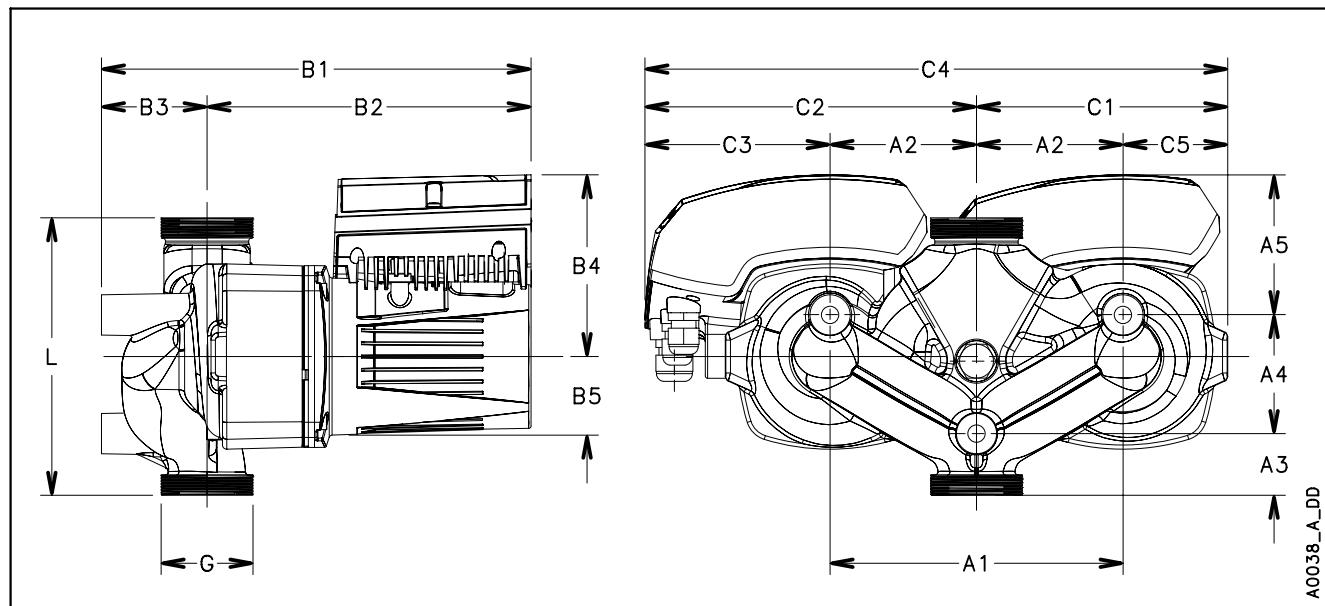
ecocirc XL-XLplus D32-100



These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

| ecocirc XL-XLplus D32-100 | | Pump Data | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 16 / 220 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,1 / 1,6 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 45 dB(A) |

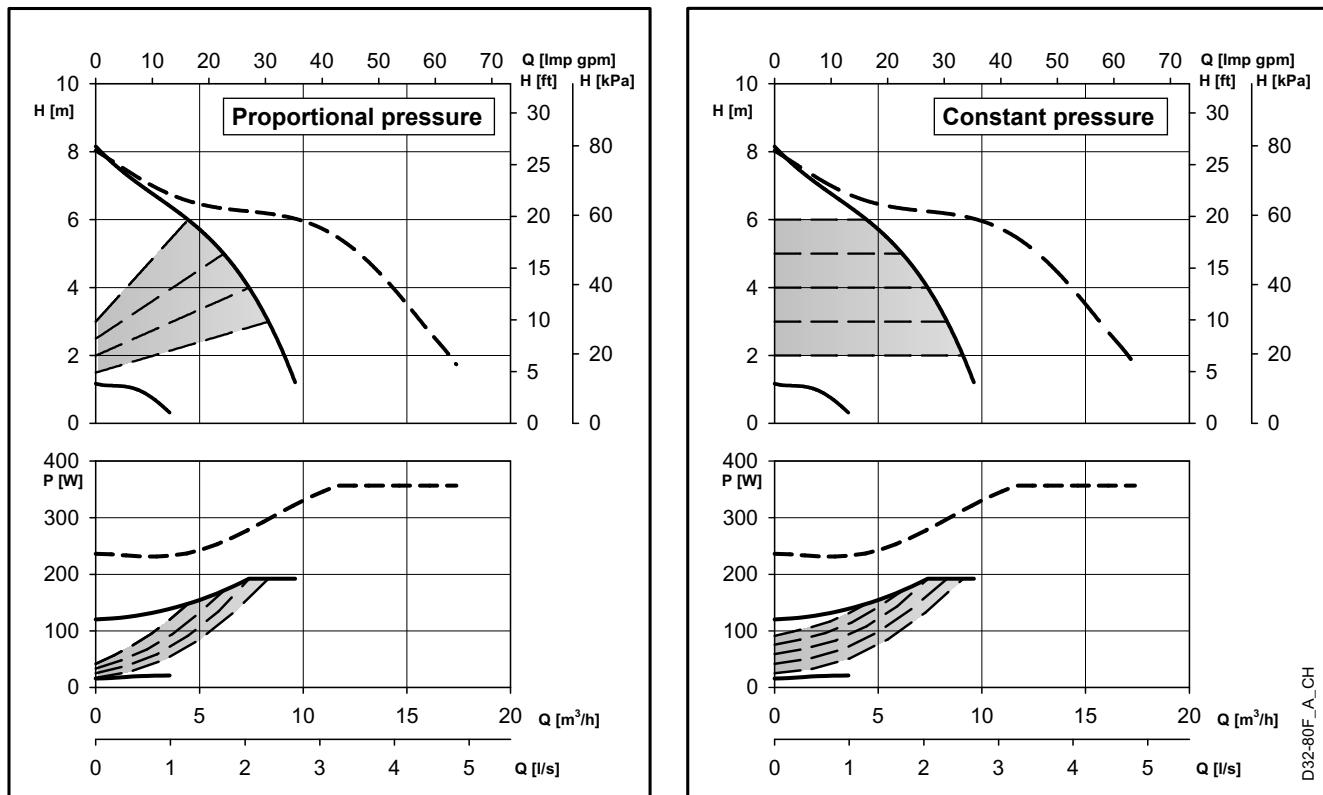
En-Rev B



A0038 ADD

| ecocirc XL-XLplus D32-100 | | | | Dimensions (mm) | | | | | Net weight 20,5 (Kg) - Gross weight 28 (Kg) | | | | | |
|---------------------------|--------------|-----|-----|-----------------|-----|-----|-----|-----|---|-----|----|----|----|----|
| L | G | B1 | B2 | B3 | B4 | C1 | C2 | C3 | C4 | A1 | A2 | A3 | A4 | A5 |
| 180 | G 2 – Rp 1 ¼ | 279 | 210 | 69 | 118 | 163 | 215 | 120 | 378 | 190 | 95 | 40 | 77 | 91 |

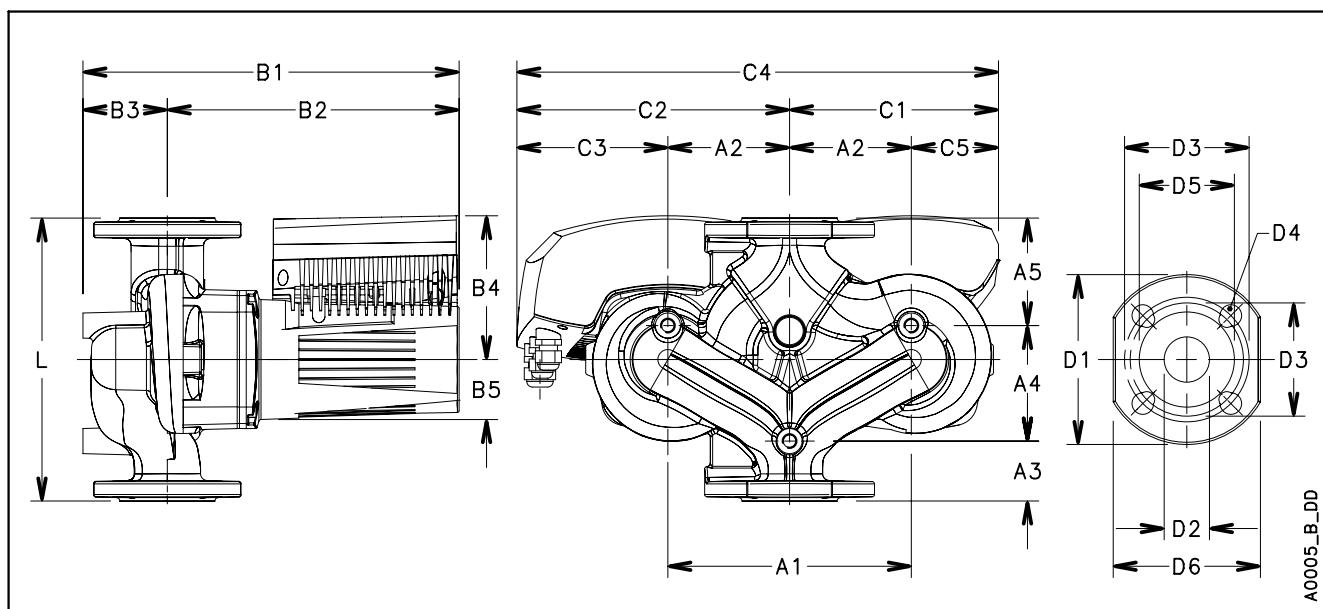
En-Rev A

ecocirc XL-XLplus D32-80 F

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

| ecocirc XL-XLplus D32-80 F | | Pump Data | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 15 / 180 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,1 / 1,3 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 45 dB(A) |

En-Rev_B



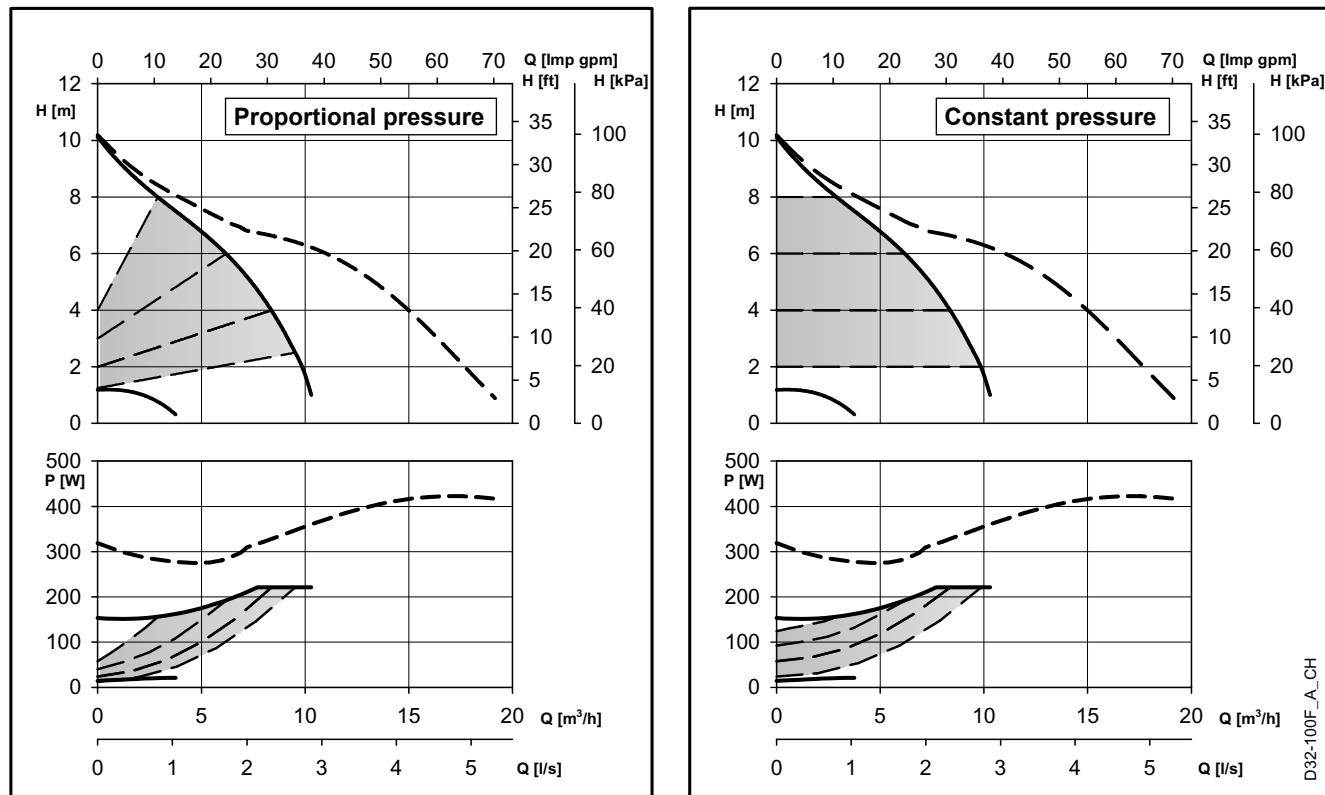
A0005_B_DD

| ecocirc XL-XLplus D32-80 F | | | | Dimensions (mm) | | | | Net weight 21,2 (Kg) - Gross weight 28,7 (Kg) | | | | | | | | | | | | | |
|----------------------------|-------|-----|-----|-----------------|-----|----|-----|---|-----|-----|----|-----|----|----|----|----|-----|----|--------|-----------|----|
| L | G | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | A1 | A2 | A3 | A4 | A5 | D1 | D2 | D3 | D4 | D5 |
| 220 | DN 32 | 279 | 210 | 69 | 118 | 51 | 163 | 215 | 120 | 378 | 68 | 190 | 95 | 45 | 92 | 83 | 140 | 36 | 90/100 | 4 x 14/19 | 76 |

En-Rev_A

Performance curves and Technical data

ecocirc XL-XLplus D32-100 F



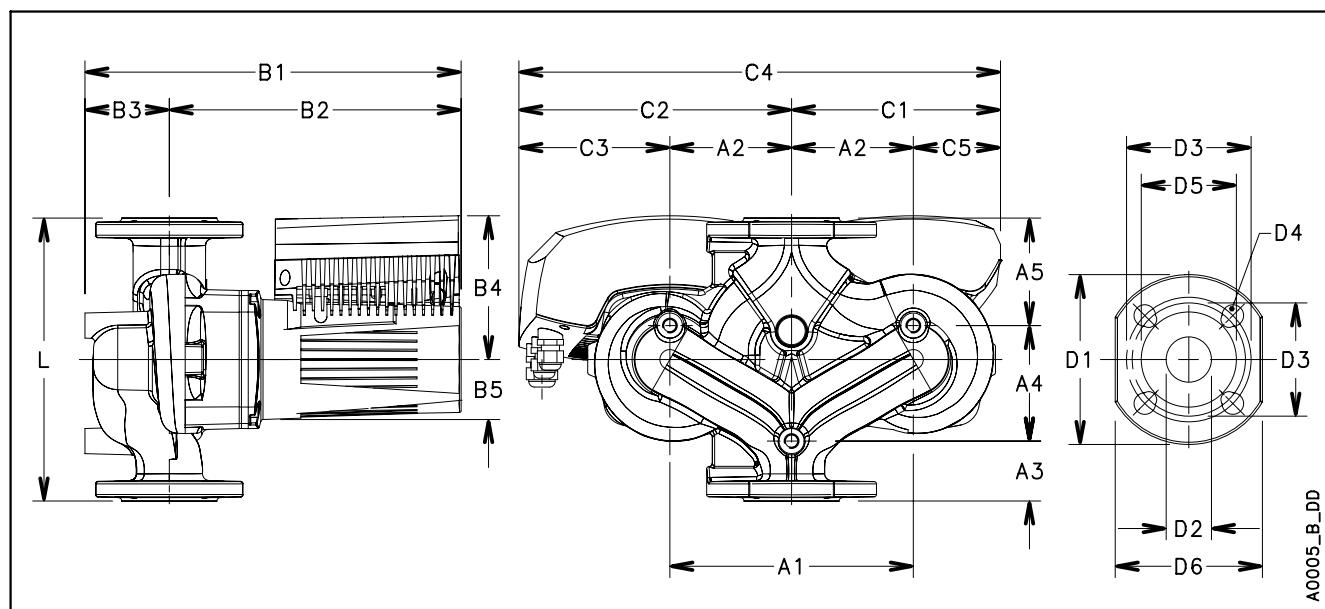
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus D32-100 F

Pump Data

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 15 / 220 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,1 / 1,6 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 45 dB(A) |

En-Rev_B



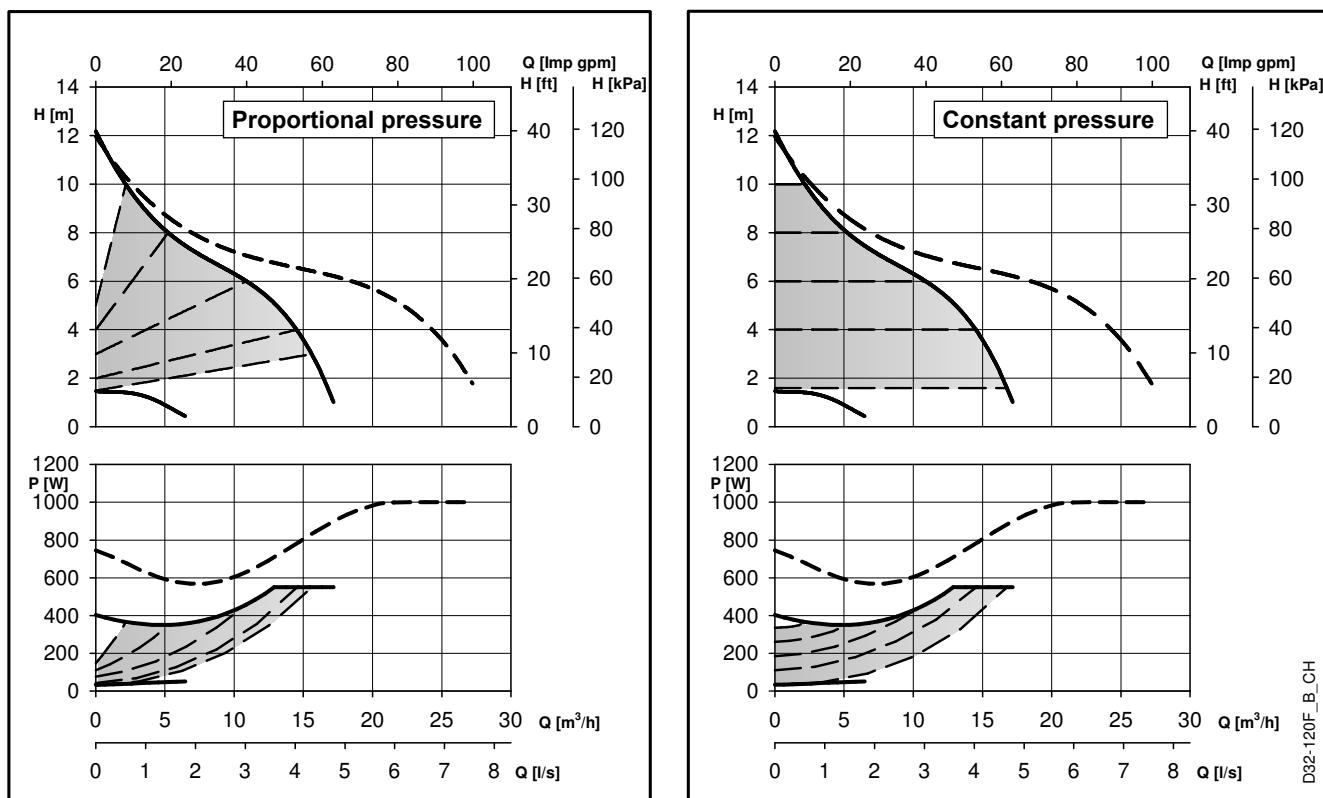
ecocirc XL-XLplus D32-100 F

Dimensions (mm)

Net weight 21,2 (Kg) - Gross weight 28,7 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | A1 | A2 | A3 | A4 | A5 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-----|-----|----|-----|----|-----|-----|-----|-----|----|-----|----|----|----|----|-----|----|--------|-----------|----|
| 220 | DN 32 | 279 | 210 | 69 | 118 | 51 | 163 | 215 | 120 | 378 | 68 | 190 | 95 | 45 | 92 | 83 | 140 | 36 | 90/100 | 4 x 14/19 | 76 |

En-Rev_A

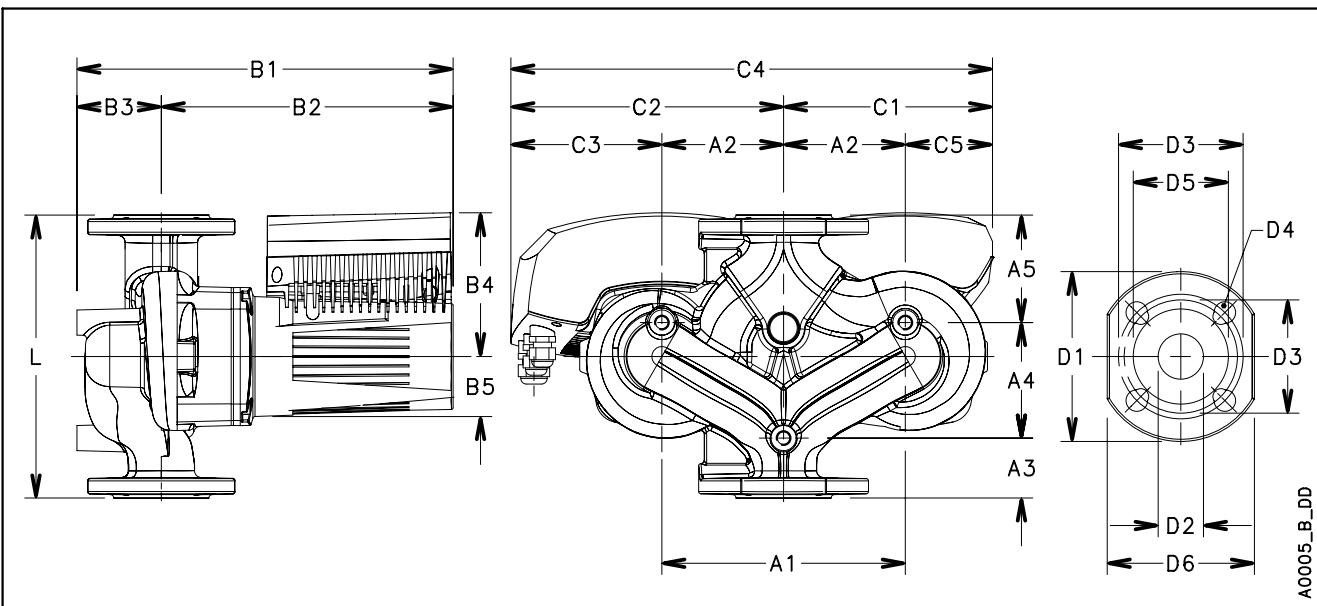
ecocirc XL-XLplus D32-120 F

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus D32-120 F**Pump Data**

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 30 / 530 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,2 / 2,3 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 48 dB(A) |

En-Rev_E

**ecocirc XL-XLplus D32-120 F****Dimensions (mm)**

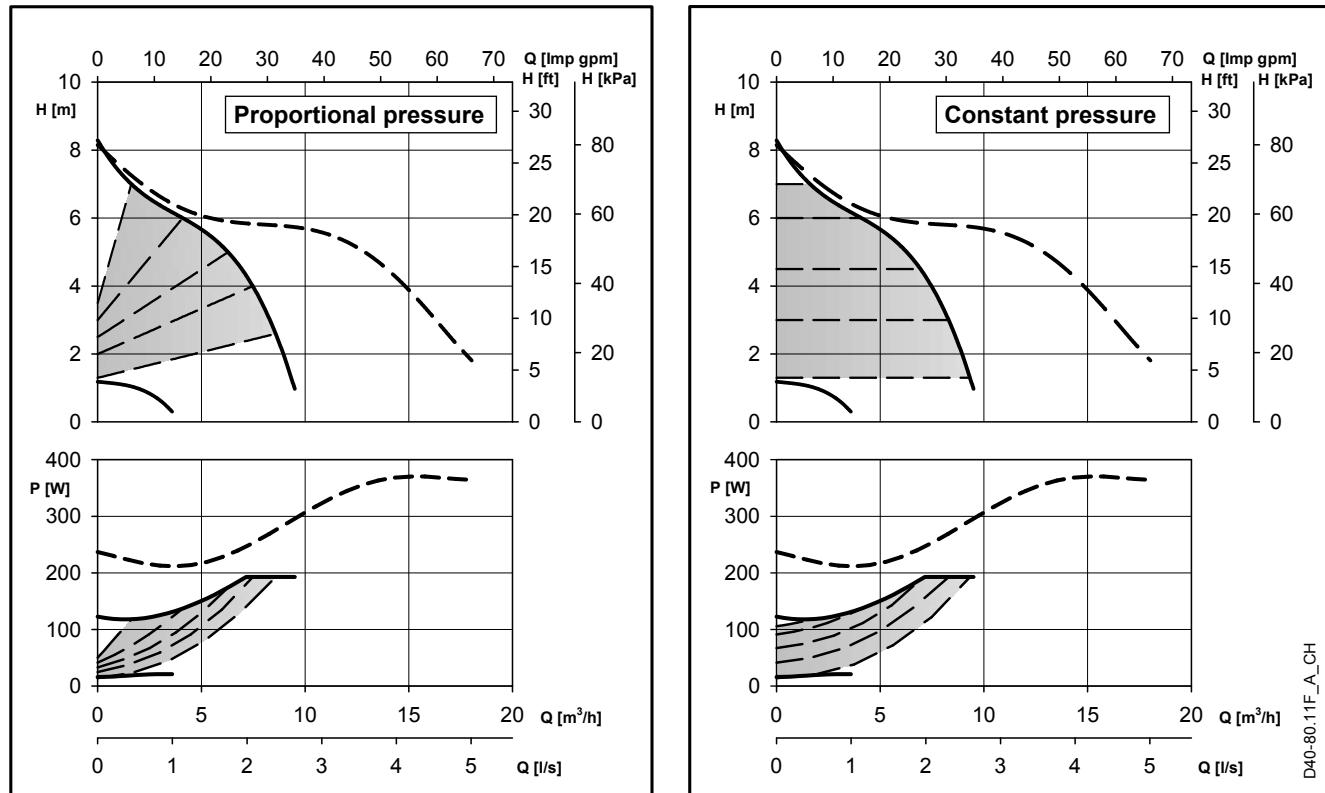
Net weight 27,4 (Kg) - Gross weight 34,9 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | A1 | A2 | A3 | A4 | A5 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-----|-----|----|-----|----|-------|-------|-----|-----|----|-----|-------|----|----|----|-----|----|--------|-----------|----|
| 220 | DN 32 | 322 | 252 | 70 | 132 | 53 | 185,5 | 235,5 | 128 | 421 | 78 | 215 | 107,5 | 43 | 97 | 80 | 140 | 32 | 90/100 | 4 x 14/19 | 76 |

En-Rev_A

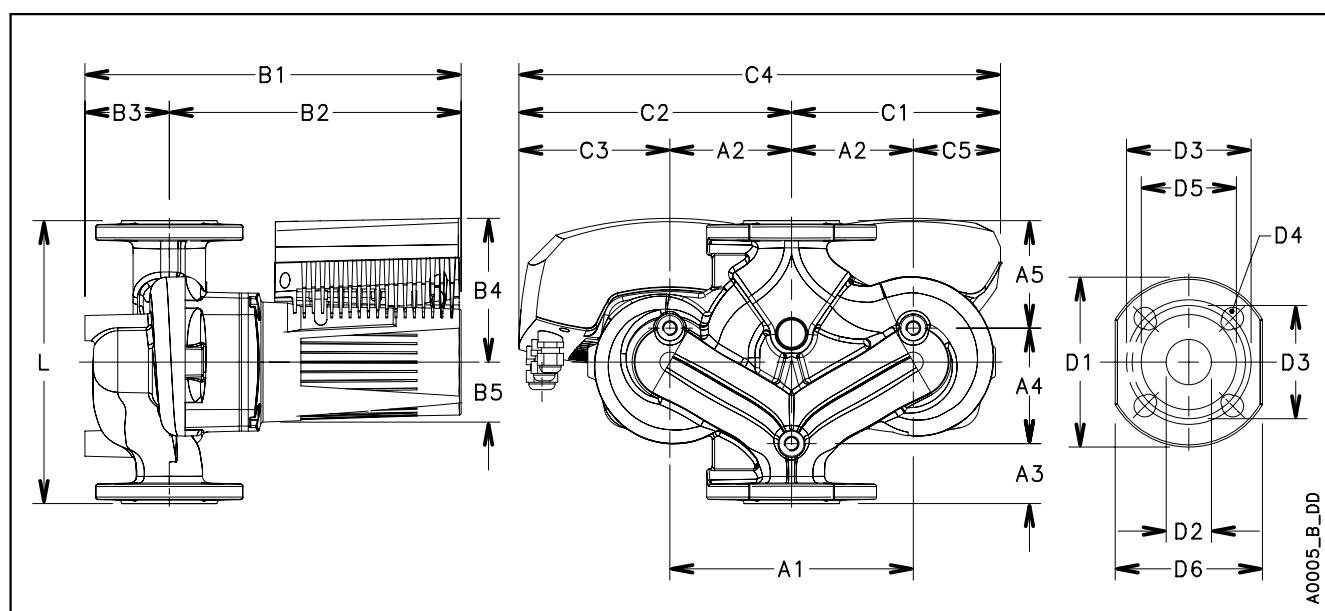
Performance curves and Technical data

ecocirc XL D40-80.11 F



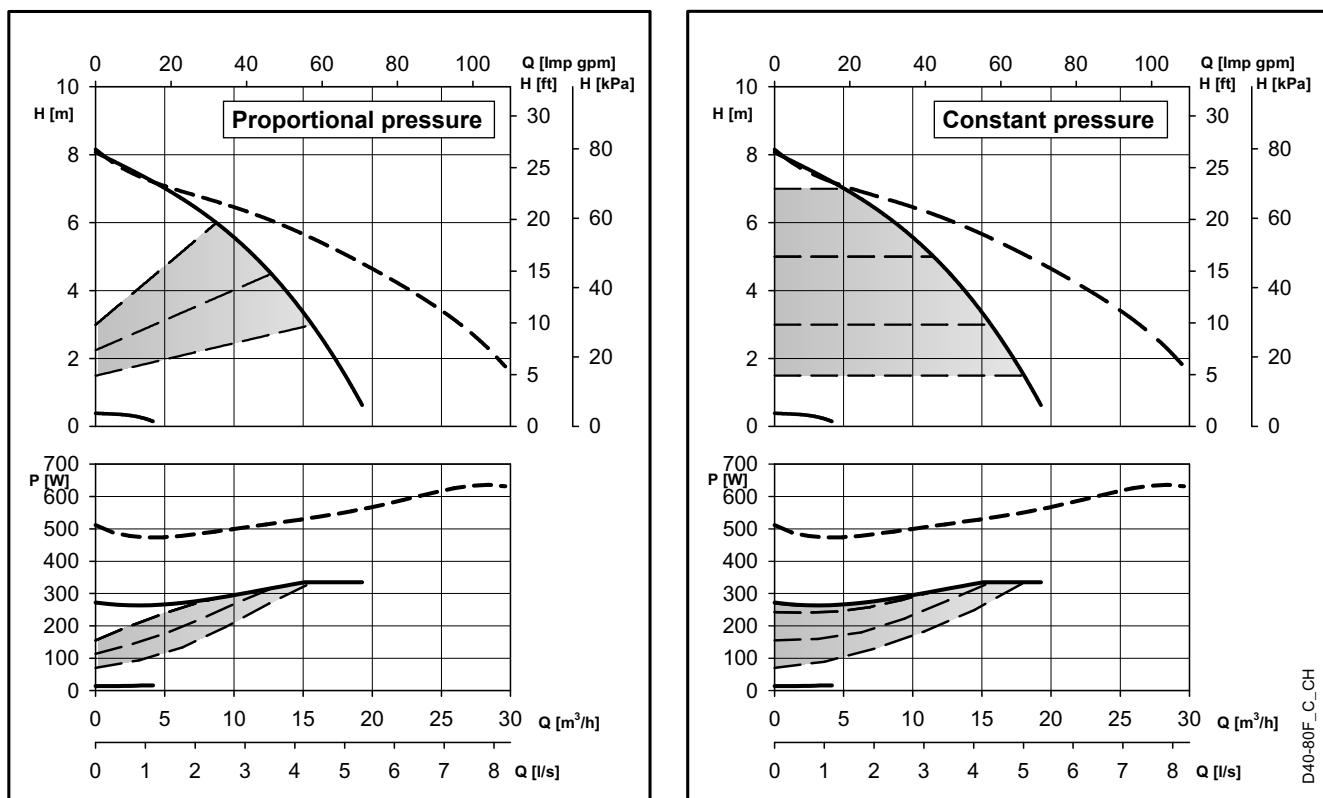
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $v = 1 \text{ mm}^2/\text{sec}$.

| ecocirc XL D40-80.11 F | | Pump Data | |
|------------------------------|----------------|-----------------------|--|
| Rated voltage | 1 x 230 V ±10% | Insulation class | 155 (F) |
| Frequency | 50/60 Hz | Max. working pressure | 1,0 MPa (10 bar) |
| Power absorbed [W] (min/max) | 16 / 194 | Liquid temperature | -10°C (14°F) to +110°C (230°F) for heating pumps -10°C (14°F) to +85°C (185°F) for domestic hot water pumps |
| Input current [A] (min/max) | 0,2 / 1,4 | Sound pressure level | ≤ 43 dB(A) |
| Specific EEI ≤ | 0,23 | | |
| IP protection | 44 | | En-Rev_A |



| Dimensions (mm) | | | | | | | | | | | | Net weight 21,2 (Kg) - Gross weight 28,7 (Kg) | | | | | | | | | |
|-----------------|-------|-----|-----|----|-----|----|-----|-----|-----|-----|----|---|----|----|----|----|-----|----|---------|-----------|----|
| L | G | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | A1 | A2 | A3 | A4 | A5 | D1 | D2 | D3 | D4 | D5 |
| 220 | DN 40 | 274 | 212 | 62 | 118 | 51 | 157 | 211 | 116 | 368 | 62 | 190 | 95 | 45 | 92 | 83 | 150 | 40 | 100/110 | 4 x 14/19 | 84 |

En-Rev_A

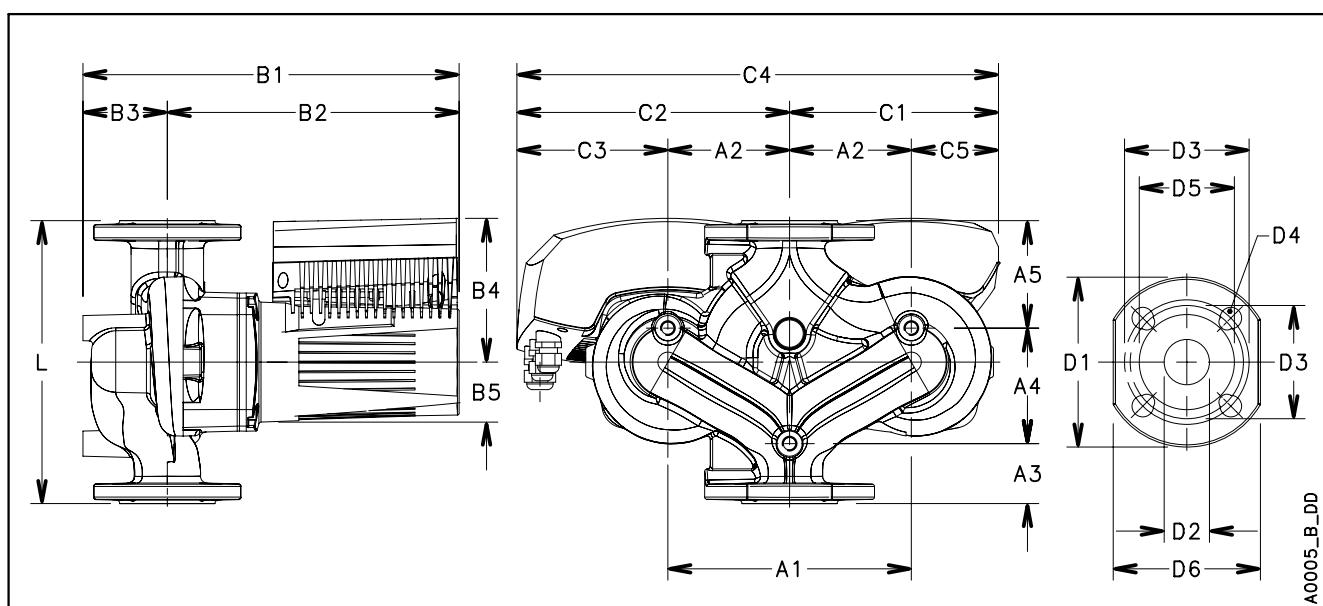
ecocirc XL-XLplus D40-80 F

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $v = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus D40-80 F**Pump Data**

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 14 / 335 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,1 / 1,5 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 48 dB(A) |

En-Rev_E

**ecocirc XL-XLplus D40-80 F****Dimensions (mm)**

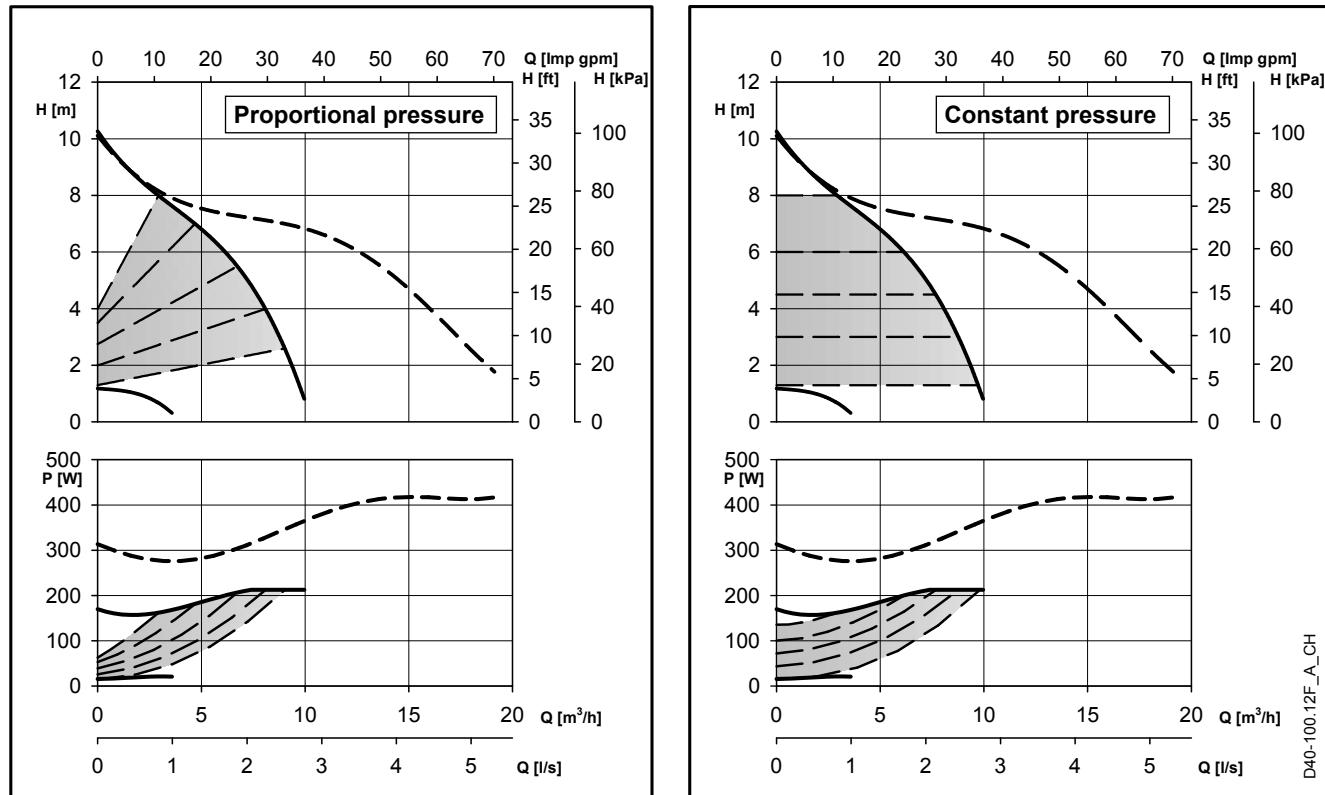
Net weight 27,8 (Kg) - Gross weight 35,3 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | A1 | A2 | A3 | A4 | A5 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-----|-----|----|-----|----|-----|-----|-----|-----|----|-----|-------|----|----|----|-----|----|---------|-----------|----|
| 220 | DN 40 | 330 | 259 | 71 | 130 | 51 | 186 | 235 | 128 | 421 | 79 | 215 | 107,5 | 45 | 95 | 80 | 150 | 45 | 100/110 | 4 x 14/19 | 84 |

En-Rev_B

Performance curves and Technical data

ecocirc XL D40-100.12 F



These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

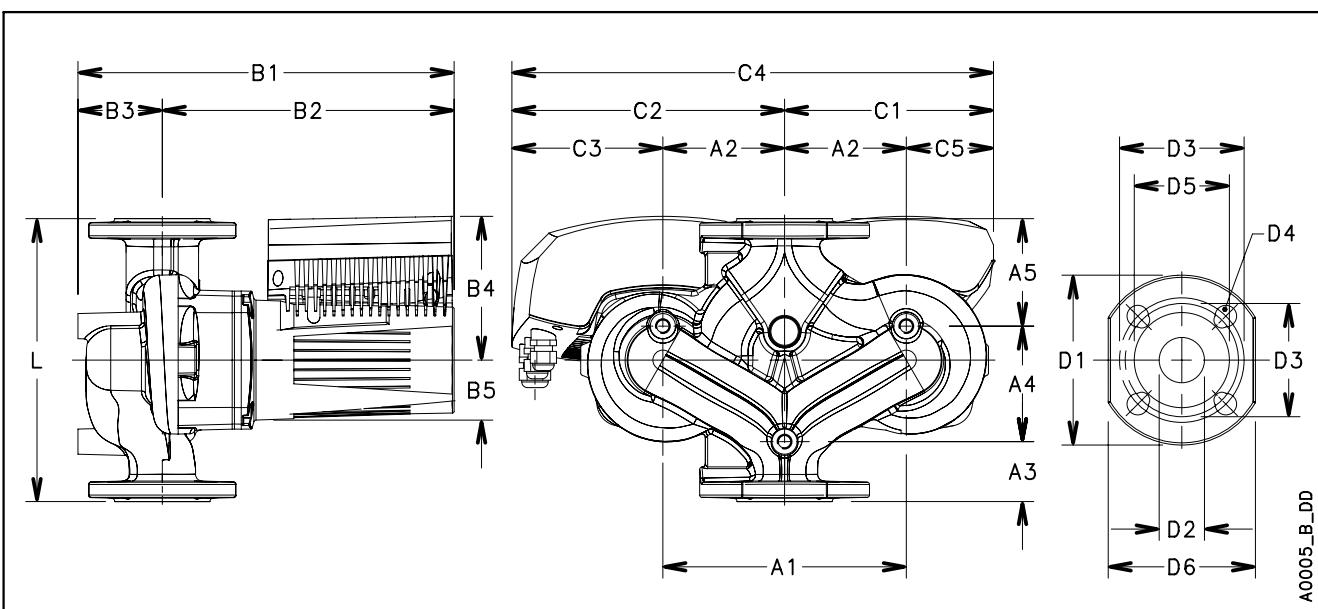
ecocirc XL D40-100.12 F

| | |
|------------------------------|----------------|
| Rated voltage | 1 x 230 V ±10% |
| Frequency | 50/60 Hz |
| Power absorbed [W] (min/max) | 17 / 222 |
| Input current [A] (min/max) | 0,2 / 1,6 |
| Specific EEI ≤ | 0,23 |
| IP protection | 44 |

Pump Data

| | |
|-----------------------|--|
| Insulation class | 155 (F) |
| Max. working pressure | 1,0 MPa (10 bar) |
| Liquid temperature | -10°C (14°F) to +110°C (230°F) for heating pumps -10°C (14°F) to +85°C (185°F) for domestic hot water pumps |
| Sound pressure level | ≤ 43 dB(A) |

En-Rev_A



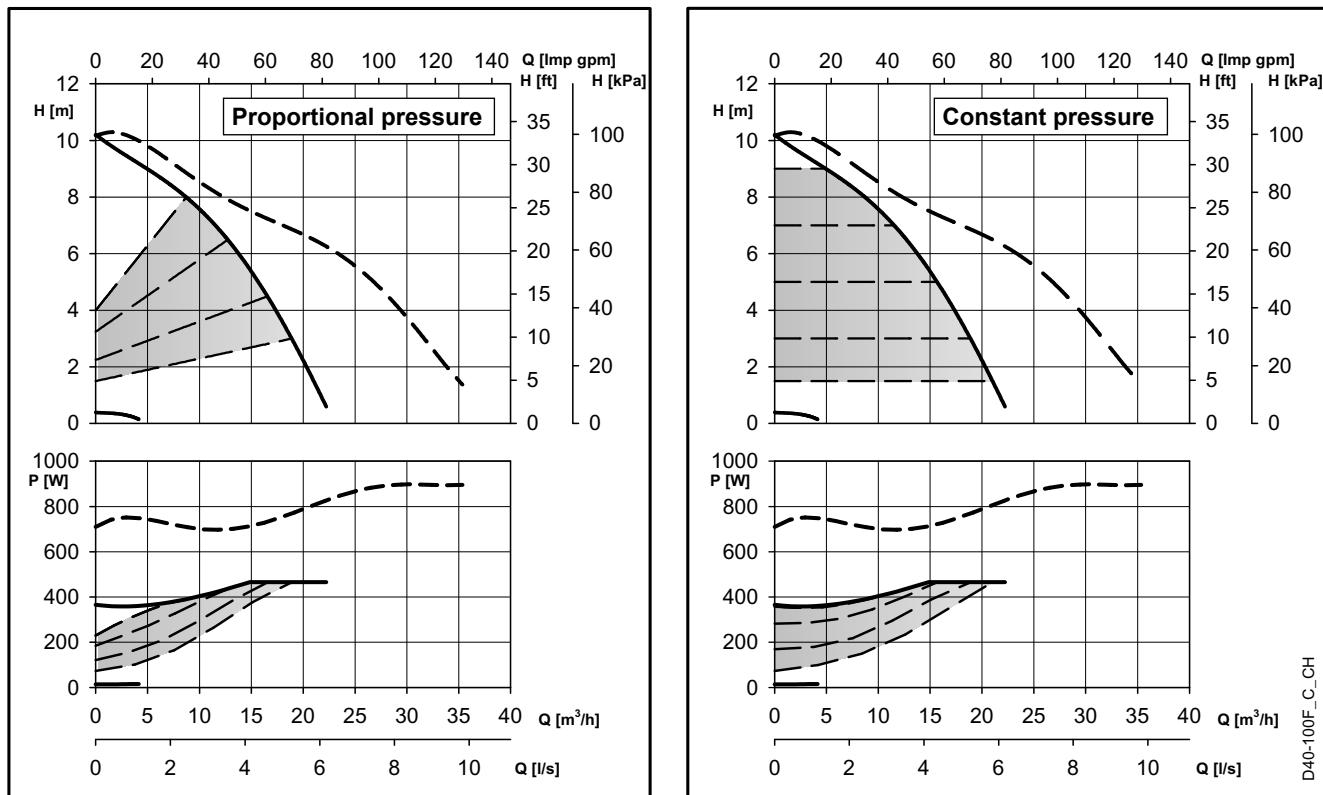
ecocirc XL D40-100.12 F

Dimensions (mm)

Net weight 21,2 (Kg) - Gross weight 28,7 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | A1 | A2 | A3 | A4 | A5 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-----|-----|----|-----|----|-----|-----|-----|-----|----|-----|----|----|----|----|-----|----|---------|-----------|----|
| 220 | DN 40 | 274 | 212 | 62 | 118 | 51 | 157 | 211 | 116 | 368 | 62 | 190 | 95 | 45 | 92 | 83 | 150 | 40 | 100/110 | 4 x 14/19 | 84 |

En-Rev_A

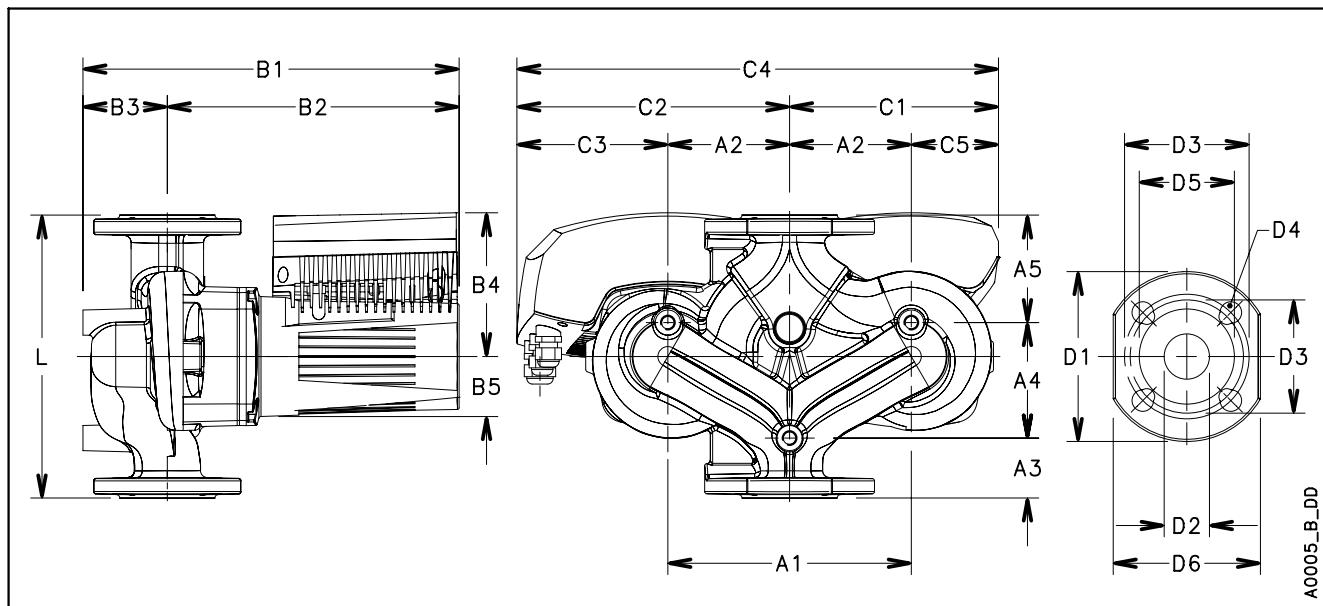
ecocirc XL-XLplus D40-100 F

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus D40-100 F**Pump Data**

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 14 / 466 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,1 / 2,0 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 48 dB(A) |

En-Rev_E

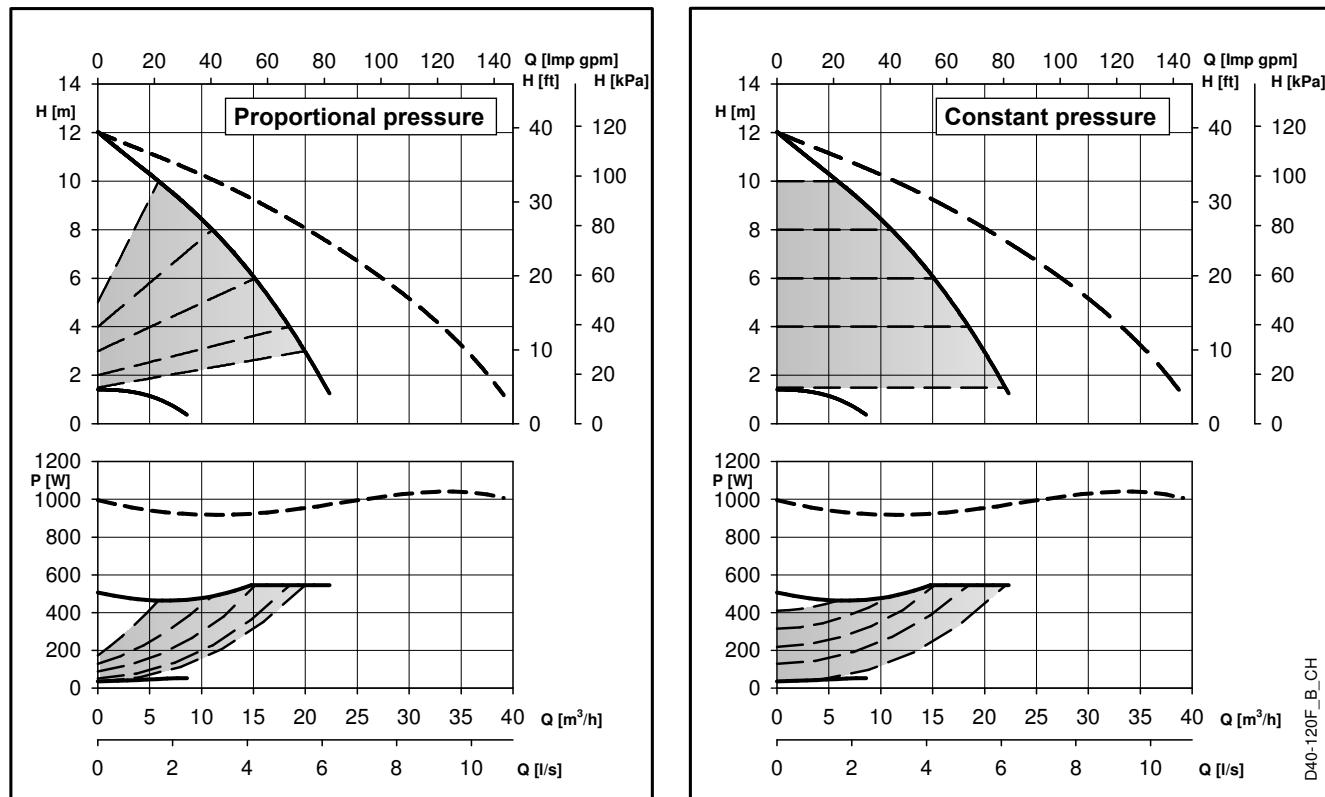


| ecocirc XL-XLplus D40-100 F | | | | | Dimensions (mm) | | | | | Net weight 27,8 (Kg) - Gross weight 35,3 (Kg) | | | | | | | | | | | |
|-----------------------------|-------|-----|-----|----|-----------------|----|-----|-----|-----|---|----|-----|-------|----|----|----|-----|----|---------|-----------|----|
| L | G | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | A1 | A2 | A3 | A4 | A5 | D1 | D2 | D3 | D4 | D5 |
| 220 | DN 40 | 330 | 259 | 71 | 130 | 51 | 186 | 235 | 128 | 421 | 79 | 215 | 107,5 | 45 | 95 | 80 | 150 | 45 | 100/110 | 4 x 14/19 | 84 |

En-Rev_B

Performance curves and Technical data

ecocirc XL-XLplus D40-120 F



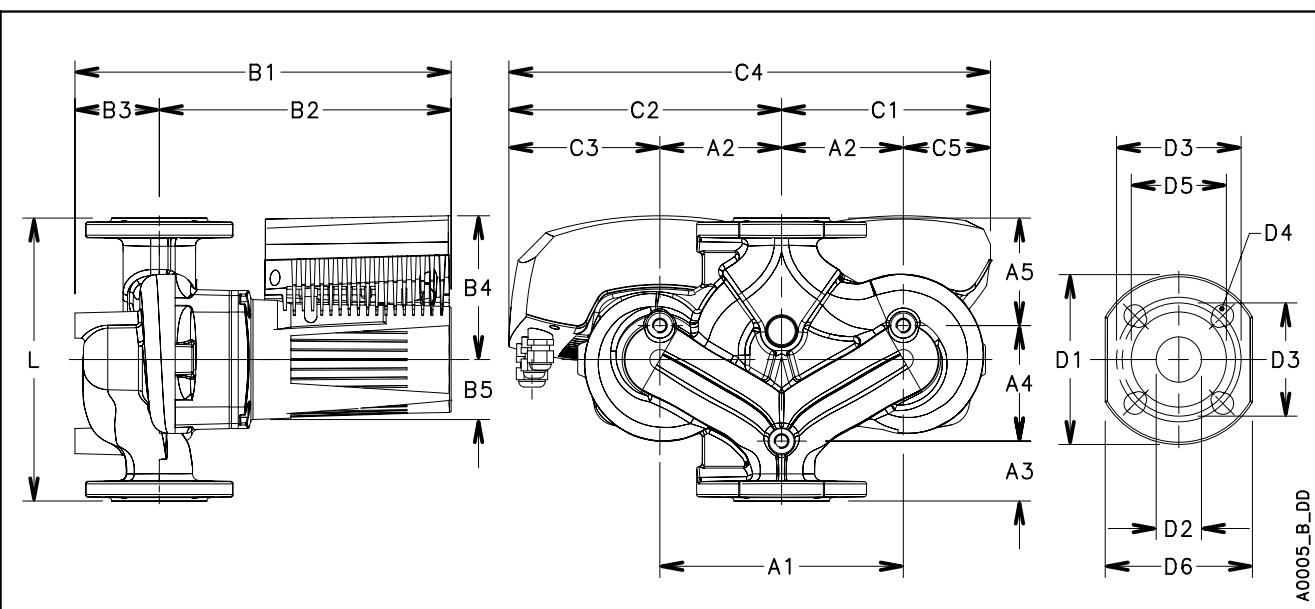
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus D40-120 F

Pump Data

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 32 / 540 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,2 / 2,4 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 48 dB(A) |

En-Rev_E



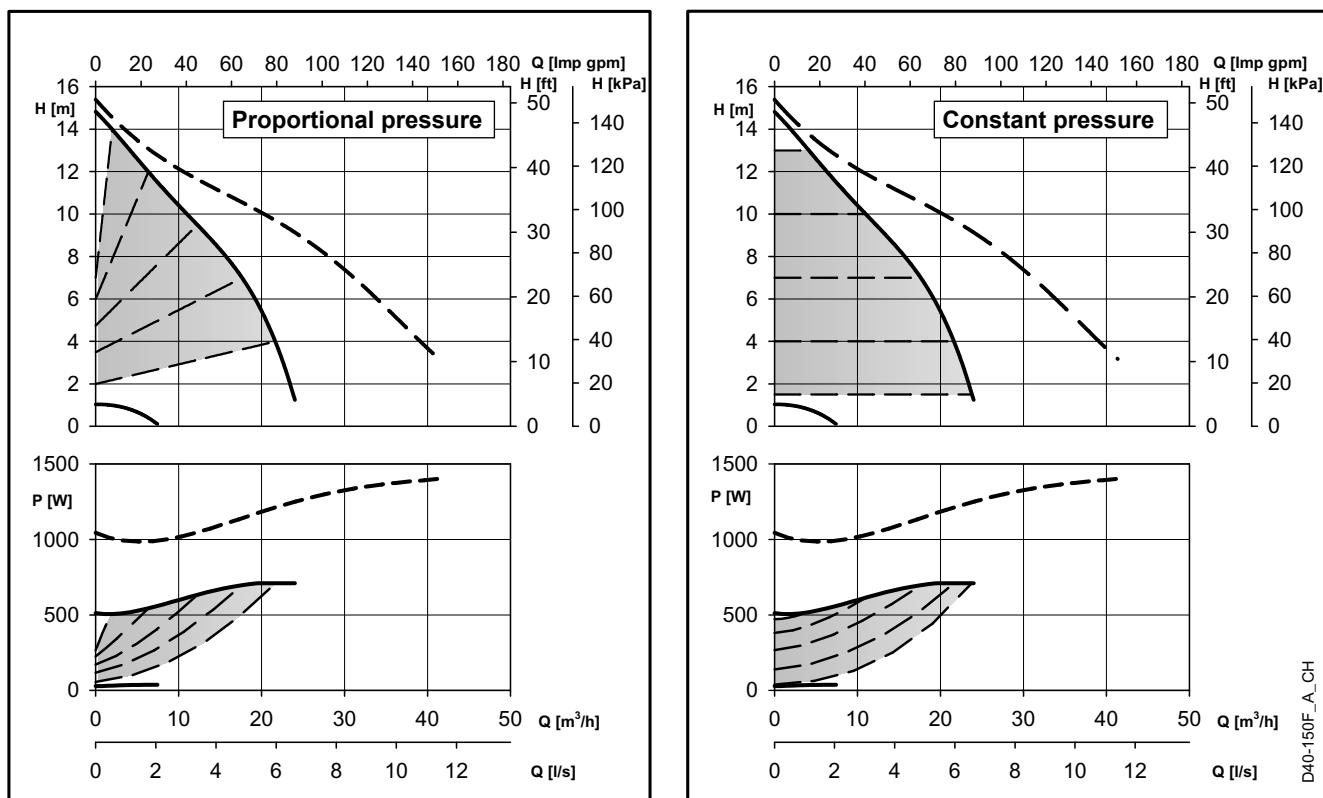
ecocirc XL-XLplus D40-120 F

Dimensions (mm)

Net weight 28,6 (Kg) - Gross weight 36,1 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | A1 | A2 | A3 | A4 | A5 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-----|-----|----|-----|----|-------|-------|-----|-----|----|-----|-------|----|-----|----|-----|----|---------|-----------|----|
| 250 | DN 40 | 338 | 256 | 82 | 132 | 53 | 185,5 | 235,5 | 128 | 421 | 78 | 215 | 107,5 | 53 | 102 | 95 | 150 | 40 | 100/110 | 4 x 14/19 | 84 |

En-Rev_A

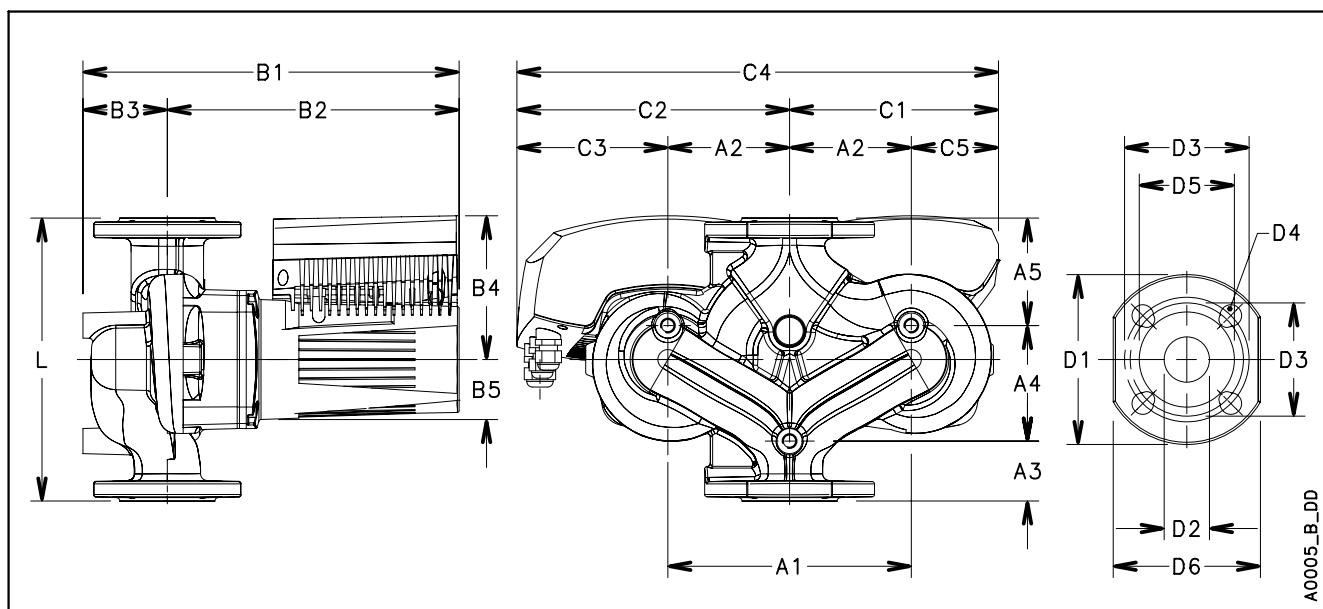
ecocirc XL-XLplus D40-150 F

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus D40-150 F**Pump Data**

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 28 / 712 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,4 / 3,2 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 52 dB(A) |

En-Rev_A

**ecocirc XL-XLplus D40-150 F****Dimensions (mm)**

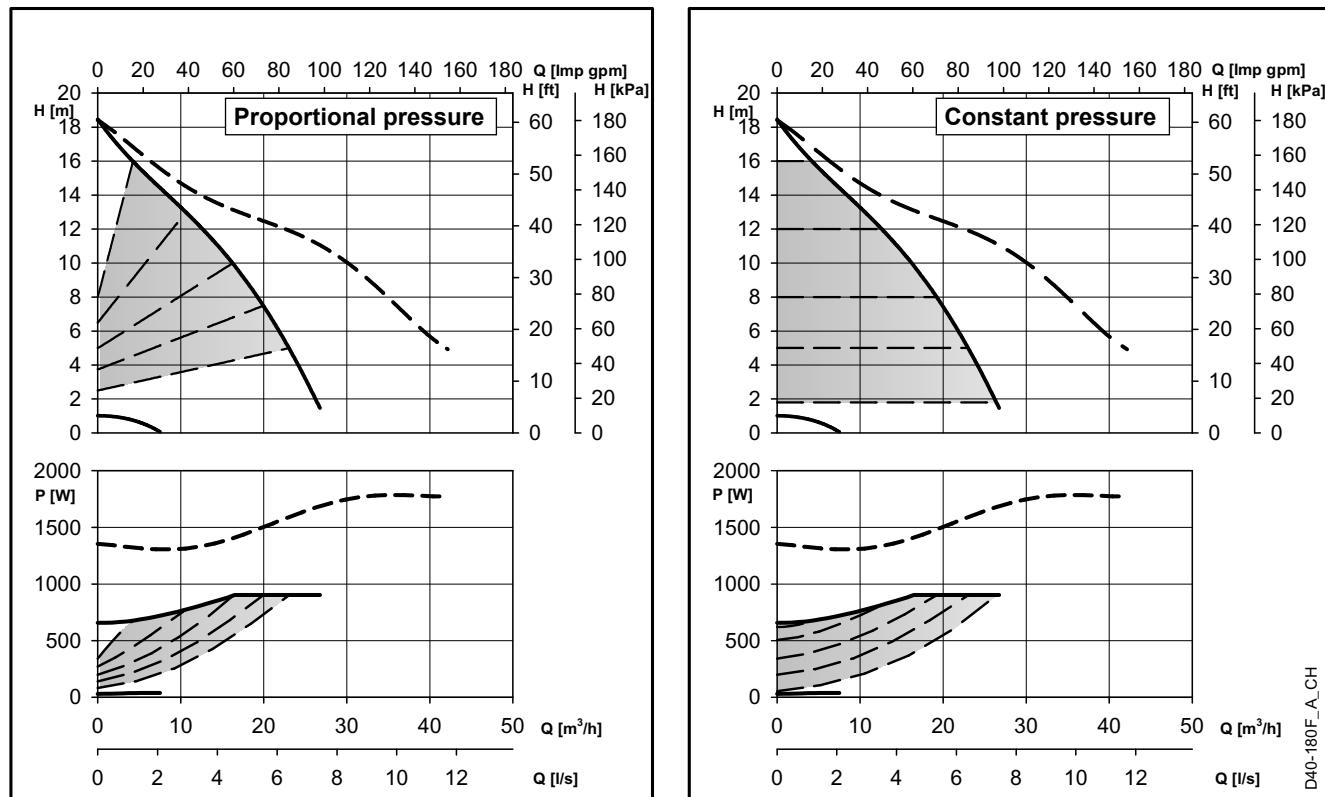
Net weight 36,8 (Kg) - Gross weight 44,3 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | A1 | A2 | A3 | A4 | A5 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-------|-----|------|-----|----|-----|-----|-----|-----|----|-----|-----|----|-----|----|-----|----|---------|-----------|----|
| 250 | DN 40 | 375,5 | 301 | 74,5 | 147 | 61 | 216 | 266 | 146 | 482 | 96 | 240 | 120 | 53 | 105 | 92 | 150 | 40 | 100/110 | 4 x 14/19 | 84 |

En-Rev_A

Performance curves and Technical data

ecocirc XL-XLplus D40-180 F



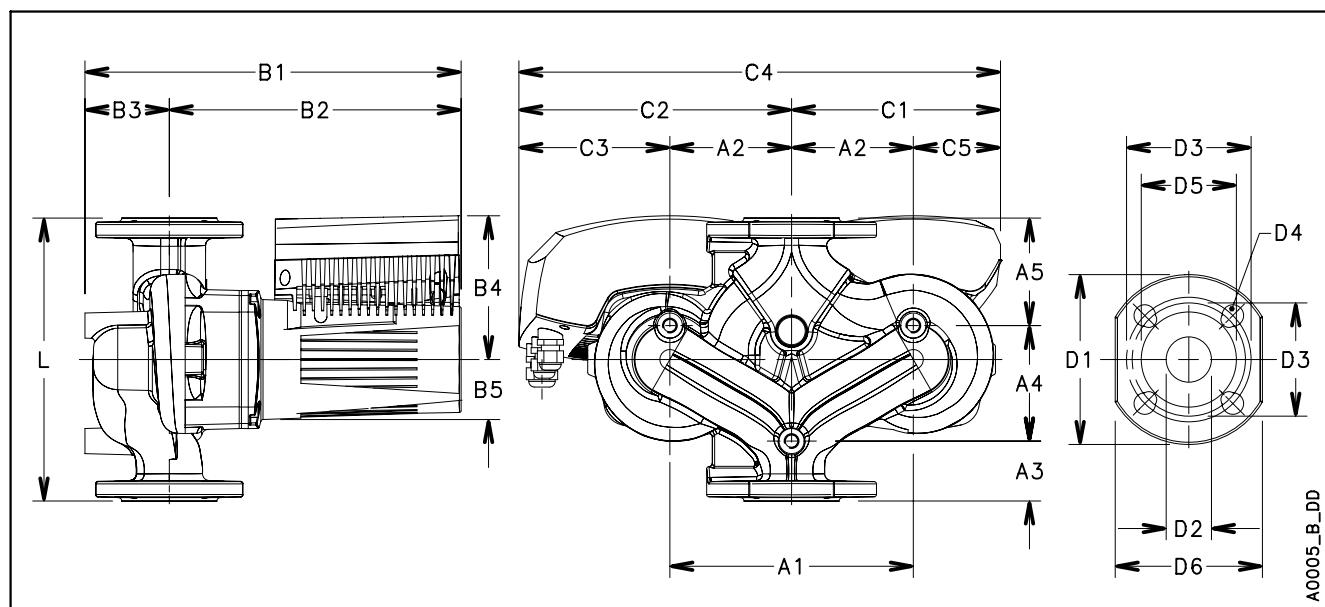
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus D40-180 F

Pump Data

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 29 / 903 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,4 / 4,0 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 52 dB(A) |

En-Rev_A



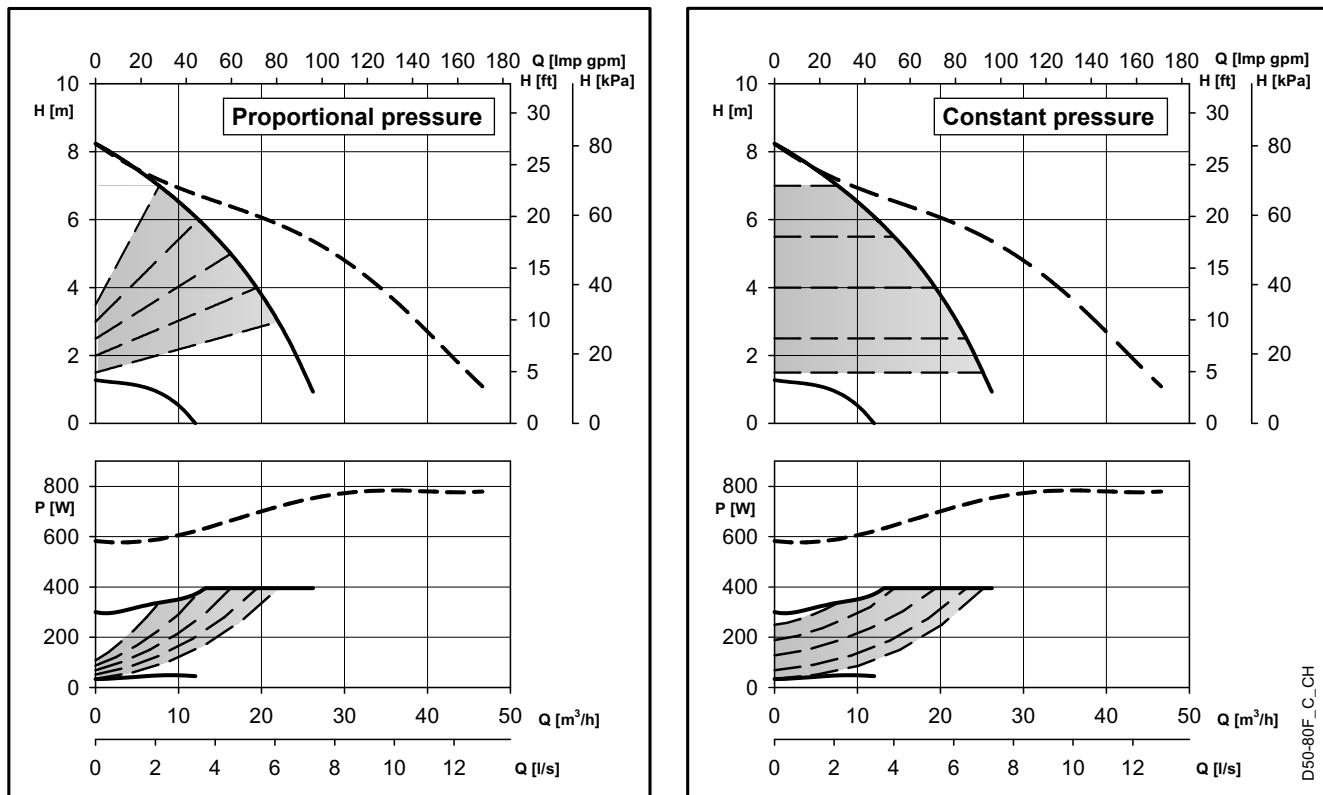
ecocirc XL-XLplus D40-180 F

Dimensions (mm)

Net weight 36,8 (Kg) - Gross weight 44,3 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | A1 | A2 | A3 | A4 | A5 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-------|-----|------|-----|----|-----|-----|-----|-----|----|-----|-----|----|-----|----|-----|----|---------|-----------|----|
| 250 | DN 40 | 375,5 | 301 | 74,5 | 147 | 61 | 216 | 266 | 146 | 482 | 96 | 240 | 120 | 53 | 105 | 92 | 150 | 40 | 100/110 | 4 x 14/19 | 84 |

En-Rev_A

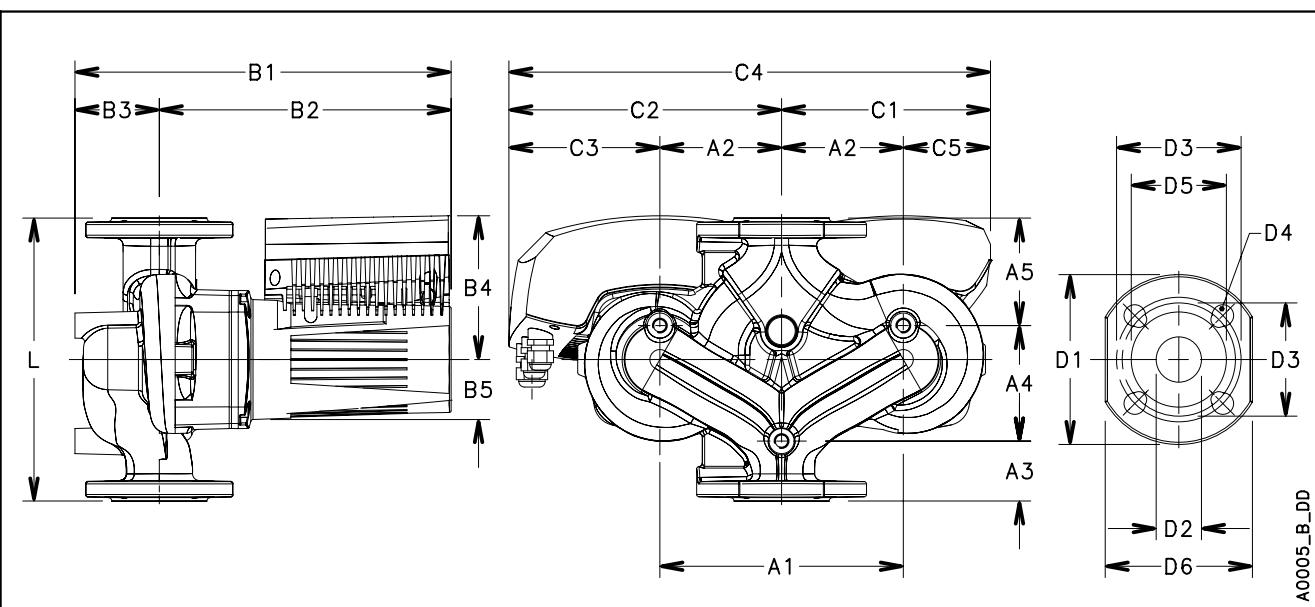
ecocirc XL-XLplus D50-80 F

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus D50-80 F**Pump Data**

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 34 / 395 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,2 / 1,7 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 48 dB(A) |

En-Rev_D

**ecocirc XL-XLplus D50-80 F****Dimensions (mm)**

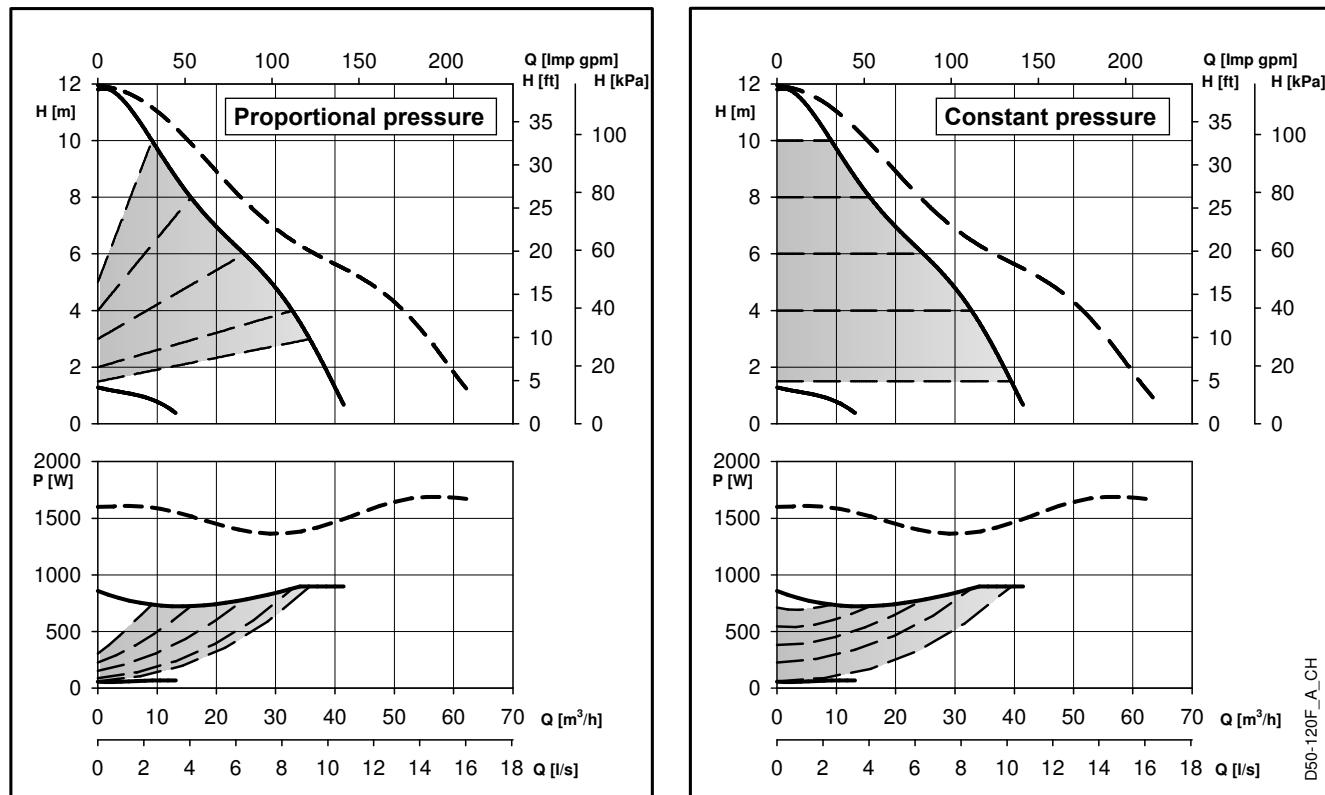
Net weight 33 (Kg) - Gross weight 40,5 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | A1 | A2 | A3 | A4 | A5 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-----|-----|----|-----|----|-----|-----|-----|-----|----|-----|-----|----|-----|----|-----|----|---------|-----------|-----|
| 240 | DN 50 | 355 | 261 | 94 | 132 | 53 | 198 | 248 | 128 | 446 | 78 | 240 | 120 | 50 | 105 | 85 | 165 | 50 | 110/125 | 4 x 14/19 | 100 |

En-Rev_B

Performance curves and Technical data

ecocirc XL-XLplus D50-120 F



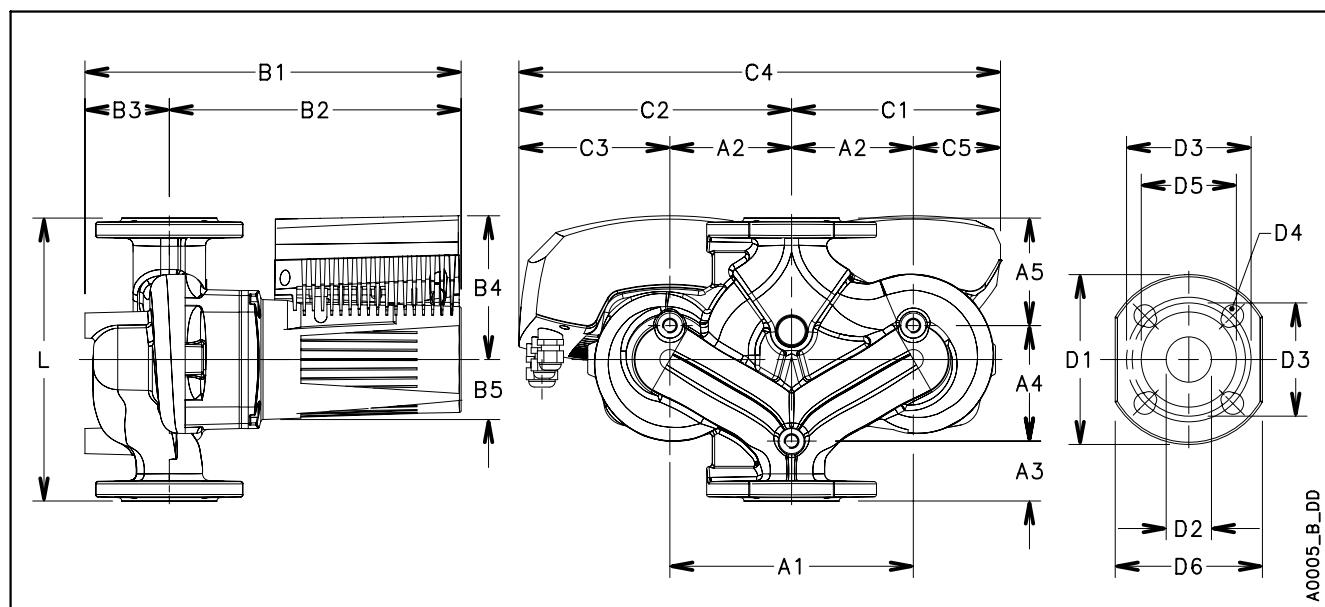
These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus D50-120 F

Pump Data

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 55 / 897 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,4 / 4,0 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 52 dB(A) |

En-Rev_C



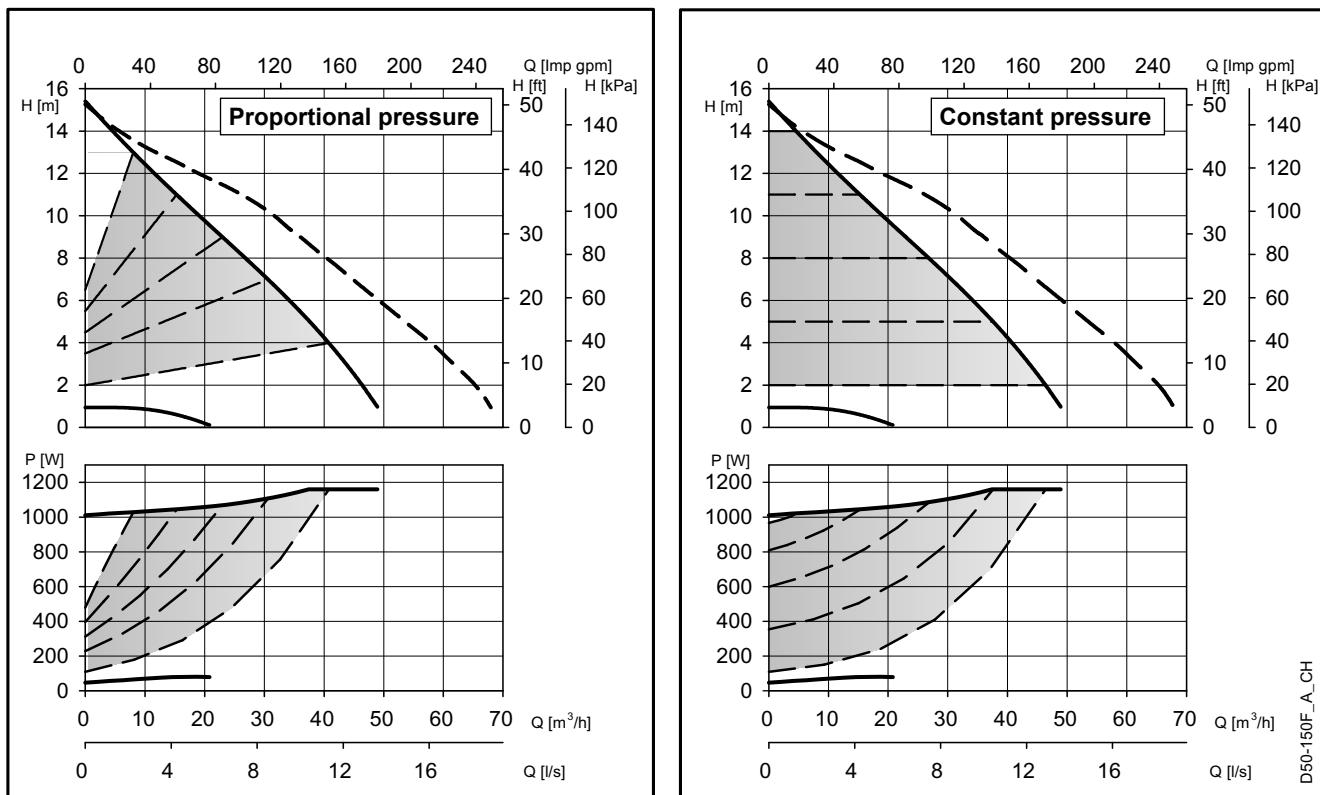
ecocirc XL-XLplus D50-120 F

Dimensions (mm)

Net weight 41,8 (Kg) - Gross weight 52,3 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | A1 | A2 | A3 | A4 | A5 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-----|-----|----|-----|----|-----|-----|-----|-----|----|-----|-----|----|-----|----|-----|----|---------|-----------|-----|
| 280 | DN 50 | 368 | 290 | 78 | 147 | 60 | 202 | 268 | 148 | 470 | 82 | 240 | 120 | 60 | 125 | 95 | 165 | 50 | 110/125 | 4 x 14/19 | 100 |

En-Rev_A

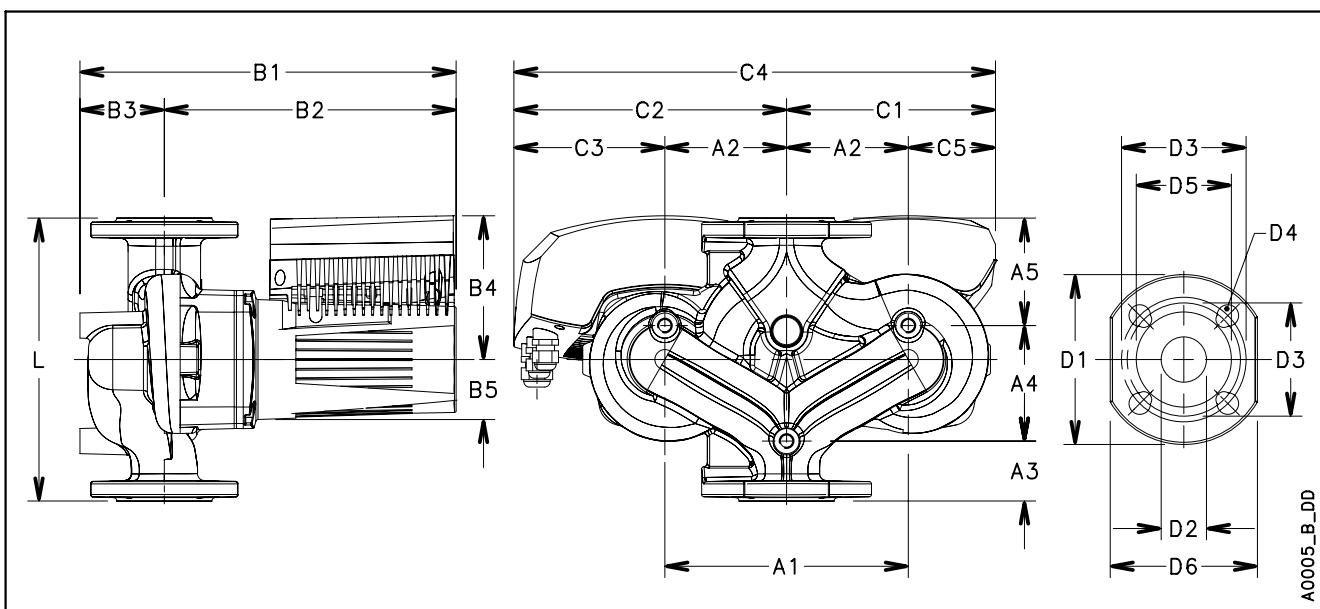
ecocirc XL-XLplus D50-150 F

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus D50-150 F**Pump Data**

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 47 / 1160 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,4 / 5,1 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 60 dB(A) |

En-Rev_A

**ecocirc XL-XLplus D50-150 F****Dimensions (mm)**

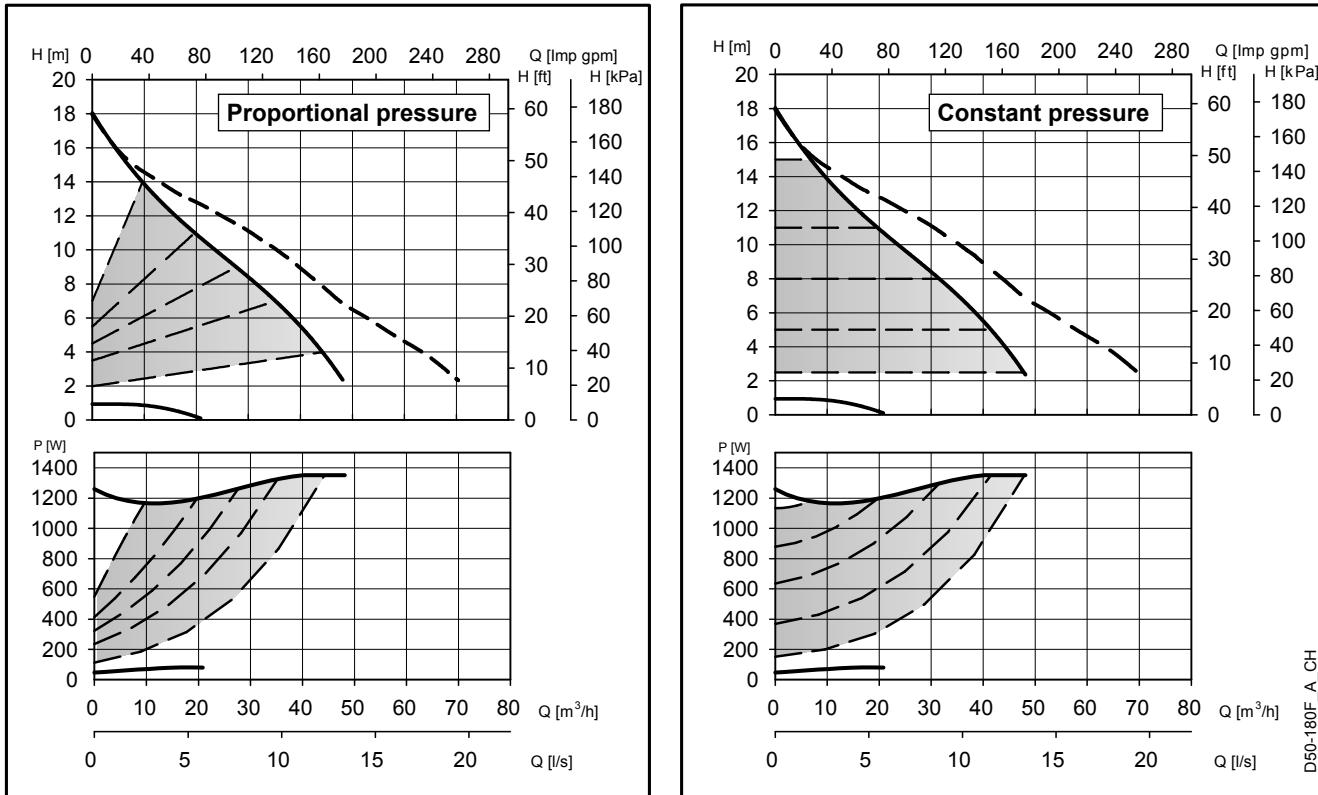
Net weight 39,3 (Kg) - Gross weight 49,8 (Kg)

| L | G | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | A1 | A2 | A3 | A4 | A5 | D1 | D2 | D3 | D4 | D5 |
|-----|-------|-------|-----|------|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|----|---------|---------|----|
| 280 | DN 50 | 396,5 | 308 | 88,5 | 147 | 61 | 227 | 266 | 146 | 494 | 107 | 240 | 120 | 70 | 105 | 105 | 165 | 50 | 110/125 | 4x14/19 | 99 |

En-Rev_A

Performance curves and Technical data

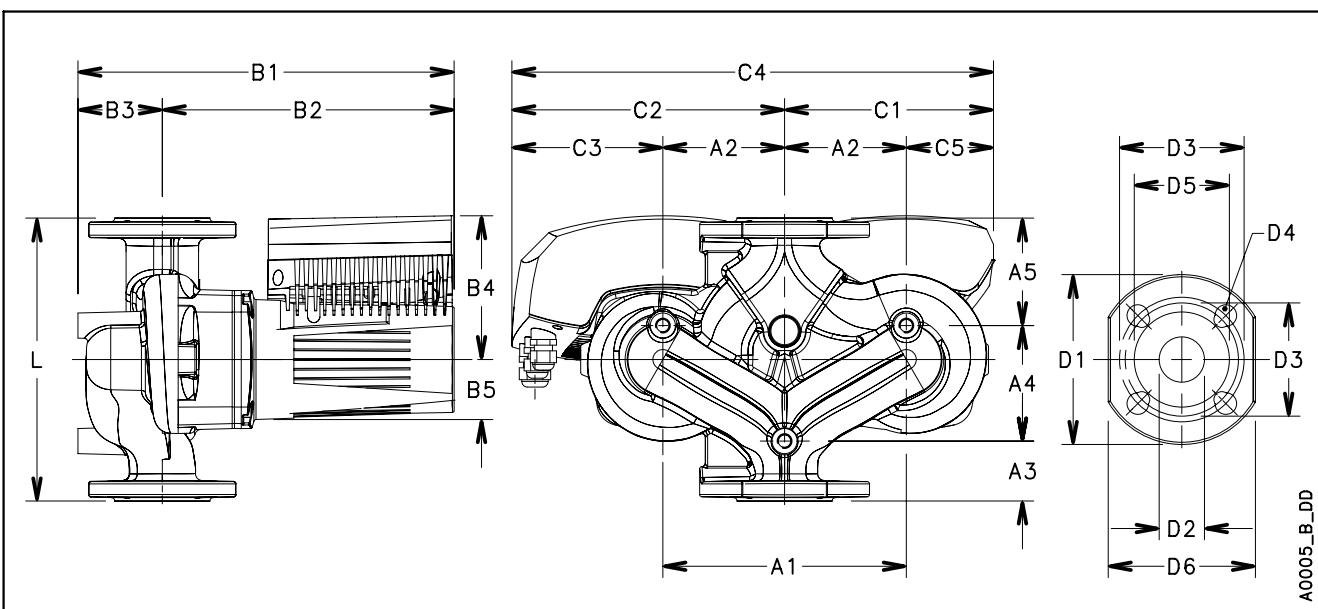
ecocirc XL-XLplus D50-180 F



These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

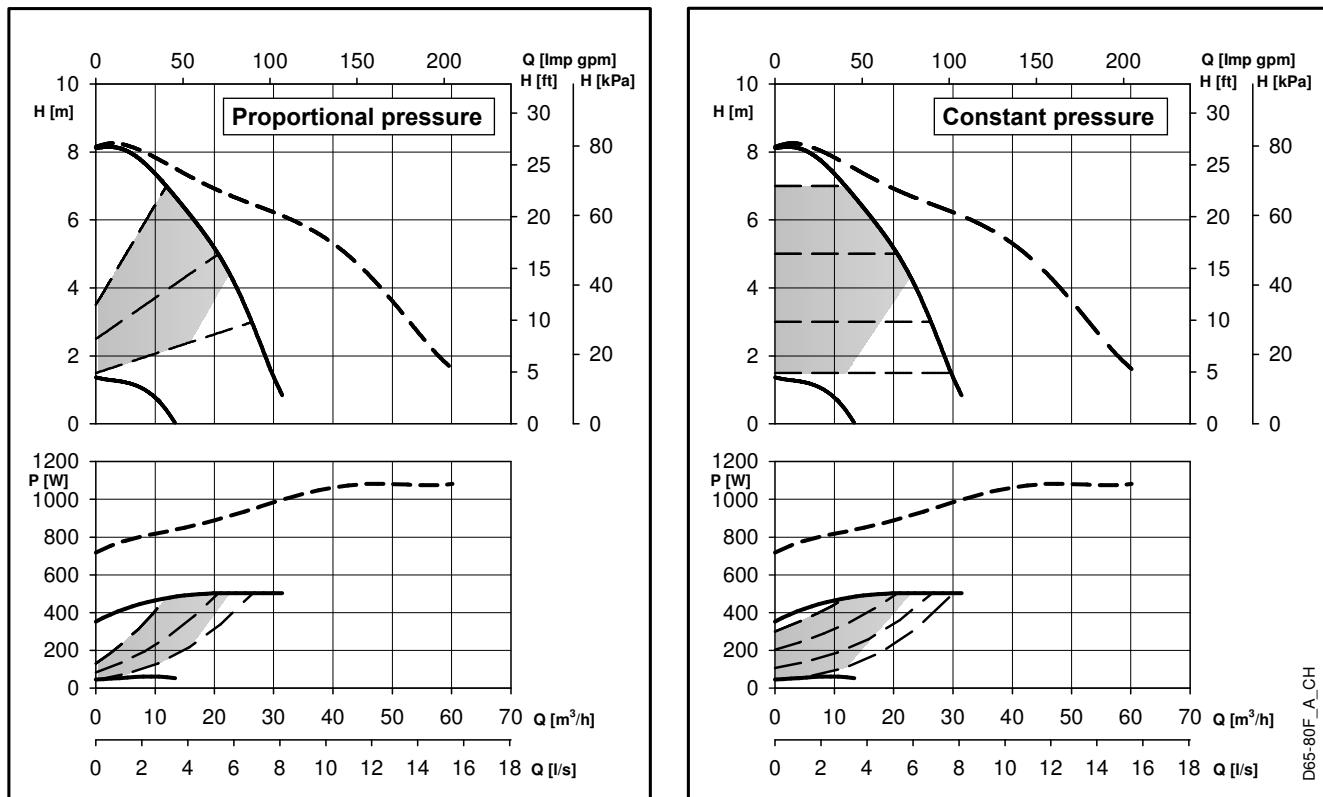
| ecocirc XL-XLplus D50-180 F | | Pump Data | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 47 / 1350 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,4 / 5,9 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 60 dB(A) |

En-Rev_A



| ecocirc XL-XLplus D50-180 F | | | | | Dimensions (mm) | | | | | Net weight 39,3 (Kg) - Gross weight 49,8 (Kg) | | | | | | | | | | | |
|-----------------------------|-------|-------|-----|------|-----------------|----|-----|-----|-----|---|-----|-----|----|-----|-----|-----|----|---------|---------|----|----|
| L | G | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | A1 | A2 | A3 | A4 | A5 | D1 | D2 | D3 | D4 | D5 |
| 280 | DN 50 | 396,5 | 308 | 88,5 | 147 | 61 | 227 | 146 | 494 | 107 | 240 | 120 | 70 | 105 | 105 | 165 | 50 | 110/125 | 4x14/19 | 99 | |

En-Rev_A

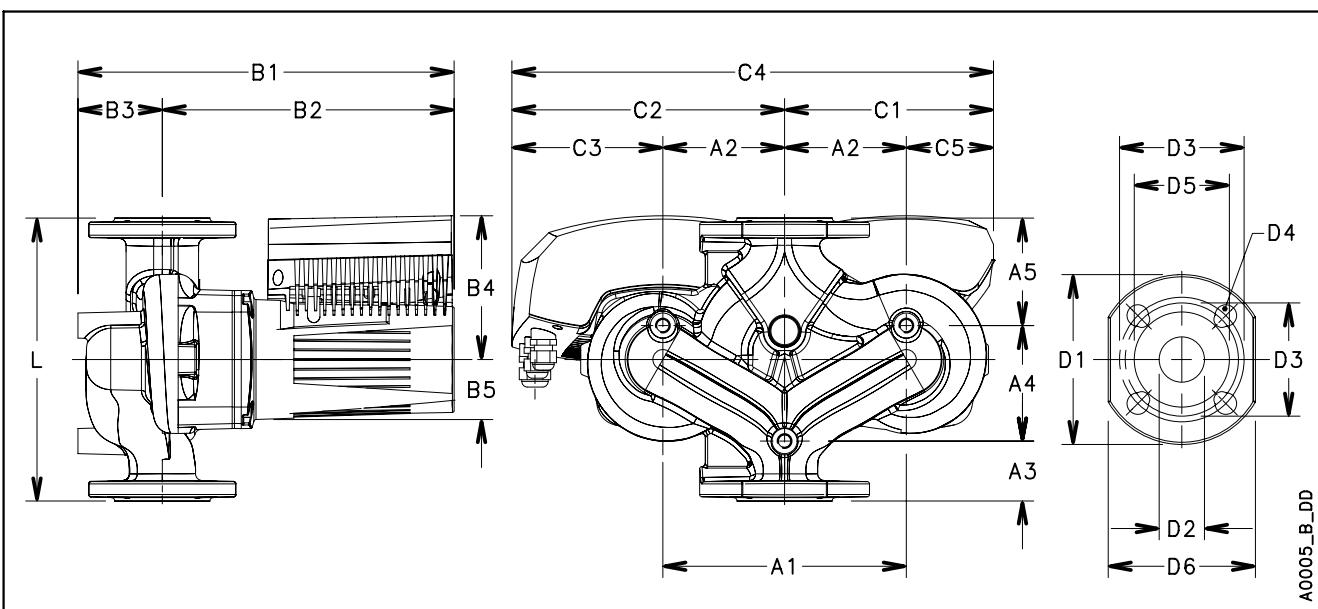
ecocirc XL-XLplus D65-80 F

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

ecocirc XL-XLplus D65-80 F**Pump Data**

| | | | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 37 / 490 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,2 / 2,2 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 48 dB(A) |

En-Rev_D

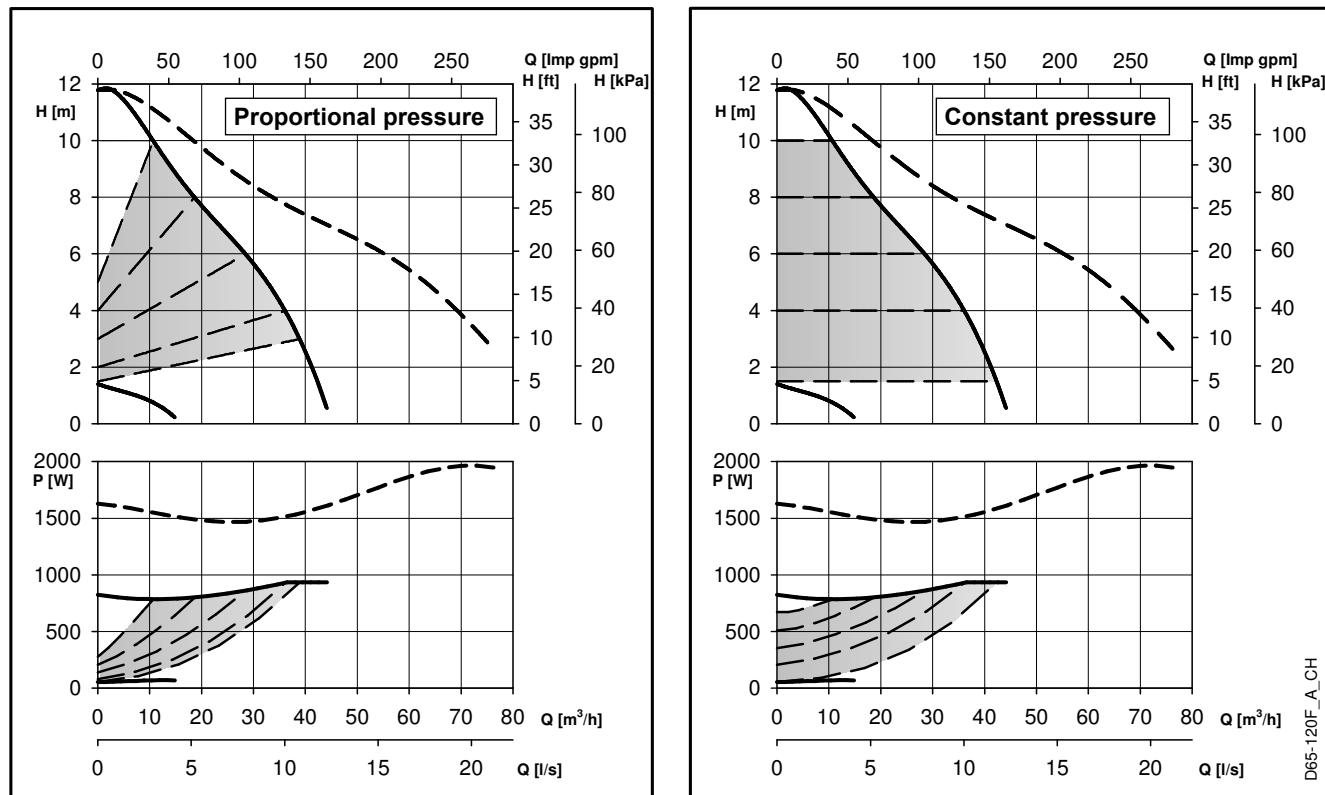


| ecocirc XL-XLplus D65-80 F | | | | | Dimensions (mm) | | | | | Net weight 38,5 (Kg) - Gross weight 49 (Kg) | | | | | | | | | | | |
|----------------------------|-------|-----|-----|----|-----------------|----|-----|-----|-----|---|----|-----|-----|----|-----|-----|-----|----|---------|-----------|-----|
| L | G | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | A1 | A2 | A3 | A4 | A5 | D1 | D2 | D3 | D4 | D5 |
| 340 | DN 65 | 364 | 267 | 97 | 132 | 53 | 198 | 248 | 128 | 446 | 78 | 240 | 120 | 60 | 145 | 135 | 185 | 65 | 130/145 | 4 x 14/19 | 118 |

En-Rev_A

Performance curves and Technical data

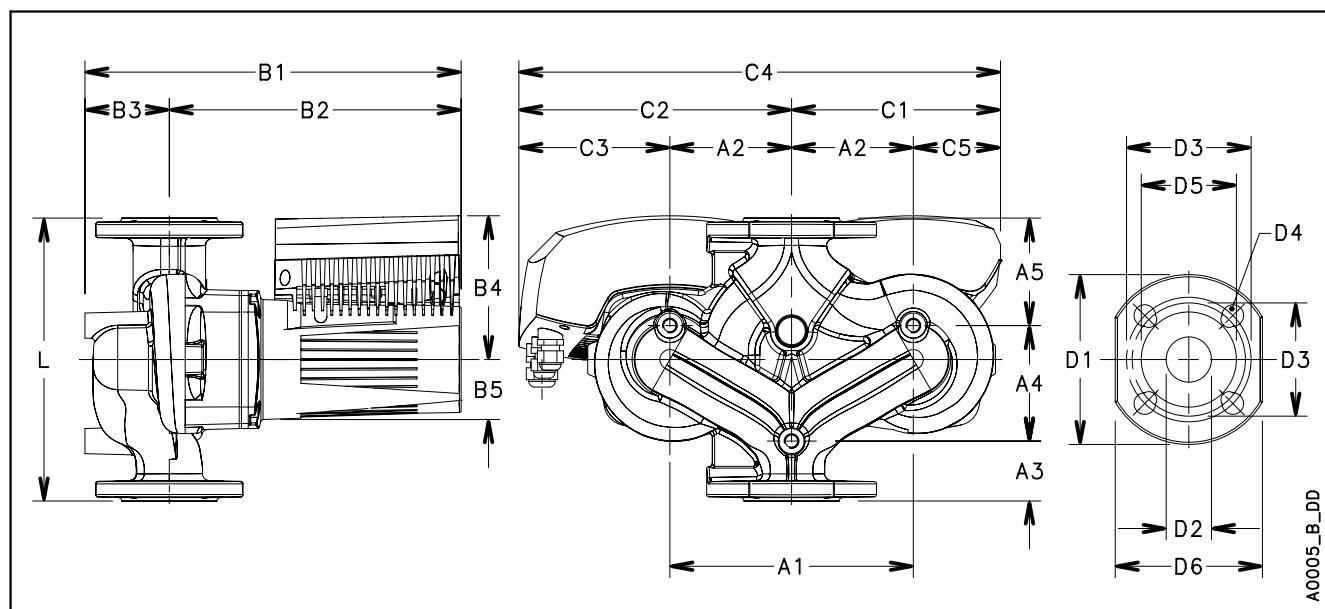
ecocirc XL-XLplus D65-120 F



These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

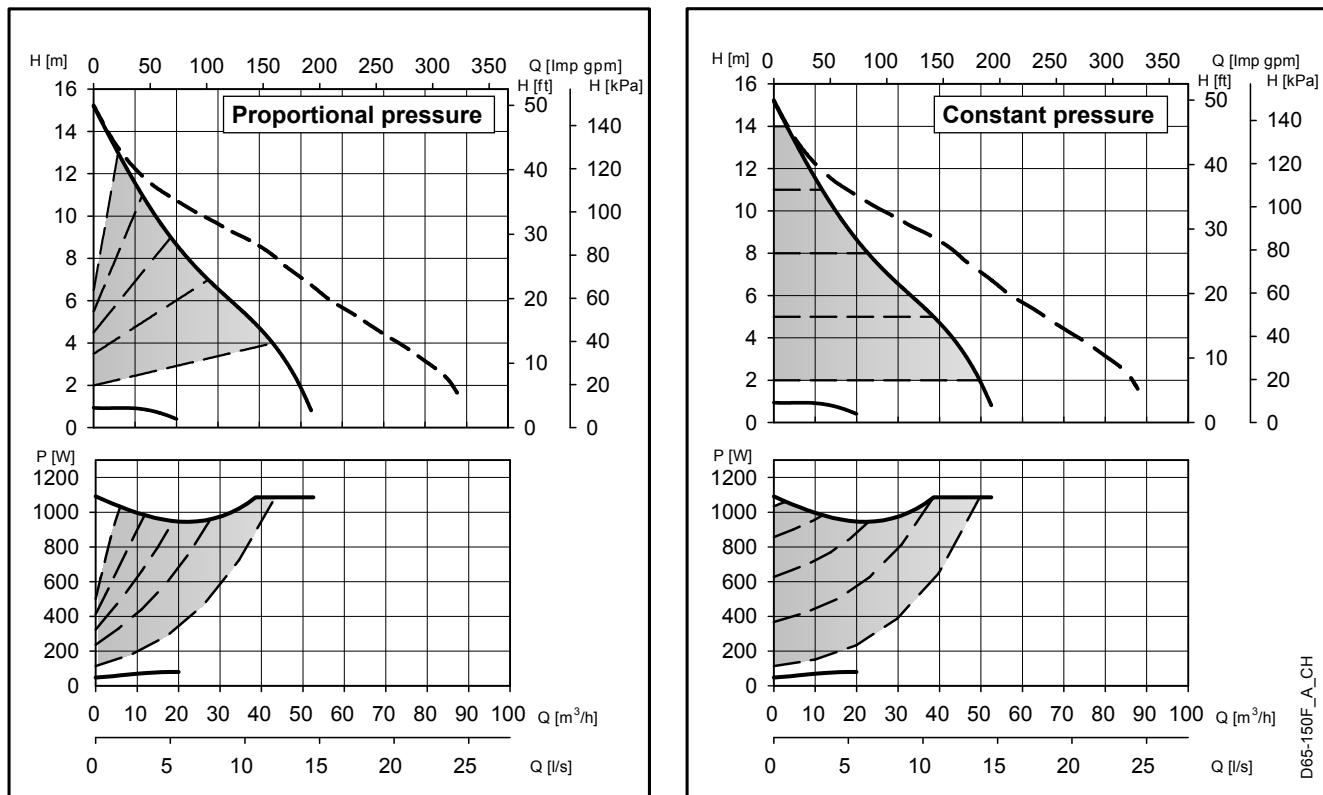
| ecocirc XL-XLplus D65-120 F | | Pump Data | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 55 / 935 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,4 / 4,1 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 52 dB(A) |

En-Rev_C



| ecocirc XL-XLplus D65-120 F | | | | Dimensions (mm) | | | | | | | | | | | | Net weight 43,4 (Kg) - Gross weight 53,9 (Kg) | | | | | | | | | |
|-----------------------------|-------|-----|-----|-----------------|-----|----|-----|-----|-----|-----|----|-----|-----|----|-----|---|-----|----|---------|-----------|-----|--|--|--|--|
| L | G | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | A1 | A2 | A3 | A4 | A5 | D1 | D2 | D3 | D4 | D5 | | | | |
| 340 | DN 65 | 381 | 297 | 84 | 147 | 60 | 213 | 268 | 148 | 481 | 93 | 240 | 120 | 55 | 155 | 130 | 185 | 65 | 130/145 | 4 x 14/19 | 118 | | | | |

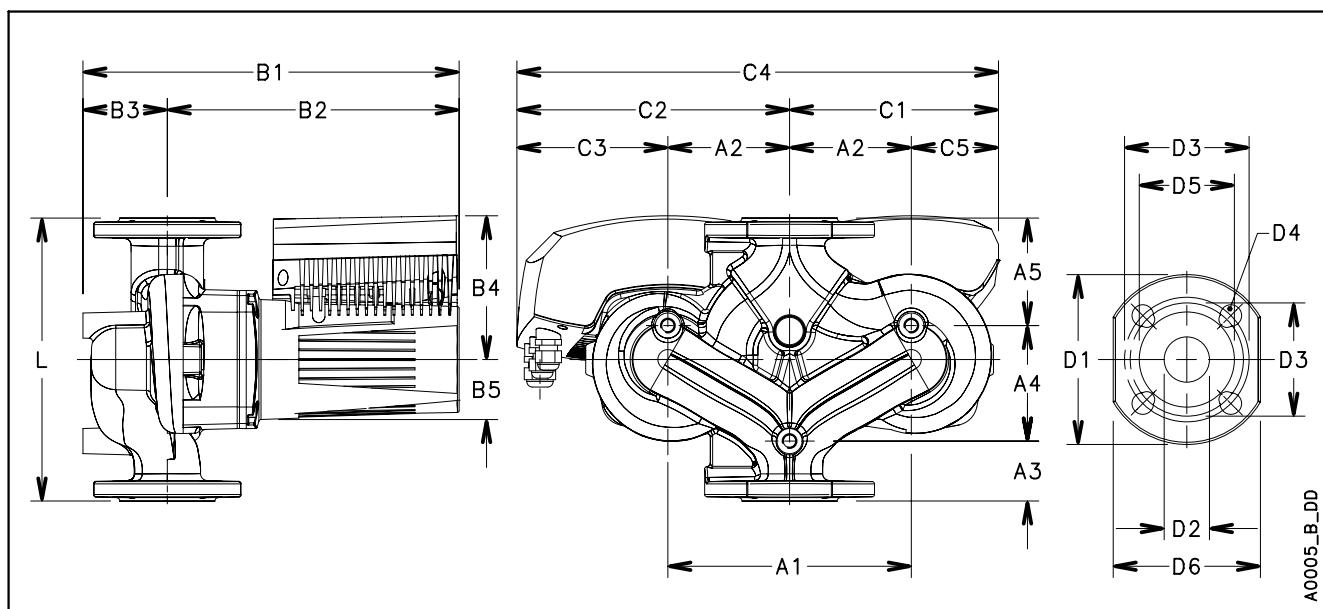
En-Rev_A

ecocirc XL-XLplus D65-150 F

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

| ecocirc XL-XLplus D65-150 F | | Pump Data | |
|------------------------------|----------------|-----------------------|-------------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 48 / 1090 | Max. working pressure | 0,6 MPa (6 bar) or 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,4 / 4,8 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 60 dB(A) |

En-Rev_A

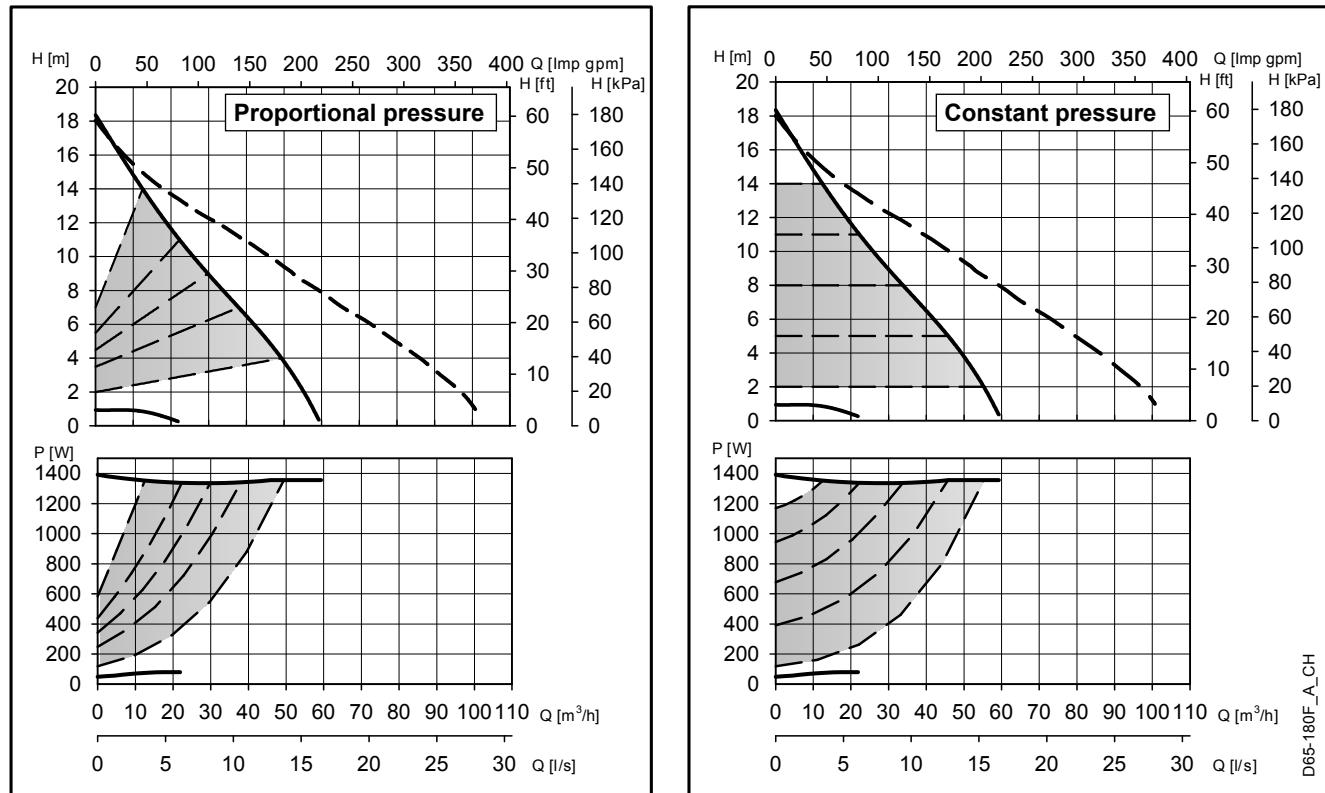


| ecocirc XL-XLplus D65-150 F | | Dimensions (mm) | | | | | | | | | | | | Net weight 44,5 (Kg) - Gross weight 54,8 (Kg) | | | | | | | | | |
|-----------------------------|-------|-----------------|-----|----|-----|----|-----|-----|-----|-----|-----|-----|-----|---|-----|-----|-----|----|---------|---------|-----|--|--|
| L | G | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | A1 | A2 | A3 | A4 | A5 | D1 | D2 | D3 | D4 | D5 | | |
| 340 | DN 65 | 400 | 315 | 85 | 147 | 61 | 240 | 276 | 146 | 516 | 110 | 240 | 120 | 100 | 105 | 135 | 185 | 65 | 130/145 | 4x14/19 | 118 | | |

En-Rev_A

Performance curves and Technical data

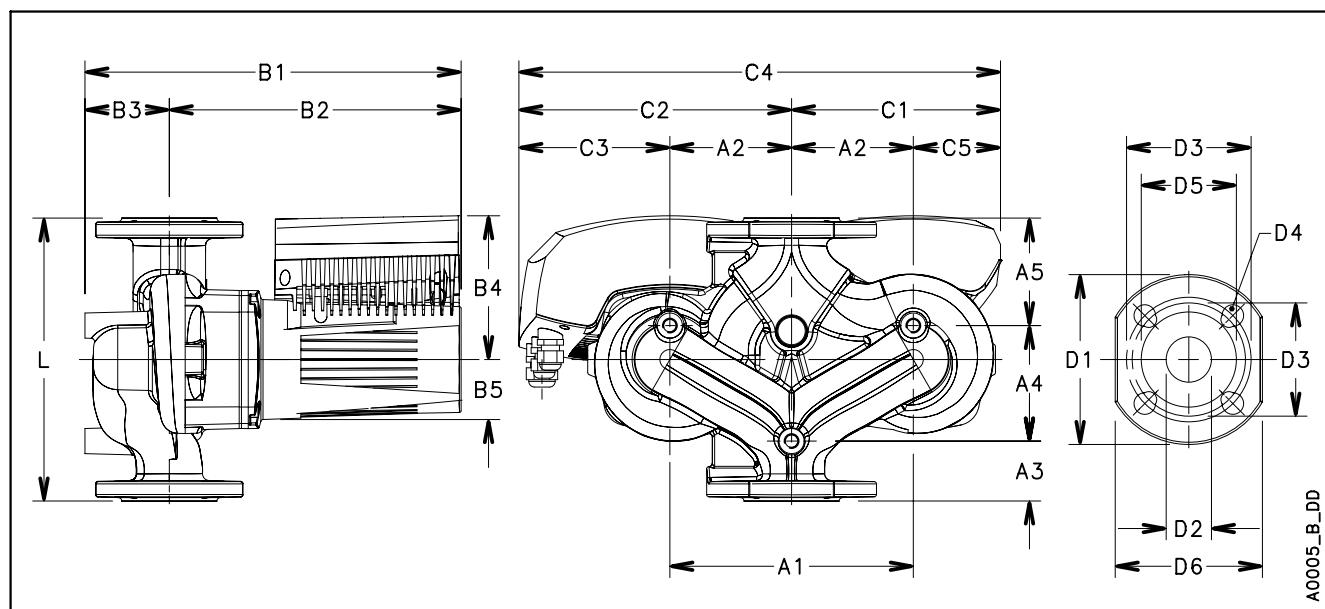
ecocirc XL-XLplus D65-180 F



These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $v = 1 \text{ mm}^2/\text{sec}$.

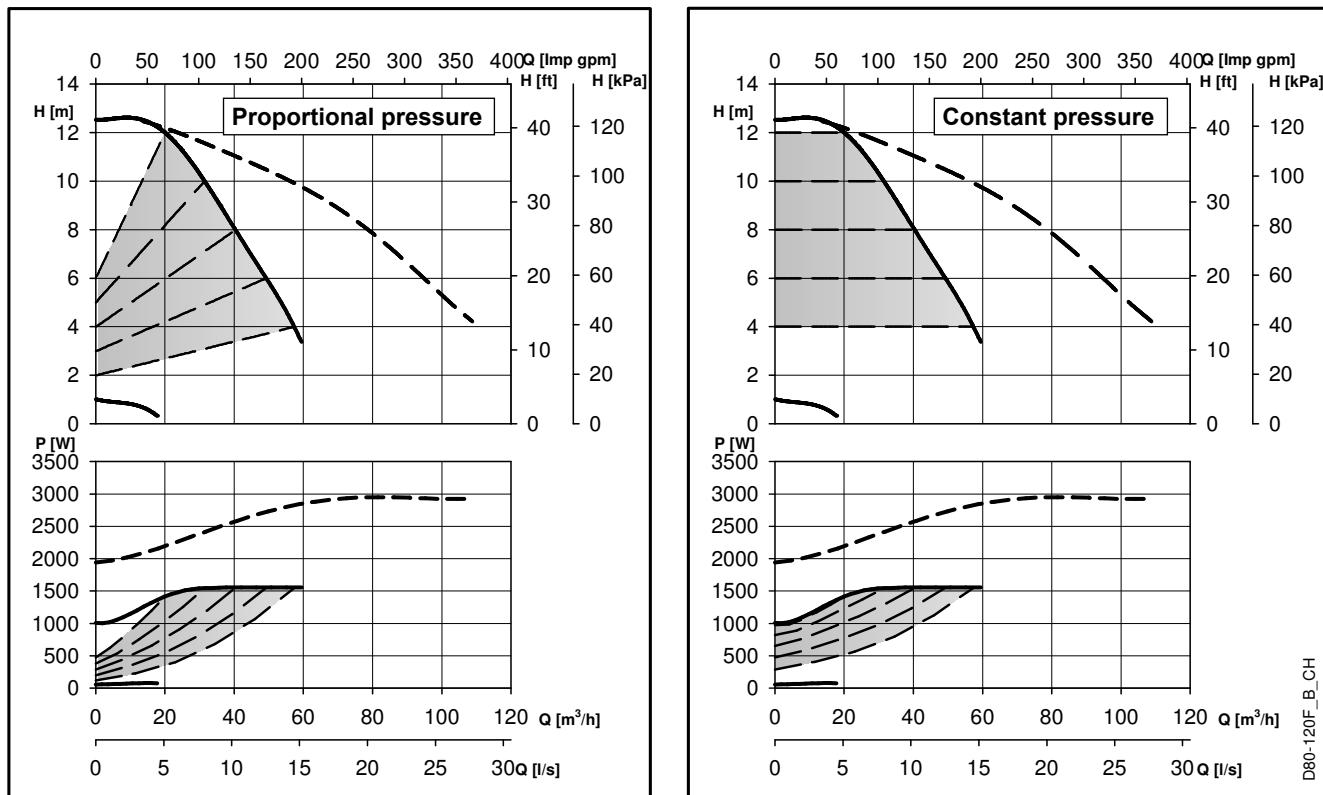
| ecocirc XL-XLplus D65-180 F | | Pump Data | |
|------------------------------|----------------|-----------------------|---------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 49 / 1400 | Max. working pressure | 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,4 / 6,2 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 60 dB(A) |

En-Rev_A



| ecocirc XL-XLplus D65-180 F | | | | Dimensions (mm) | | | | | | | | | | Net weight 44,5 (Kg) - Gross weight 54,8 (Kg) | | | | | | | | | |
|-----------------------------|-------|-----|-----|-----------------|-----|----|-----|-----|-----|-----|-----|-----|-----|---|-----|-----|-----|----|---------|---------|-----|--|--|
| L | G | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | A1 | A2 | A3 | A4 | A5 | D1 | D2 | D3 | D4 | D5 | | |
| 340 | DN 65 | 400 | 315 | 85 | 147 | 61 | 240 | 276 | 146 | 516 | 110 | 240 | 120 | 100 | 105 | 135 | 185 | 65 | 130/145 | 4x14/19 | 118 | | |

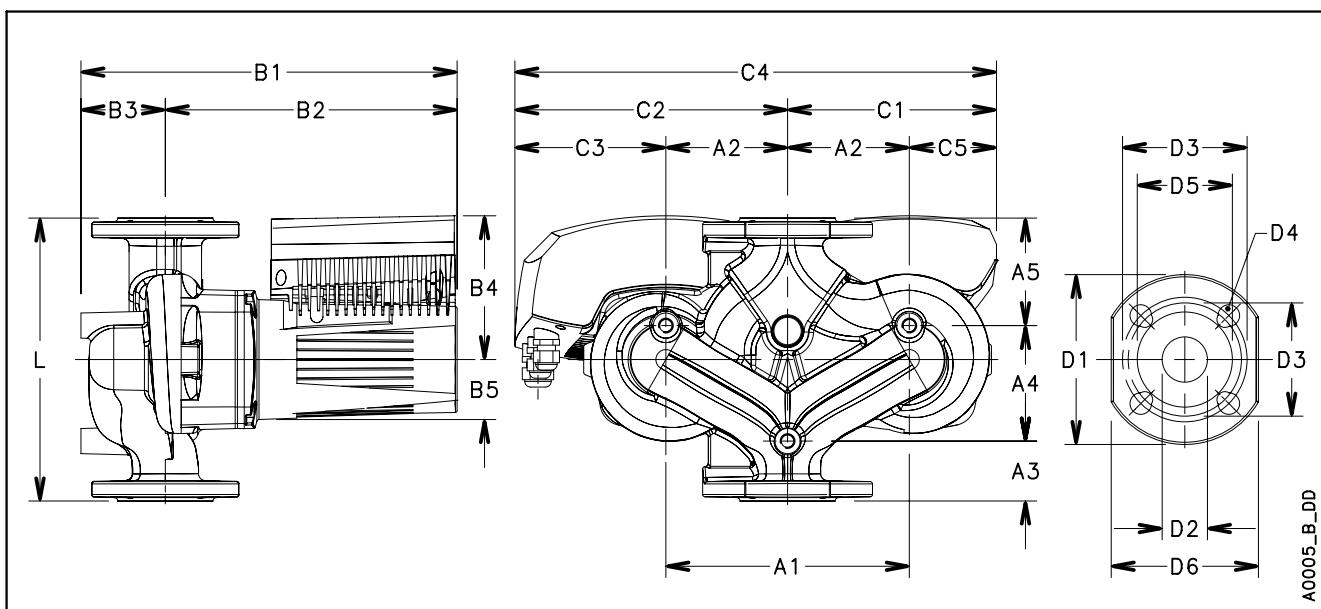
En-Rev_A

ecocirc XL-XLplus D80-120 F

These performances are valid for liquids with density $\rho = 1.0 \text{ Kg/dm}^3$ and kinematic viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

| ecocirc XL-XLplus D80-120 F | | Pump Data | |
|------------------------------|----------------|-----------------------|-------------------------------------|
| Rated voltage | 1 x 230 V ±10% | IP protection | 44 |
| Frequency | 50/60 Hz | Insulation class | 155 (F) |
| Power absorbed [W] (min/max) | 55 / 1560 | Max. working pressure | 0,6 MPa (6 bar) or 1,0 MPa (10 bar) |
| Input current [A] (min/max) | 0,4 / 6,6 | Liquid temperature | -10°C (14°F) to +110 °C (230°F) |
| Specific EEI ≤ | 0,23 | Sound pressure level | ≤ 55 dB(A) |

En-Rev_B



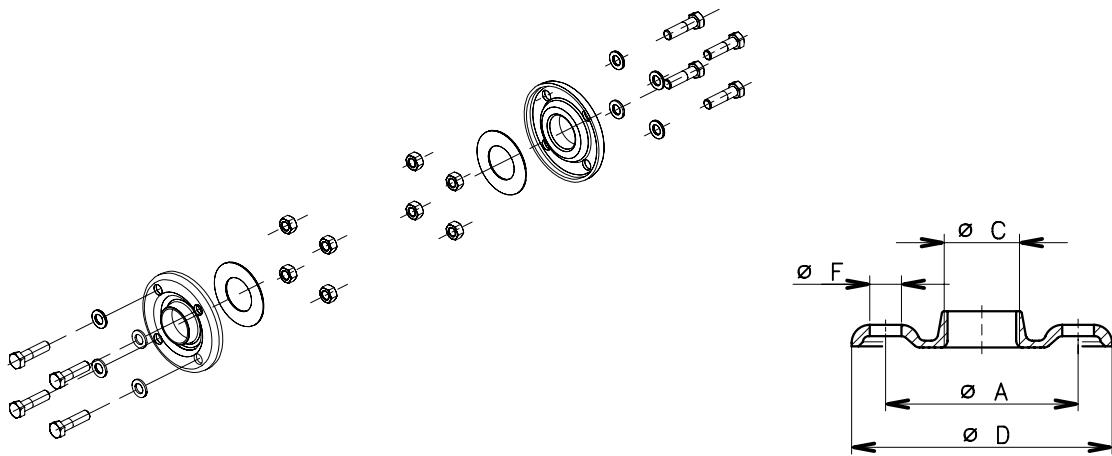
| ecocirc XL-XLplus D80-120 F | | | | Dimensioni (mm) | | | | | | | | | | Net weight 51,3 (Kg) - Gross weight 61,8 (Kg) | | | | | | | | | |
|-----------------------------|-----|-------|-----|-----------------|----|-----|----|-----|-----|-----|-----|----|-----|---|----|-----|-----|-----|----|-----|--------|-----|--|
| PN | L | G | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | A1 | A2 | A3 | A4 | A5 | D1 | D2 | D3 | D4 | D5 | |
| 6 | 360 | DN 80 | 396 | 306 | 90 | 147 | 60 | 213 | 268 | 148 | 481 | 93 | 240 | 120 | 70 | 145 | 145 | 200 | 80 | 150 | 4 x 19 | 132 | |
| 10 | 360 | DN 80 | 396 | 306 | 90 | 147 | 60 | 213 | 268 | 148 | 481 | 93 | 240 | 120 | 70 | 145 | 145 | 200 | 80 | 160 | 8 x 19 | 132 | |

En-Rev_B

ACCESSORIES

ecocirc XL-XLplus

THREADED COUNTERFLANGES KIT EN 1092-1



Kit containing 2 counterflanges with bolts and gaskets.

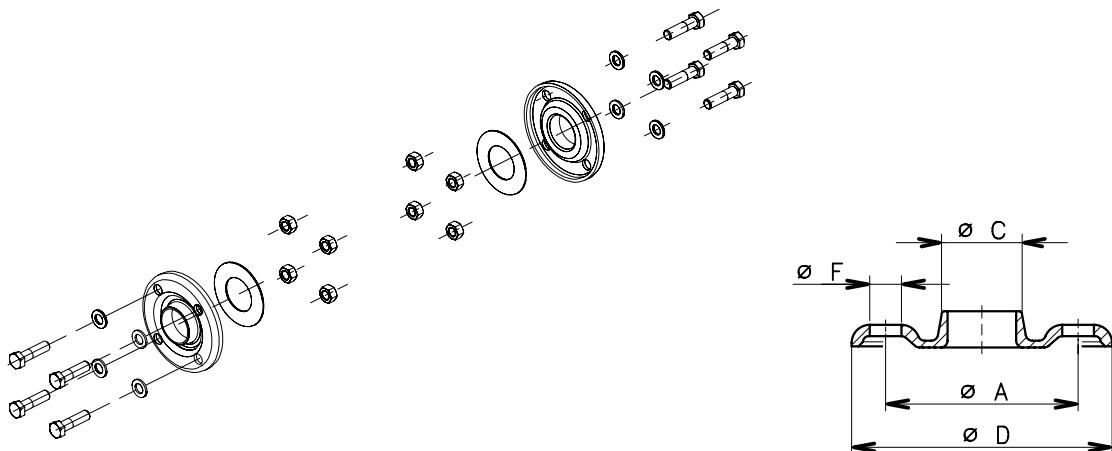
- threaded, galvanized steel.
- threaded, AISI 316 stainless steel.

C05928A_A_SC

| PART NUMBER | DESCRIPTION | DN | PN (bar) | Ø C | Ø A (mm) | Ø D (mm) | Ø F (mm) | N° |
|-------------|-------------------------------------|-----|-------------|----------|-------------|-------------|-------------|----|
| 109395700 | Kit Rp 1" 1/4 PN6 galvanized steel | 32 | 6 | Rp 1 1/4 | 90 | 120 | 14 | 4 |
| 109395701 | Kit Rp 1" 1/4 PN6 AISI 316 | | | | | | | |
| 109395710 | Kit Rp 1" 1/2 PN6 galvanized steel | 40 | 6 | Rp 1 1/2 | 100 | 130 | 14 | 4 |
| 109395711 | Kit Rp 1" 1/2 PN6 AISI 316 | | | | | | | |
| 109395720 | Kit Rp 2" PN6 galvanized steel | 50 | 6 | Rp 2 | 110 | 140 | 14 | 4 |
| 109395721 | Kit Rp 2" PN6 AISI 316 | | | | | | | |
| 109395730 | Kit Rp 2" 1/2 PN6 galvanized steel | 65 | 6 | Rp 2 1/2 | 130 | 160 | 14 | 4 |
| 109395731 | Kit Rp 2" 1/2 PN6 AISI 316 | | | | | | | |
| 109395740 | Kit Rp 3" PN6 galvanized steel | 80 | 6 | Rp 3 | 150 | 190 | 18 | 4 |
| 109395741 | Kit Rp 3" PN6 AISI 316 | | | | | | | |
| 109395750 | Kit Rp 4" PN6 galvanized steel | 100 | 6 | Rp 4 | 170 | 210 | 18 | 4 |
| 109395751 | Kit Rp 4" PN6 AISI 316 | | | | | | | |
| 109390631 | Kit Rp 1" 1/4 PN10 galvanized steel | 32 | 10 | Rp 1 1/4 | 100 | 140 | 18 | 4 |
| 109390633 | Kit Rp 1" 1/4 PN10 AISI 316 | | | | | | | |
| 109398020 | Kit Rp 1" 1/2 PN10 galvanized steel | 40 | 10 | Rp 1 1/2 | 110 | 150 | 18 | 4 |
| 109398022 | Kit Rp 1" 1/2 PN10 AISI 316 | | | | | | | |
| 109398030 | Kit Rp 2" PN10 galvanized steel | 50 | 10 | Rp 2 | 125 | 165 | 18 | 4 |
| 109398032 | Kit Rp 2" PN10 AISI 316 | | | | | | | |
| 109392710 | Kit Rp 2" 1/2 PN10 galvanized steel | 65 | 10 | Rp 2 1/2 | 145 | 185 | 18 | 4 |
| 109392750 | Kit Rp 2" 1/2 PN10 AISI 316 | | | | | | | |
| 109392720 | Kit Rp 3" PN10 galvanized steel | 80 | 10 | Rp 3 | 160 | 200 | 18 | 8 |
| 109392760 | Kit Rp 3" PN10 AISI 316 | | | | | | | |
| 109392730 | Kit Rp 4" PN10 galvanized steel | 100 | 10 | Rp 4 | 180 | 220 | 18 | 8 |
| 109392770 | Kit Rp 4" PN10 AISI 316 | | | | | | | |

En -Rev_A

ecocirc XL-XLplus
WELD-ON COUNTERFLANGES KIT EN 1092-1



Kit containing 2 counterflanges with bolts and gaskets.

- weld-on counterflanges, carbon steel.
- weld-on counterflanges, AISI 316 stainless steel.

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| PART NUMBER | DESCRIPTION | DN | PN (bar) | Ø C (mm) | Ø A (mm) | Ø D (mm) | Ø F (mm) | N° |
|-------------|-----------------------------|-----|-------------|-------------|-------------|-------------|-------------|----|
| 109395772 | Kit DN32 PN6 carbon steel | 32 | 6 | 43 | 90 | 120 | 14 | 4 |
| 109395775 | Kit DN32 PN6 AISI 316 | | | | | | | |
| 109395782 | Kit DN40 PN6 carbon steel | 40 | 6 | 48 | 100 | 130 | 14 | 4 |
| 109395785 | Kit DN40 PN6 AISI 316 | | | | | | | |
| 109395792 | Kit DN50 PN6 carbon steel | 50 | 6 | 60 | 110 | 140 | 14 | 4 |
| 109395795 | Kit DN50 PN6 AISI 316 | | | | | | | |
| 109395802 | Kit DN65 PN6 carbon steel | 65 | 6 | 76 | 130 | 160 | 14 | 4 |
| 109395805 | Kit DN65 PN6 AISI 316 | | | | | | | |
| 109395812 | Kit DN80 PN6 carbon steel | 80 | 6 | 89 | 150 | 190 | 18 | 4 |
| 109395815 | Kit DN80 PN6 AISI 316 | | | | | | | |
| 109395822 | Kit DN100 PN6 carbon steel | 100 | 6 | 108 | 170 | 210 | 18 | 4 |
| 109395825 | Kit DN100 PN6 AISI 316 | | | | | | | |
| 109395832 | Kit DN32 PN10 carbon steel | 32 | 10 | 43 | 100 | 140 | 18 | 4 |
| 109395835 | Kit DN32 PN10 AISI 316 | | | | | | | |
| 109390662 | Kit DN40 PN10 carbon steel | 40 | 10 | 48 | 110 | 150 | 18 | 4 |
| 109390665 | Kit DN40 PN10 AISI 316 | | | | | | | |
| 109390692 | Kit DN50 PN10 carbon steel | 50 | 10 | 60 | 125 | 165 | 18 | 4 |
| 109390695 | Kit DN50 PN10 AISI 316 | | | | | | | |
| 109390732 | Kit DN65 PN10 carbon steel | 65 | 10 | 76 | 145 | 185 | 18 | 4 |
| 109392880 | Kit DN65 PN10 AISI 316 | | | | | | | |
| 109390762 | Kit DN80 PN10 carbon steel | 80 | 10 | 89 | 160 | 200 | 18 | 8 |
| 109392890 | Kit DN80 PN10 AISI 316 | | | | | | | |
| 109390772 | Kit DN100 PN10 carbon steel | 100 | 10 | 108 | 180 | 220 | 18 | 8 |
| 109392900 | Kit DN100 PN10 AISI 316 | | | | | | | |

En-Rev_C

Accessories

ecocirc XL-XLplus SCREWED CONNECTIONS

| MODEL | PART NUMBER | MATERIAL | G | Rp |
|--|-------------|------------------|--------|--------|
| | 105890200 | Galvanized steel | 1" 1/2 | 1" |
| | 105890220 | Galvanized steel | 2" | 1" 1/4 |
| | 105890201 | Brass | 1" 1/2 | 1" |
| | 105890221 | Brass | 2" | 1" 1/4 |
| Kit containing 2 threaded connections and 2 gaskets. | | | | |

En-Rev_A

BLIND FLANGES

| MODEL | PART NUMBER | CIRCULATOR TYPE |
|---|-------------|--|
| | 109395550 | D32-80 / D32-100 / D32-80 F / D32-100 F D40-80.11 F / D40-80 F / D40-100.12 F / D40-100 F |
| | 109395560 | D32-120 F / D40-120 F / D50-80 F / D65-80 F |
| | 109395570 | D40-150 F / D40-180 F / D50-120 F / D65-120 F / D80-120 F |
| Kit containing 1 blind flange painted steel, 1 OR and 4 screws. | | |

En-Rev_B

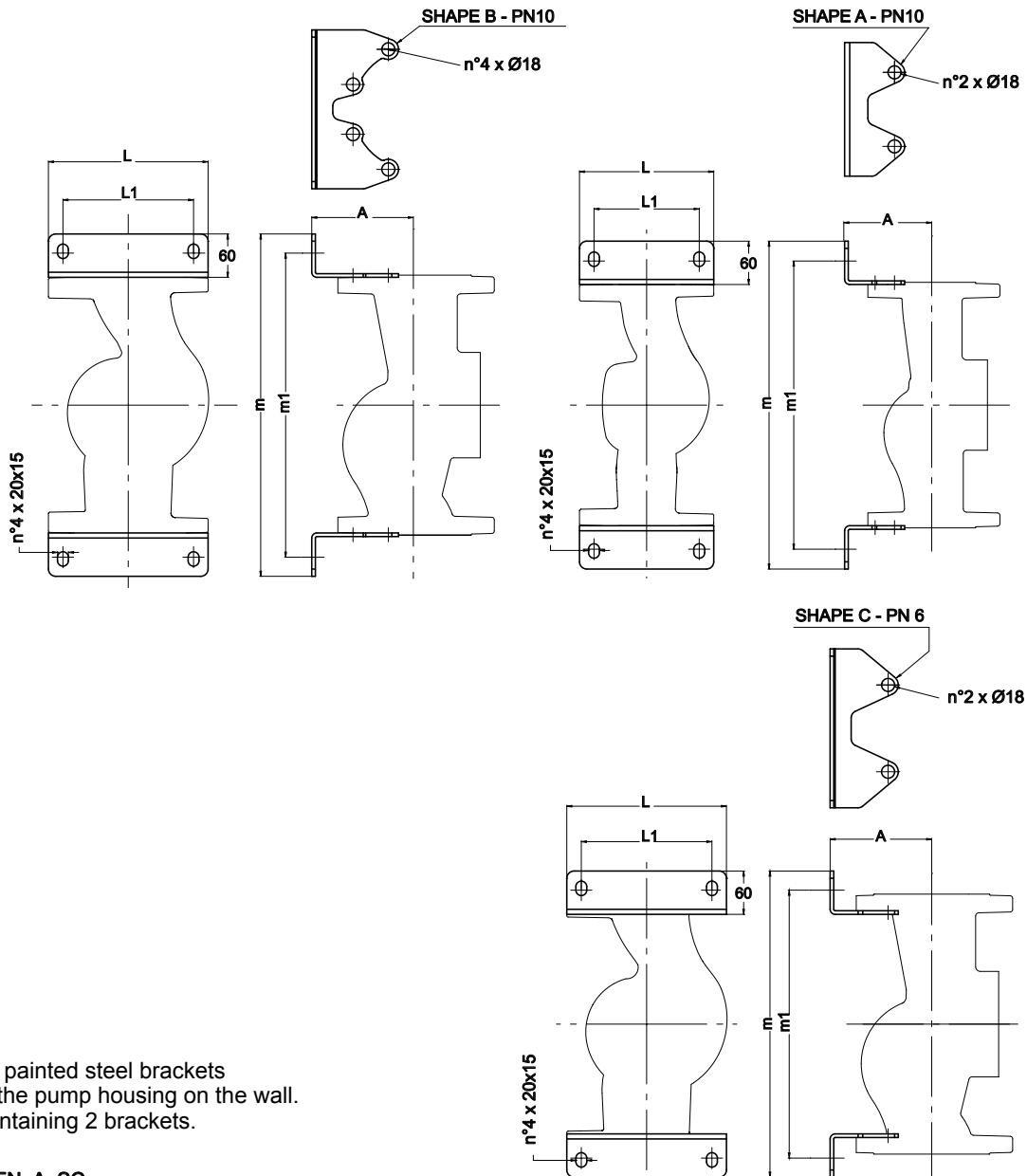
ADAPTERS*

| MODEL | PART NUMBER | DN | PN (bar) | A (mm) | B (mm) | L** (mm) |
|---|-------------|----|-------------|-----------|-----------|-------------|
| | 109395850 | 40 | 10 | 88 | 45 | 30 |
| | 109395860 | 50 | 10 | 102 | 55 | 40 |
| | 109395870 | 65 | 10 | 122 | 70 | 60 |
| Kit containing 1 steel adapter, 2 gaskets and 4 bolts (with nuts and washers) for the appropriate lenght. | | | | | | |
| ** L dimension including 2 gaskets. | | | | | | |

En-Rev_A

* Dedicated to circulators with cast iron pump housing only.

ecocirc XL-XLplus BRACKETS KIT



| PART NUMBER | CIRCULATOR TYPE | PN (bar) | SHAPE | DIMENSIONS (mm) | | | | |
|-------------|---|----------|-------|-----------------|-----|-----|-----|-----|
| | | | | A | m | m1 | L | L1 |
| 109395590 | 32-80 F / 32-100 F / 32-120 F (N) | 6/10 | A | 100 | 334 | 284 | 150 | 110 |
| | D32-80 F / D32-100 F / D32-120 F | 6/10 | | | | | | |
| 109395600 | 40-80.11 F / 40-80 F / 40-100.12 F / 40-100 F / D40-80.11 F / D40-80 F / D40-100.12 F / D40-100 F | 6/10 | A | 100 | 334 | 284 | 150 | 110 |
| | 40-120 F (N) / 40-150 F / 40-180 F / D40-120 F / D40-150 F / D40-180 F | 6/10 | | | | | | |
| 109395610 | 50-80 F (N) / D50-80 F | 6/10 | A | 110 | 354 | 304 | 165 | 125 |
| | 50-100 F / 50-120 F (N) / 50-150 F / 50-180 F / D50-120 F / D50-150 F / D50-180 F | 6/10 | | | | | | |
| 109395620 | 65-80 F (N) / 65-120 F (N) / 65-150 F / 65-180 F | 6/10 | A | 120 | 454 | 404 | 185 | 145 |
| | D65-80 F / D65-120 F / D65-150 F / D65-180 F | 6/10 | | | | | | |
| 109395630 | 80-120 F / D 80-120 F | 10 | B | 130 | 474 | 426 | 200 | 160 |
| 109395640 | 80-120 F / D 80-120 F | 6 | C | 130 | 424 | 376 | 200 | 160 |
| 109395650 | 100-120 F | 10 | B | 140 | 474 | 426 | 220 | 180 |
| 109395660 | 100-120 F | 6 | C | 140 | 424 | 376 | 220 | 180 |

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ecocirc XLplus

DIFFERENTIAL TEMPERATURE SENSOR

| PART NUMBER | DESCRIPTION |
|-------------|-------------------------------|
| 002168552 | Temperature sensor KTY 82/110 |

En-Rev_B

The external temperature sensor ($1\text{k}\Omega$ at 25°C), connected to terminals 13 (T+) and 14 (T-) has the purpose of measuring an absolute water temperature, or a differential water temperature if used together with the built-in sensor inside the circulator, in temperature dependent / influenced operating modes.

The functional mode based on the water temperature, detected by the internal probe and/or by the external temperature sensor, can be set by:

- Web pages via wireless communication (wireless module is required);
- “ecocircXL Control Center” software, installed in any PC connected to the circulator through the USB-RS485 cable.

Constant T

This control mode ensures a constant water temperature. Constant temperature is a comfort control mode that can be used in fixed characteristic systems (like domestic hot-watersystems). The basic assumption is that the circulator regulates the water temperature in a point on the return pipe of the system, as close as possible to the consumer (i.e. radiator). The pump has a built-in temperature sensor which can be used for regulating the speed of the pump; in case of pump installed in the flow pipe, or in the return pipe but far from the consumer, then it's possible to detect the water temperature using the external temperature sensor.

Constant ΔT

This control mode keeps the differential temperature of the pumped liquid constant between two different points of the system, changing the flow rate. The internal probe and the external temperature sensor work together in order to detect the two temperatures.

$\Delta P/T$

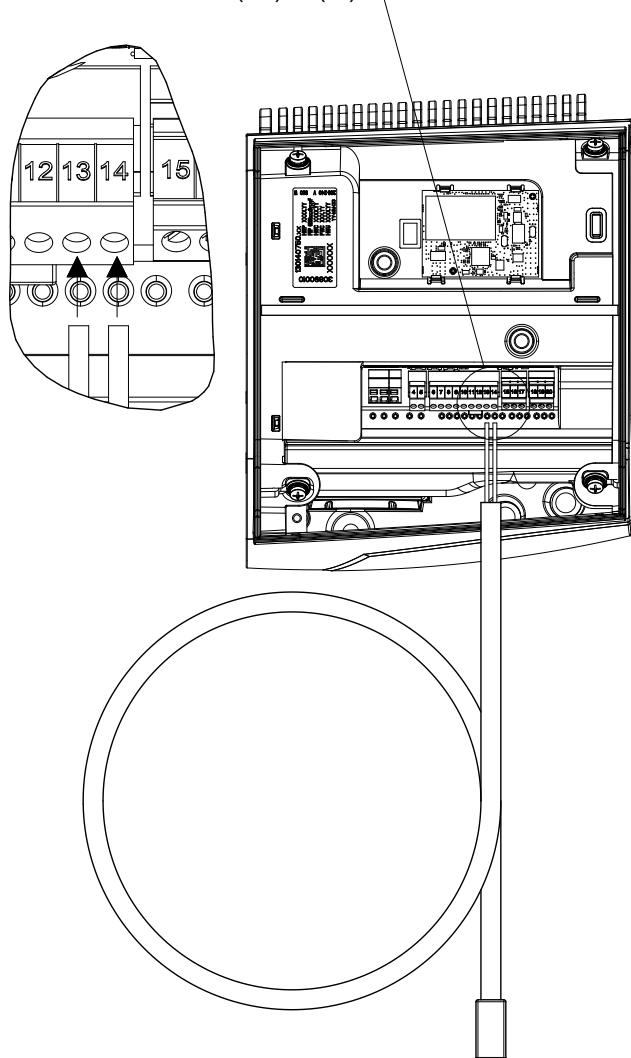
In this control mode the drive alters the differential pressure set-point the pump has to maintain, depending on the measured fluid temperature. This functional mode can be deployed in:

- Constant pressure depending on water temperature: in this control mode the pump alters the constant pressure set-point depending on the measured fluid temperature;
- Proportional pressure depending on water temperature: in this control mode the pump alters the proportional pressure set-point depending on the measured fluid temperature.

As in constant T functional mode, the temperature can be detected by the internal probe or adding the external temperature sensor.

For configuration and more information refer to the Operating and Instruction Manual and to the Electronic Drive Manual.

Wire connection: 13(T+)/14(T-)



ecocirc XLplus

WIRELESS AND ADDITIONAL RS485 MODULE

| PART NUMBER | DESCRIPTION |
|-------------|-----------------|
| 109395500 | Wireless module |
| 109395510 | RS 485 module |

En-Rev_A

The drive can be equipped with optional modules, which shall be fixed on the bottom side of the drive cover (models 25-40 (N), 25-60 (N), 32-40 (N), 32-60 (N) - fig 1) or in the appropriate slot inside the drive unit (all other models - fig 2).

Scope of delivery is the optional module, the flat cable for the connection to the drive and the Installation, Operation and Maintenance Manual.

Wireless module

The wireless module is an optional module, for ecocirc XLplus only. The module is suitable for generating a wireless network and for activating the secondary RS485 channel (terminals 18-19-20).

The wireless connectivity allows the user to read and set pump parameters with devices such as laptop, tablets and smartphones, in an area of few meters from the circulator. When the wireless module is connected into ecocirc XLplus, and correctly configured, it generates a protected wireless network, accessible using the serial number and password printed on the label stucked on the side of the circulator's drive.

Second RS485 port availability can be required by external Building Management Systems when the first port (terminals 15-16-17) are used for internal communications in dual pumps or twin pumps configurations.

The wireless module can be used for the following functions:

- monitor operating parameters;
- monitor alarm and error indicators;
- setting the control mode;
- setting the set point;
- setting the temperature-based control mode;
- setting the dual pump operations.

RS-485 module

The RS485 module is an optional module, for ecocirc XLplus pumps only. The module is suitable for activating the secondary RS485 channel (terminals 18-19-20).

Second RS485 port availability can be required by external Building Management Systems when the first port (terminals 15-16-17) are used for internal communications in dual pumps or twin pumps configurations.

For configuration more information refer to the Operating and Instruction Manual and to the Electronic Drive Manual.

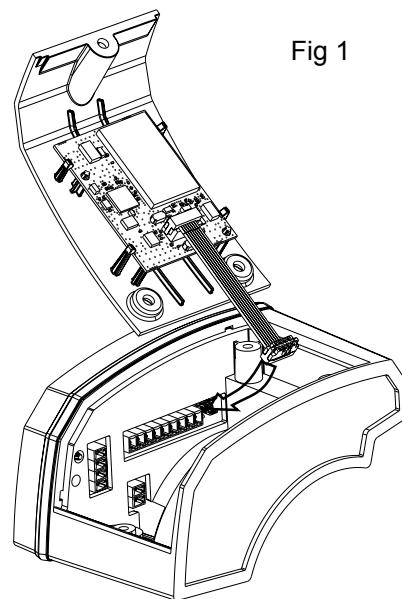


Fig 1

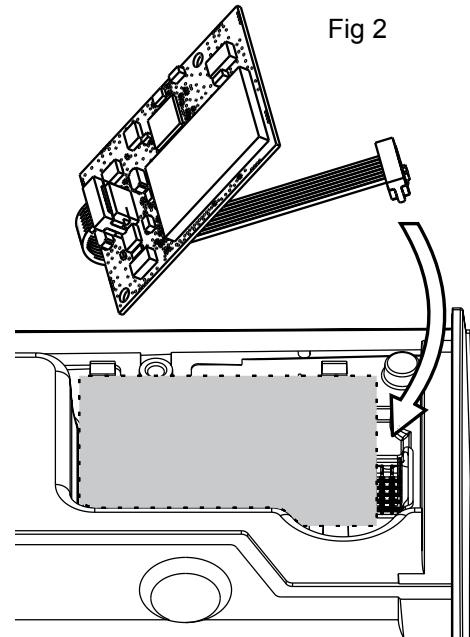


Fig 2

ecocirc XL KIT SECOND RELAY

| PART NUMBER | DESCRIPTION |
|-------------|---|
| 109400480 | KIT SECOND RELAY ecocirc XL 200-1700 watt |

En-Rev_C

The Second Relay is a digital output suitable to provide information about the presence or absence of power supply on the circulator and it shows if the circulator is running or not remotely.

Fig 3



Kit content:

- N. 1 Relay module with cable
- N. 1 Module of connector
- N. 1 Instruction manual.

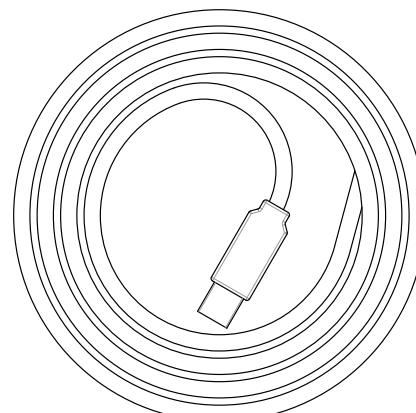
ecocirc XLplus KIT CABLE USB / RS-485

| PART NUMBER | DESCRIPTION |
|-------------|----------------------|
| 109395680 | Kit cable USB/RS-485 |

En-Rev_A

The cable USB / RS-485 (Fig. 4) is an optional kit, for ecocirc XLplus only, suitable to connect the circulator to an external laptop to manage the Xylem Circulator Control Center to read and set up pump parameters by remote.

Fig 4



Xylem Circulator Control Center can be used for the following functions:

- monitor operating parameters;
- monitor alarm and error indicators;
- setting the control mode;
- setting the set point;
- setting the temperature-based control mode;
- setting the dual pump operations.

Kit content:

- N. 1 USB-RS485 cable with 3 female pin connector
- N. 1 Cable adapter with 3 male pin connector
- N. 1 USB Flash drive
- N. 2 Instruction manuals.

FURTHER PRODUCT SELECTION AND DOCUMENTATION

Xylect™



Xylect™ is pump solution selection software with an extensive online database of product information across the entire Lowara range of pumps and related products, with multiple search options and helpful project management facilities. The system holds up-to-date product information on thousands of products and accessories.

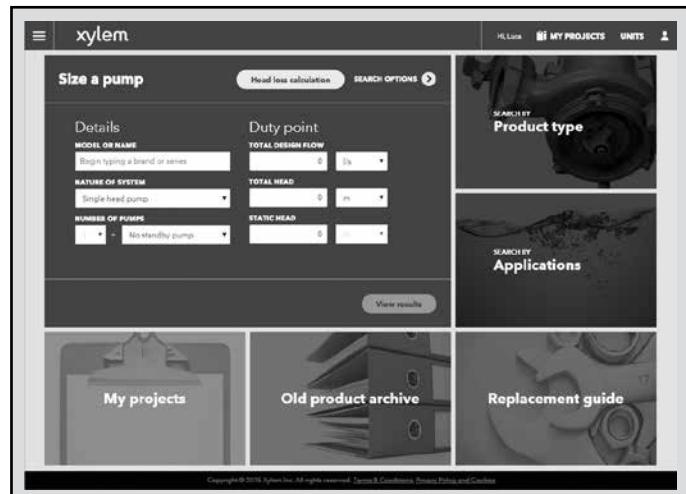
The possibility to search by applications and the detailed information output given makes it easy to make the optimal selection without having detailed knowledge about the Lowara products.

The search can be made by:

- Application
- Product type
- Duty point

Xylect™ gives a detailed output:

- List with search results
- Performance curves (flow, head, power, efficiency, NPSH)
- Motor data
- Dimensional drawings
- Options
- Data sheet printouts
- Document downloads incl dxf files



The search by application guides users not familiar with the product range to the right choice.

FURTHER PRODUCT SELECTION AND DOCUMENTATION

Xylect™



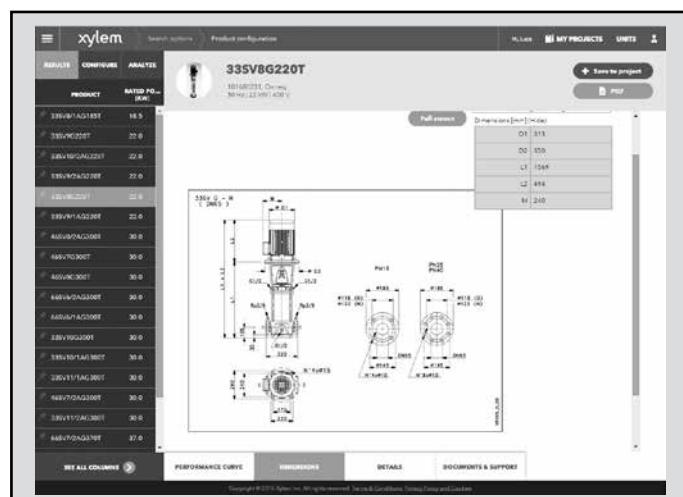
The detailed output makes it easy to select the optimal pump from the given alternatives.

The best way to work with Xylect™ is to create a personal account. This makes it possible to:

- Set own standard units
- Create and save projects
- Share projects with other Xylect™ users

Every registered user has a proper space, where all projects are saved.

For more information about Xylect™ please contact our sales network or visit www.xylect.com.



Dimensional drawings appear on the screen and can be downloaded in dxf format.

Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings.

Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

For more information on how Xylem can help you, go to www.xylem.com.



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