

50/60 Hz



ecocirc XL and XLplus

HIGH EFFICIENCY WET ROTOR CIRCULATORS
FOR COMMERCIAL HEATING AND COOLING APPLICATIONS

ErP 2009/125/EC

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CONTENTS

Introduction	4
Identification code	5
Product Range	6
Functions	10
Sectional drawings	16
Installation	18
Part numbers	22
Performance Range	26
Performance curves and Technical data	28
Documentation	58

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 12 m
- Maximum power consumption: 1510 [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).

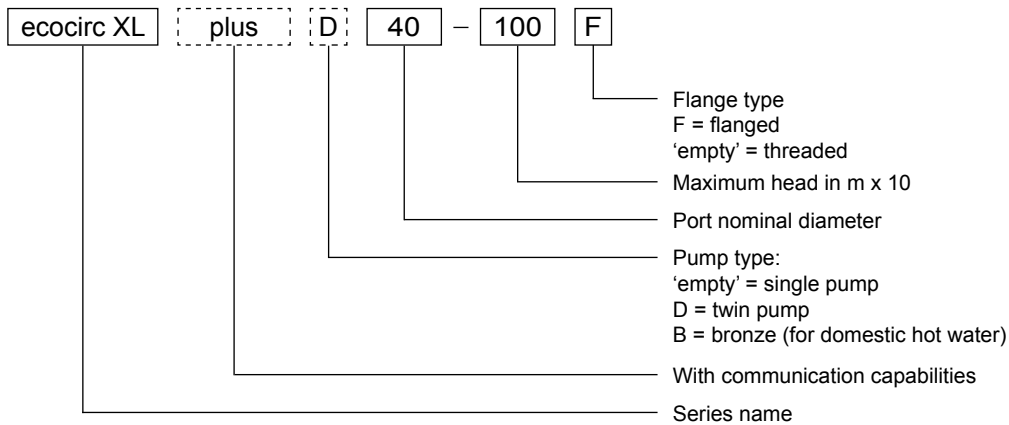
FEATURES

- 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 twin head pumps including parallel and alternate operations (ecocirc XLplus only)
- Dry run protection
- Air purge
- Plug for 100W motor size
- 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 XL plus.

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).

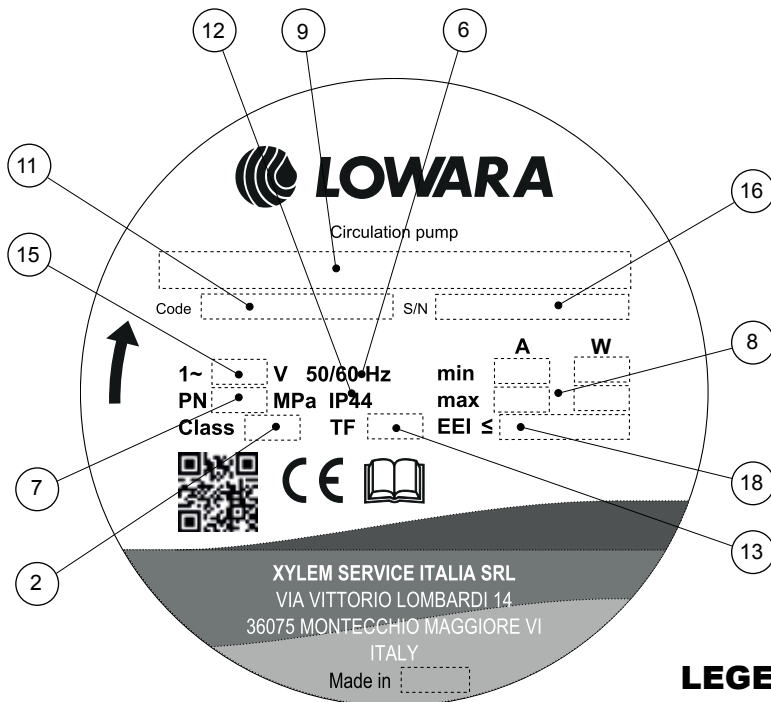
IDENTIFICATION CODE



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	Threaded pipe connection						Electrical connection	Integrated communication capabilities
	Port to port (mm)	Connection	PN 6/10	PN 6	PN 10			
ecocirc XL 25-40 (B)	180	G 1 ½ – Rp 1	•			plug	no communication protocol	
ecocirc XL 25-60 (B)	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 (B)	180	G 2 – Rp 1 ¼	•			plug	no communication protocol	
ecocirc XL 32-60 (B)	180	G 2 – Rp 1 ¼	•			plug	no communication protocol	
ecocirc XL 32-80 (B)	180	G 2 – Rp 1 ¼	•			terminals	no communication protocol	
ecocirc XL 32-100 (B)	180	G 2 – Rp 1 ¼	•			terminals	no communication protocol	

Single-head Pump type	Flanged connection						Electrical connection	Integrated communication capabilities
	Port to port (mm)	Connection	PN 6/10	PN 6	PN 10			
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 (B)	220	DN 32	•			terminals	no communication protocol	
ecocirc XL 40-80 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 (B)	250	DN 40	•			terminals	no communication protocol	
ecocirc XL 50-80 F (B)	280	DN 50	•			terminals	no communication protocol	
ecocirc XL 50-100 F	240	DN 50	•			terminals	no communication protocol	
ecocirc XL 50-120 F (B)	280	DN 50	•			terminals	no communication protocol	
ecocirc XL 65-80 F (B)	340	DN 65	•			terminals	no communication protocol	
ecocirc XL 65-120 F (B)	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	Flanged connection						Electrical connection	Integrated communication capabilities
	Port to port (mm)	Connection	PN 6/10	PN 6	PN 10			
ecocirc XL D 32-120 F	220	DN 32	•			terminals	no communication protocol	
ecocirc XL D 40-80 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 50-80 F	280	DN 50	•			terminals	no communication protocol	
ecocirc XL D 50-120 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 80-120 F	360	DN 80		•		terminals	no communication protocol	
ecocirc XL D 80-120 F	360	DN 80			•	terminals	no communication protocol	

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ecocirc XLplus

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

Single-head Pump type	Threaded pipe connection						Electrical connection	Integrated communication capabilities	Wireless*
	Port to port (mm)	Connection	PN 6/10	PN 6	PN 10				
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 (B)	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 (B)	250	DN 40	•				terminals	Modbus & BACnet	•
ecocirc XLplus 50-80 F (B)	280	DN 50	•				terminals	Modbus & BACnet	•
ecocirc XLplus 50-100 F	240	DN 50	•				terminals	Modbus & BACnet	•
ecocirc XLplus 50-120 F (B)	280	DN 50	•				terminals	Modbus & BACnet	•
ecocirc XLplus 65-80 F (B)	340	DN 65	•				terminals	Modbus & BACnet	•
ecocirc XLplus 65-120 F (B)	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	•

Single-head Pump type	Threaded pipe connection						Electrical connection	Integrated communication capabilities	Wireless*
	Port to port (mm)	Connection	PN 6/10	PN 6	PN 10				
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 50-80 F	280	DN 50	•				terminals	Modbus & BACnet	•
ecocirc XLplus D 50-120 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 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

ΔP -T control

ΔP - ΔT control

T - Constant temperature control

ΔT - Differential temperature

Additional operating modes for multi-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

Temperature sensor

Communication BUS (ecocirc Xlplus)

Wireless (ecocirc Xlplus)

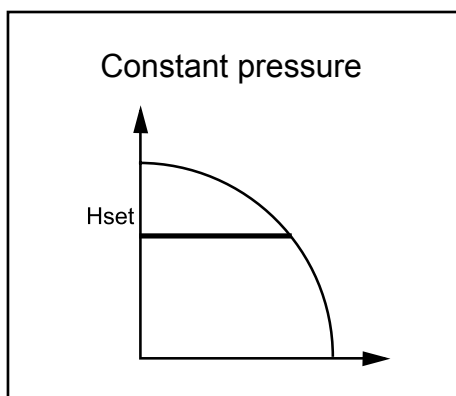
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CONTROL MODES

ecocirc XL and XLplus can be operated with 4 different 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.

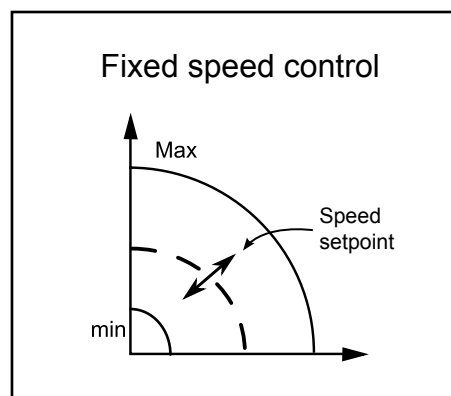
Constant pressure



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

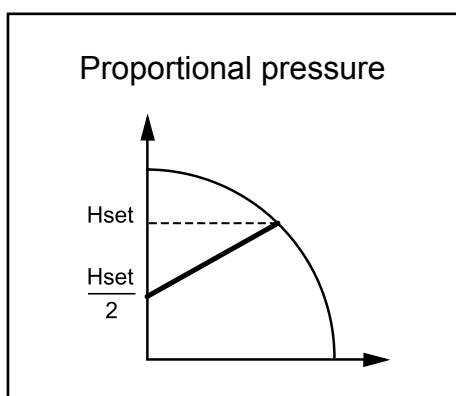
Constant pressure functional mode is recommended in systems with small or constant pressure losses.

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.

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.

Night Mode

This function reduces the power consumption of the pump to the minimum when the heating system is not running. An algorithm detects the proper working conditions and automatically adjusts the speed of the pump. The pump returns to the original set point as soon as the system restarts.

The Night Mode can be activated in combination with:

- Proportional pressure
- Constant pressure
- Constant speed

The Night Mode function 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 4 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.

ΔP – 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.

T – Constant temperature control

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

It is suitable for heating systems with fixed system characteristics, for example Domestic Hot Water Systems.

The temperature is controlled by the built-in temperature sensor.

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 KTY83) that controls, together with the built-in temperature sensor, the differential water temperature in the system.

ADDITIONAL OPERATING MODES FOR MULTI-PUMPS SET UP

ecocirc XLplus in twin-version version can be used with different operating modes.

Back-up operation

With this functional model only the master pump runs. The second pump starts in case of failure of the master pump.

Alternate operation

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

The second pump is started immediately in case of failure.

Parallel operation

With this functional mode both pumps run simultaneously at the same set point. The master pump determines the behavior of the full system and is able to optimize the performance.

To guarantee the required performance with the minimum power consumption the master pump starts or stops the second pump depending on the head and flow required.

READING AND SETTINGS ON THE PUMP

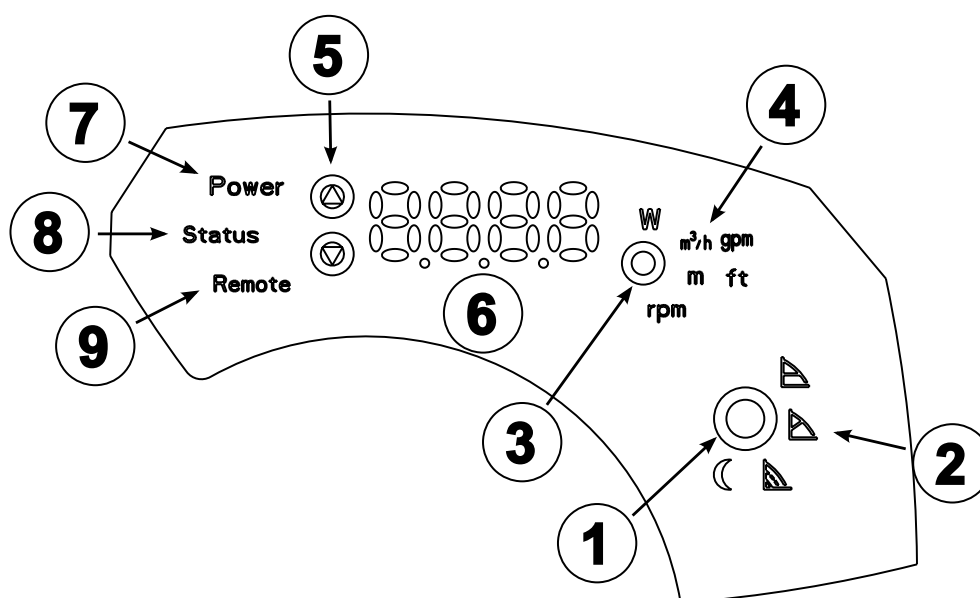
Pump settings

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
2	Control mode indicators	- Constant Pressure - Proportional Pressure - Constant Speed - Night Mode
3	Parameter Button	The unit of measurement changes by pressing the button
4	Parameter indicators	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 <--> gpm - Head: m <--> ft
5	Setting Buttons	To change the set point: - Press one of the setting buttons: displays starts to blinking 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.
6	Digital Display	
7	Power indicator	When lighted-up power supply is present
8	Status / Fault indicator	- Green: pump is working properly - Orange: alarm for system problem - Red: pump failure
9	Remote Control indicator	- Off: remote communication deactivated - On: remote communication activated

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.

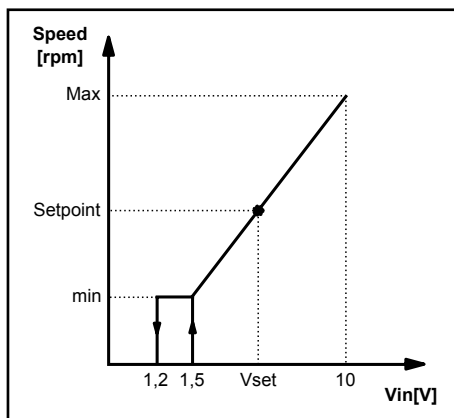
Signal relay (Digital output)

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

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.

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

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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
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.
Sound pressure level	≤ 43 dB(A)

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CONSTRUCTION

The pump is a wet rotor circulation pump with energy-efficient electronically commutated permanent magnet technology (ECM technology).

ecocirc XL is of the spherical rotor type for models 25-40, 25-60, 32-40, 32-60.

It's shaftless and the permanent magnet rotor/impeller unit is the only moving part.

For the other versions ecocirc XL is of the canned-rotor type where pump and motor form an integral unit.

With this design, all rotating components inside the canned motor run in the pumped fluid.

The fluid lubricates the bearings and cools the motor.

Both are synchronous, permanent magnet motors.

The pump is featured by the following:

- Controller integrated in the control box
- User interface on the control box
- Cast iron or bronze 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

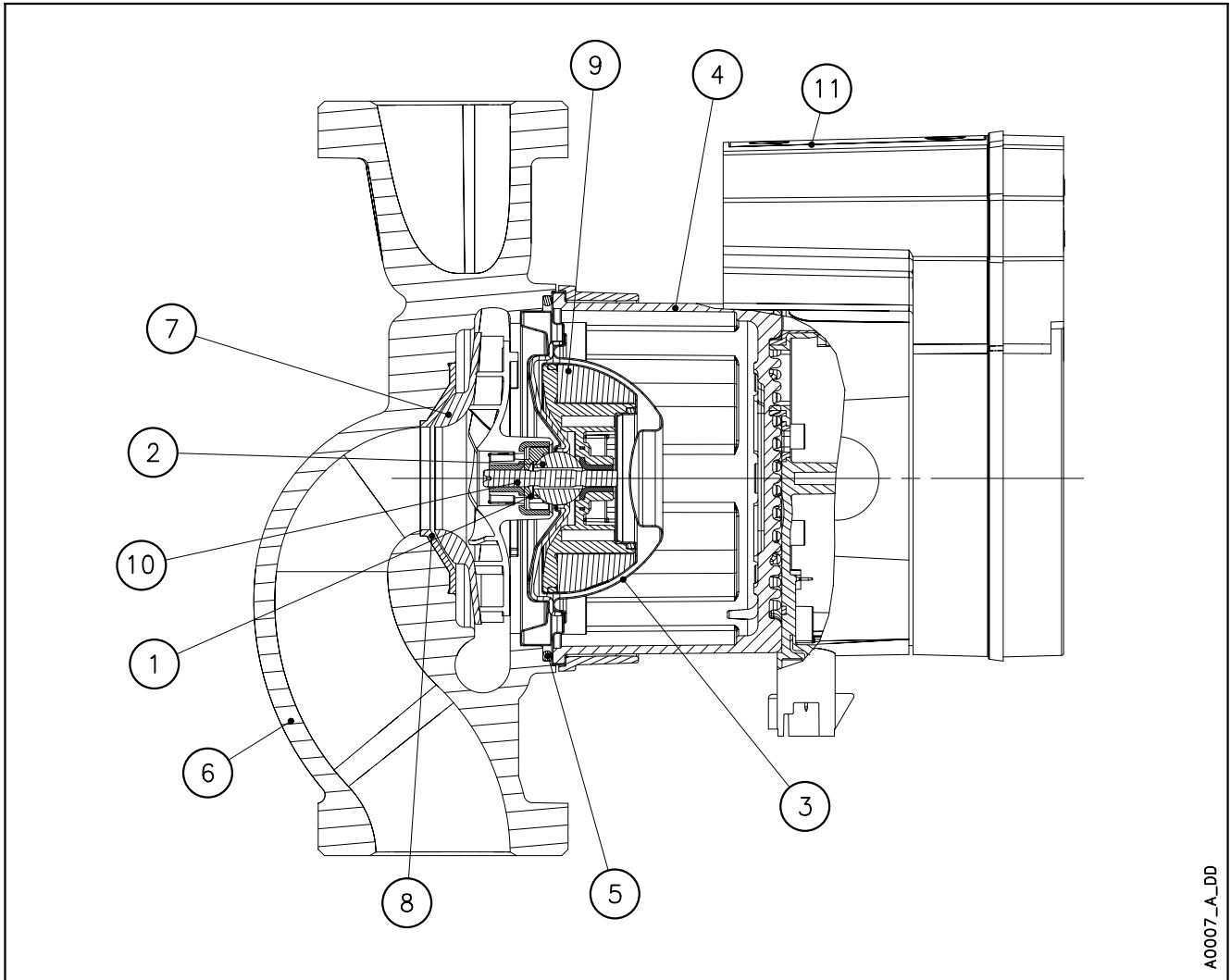
Flange dimensions to EN 1092-2.

Surface treatment

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

Pump coating (cataphoretic) in black color.

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



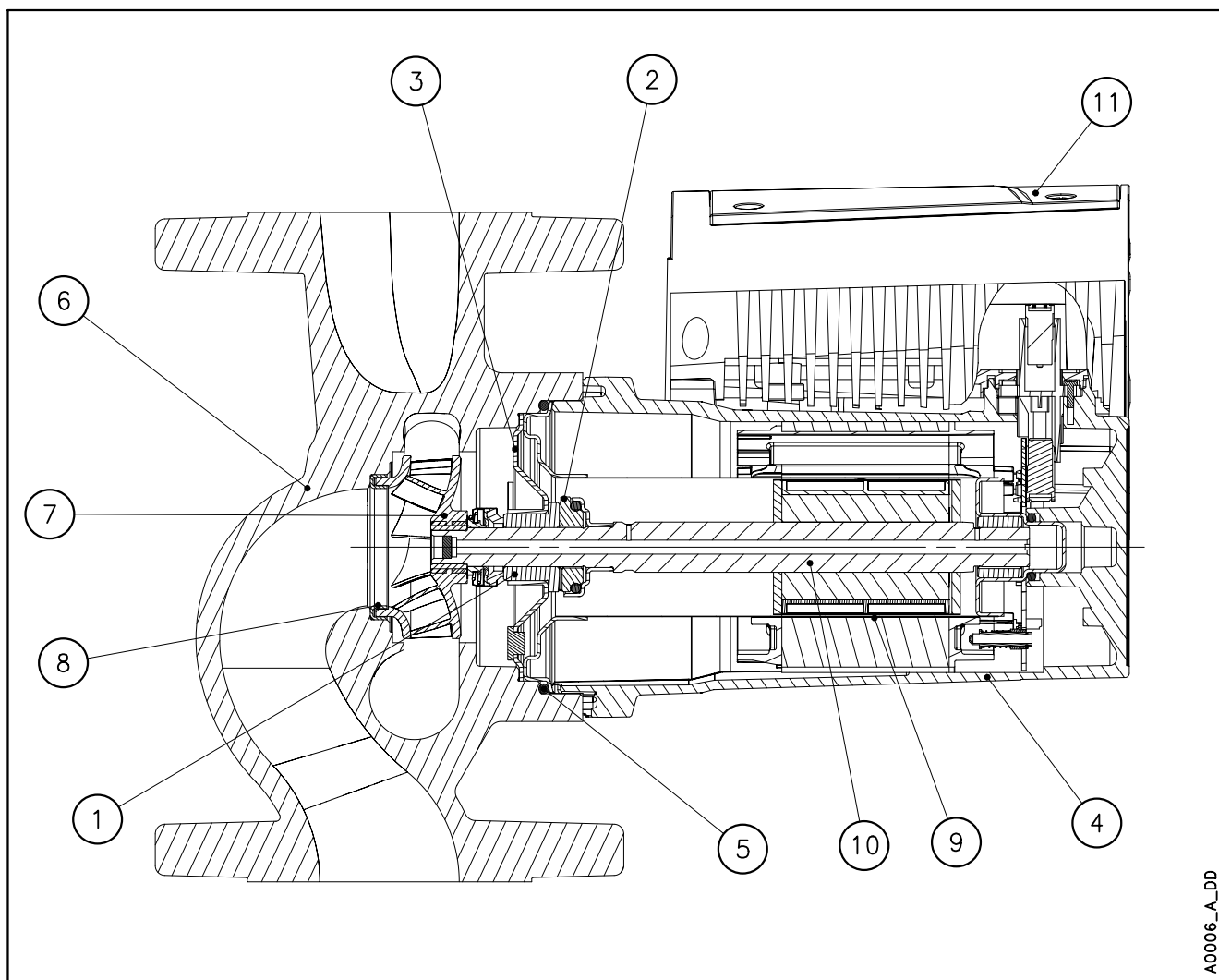
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TABLES OF MATERIALS

Ref. N.	Name	Material	Reference Standards Europe
1	Bush Bearing	Carbon, resin impregnated	
2	Mech.seal ball 1/2"	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)
		Bronze	CuSn10-C-GS
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	

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SECTIONAL DRAWINGS



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TABLES OF MATERIALS

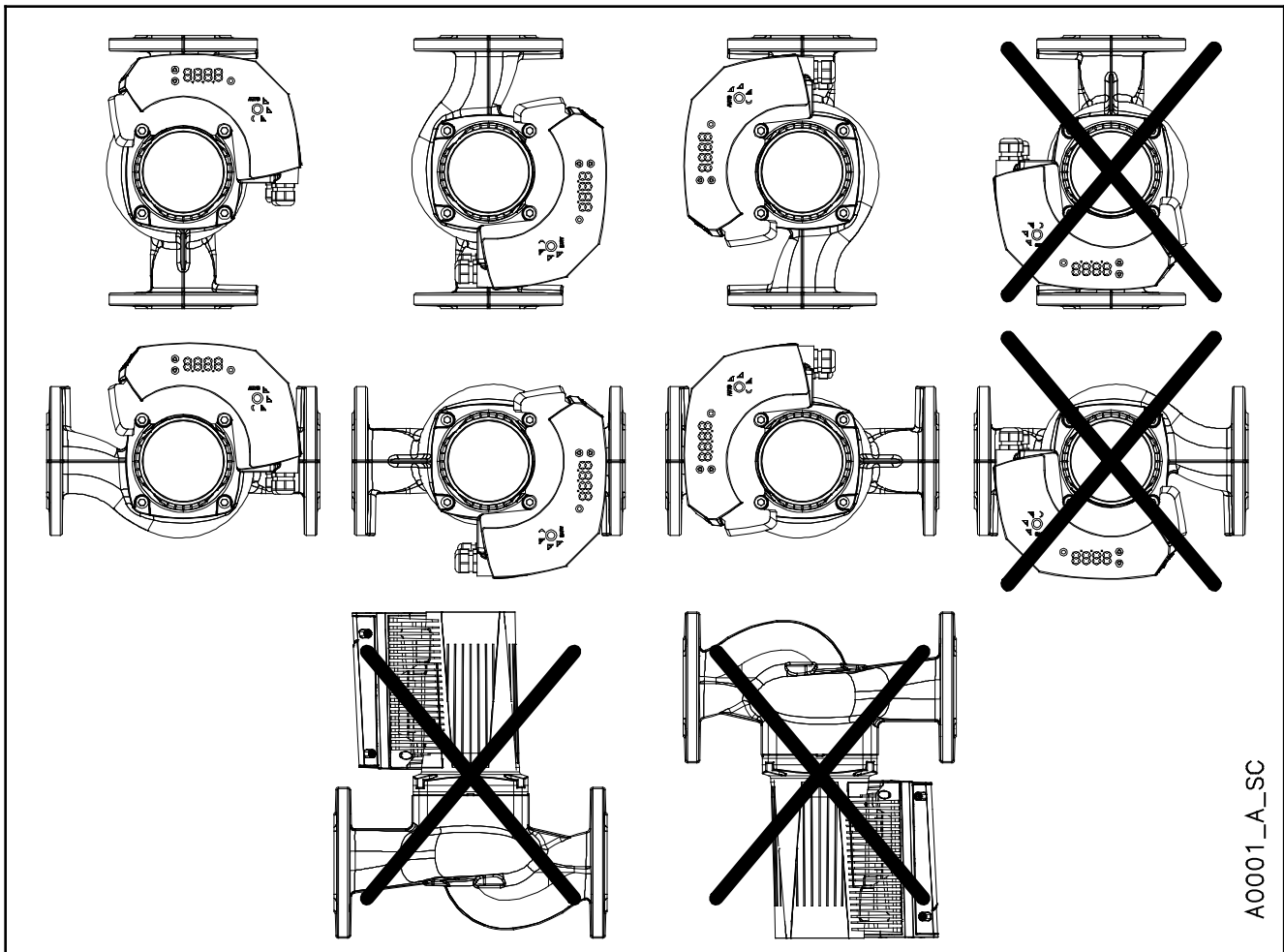
Ref. N.	Name	Material	Reference Standards Europe
1	Bush Bearing	Carbon, resin impregnated	
2	Thrust bearing	Aluminum oxide	
3	Bearing plate	Stainless steel	EN 1.4301
4	Motor housing	Aluminum	
5	O-rings	EPDM	
6	Pump housing	Cast iron	EN 1561-GJL-250 (JL1040)
		Bronze	CuSn10-C-GS
7	Impeller	PPS	
8	Wear 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_a_tm

INSTALLATION

ecocirc XL is designed for indoor installation.

The pump must be installed with the pump head in a horizontal position. The arrow of the pump housing shows the flow direction through the pump. If necessary pump head can be rotated to better reading the user interface. If it's possible and applicable install the insulation shell included on the delivery.



Electrical installation

- The local regulations in force overrule.

Electrical connection checklist

Check that the following requirements are met:

- The electrical leads are protected from high temperature, vibrations, and collisions.
- The current type and voltage of mains connection must correspond to the data plate on the pump.
- 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 electrical control panel checklist

NOTICE:

The control panel must match the ratings of the electric pump. Improper combinations could fail to guarantee the protection of the unit.

Check that the following requirements are met:

- 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.

The motor checklist

Use cable according to rules with 3 leads (2 + earth/ground). All cable must be heat-resistant up to +85°C (185°F).

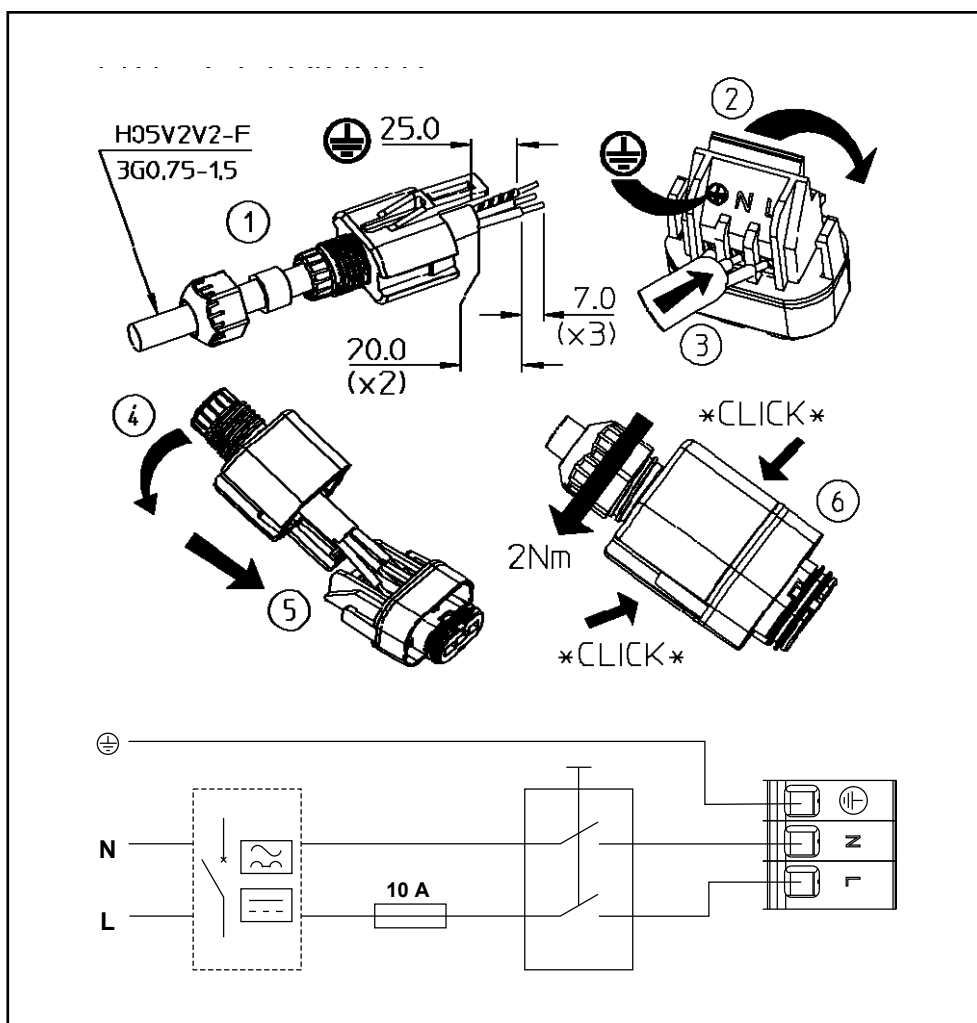
ecocirc XL - XLplus

Models with plug

Power Supply: 1 x 230V \pm 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 tight carefully the cable gland



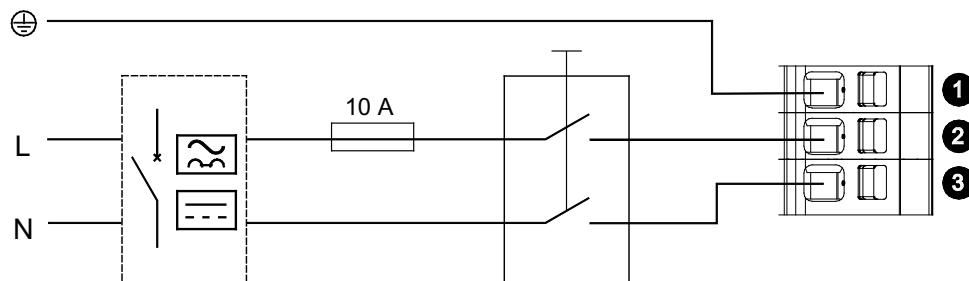
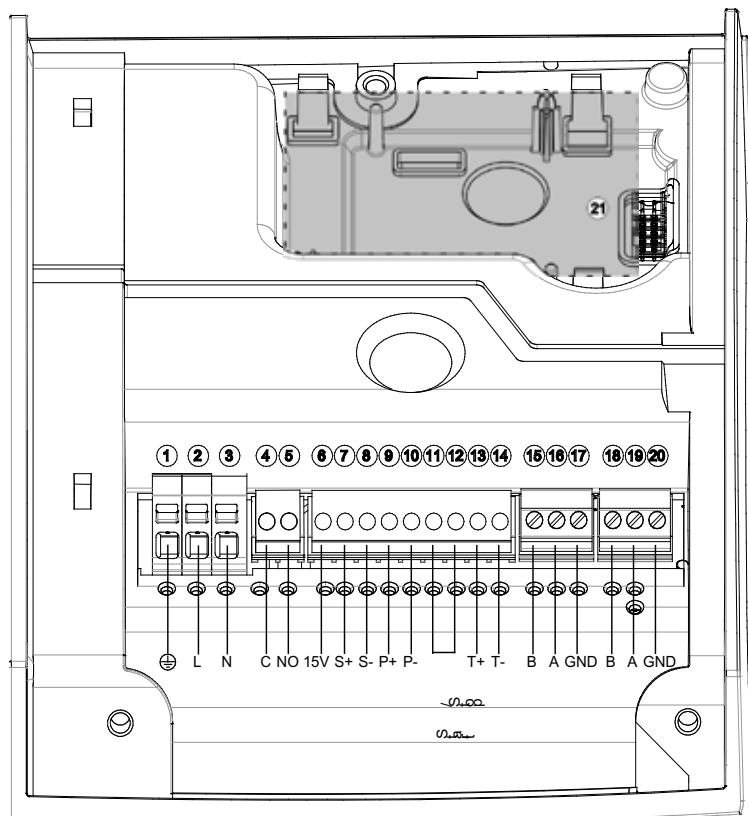
ecocirc XL - XLplus

Models with a standard terminal block connection

Power Supply: 1 x 230V ±10%, 50/60Hz

Follow the subsequent steps to connect:

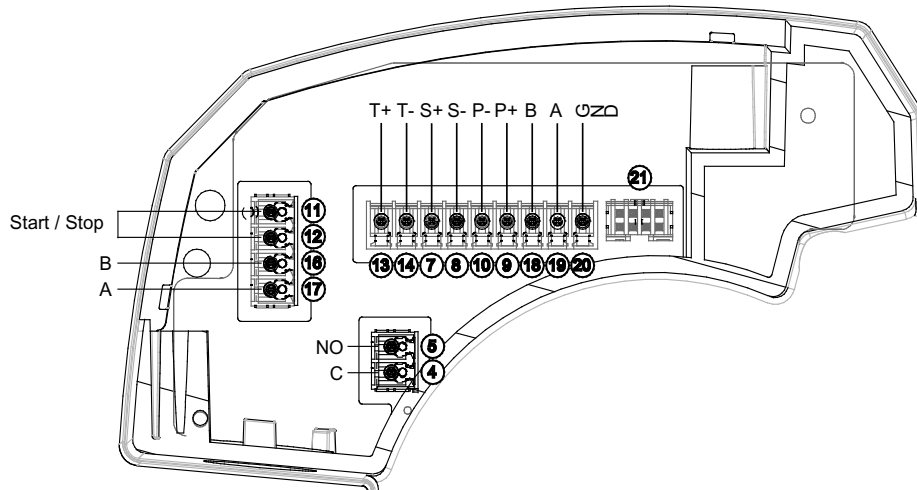
1. Open the terminal block cover removing the screws
2. Insert the cable inside the M20 cable gland
3. Connect the cable according to the wiring diagram



ecocirc XL - XLplus

Input - output Connections

Polarization-keys on terminals are used to prevent wrong insertions



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 KTY83 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_A

ecocirc XL

Single-head Pump type	Threaded pipe connection					
	Port to port (mm)	Cast iron				Bronze
		Connection	PN 6/10	PN 6	PN 10	PN 6/10
ecocirc XL 25-40 (B)	180	G 1 ½ – Rp 1	605009100			605009300
ecocirc XL 25-60 (B)	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 (B)	180	G 2 – Rp 1 ¼	605009200			605009400
ecocirc XL 32-60 (B)	180	G 2 – Rp 1 ¼	605009250			605009450
ecocirc XL 32-80 (B)	180	G 2 – Rp 1 ¼	E503030AA			E503600AA
ecocirc XL 32-100 (B)	180	G 2 – Rp 1 ¼	E503040AA			E503610AA

Single-head Pump type	Flanged connection					
	Port to port (mm)	Cast iron				Bronze
		Connection	PN 6/10	PN 6	PN 10	PN 6/10
ecocirc XL 32-80 F	220	DN 32	E503050AA			
ecocirc XL 32-100 F	220	DN 32	E503060AA			
ecocirc XL 32-120 F (B)	220	DN 32	E503070AA			E503620AA
ecocirc XL 40-80 F	220	DN 40	E503080AA			
ecocirc XL 40-100 F	220	DN 40	E503090AA			
ecocirc XL 40-120 F (B)	250	DN 40	E503100AA			E503630AA
ecocirc XL 50-80 F (B)	280	DN 50	E503110AA			E503640AA
ecocirc XL 50-100 F	240	DN 50	E503120AA			
ecocirc XL 50-120 F (B)	280	DN 50	E503130AA			E503650AA
ecocirc XL 65-80 F (B)	340	DN 65	E503140AA			E503660AA
ecocirc XL 65-120 F (B)	340	DN 65	E503150AA			E503670AA
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	Flanged connection					
	Port to port (mm)	Cast iron				
		Connection	PN 6/10	PN 6	PN 10	
ecocirc XL D 32-120 F	220	DN 32	E503400AA			
ecocirc XL D 40-80 F	220	DN 40	E503410AA			
ecocirc XL D 40-100 F	220	DN 40	E503420AA			
ecocirc XL D 40-120 F	250	DN 40	E503430AA			
ecocirc XL D 50-80 F	280	DN 50	E503440AA			
ecocirc XL D 50-120 F	280	DN 50	E503450AA			
ecocirc XL D 65-80 F	340	DN 65	E503460AA			
ecocirc XL D 65-120 F	340	DN 65	E503470AA			
ecocirc XL D 80-120 F	360	DN 80		E503480AA		
ecocirc XL D 80-120 F	360	DN 80			E503490AA	

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ecocirc XLplus

Single-head Pump type	Threaded pipe connection					
	Port to port (mm)	Cast iron				Bronze
		Connection	PN 6/10	PN 6	PN 10	PN 6/10
ecocirc XLplus 25-40 (B)	180	G 1 ½ – Rp 1	605009125			605009325
ecocirc XLplus 25-60 (B)	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 (B)	180	G 2 – Rp 1 ¼	605009225			605009425
ecocirc XLplus 32-60 (B)	180	G 2 – Rp 1 ¼	605009275			605009475
ecocirc XLplus 32-80 (B)	180	G 2 – Rp 1 ¼	E503230AA			E503700AA
ecocirc XLplus 32-100 (B)	180	G 2 – Rp 1 ¼	E503240AA			E503710AA

Single-head Pump type	Flanged connection					
	Port to port (mm)	Cast iron				Bronze
		Connection	PN 6/10	PN 6	PN 10	PN 6/10
ecocirc XLplus 32-80 F	220	DN 32	E503250AA			
ecocirc XLplus 32-100 F	220	DN 32	E503260AA			
ecocirc XLplus 32-120 F (B)	220	DN 32	E503270AA			E503720AA
ecocirc XLplus 40-80 F	220	DN 40	E503280AA			
ecocirc XLplus 40-100 F	220	DN 40	E503290AA			
ecocirc XLplus 40-120 F (B)	250	DN 40	E503300AA			E503730AA
ecocirc XLplus 50-80 F (B)	280	DN 50	E503310AA			E503740AA
ecocirc XLplus 50-100 F	240	DN 50	E503320AA			
ecocirc XLplus 50-120 F (B)	280	DN 50	E503330AA			E503750AA
ecocirc XLplus 65-80 F (B)	340	DN 65	E503340AA			E503760AA
ecocirc XLplus 65-120 F (B)	340	DN 65	E503350AA			E503770AA
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	Flanged connection					
	Port to port (mm)	Cast iron				
		Connection	PN 6/10	PN 6	PN 10	
ecocirc XLplus D 32-120 F	220	DN 32	E503500AA			
ecocirc XLplus D 40-80 F	220	DN 40	E503510AA			
ecocirc XLplus D 40-100 F	220	DN 40	E503520AA			
ecocirc XLplus D 40-120 F	250	DN 40	E503530AA			
ecocirc XLplus D 50-80 F	280	DN 50	E503540AA			
ecocirc XLplus D 50-120 F	280	DN 50	E503550AA			
ecocirc XLplus D 65-80 F	340	DN 65	E503560AA			
ecocirc XLplus D 65-120 F	340	DN 65	E503570AA			
ecocirc XLplus D 80-120 F	360	DN 80		E503580AA		
ecocirc XLplus D 80-120 F	360	DN 80			E503590AA	

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ecocirc XL (Germany)

Single-head Pump type	Threaded pipe connection					
	Port to port (mm)	Cast iron				Bronze
		Connection	PN 6/10	PN 6	PN 10	PN 6/10
ecocirc XL 25-40 (B)	180	G 1 ½ – Rp 1	6050E9100			6050E9300
ecocirc XL 25-60 (B)	180	G 1 ½ – Rp 1	6050E9150			6050E9350
ecocirc XL 25-80	180	G 1 ½ – Rp 1	E505000AA			
ecocirc XL 25-100	180	G 1 ½ – Rp 1	E505010AA			
ecocirc XL 32-40 (B)	180	G 2 – Rp 1 ¼	6050E9200			6050E9400
ecocirc XL 32-60 (B)	180	G 2 – Rp 1 ¼	6050E9250			6050E9450
ecocirc XL 32-80 (B)	180	G 2 – Rp 1 ¼	E505020AA			E505600AA
ecocirc XL 32-100 (B)	180	G 2 – Rp 1 ¼	E505030AA			E505610AA

Single-head Pump type	Flanged connection					
	Port to port (mm)	Cast iron				Bronze
		Connection	PN 6/10	PN 6	PN 10	PN 6/10
ecocirc XL 32-80 F	220	DN 32	E505040AA			
ecocirc XL 32-100 F	220	DN 32	E505050AA			
ecocirc XL 32-120 F (B)	220	DN 32	E505060AA			E505620AA
ecocirc XL 40-80 F	220	DN 40	E505070AA			
ecocirc XL 40-100 F	220	DN 40	E505080AA			
ecocirc XL 40-120 F (B)	250	DN 40	E505090AA			E505630AA
ecocirc XL 50-80 F (B)	280	DN 50	E505100AA			E505640AA
ecocirc XL 50-100 F	240	DN 50	E505110AA			
ecocirc XL 50-120 F (B)	280	DN 50	E505120AA			E505650AA
ecocirc XL 65-80 F (B)	340	DN 65	E505130AA			E505660AA
ecocirc XL 65-120 F (B)	340	DN 65	E505140AA			E505670AA
ecocirc XL 80-120 F	360	DN 80		E505150AA		
ecocirc XL 80-120 F	360	DN 80			E505160AA	
ecocirc XL 100-120 F	360	DN 100		E505170AA		
ecocirc XL 100-120 F	360	DN 100			E505180AA	

Twin-head Pump type	Flanged connection					
	Port to port (mm)	Cast iron				
		Connection	PN 6/10	PN 6	PN 10	
ecocirc XL D 32-120 F	220	DN 32	E505400AA			
ecocirc XL D 40-80 F	220	DN 40	E505410AA			
ecocirc XL D 40-100 F	220	DN 40	E505420AA			
ecocirc XL D 40-120 F	250	DN 40	E505430AA			
ecocirc XL D 50-80 F	280	DN 50	E505440AA			
ecocirc XL D 50-120 F	280	DN 50	E505450AA			
ecocirc XL D 65-80 F	340	DN 65	E505460AA			
ecocirc XL D 65-120 F	340	DN 65	E505470AA			
ecocirc XL D 80-120 F	360	DN 80		E505480AA		
ecocirc XL D 80-120 F	360	DN 80			E505490AA	

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ecocirc XLplus (Germany)

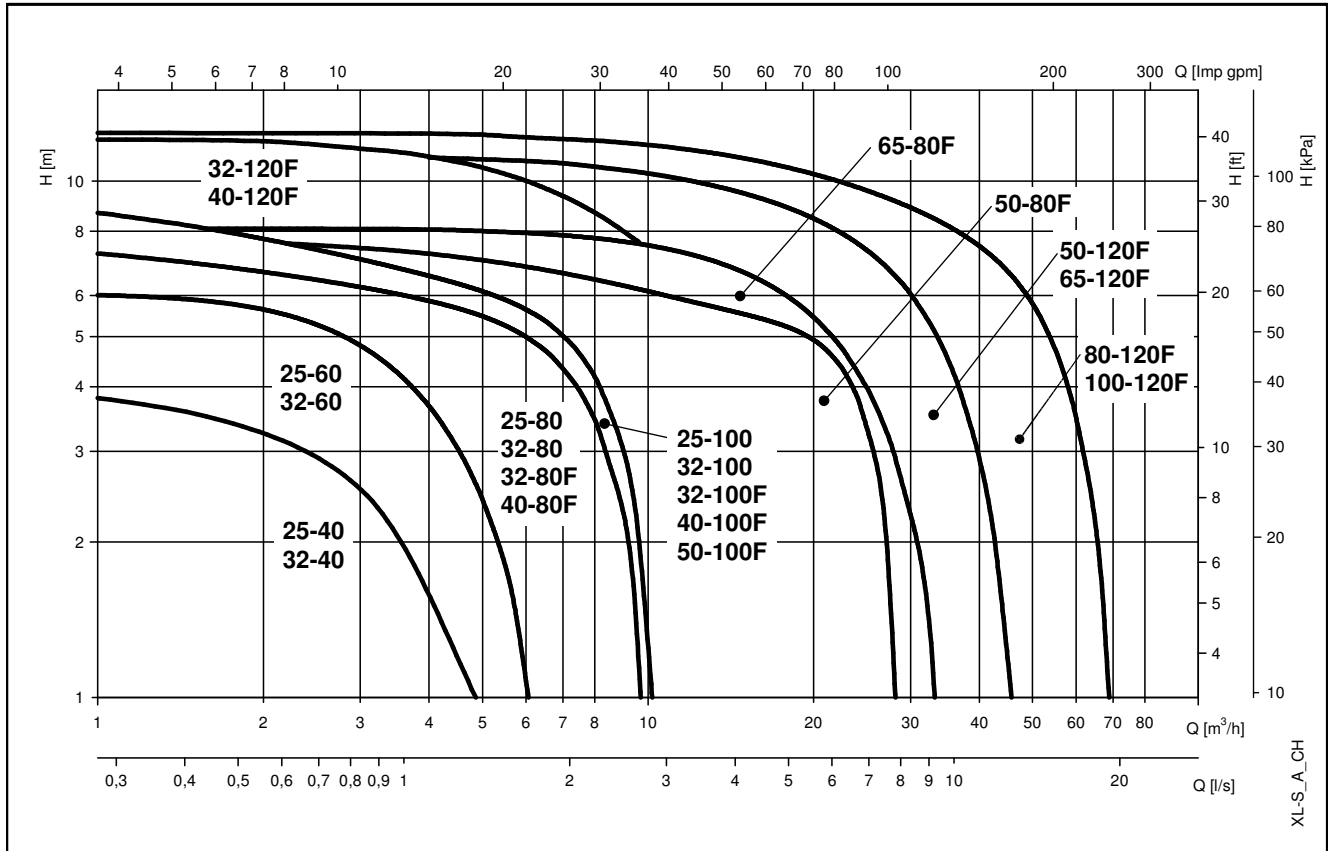
Single-head Pump type	Threaded pipe connection					
	Port to port (mm)	Cast iron				Bronze
		Connection	PN 6/10	PN 6	PN 10	PN 6/10
ecocirc XLplus 25-40 (B)	180	G 1 ½ – Rp 1	6050E9125			6050E9325
ecocirc XLplus 25-60 (B)	180	G 1 ½ – Rp 1	6050E9175			6050E9375
ecocirc XLplus 25-80	180	G 1 ½ – Rp 1	E505800AA			
ecocirc XLplus 25-100	180	G 1 ½ – Rp 1	E505810AA			
ecocirc XLplus 32-40 (B)	180	G 2 – Rp 1 ¼	6050E9225			6050E9425
ecocirc XLplus 32-60 (B)	180	G 2 – Rp 1 ¼	6050E9275			6050E9475
ecocirc XLplus 32-80 (B)	180	G 2 – Rp 1 ¼	E505820AA			E506400AA
ecocirc XLplus 32-100 (B)	180	G 2 – Rp 1 ¼	E505830AA			E506410AA

Single-head Pump type	Flanged connection					
	Port to port (mm)	Cast iron				Bronze
		Connection	PN 6/10	PN 6	PN 10	PN 6/10
ecocirc XLplus 32-80 F	220	DN 32	E505840AA			
ecocirc XLplus 32-100 F	220	DN 32	E505850AA			
ecocirc XLplus 32-120 F (B)	220	DN 32	E505860AA			E506420AA
ecocirc XLplus 40-80 F	220	DN 40	E505870AA			
ecocirc XLplus 40-100 F	220	DN 40	E505880AA			
ecocirc XLplus 40-120 F (B)	250	DN 40	E505890AA			E506430AA
ecocirc XLplus 50-80 F (B)	280	DN 50	E505900AA			E506440AA
ecocirc XLplus 50-100 F	240	DN 50	E505910AA			
ecocirc XLplus 50-120 F (B)	280	DN 50	E505920AA			E506450AA
ecocirc XLplus 65-80 F (B)	340	DN 65	E505930AA			E506460AA
ecocirc XLplus 65-120 F (B)	340	DN 65	E505940AA			E506470AA
ecocirc XLplus 80-120 F	360	DN 80		E505950AA		
ecocirc XLplus 80-120 F	360	DN 80			E505960AA	
ecocirc XLplus 100-120 F	360	DN 100		E505970AA		
ecocirc XLplus 100-120 F	360	DN 100			E505980AA	

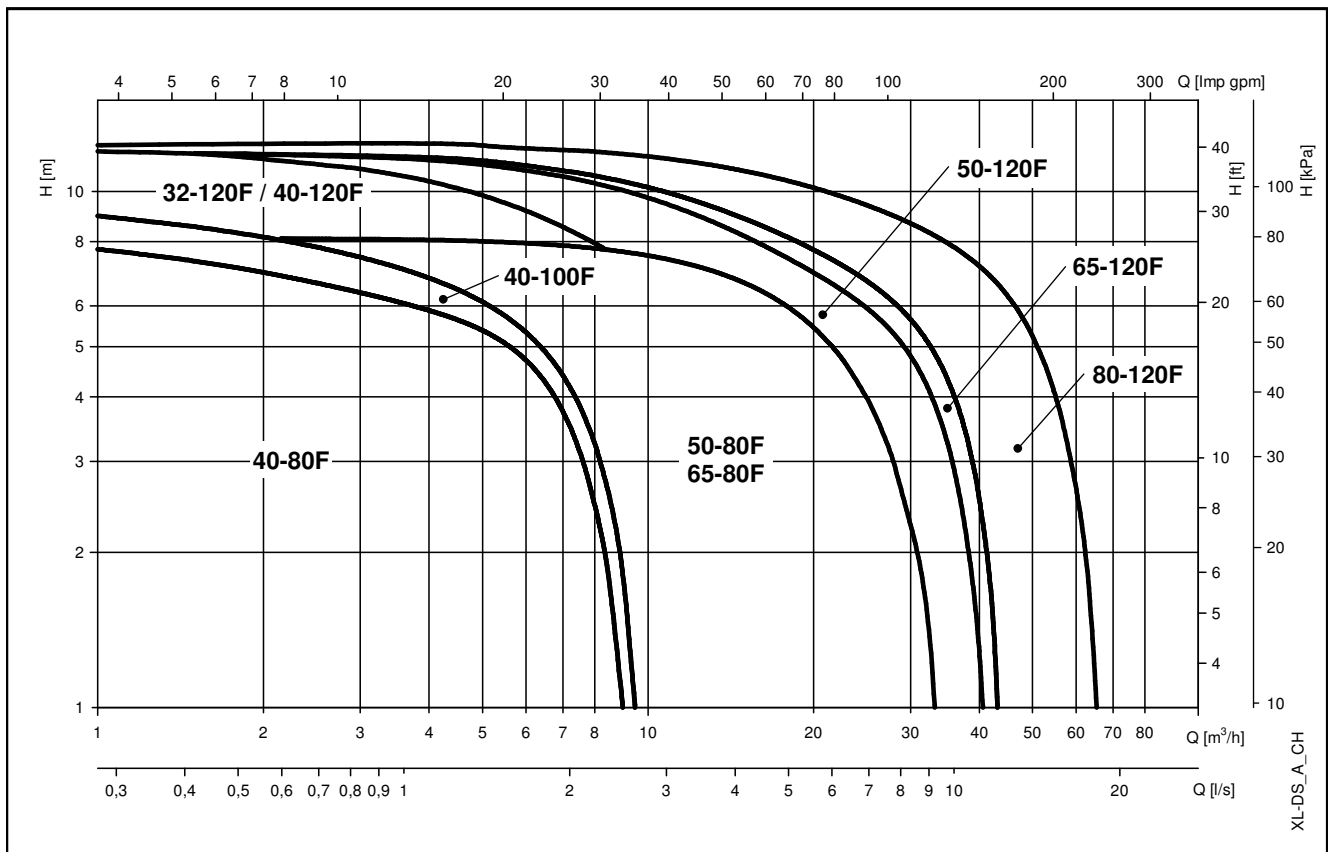
Twin-head Pump type	Flanged connection					
	Port to port (mm)	Cast iron				
		Connection	PN 6/10	PN 6	PN 10	
ecocirc XLplus D 32-120 F	220	DN 32	E506200AA			
ecocirc XLplus D 40-80 F	220	DN 40	E506210AA			
ecocirc XLplus D 40-100 F	220	DN 40	E506220AA			
ecocirc XLplus D 40-120 F	250	DN 40	E506230AA			
ecocirc XLplus D 50-80 F	280	DN 50	E506240AA			
ecocirc XLplus D 50-120 F	280	DN 50	E506250AA			
ecocirc XLplus D 65-80 F	340	DN 65	E506260AA			
ecocirc XLplus D 65-120 F	340	DN 65	E506270AA			
ecocirc XLplus D 80-120 F	360	DN 80		E506280AA		
ecocirc XLplus D 80-120 F	360	DN 80			E506290AA	

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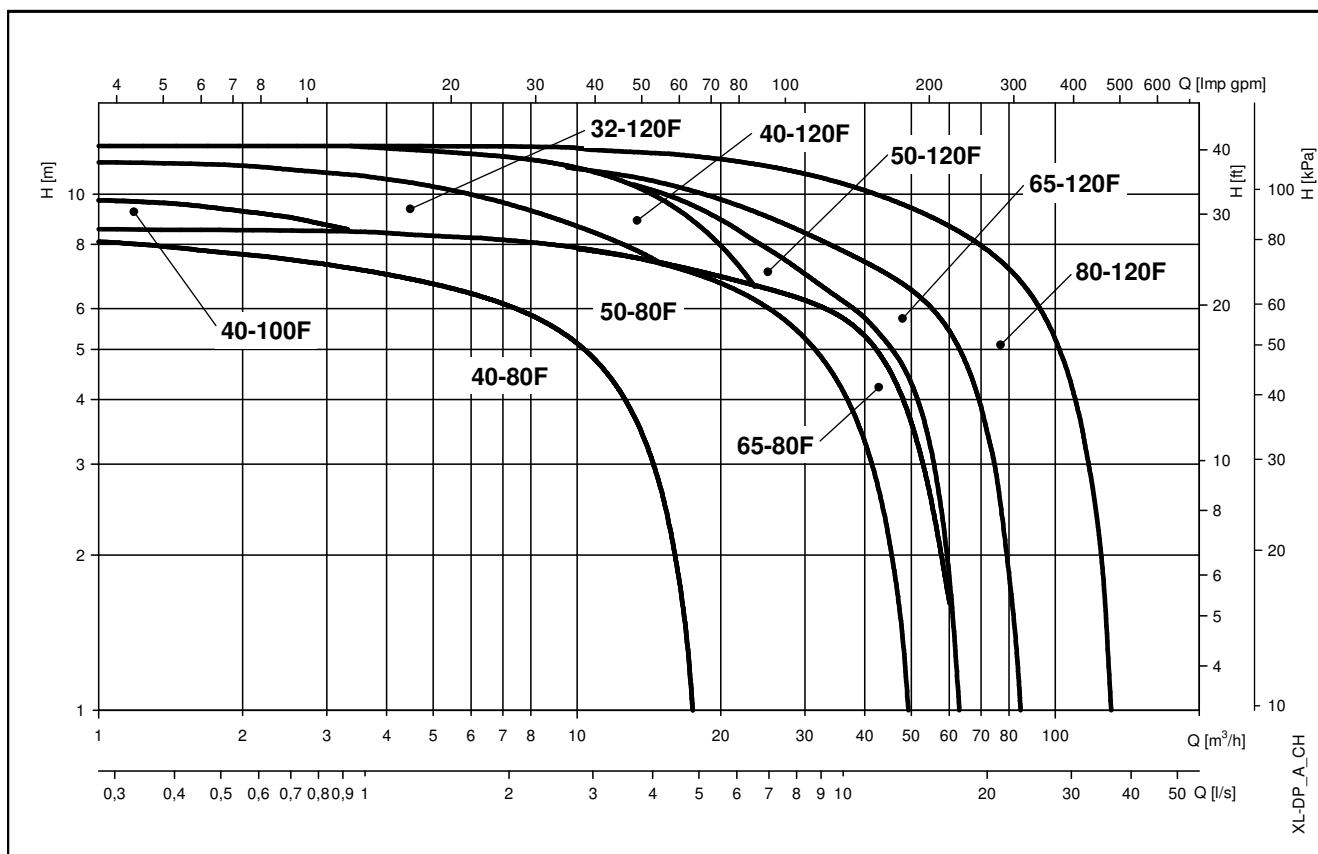
ecocirc XL-XLplus



ecocirc XL-XLplus D (single operation)



ecocirc XL-XLplus D (parallel operation)



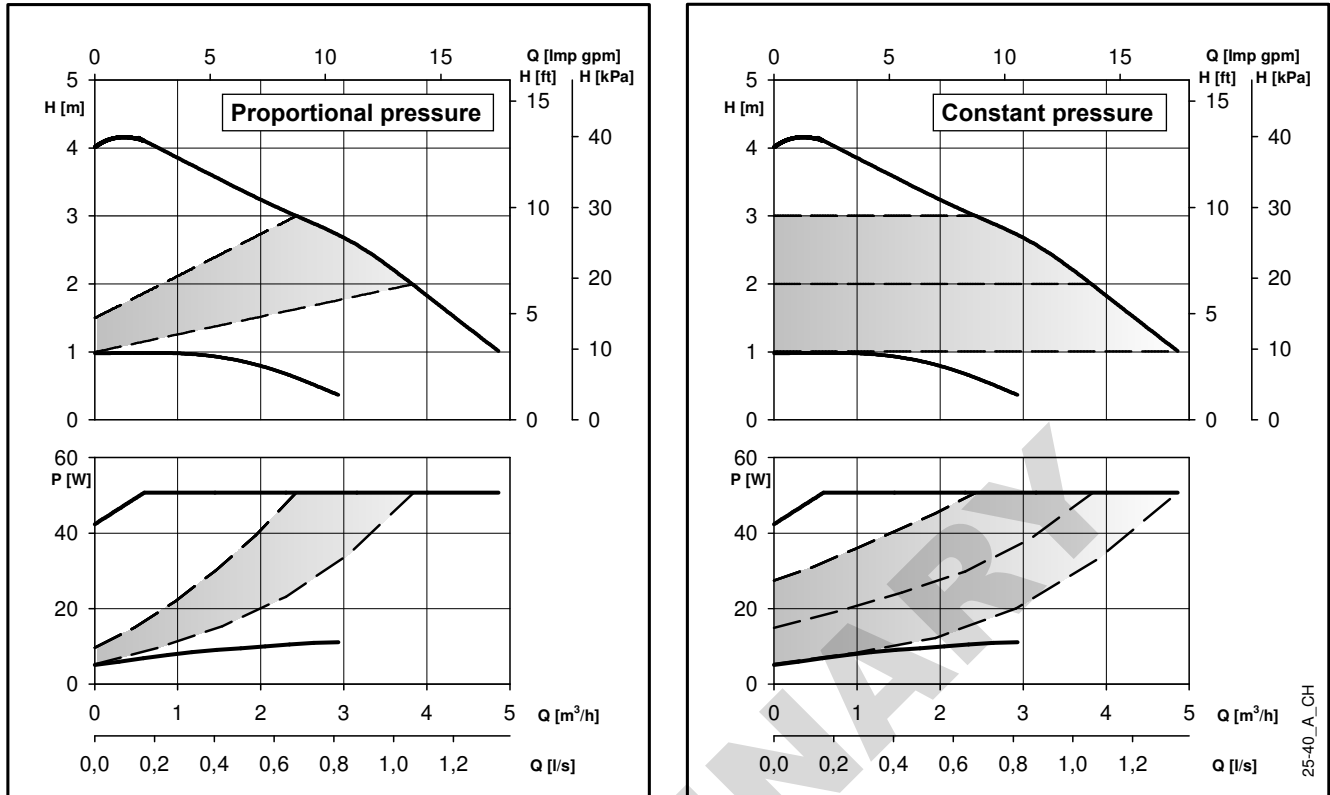
Performance curves

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.

EEL according to EN 16297.

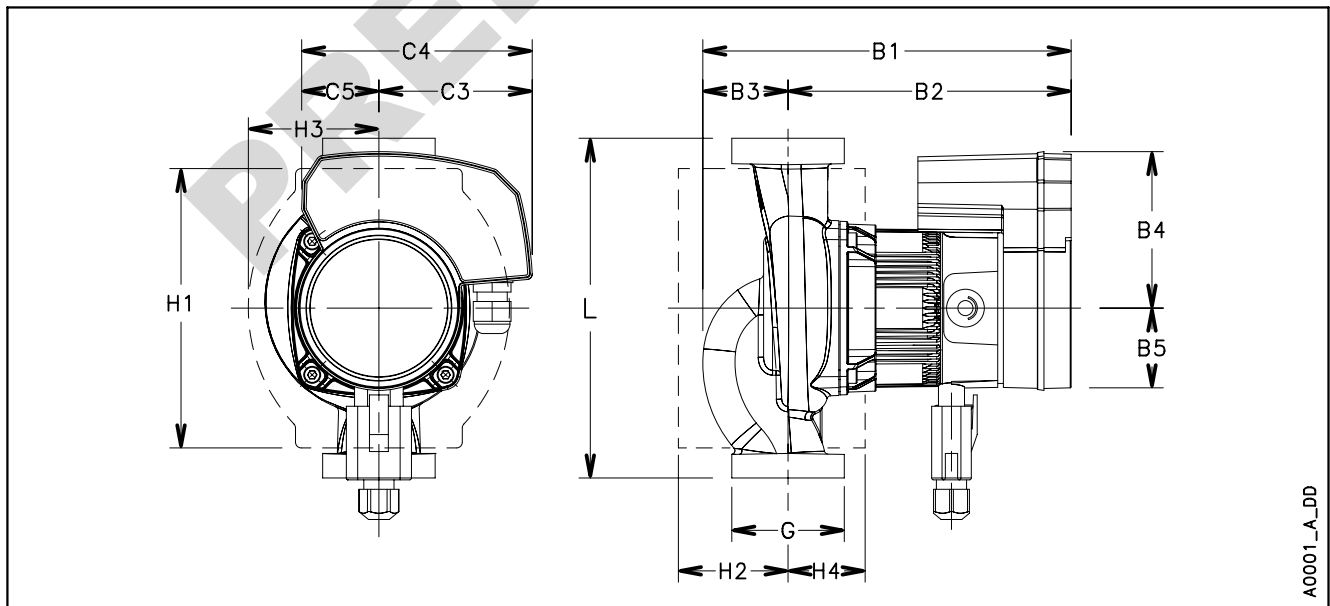
ecocirc XL-XLplus 25-40 (B)



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 25-40 (B)		Pump Data	
Rated voltage	1 x 230 V $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	5 / 51	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) for heating pumps
Specific EEI \leq	0,23		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

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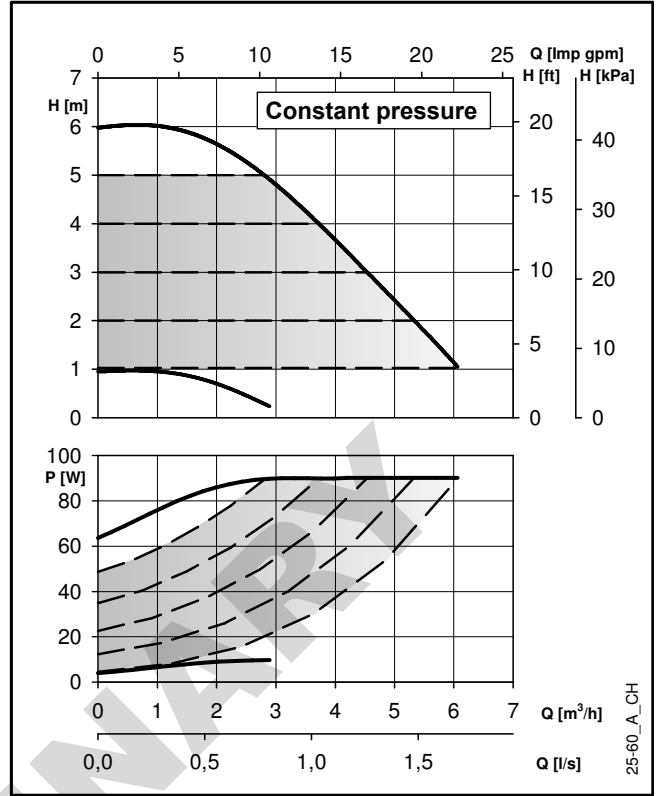
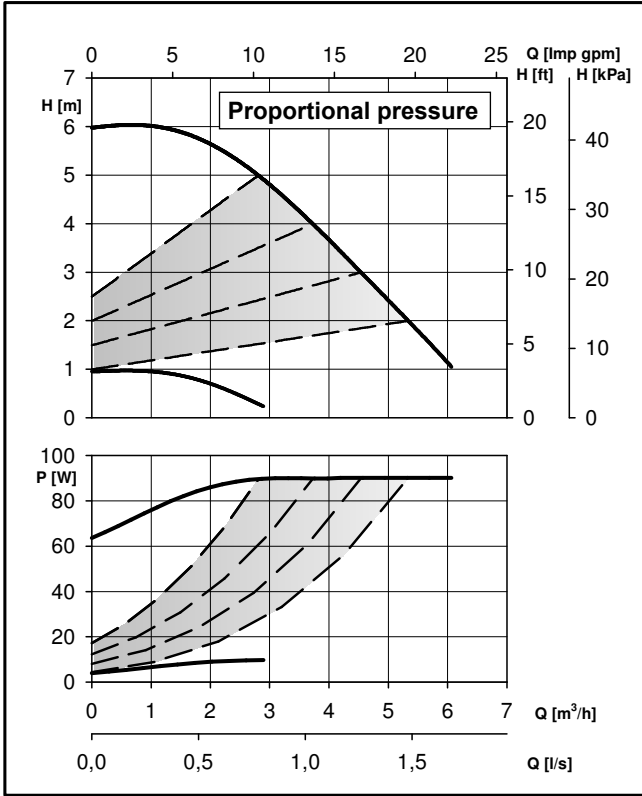


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ecocirc XL-XLplus 25-40 (B)		Dimensions (mm)					Net weight 2,9 (Kg) - Gross weight 5,8 (Kg)							
L	G	B1	B2	B3	B4	B5	C3	C4	C5	H1	H2	H3	H4	
180	G 1 ½ – Rp 1	191	144,5	46,5	82	43	81	120	39	148	61	76	38	

En-Rev_A

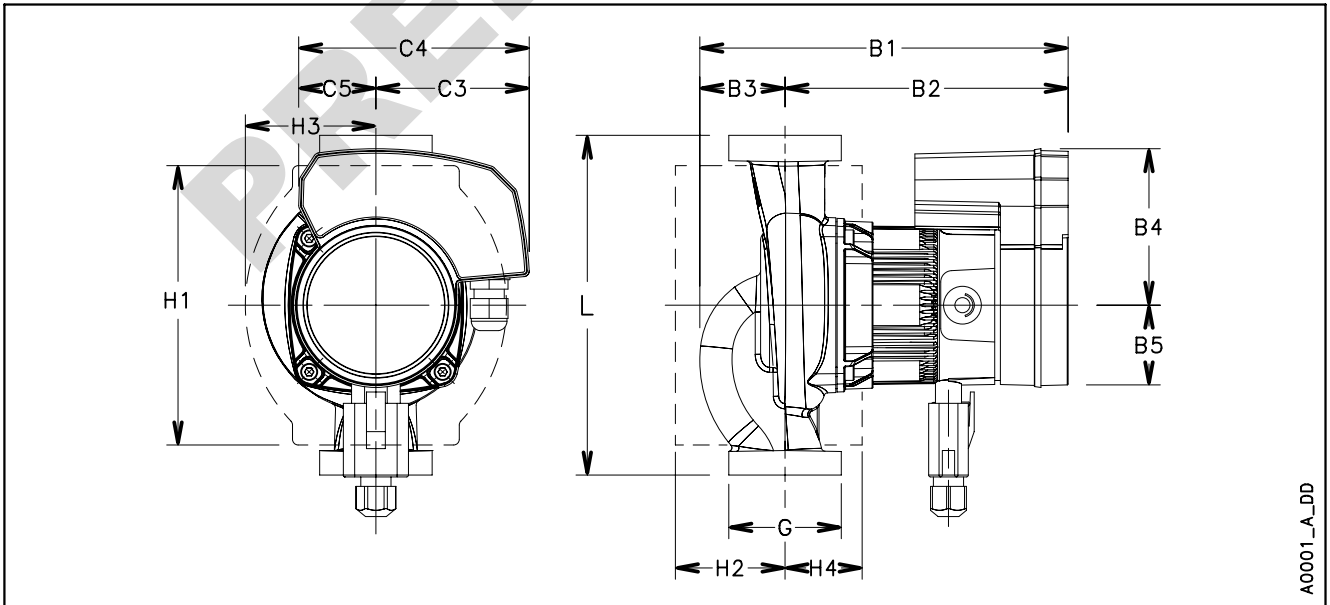
ecocirc XL-XLplus 25-60 (B)



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 (B)		Pump Data	
Rated voltage	1 x 230 V $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	5 / 90	Max. working pressure	1,0 MPa (10 bar)
Input current [A] (min/max)	0,1 / 0,9	Liquid temperature	-10°C (14°F) to +110 °C (230°F) for heating pumps
Specific EEI \leq	0,23		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

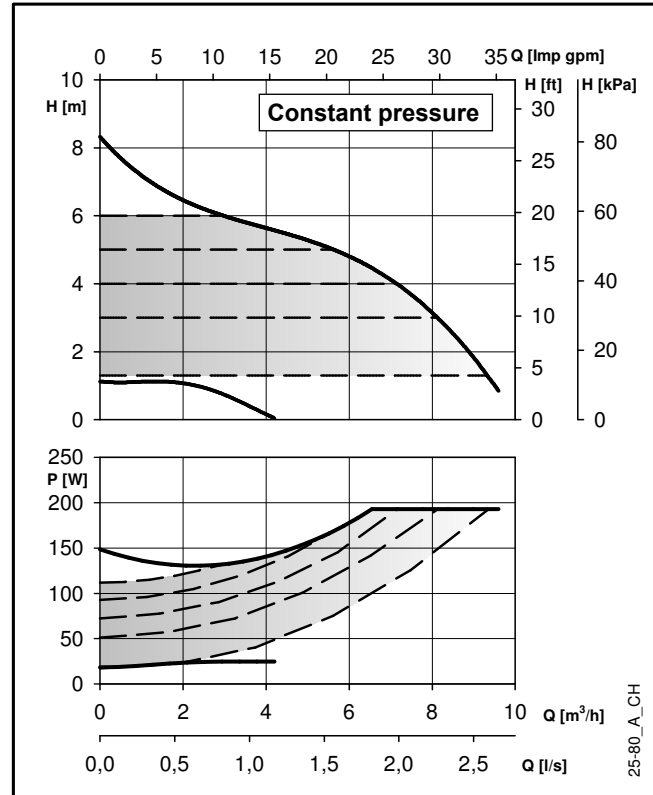
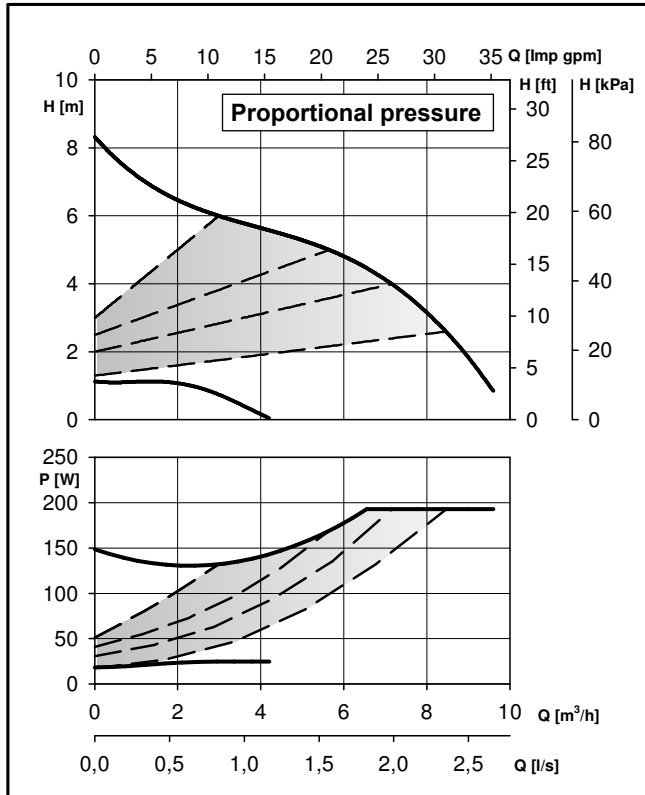


A0001_A_DD

ecocirc XL-XLplus 25-60 (B)		Dimensions (mm)					Net weight 2,9 (Kg) - Gross weight 5,8 (Kg)							
L	G	B1	B2	B3	B4	B5	C3	C4	C5	H1	H2	H3	H4	
180	G 1 ½ – Rp 1	191	144,5	46,5	82	43	81	120	39	148	61	76	38	

En-Rev_A

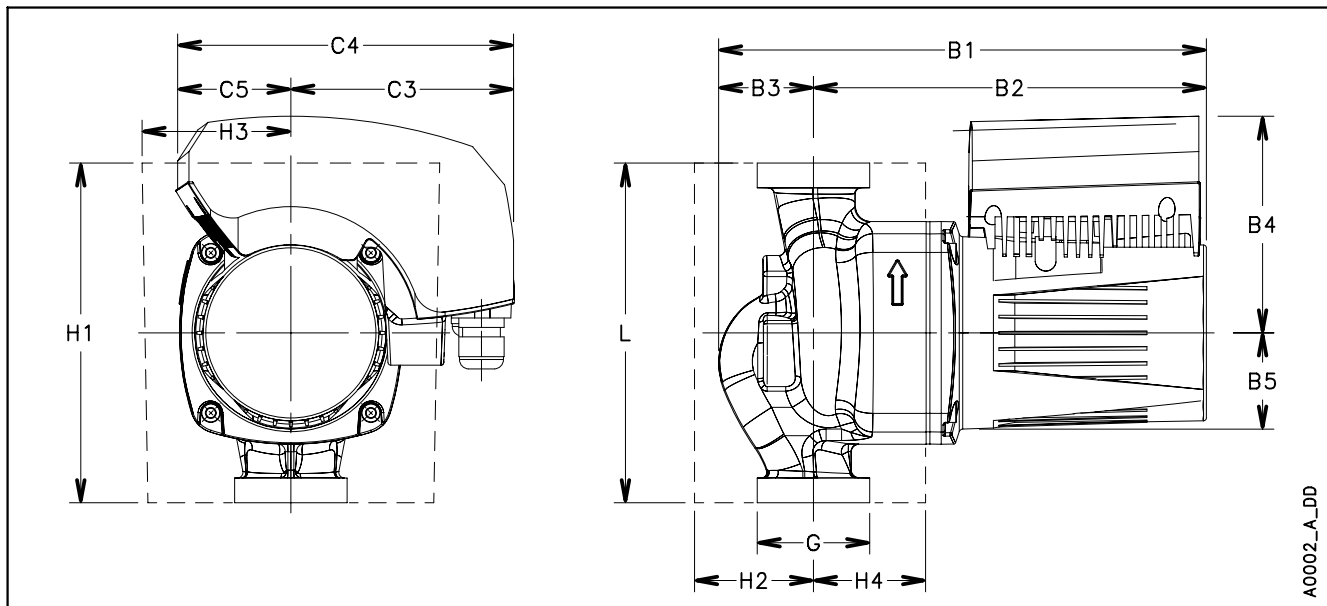
ecocirc XL-XLplus 25-80



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 $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	18 / 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) for heating pumps
Specific EEI \leq	0,27		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

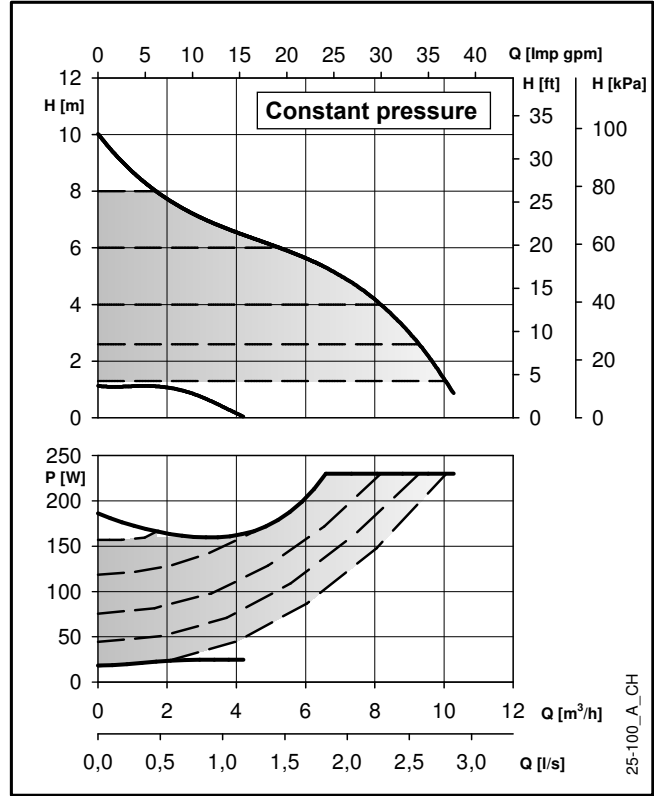
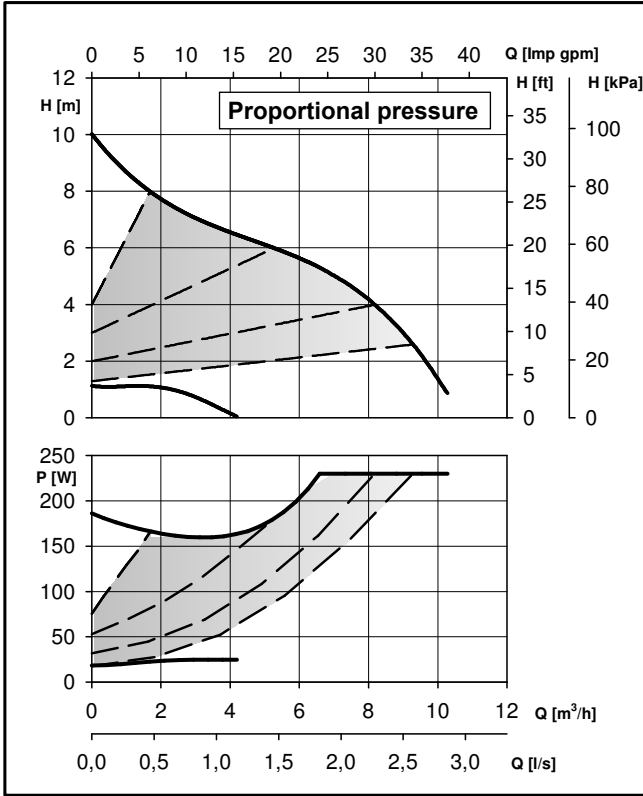


A0002_A_DD

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

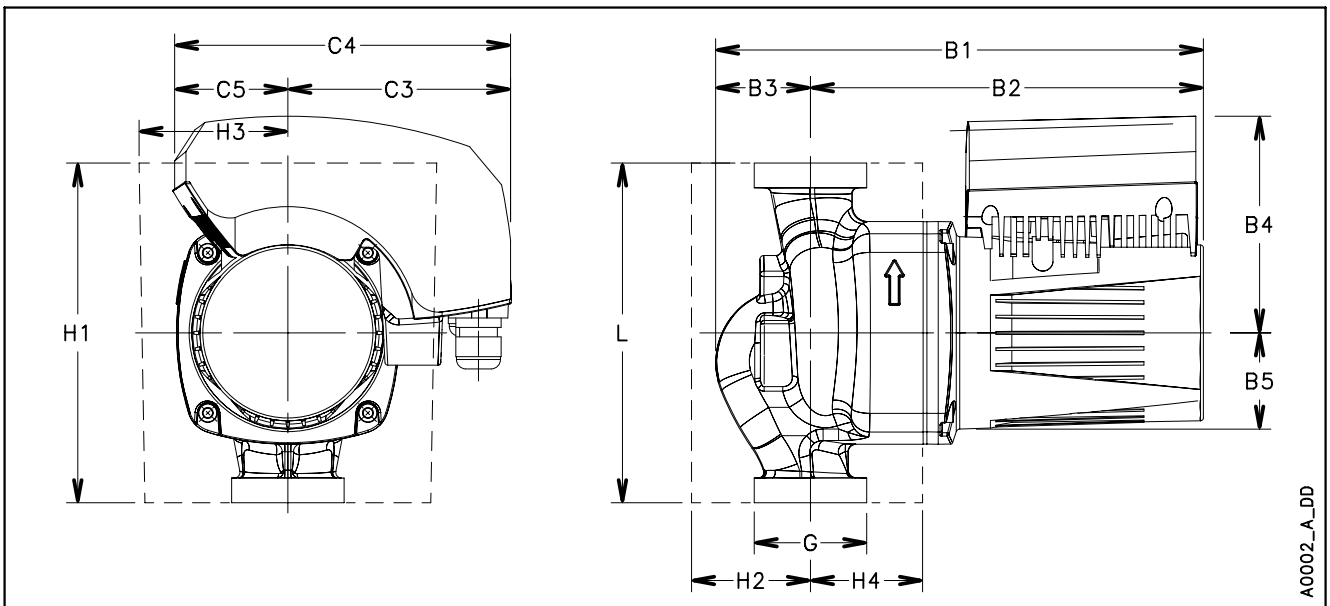
ecocirc XL-XLplus 25-100



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

ecocirc XL-XLplus 25-100		Pump Data	
Rated voltage	1 x 230 V $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	18 / 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) for heating pumps
Specific EEI \leq	0,27		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

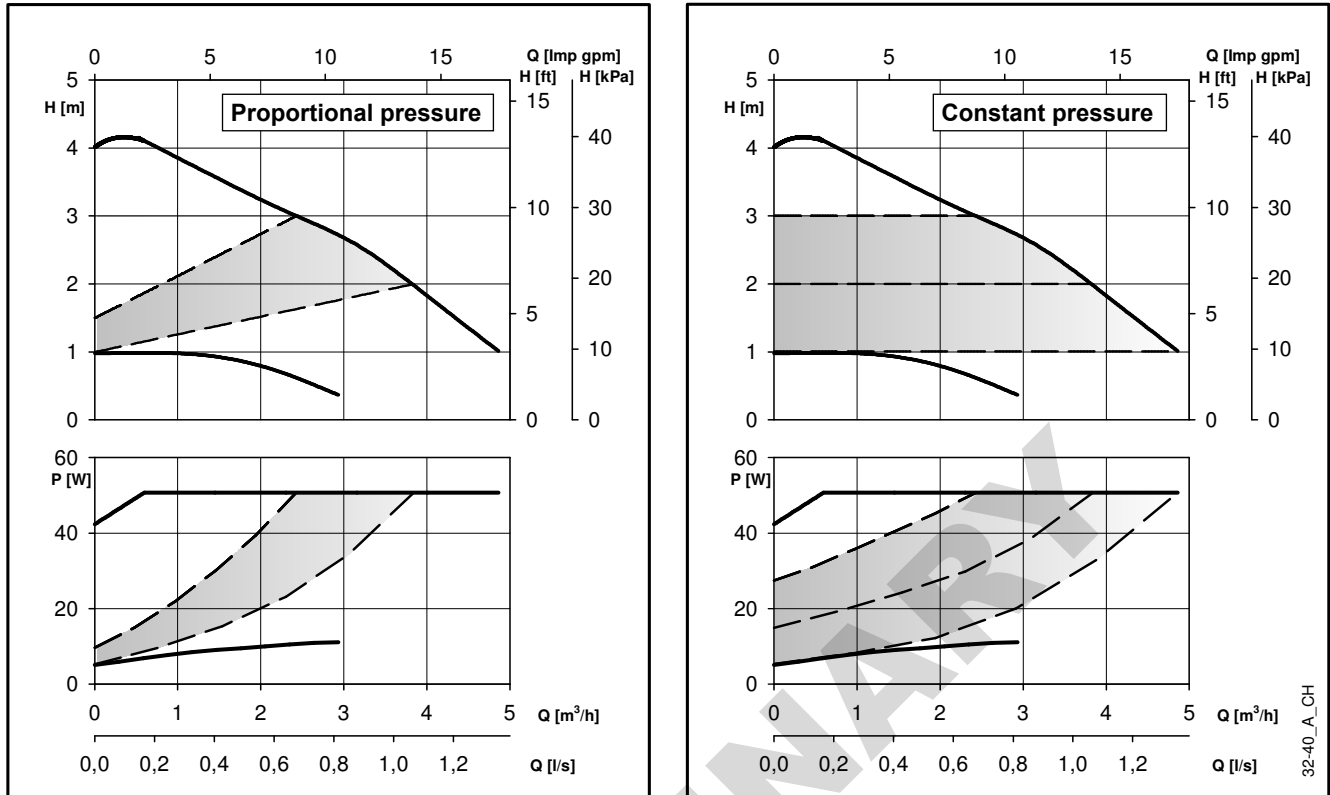


A0002_A_DD

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

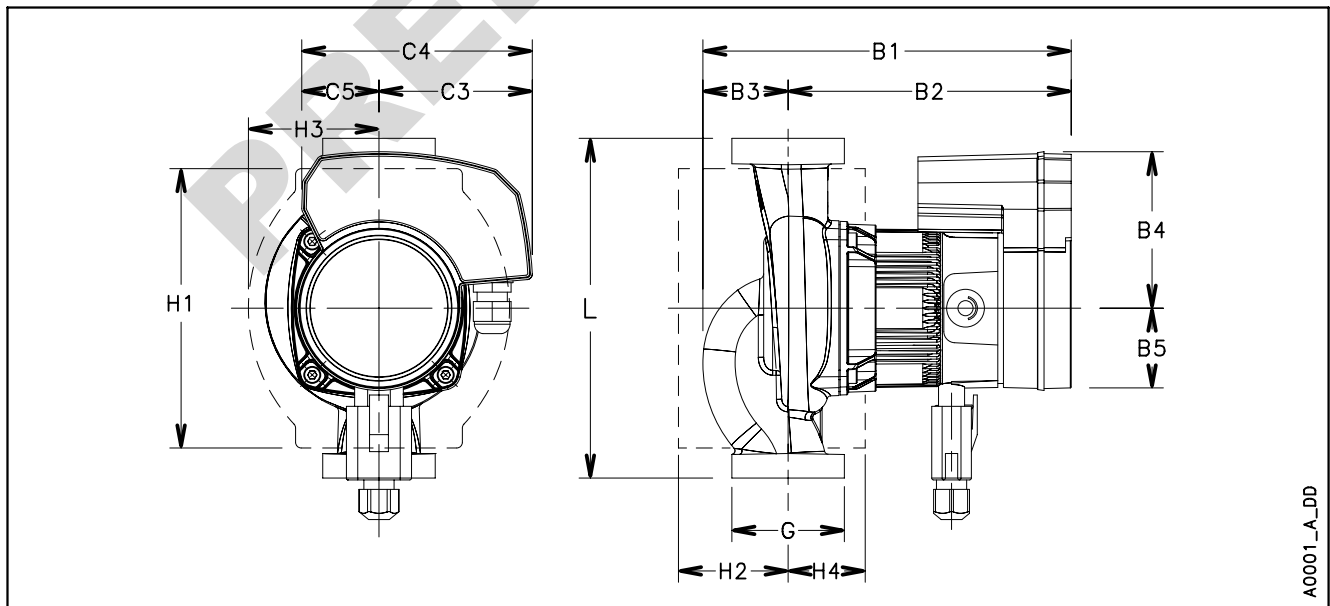
ecocirc XL-XLplus 32-40 (B)



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 (B)		Pump Data	
Rated voltage	1 x 230 V $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	5 / 51	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) for heating pumps
Specific EEI \leq	0,23		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

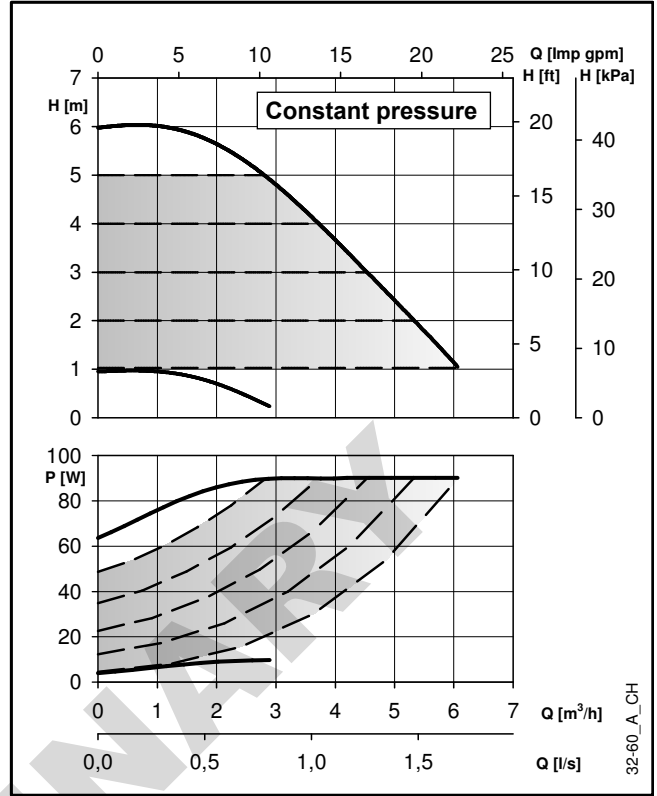
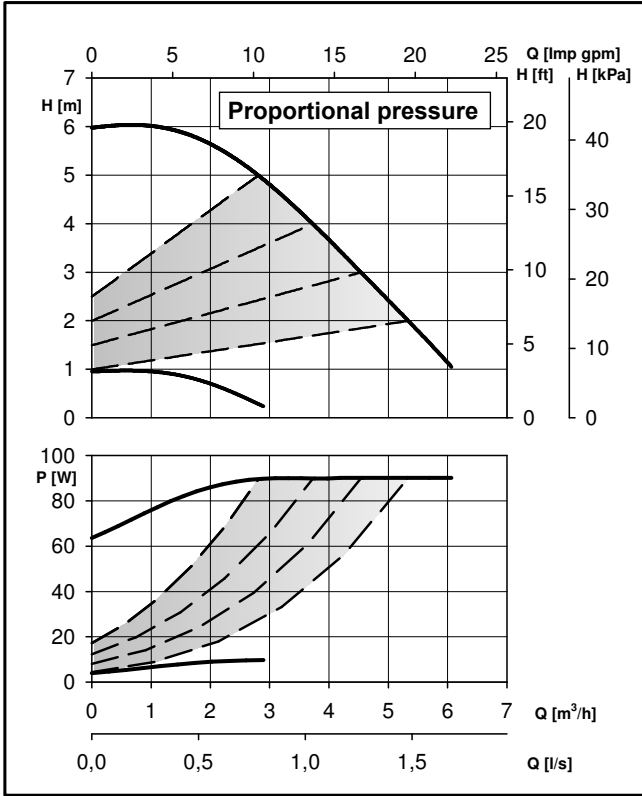


A0001_A_DD

ecocirc XL-XLplus 32-40 (B)		Dimensions (mm)					Net weight 3,3 (Kg) - Gross weight 6,2 (Kg)							
L	G	B1	B2	B3	B4	B5	C3	C4	C5	H1	H2	H3	H4	
180	G 2 – Rp 1 ¼	194	148	46,5	82	43	81	120	39	148	61	76	38	

En-Rev_A

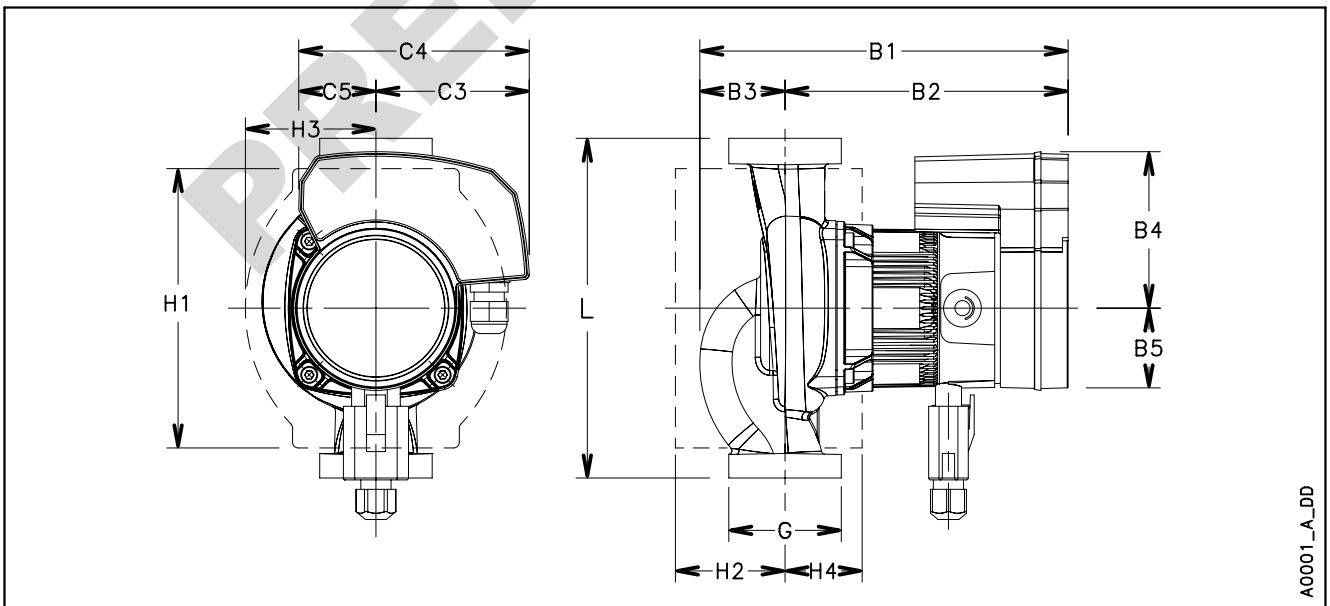
ecocirc XL-XLplus 32-60 (B)



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 32-60 (B)		Pump Data	
Rated voltage	1 x 230 V $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	5 / 90	Max. working pressure	1,0 MPa (10 bar)
Input current [A] (min/max)	0,1 / 0,9	Liquid temperature	-10°C (14°F) to +110 °C (230°F) for heating pumps
Specific EEI \leq	0,23		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

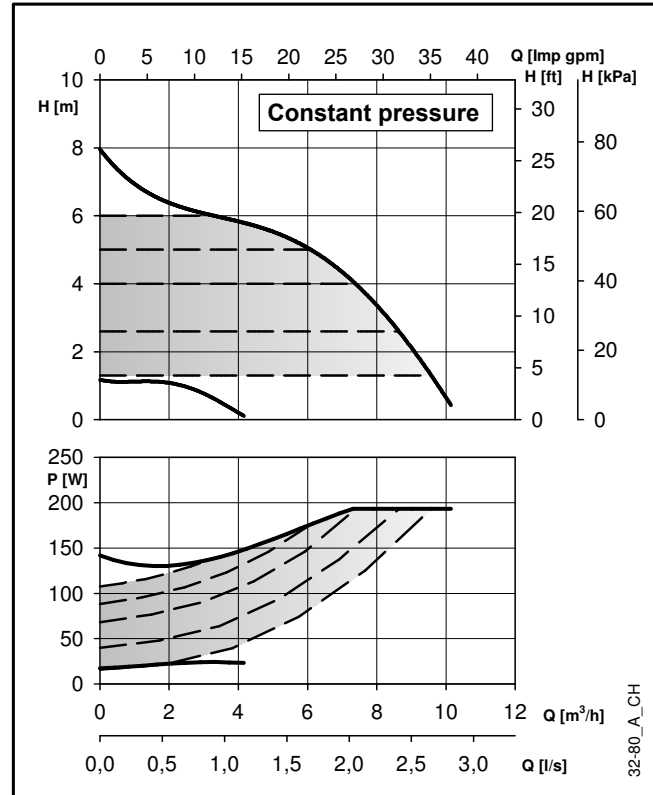
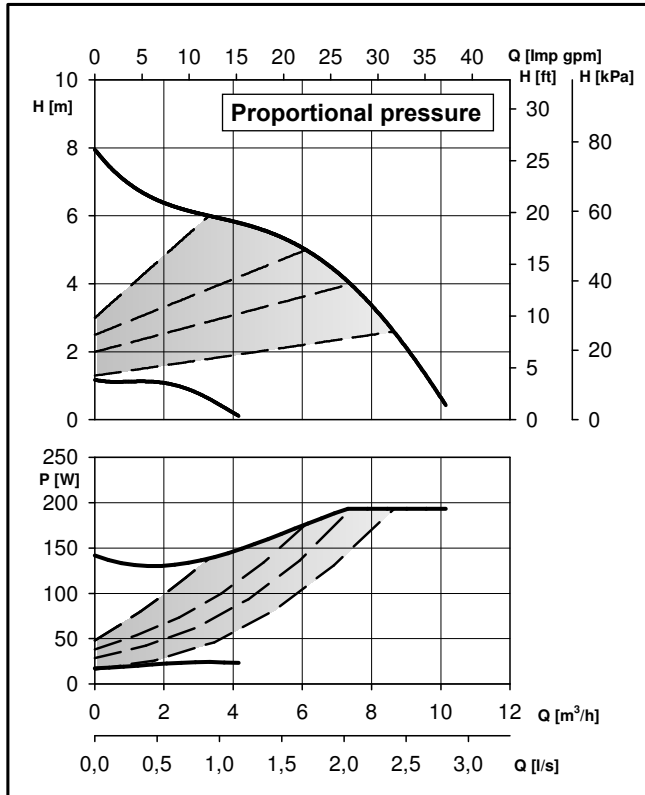


A0001_A_DD

ecocirc XL-XLplus 32-60 (B)		Dimensions (mm)					Net weight 3,3 (Kg) - Gross weight 6,2 (Kg)							
L	G	B1	B2	B3	B4	B5	C3	C4	C5	H1	H2	H3	H4	
180	G 2 – Rp 1 ¼	194	148	46,5	82	43	81	120	39	148	61	76	38	

En-Rev_A

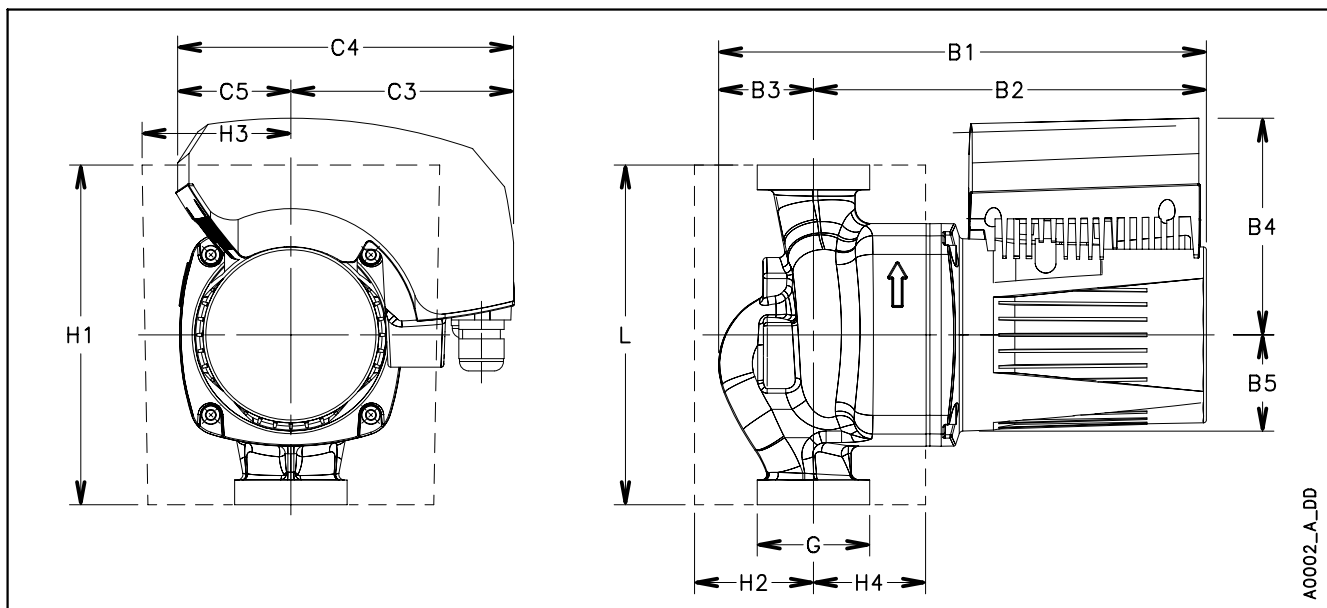
ecocirc XL-XLplus 32-80 (B)



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 (B)		Pump Data	
Rated voltage	1 x 230 V $\pm 10\%$	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) for heating pumps
Specific EEI \leq	0,27		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

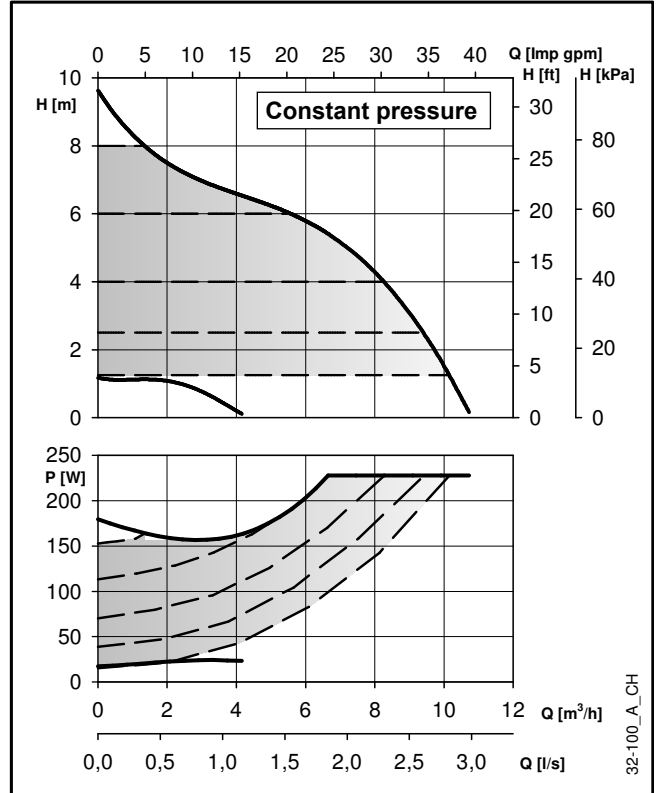
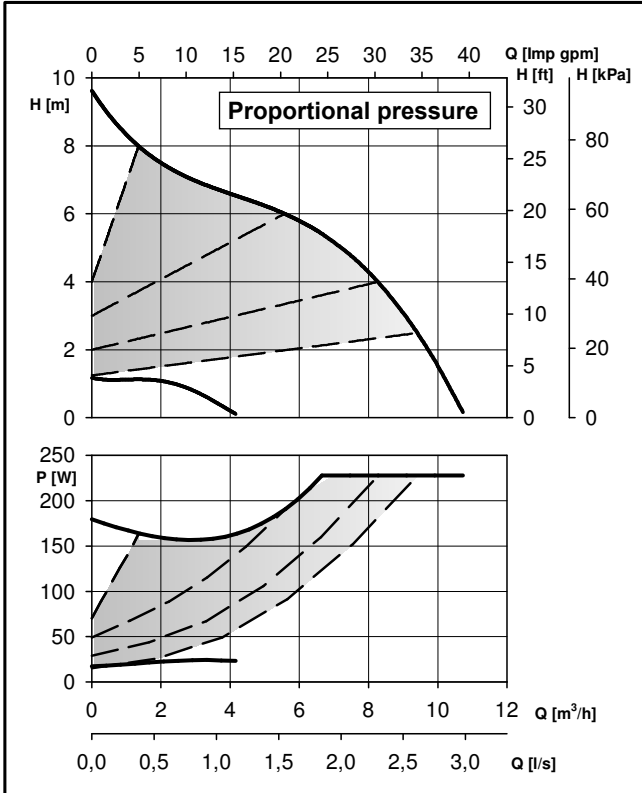


A0002_A_DD

ecocirc XL-XLplus 32-80 (B)		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_A

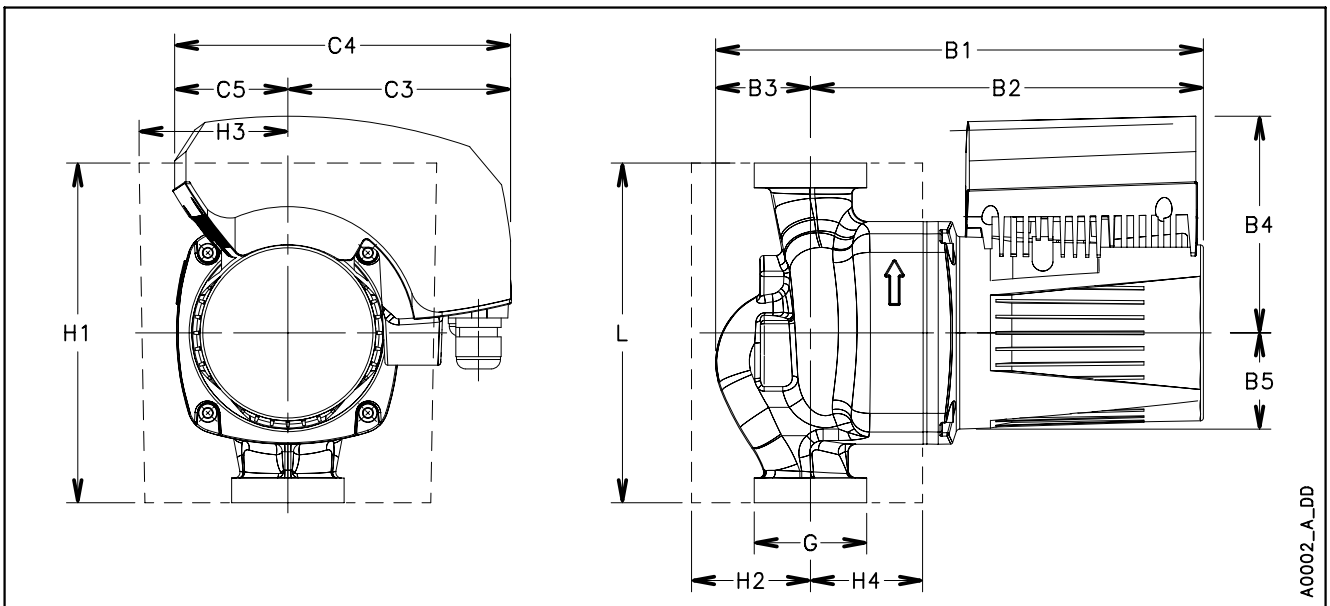
ecocirc XL-XLplus 32-100 (B)



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 (B)		Pump Data	
Rated voltage	1 x 230 V $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	17 / 228	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) for heating pumps
Specific EEI \leq	0,27		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

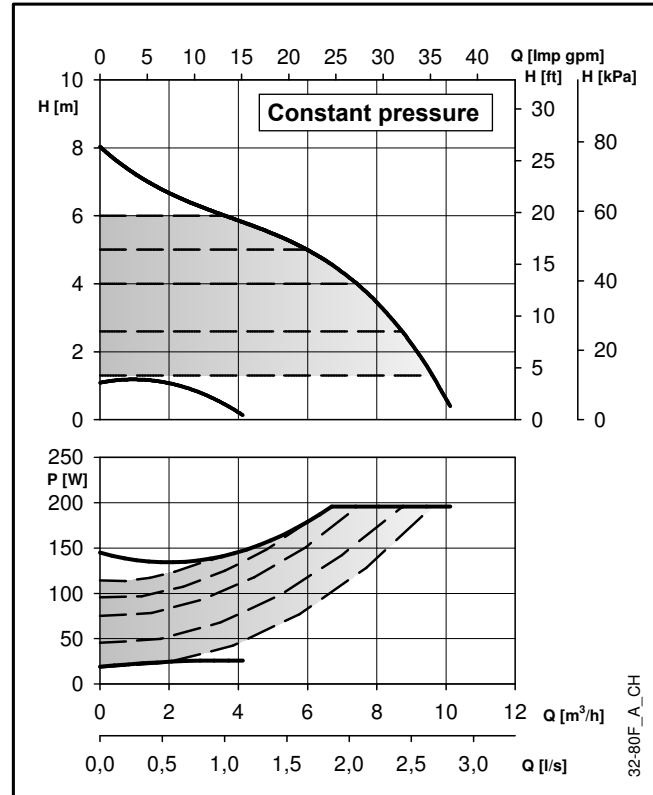
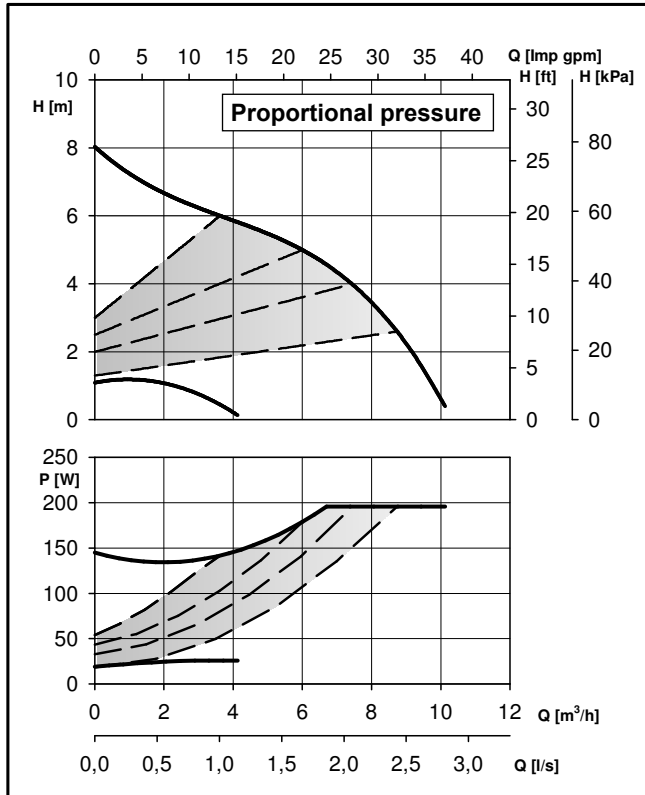


A0002_A_DD

ecocirc XL-XLplus 32-100 (B)		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_A

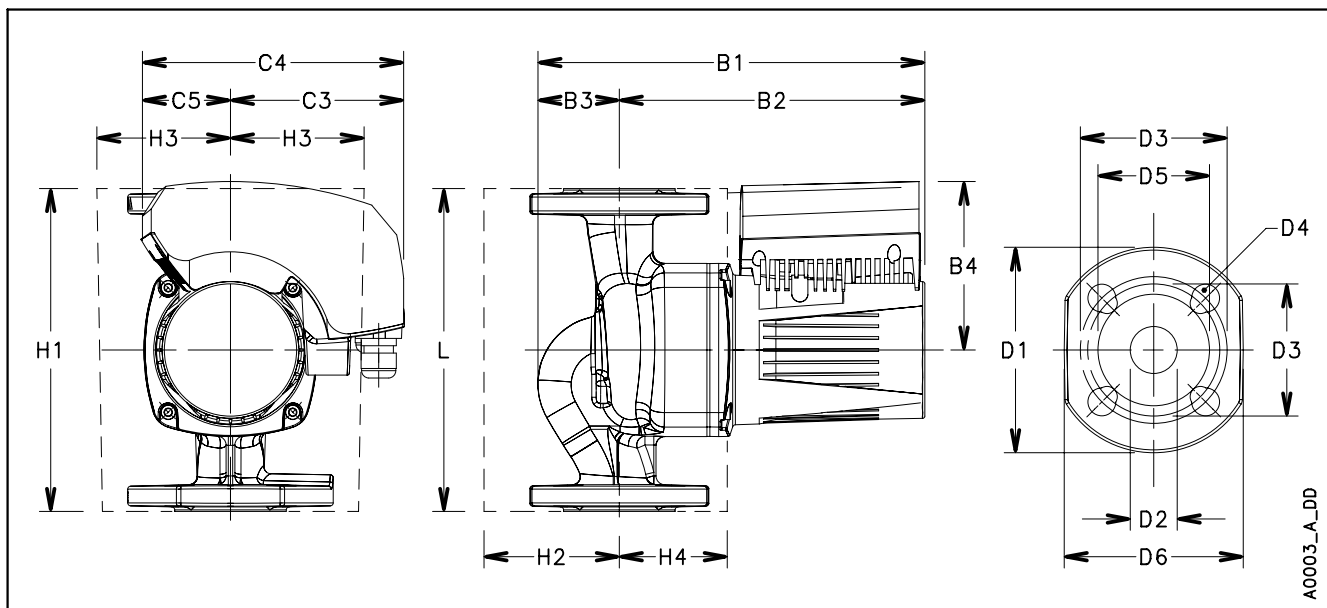
ecocirc XL-XLplus 32-80 F



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 $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	19 / 196	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) for heating pumps
Specific EEI \leq	0,27		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

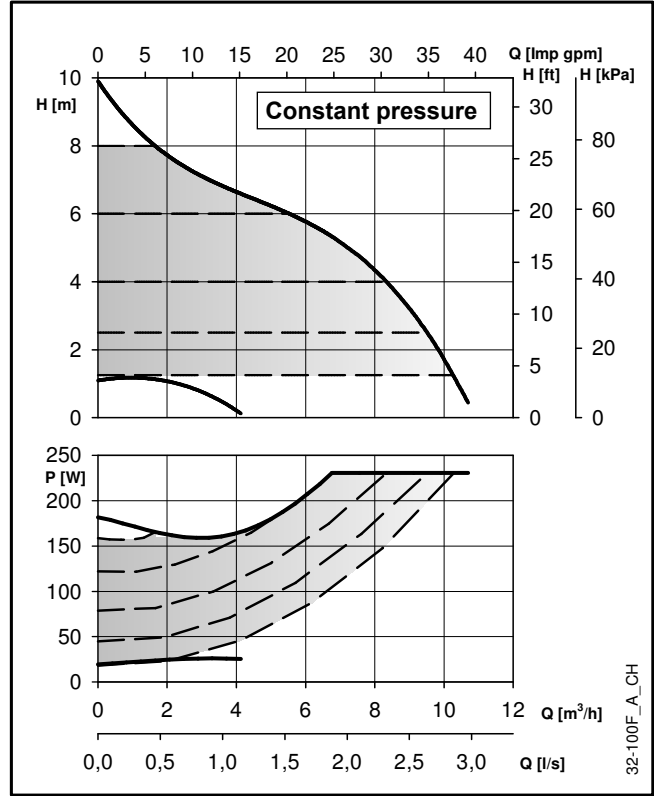
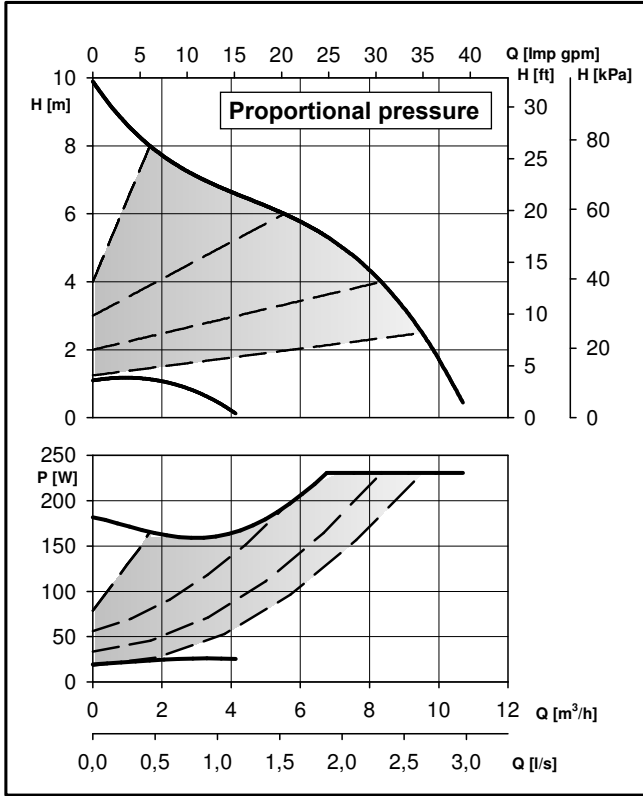


A0003_A_DD

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

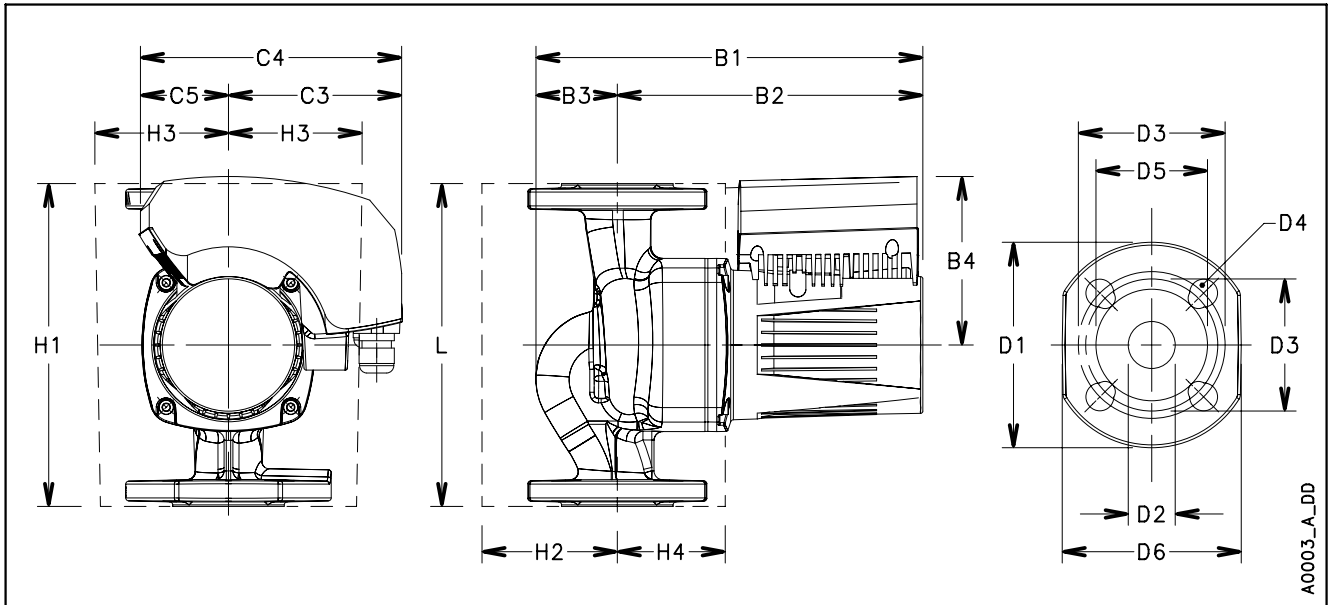
ecocirc XL-XLplus 32-100 F



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

ecocirc XL-XLplus 32-100 F		Pump Data	
Rated voltage	1 x 230 V $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	19 / 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) for heating pumps
Specific EEI \leq	0,27		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

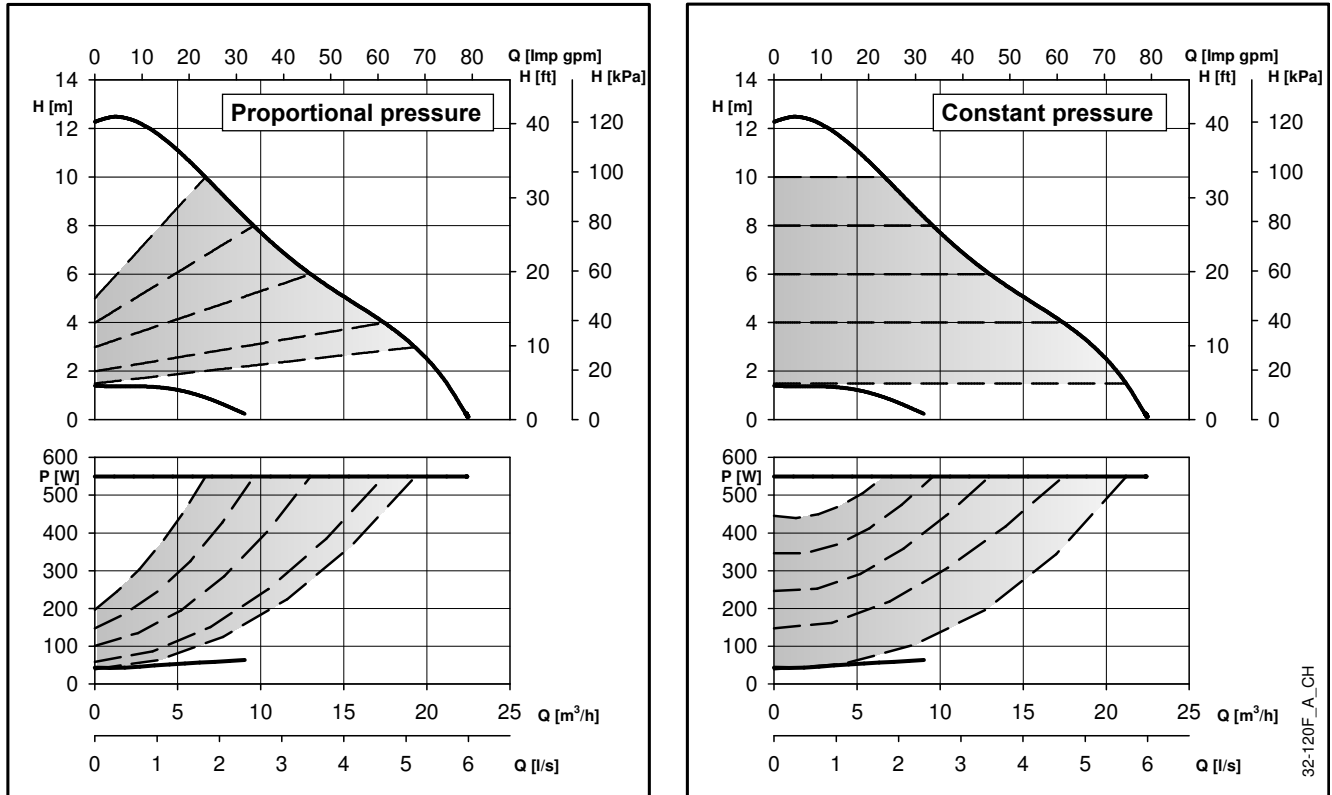


A0003_A_DD

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

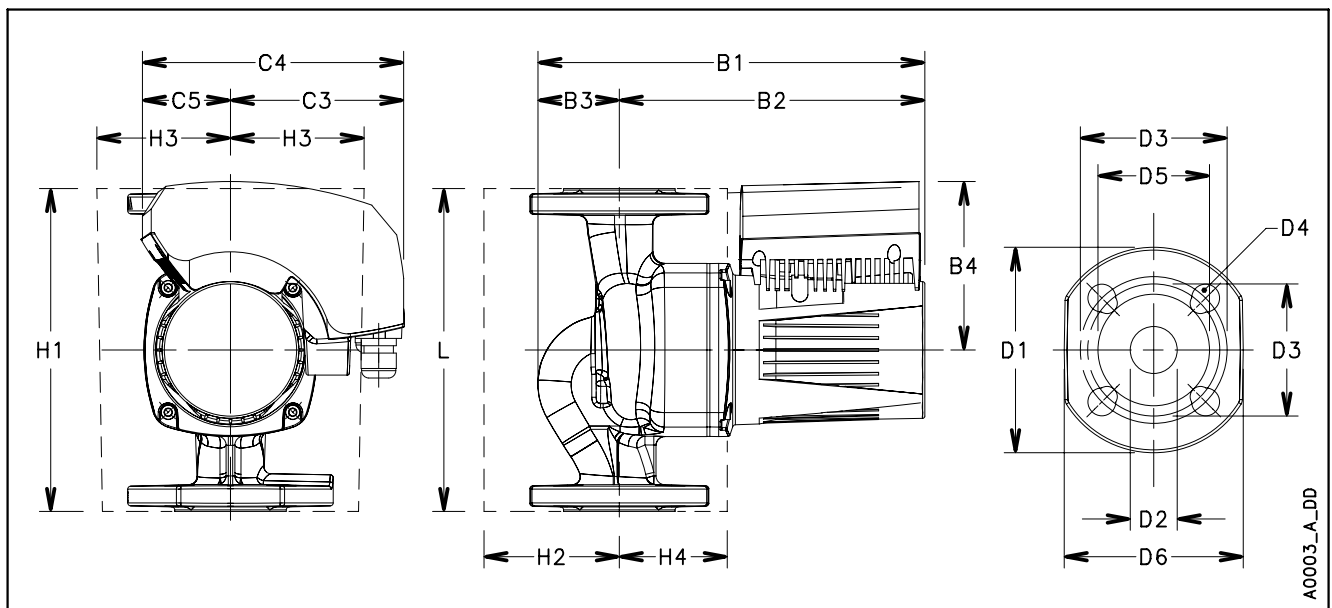
ecocirc XL-XLplus 32-120 F (B)



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 (B)		Pump Data	
Rated voltage	1 x 230 V $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	42 / 550	Max. working pressure	1,0 MPa (10 bar)
Input current [A] (min/max)	0,2 / 2,5	Liquid temperature	-10°C (14°F) to +110 °C (230°F) for heating pumps
Specific EEI \leq	0,27		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

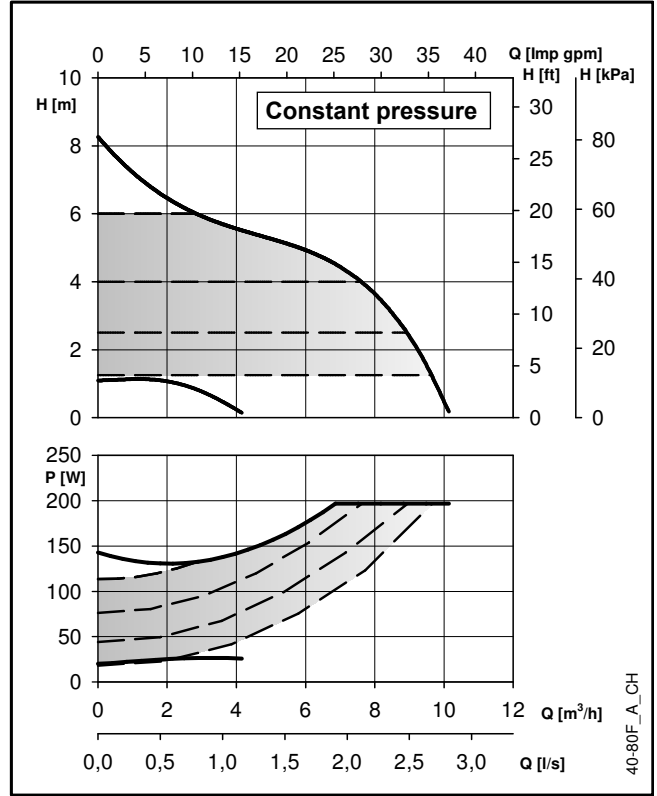
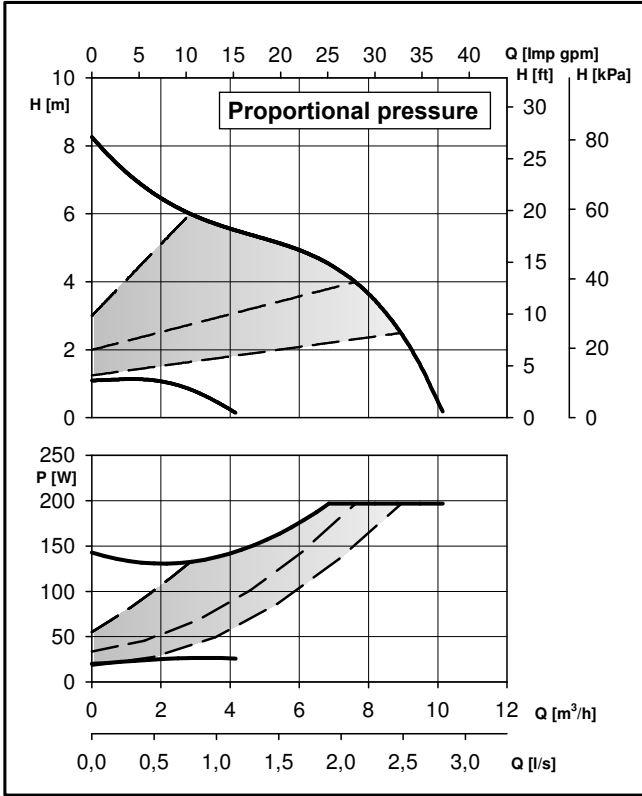


A0003_A_DD

ecocirc XL-XLplus 32-120 F (B)		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_A

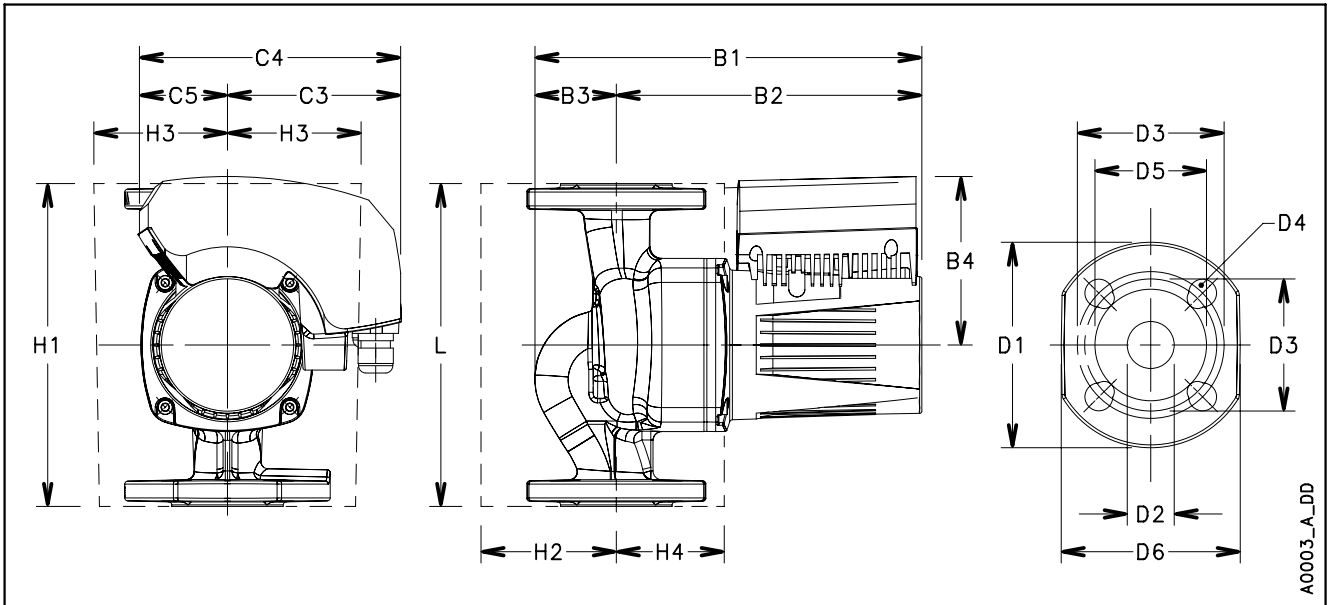
ecocirc XL-XLplus 40-80 F



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 $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	20 / 197	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) for heating pumps
Specific EEI \leq	0,27		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

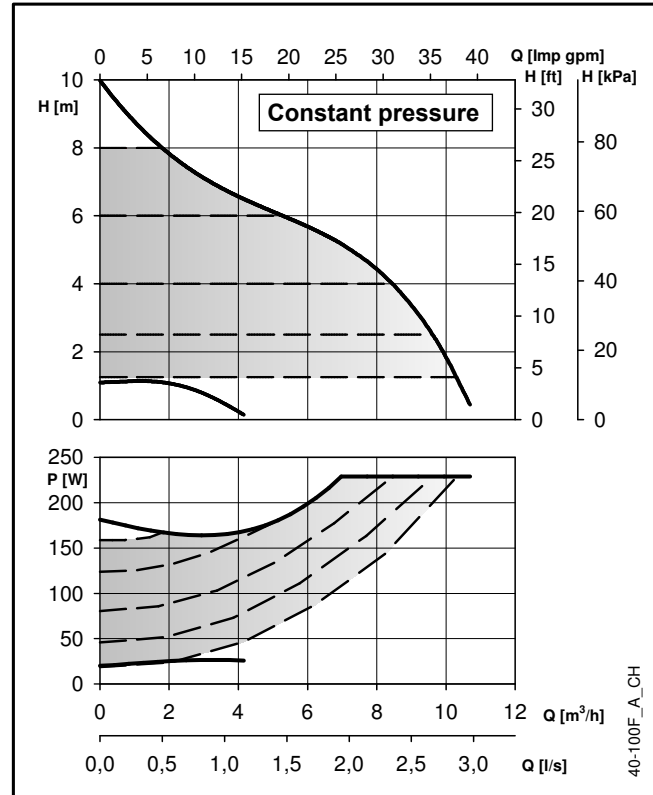
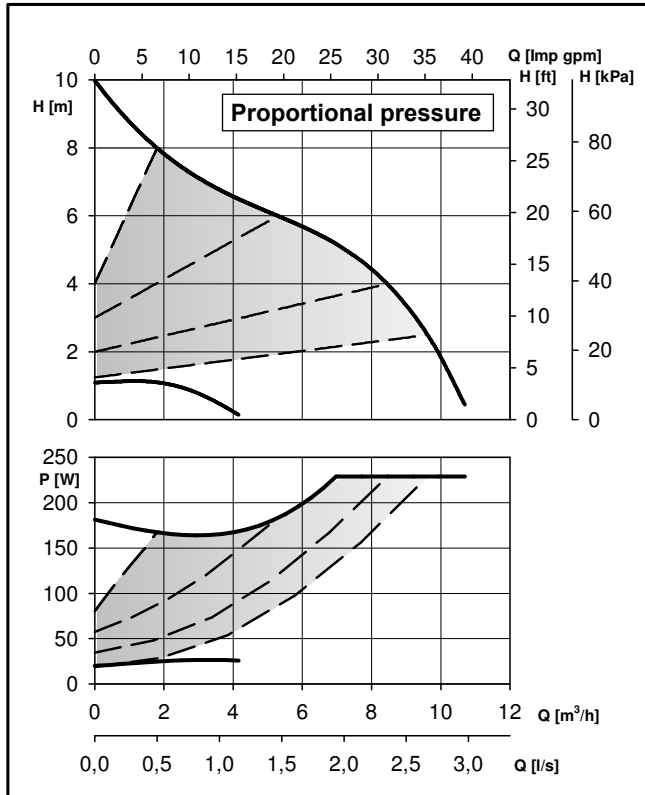


A0003_A_DD

ecocirc XL-XLplus 40-80 F		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

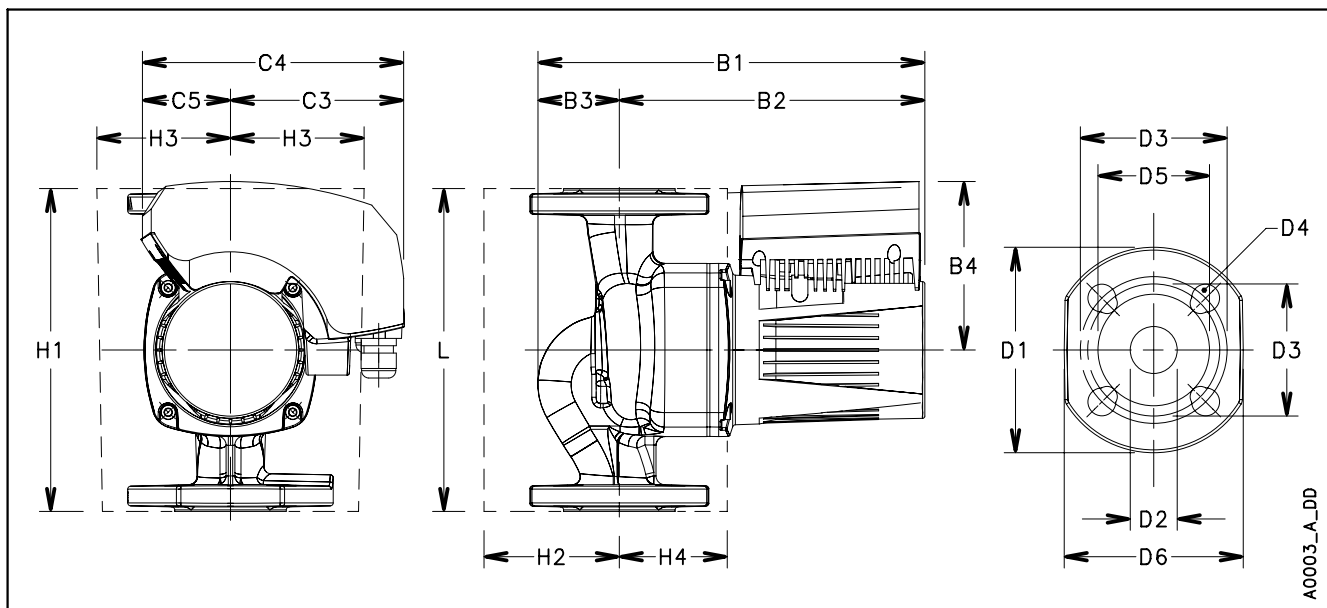
ecocirc XL-XLplus 40-100 F



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 40-100 F		Pump Data	
Rated voltage	1 x 230 V $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	20 / 229	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) for heating pumps
Specific EEI \leq	0,27		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

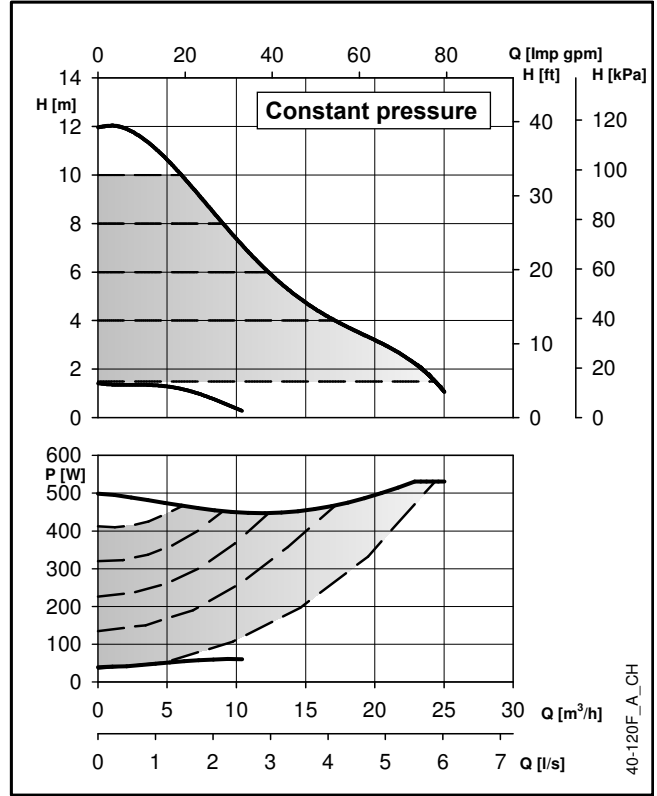
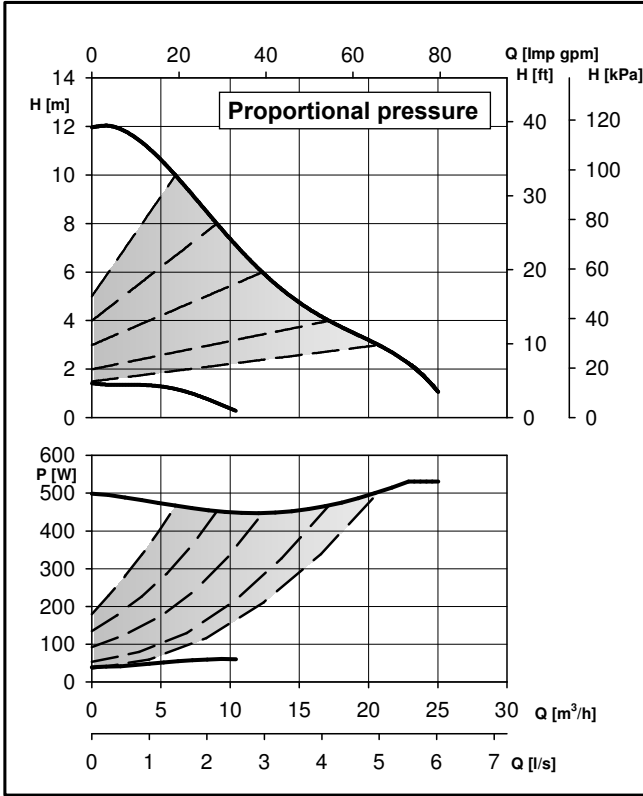


A0003_A_DD

ecocirc XL-XLplus 40-100 F		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

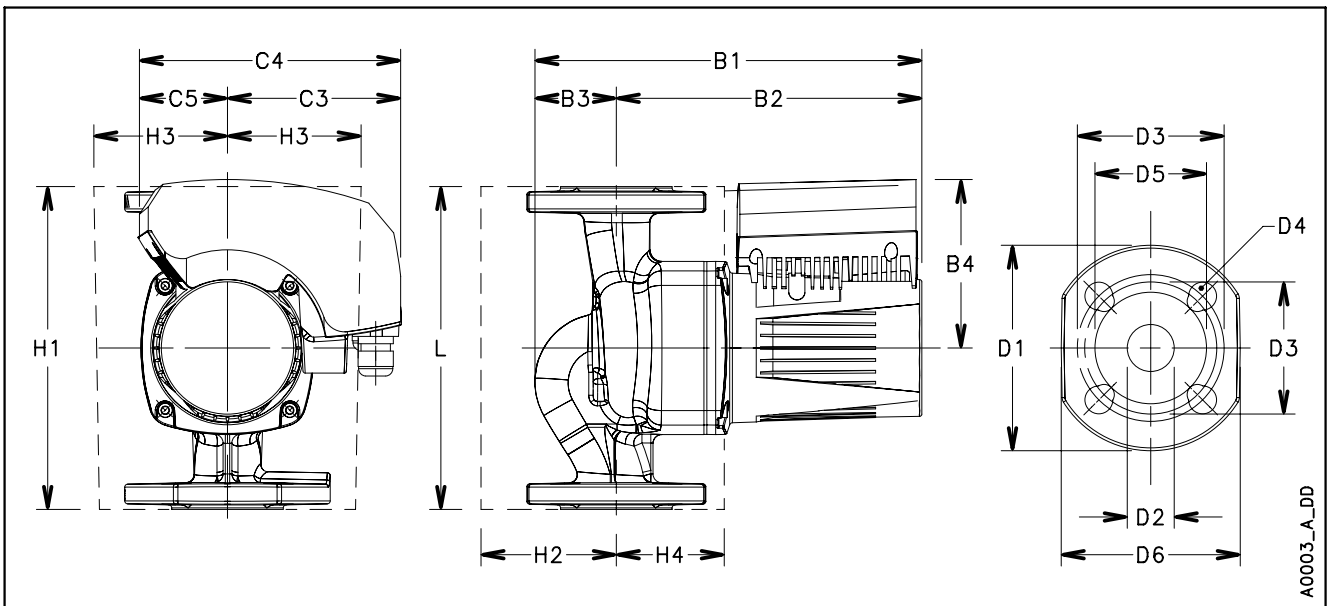
ecocirc XL-XLplus 40-120 F (B)



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 (B)		Pump Data	
Rated voltage	1 x 230 V $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	40 / 530	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) for heating pumps
Specific EEI \leq	0,23		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

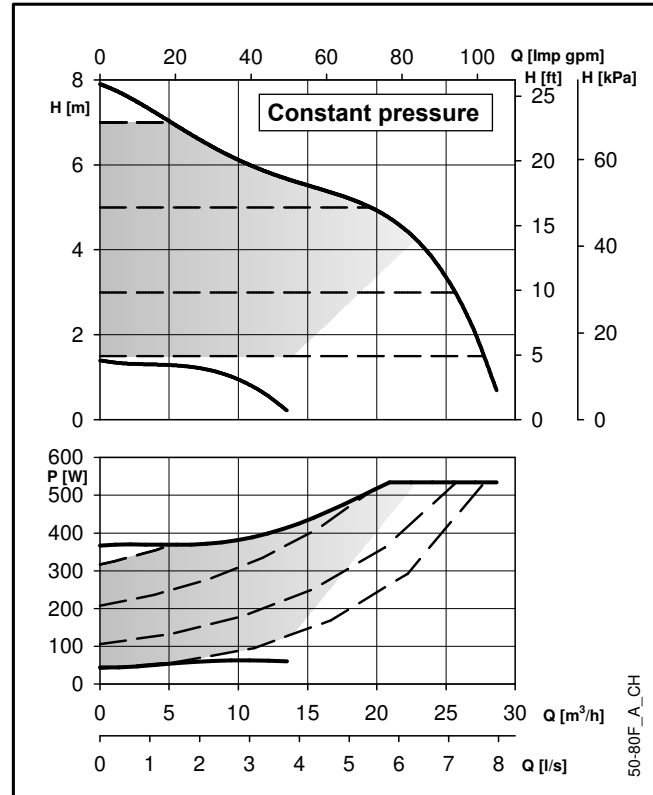
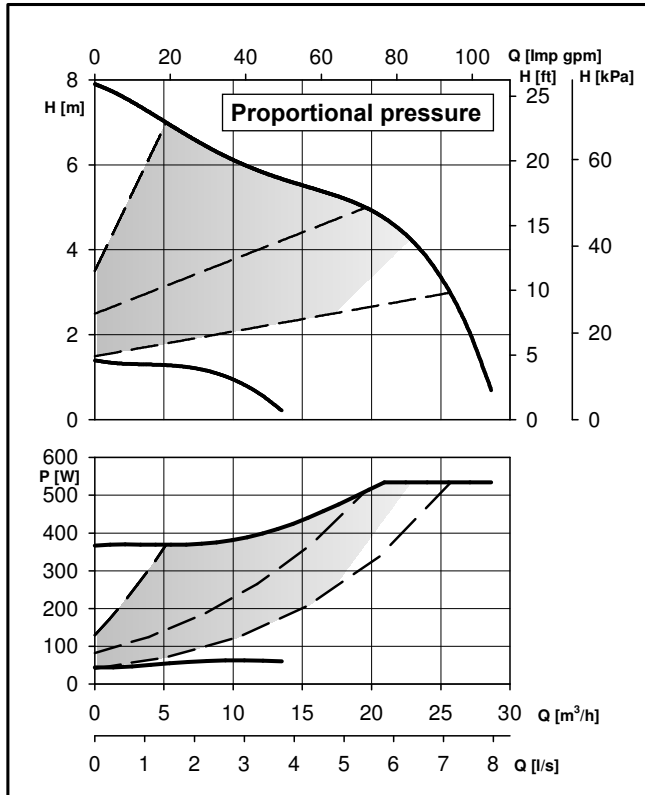
En-Rev_A



ecocirc XL-XLplus 40-120 F (B)		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_A

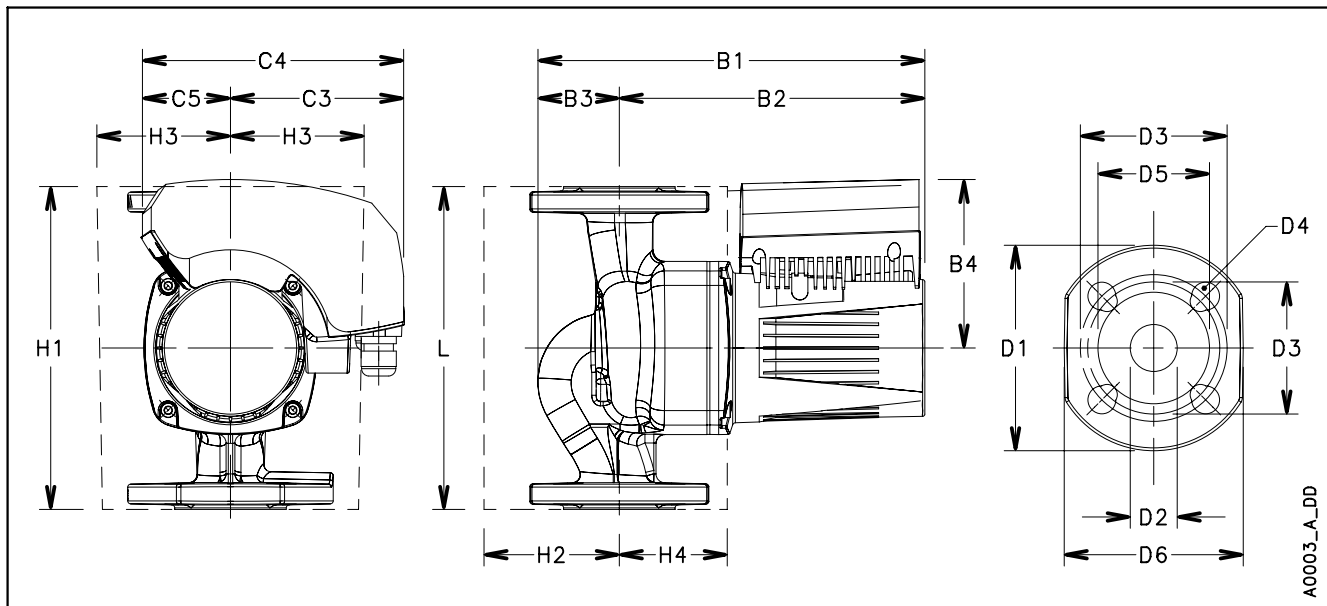
ecocirc XL-XLplus 50-80 F (B)



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 50-80 F (B)		Pump Data	
Rated voltage	1 x 230 V $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	44 / 534	Max. working pressure	1,0 MPa (10 bar)
Input current [A] (min/max)	0,4 / 2,3	Liquid temperature	-10°C (14°F) to +110 °C (230°F) for heating pumps
Specific EEI \leq	0,23		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

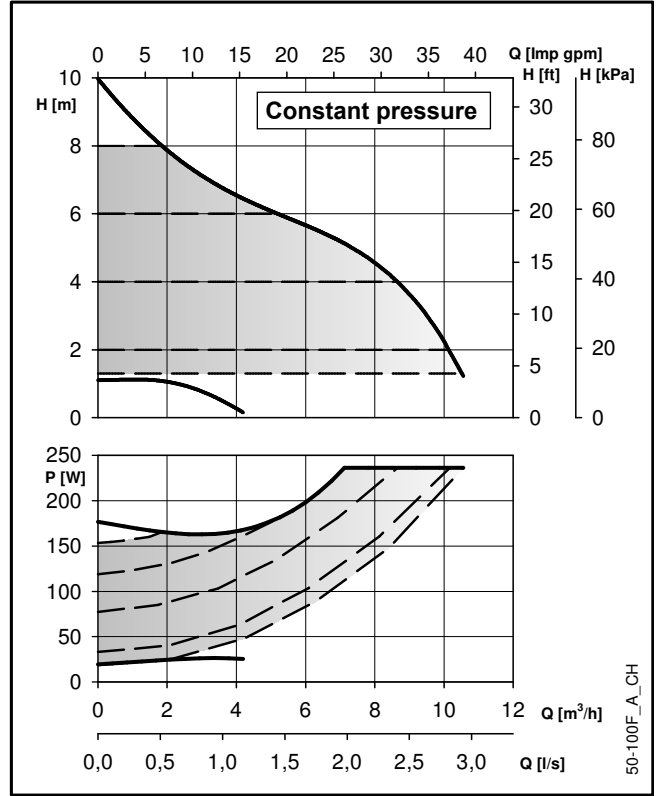
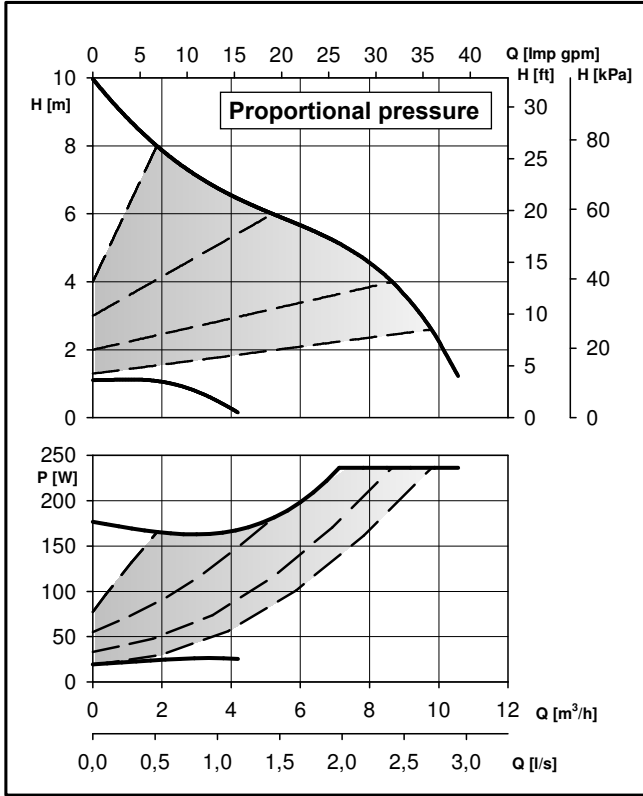


A0003_A_DD

ecocirc XL-XLplus 50-80 F (B)		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
280	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_A

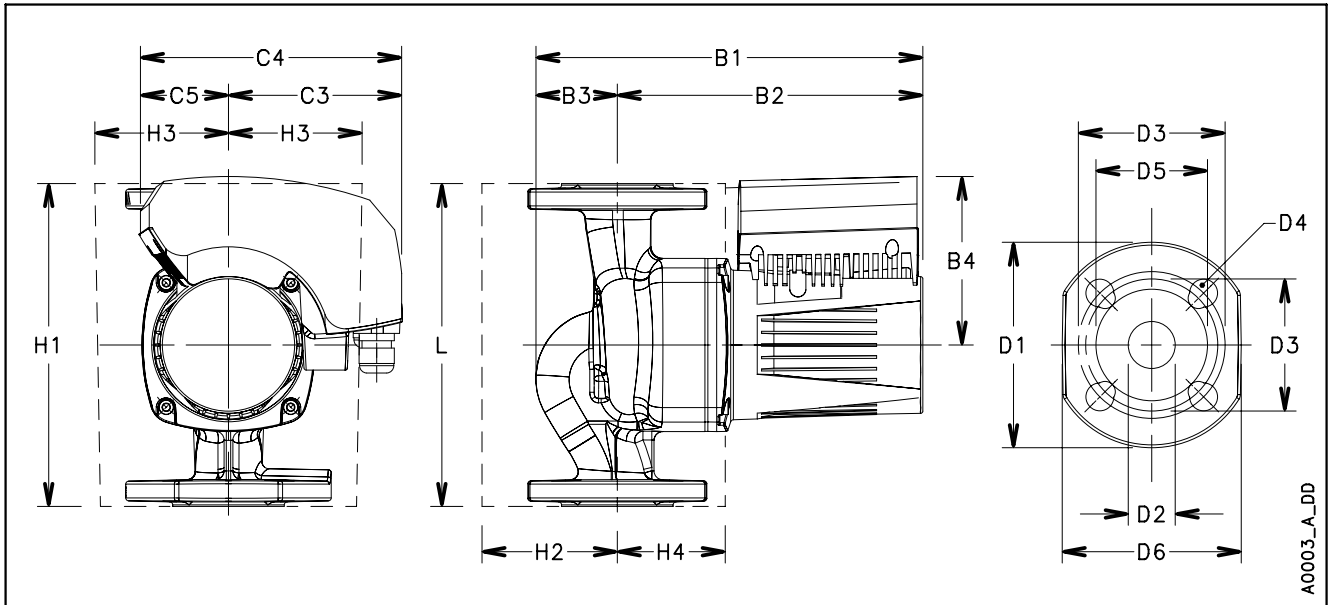
ecocirc XL-XLplus 50-100 F



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 50-100 F		Pump Data	
Rated voltage	1 x 230 V $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	19 / 236	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) for heating pumps
Specific EEI \leq	0,27		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

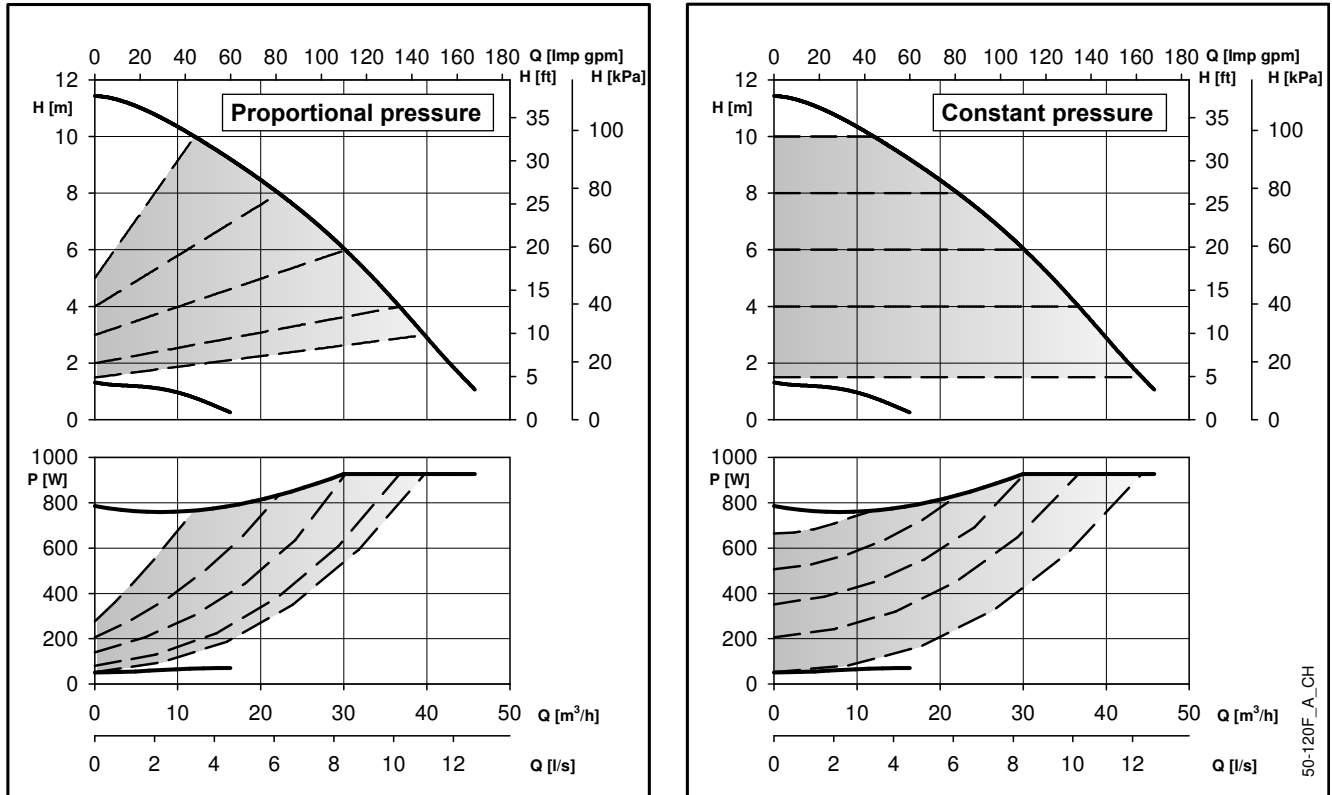


A0003_A_DD

ecocirc XL-XLplus 50-100 F		Dimensions (mm)										Net weight 12,3 (Kg) - Gross weight 15,8 (Kg)						
L	G	B1	B2	B3	B4	B5	C3	C4	C5	H1	H2	H3	H4	D1	D2	D3	D4	D5
240	DN 50	271	217	64	118	51	116	178	62	220	94	96	76	165	50	110/125	4 x 14/19	100

En-Rev_A

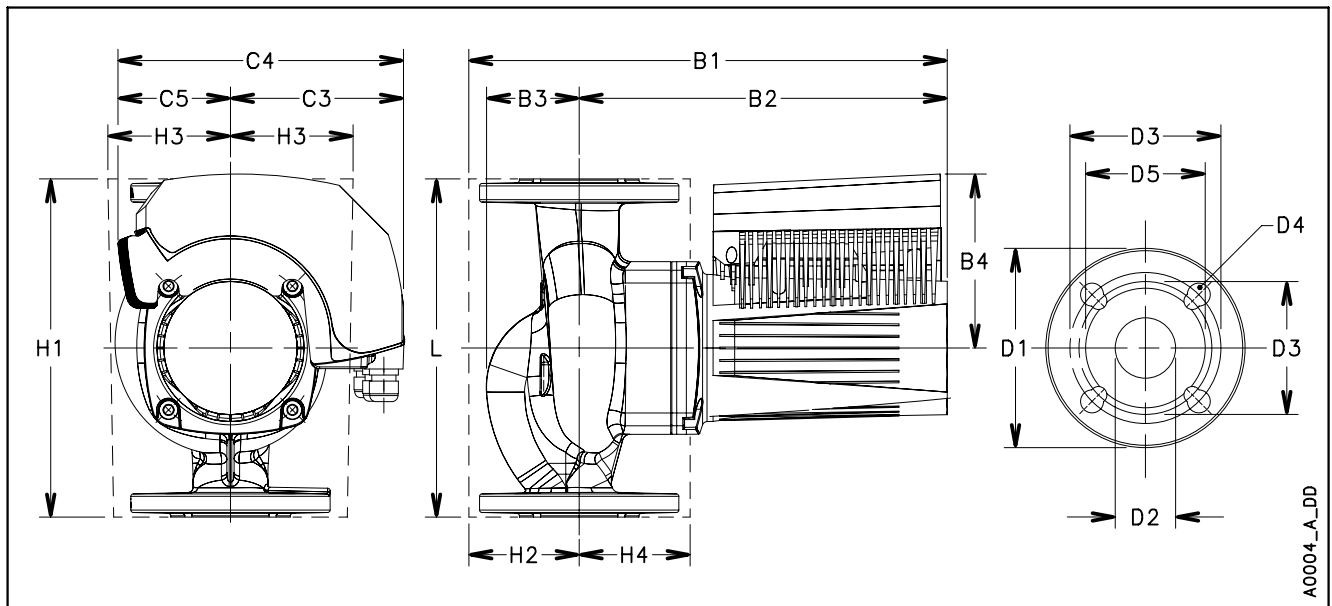
ecocirc XL-XLplus 50-120 F (B)



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 50-120 F (B)		Pump Data	
Rated voltage	1 x 230 V $\pm 10\%$	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) for heating pumps
Specific EEI \leq	0,23		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

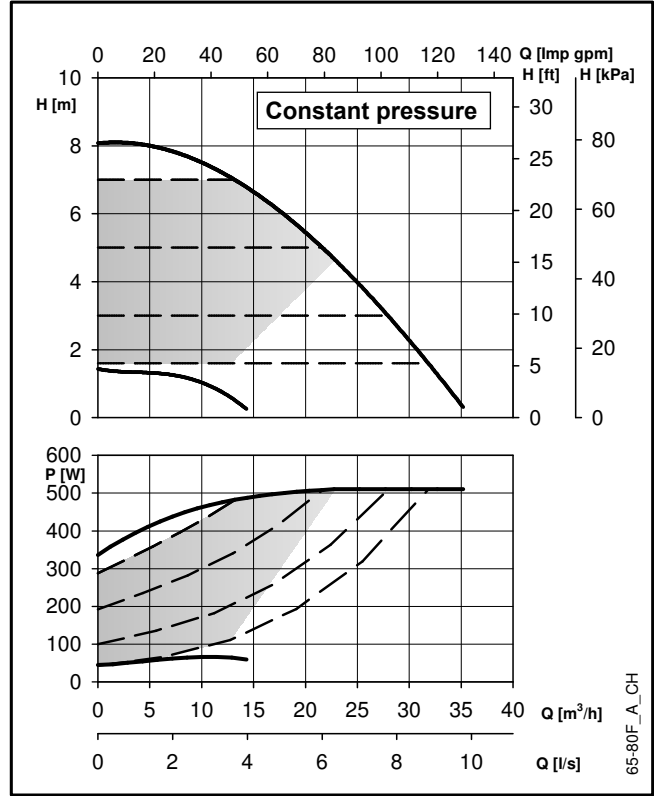
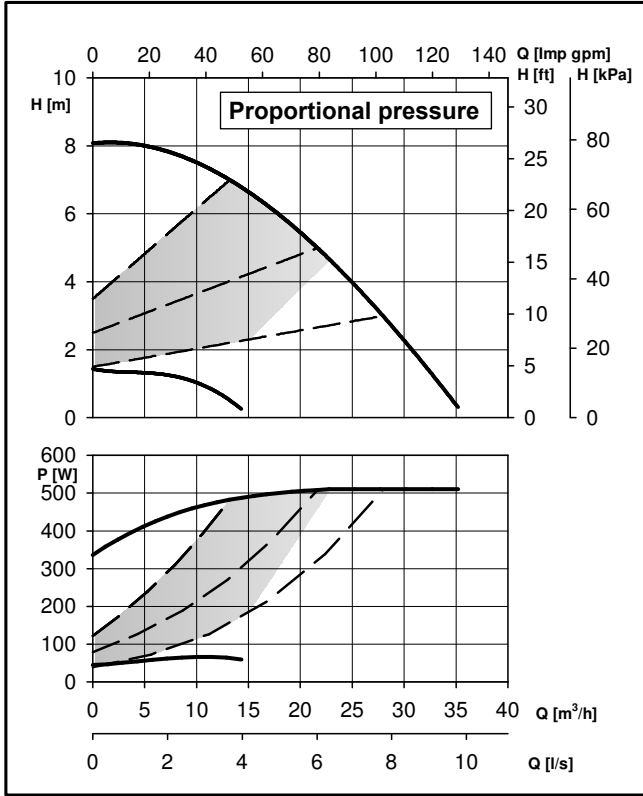


A0004_A_DD

ecocirc XL-XLplus 50-120 F (B)		Dimensions (mm)										Net weight 15,1 (Kg) - Gross weight 19 (Kg)						
L	G	B1	B2	B3	B4	B5	C3	C4	C5	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_A

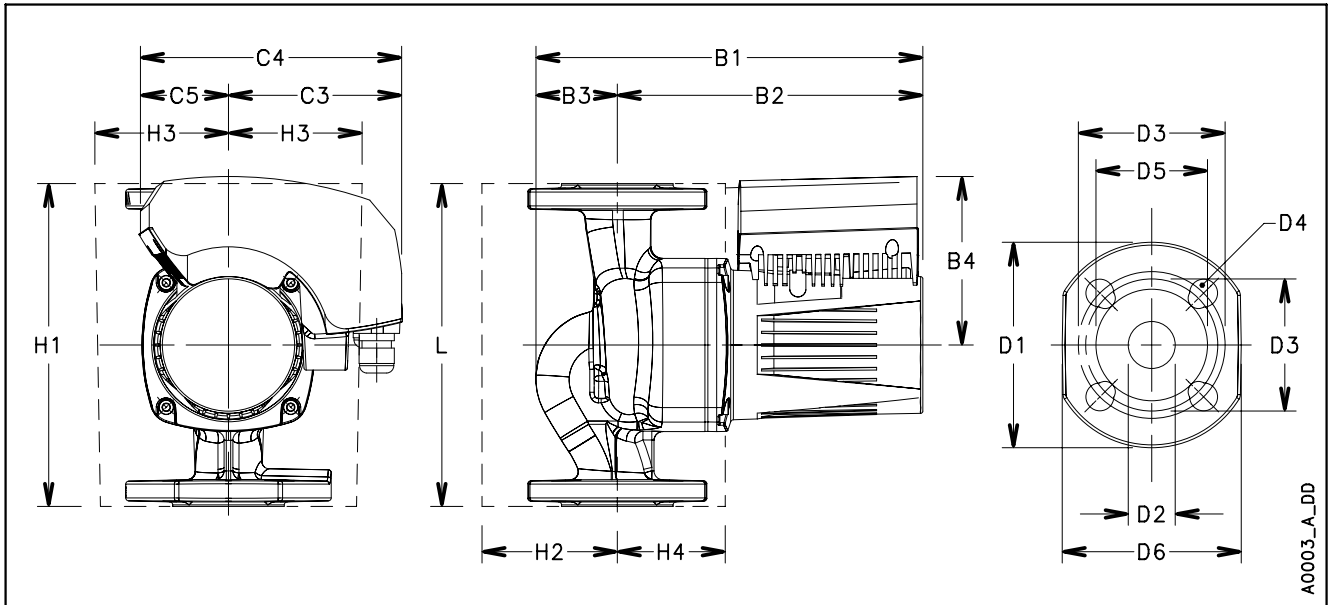
ecocirc XL-XLplus 65-80 F (B)



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 65-80 F (B)		Pump Data	
Rated voltage	1 x 230 V $\pm 10\%$	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) for heating pumps
Specific EEI \leq	0,23		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

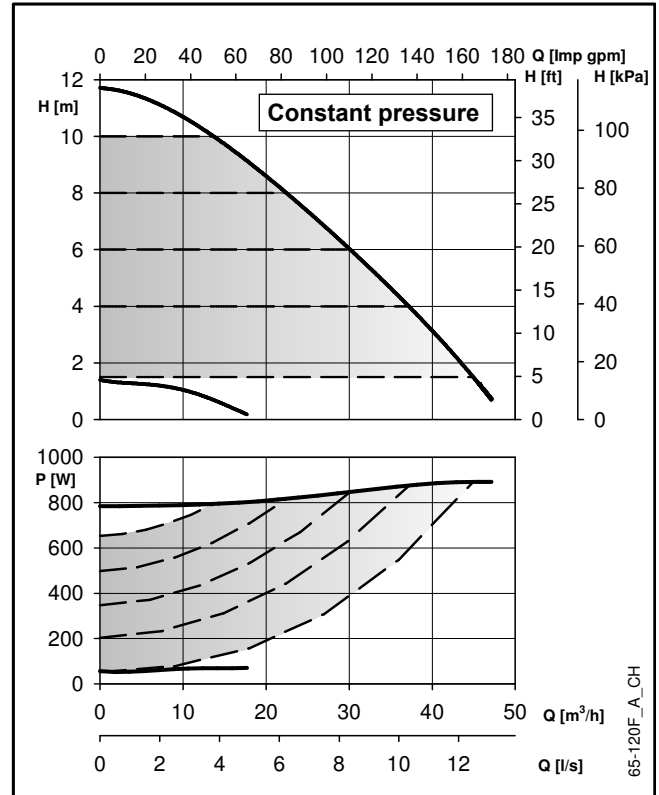
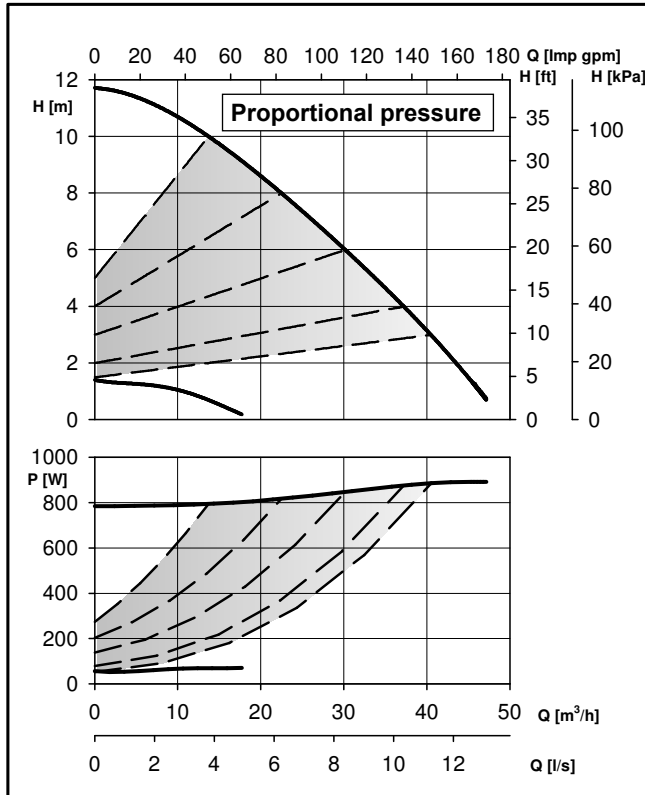


A0003_A_DD

ecocirc XL-XLplus 65-80 F (B)		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_A

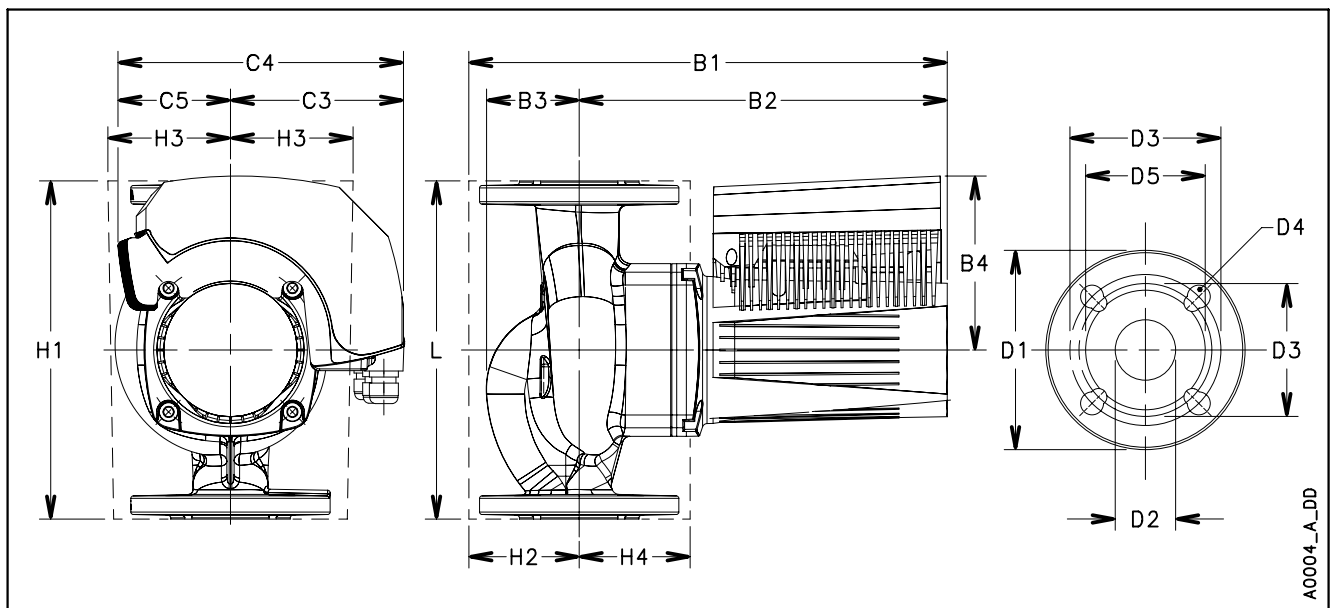
ecocirc XL-XLplus 65-120 F (B)



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 (B)		Pump Data	
Rated voltage	1 x 230 V $\pm 10\%$	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) for heating pumps
Specific EEI \leq	0,23		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

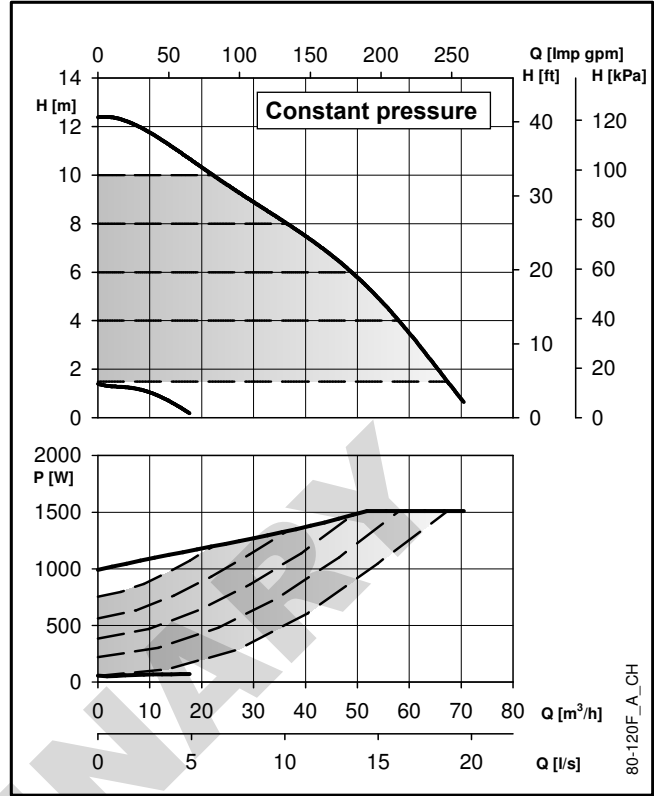
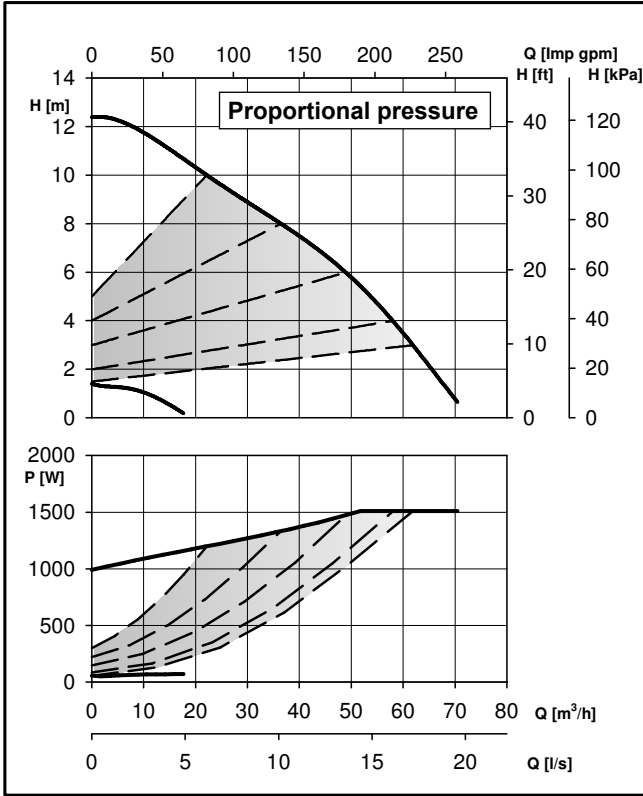


A0004_A_DD

ecocirc XL-XLplus 65-120 F (B)		Dimensions (mm)										Net weight 17,9 (Kg) - Gross weight 23,2 (Kg)						
L	G	B1	B2	B3	B4	B5	C3	C4	C5	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_A

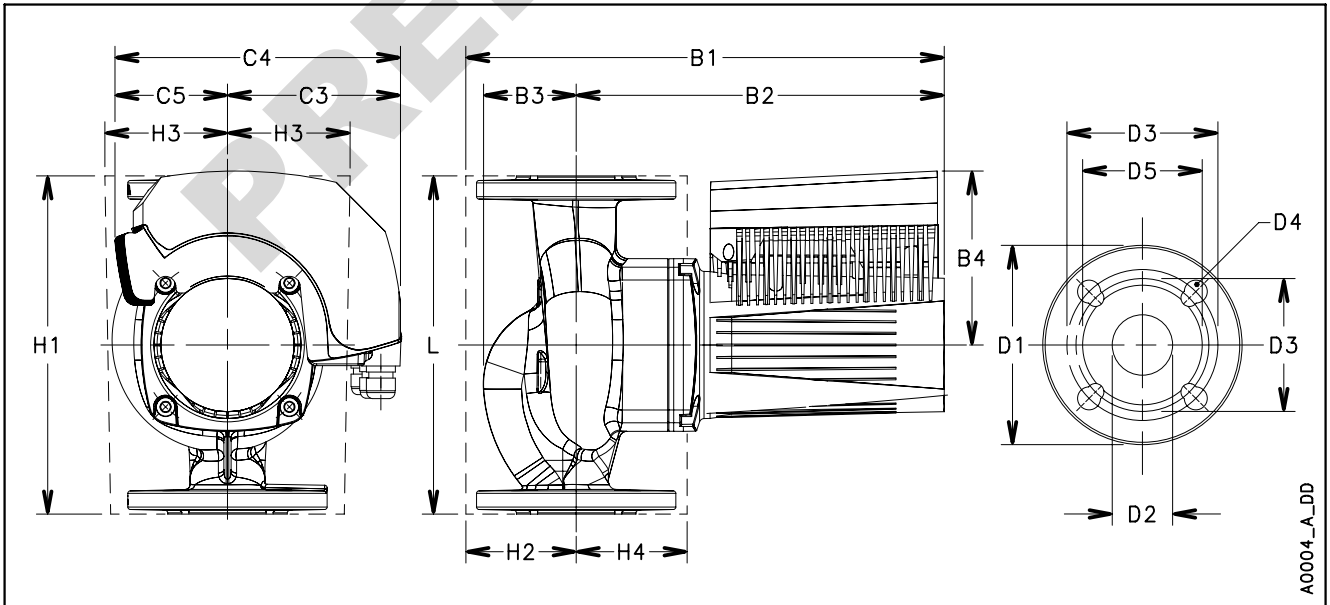
ecocirc XL-XLplus 80-120 F



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 $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	52 / 1511	Max. working pressure	0,6 MPa (6 bar) or 1,0 MPa (10 bar)
Input current [A] (min/max)	0,4 / 6,8	Liquid temperature	-10°C (14°F) to +110 °C (230°F) for heating pumps
Specific EEI \leq	0,23		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

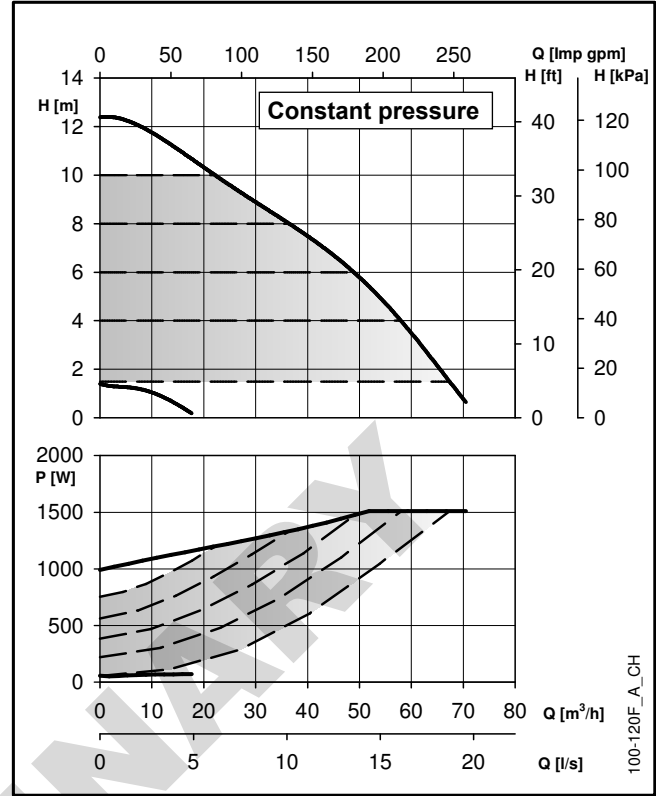
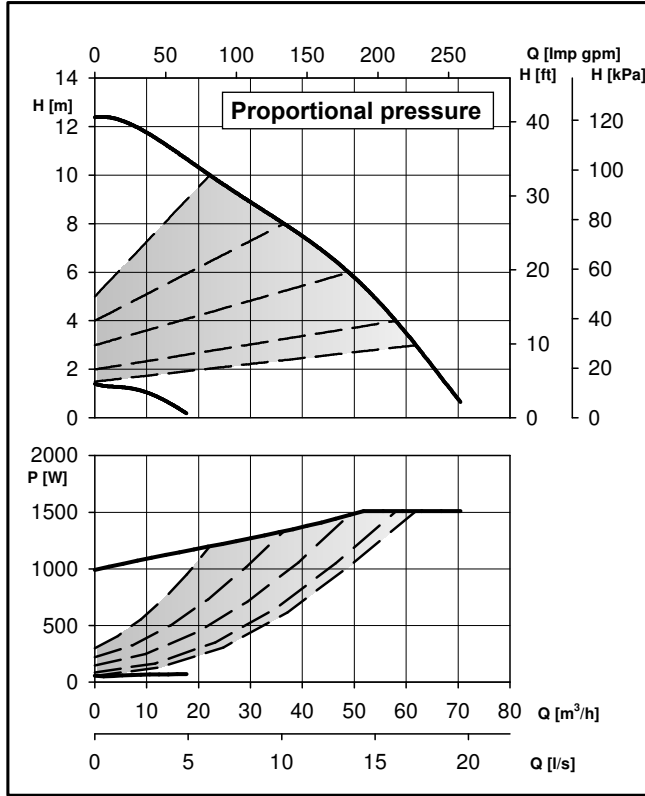


A0004_A_DD

ecocirc XL-XLplus 80-120 F		Dimensions (mm)										Net weight 22,2 (Kg) - Gross weight 27,6 (Kg)						
L	G	B1	B2	B3	B4	B5	C3	C4	C5	H1	H2	H3	H4	D1	D2	D3	D4	D5
360	DN 80	396	306	90	147	60	148	241	93	360	110	110	110	200	80	160	8 x 19	132

En-Rev_A

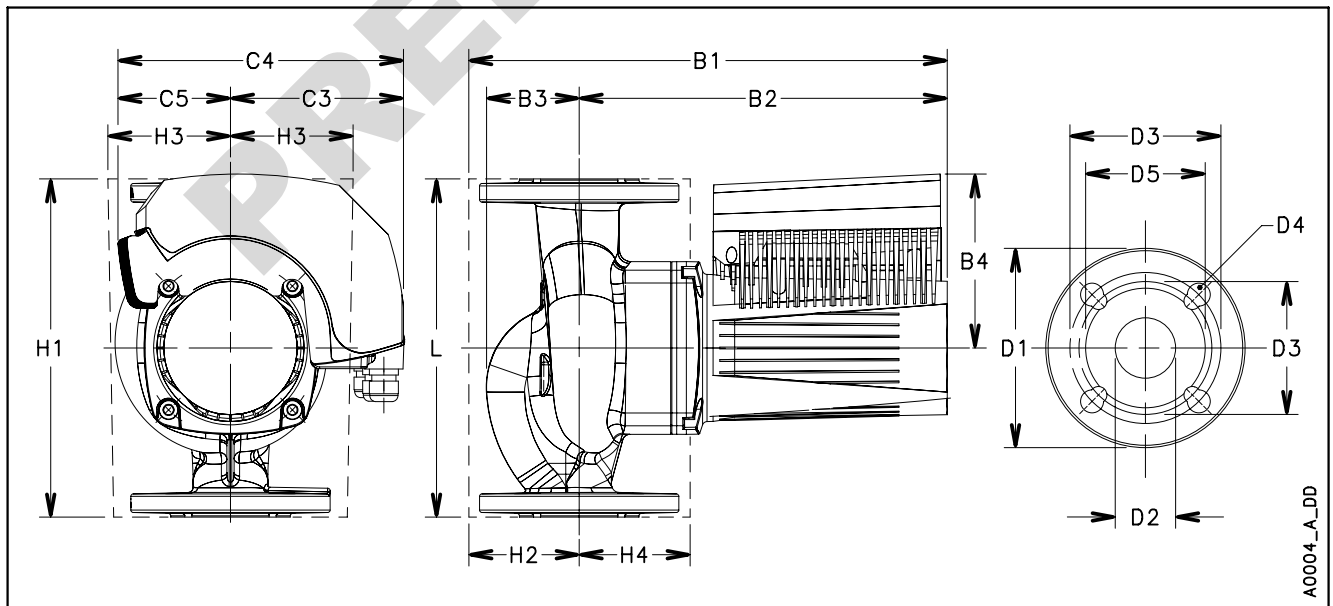
ecocirc XL-XLplus 100-120 F



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 100-120 F		Pump Data	
Rated voltage	1 x 230 V $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	52 / 1511	Max. working pressure	0,6 MPa (6 bar) or 1,0 MPa (10 bar)
Input current [A] (min/max)	0,4 / 6,8	Liquid temperature	-10°C (14°F) to +110 °C (230°F) for heating pumps
Specific EEI \leq	0,23		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

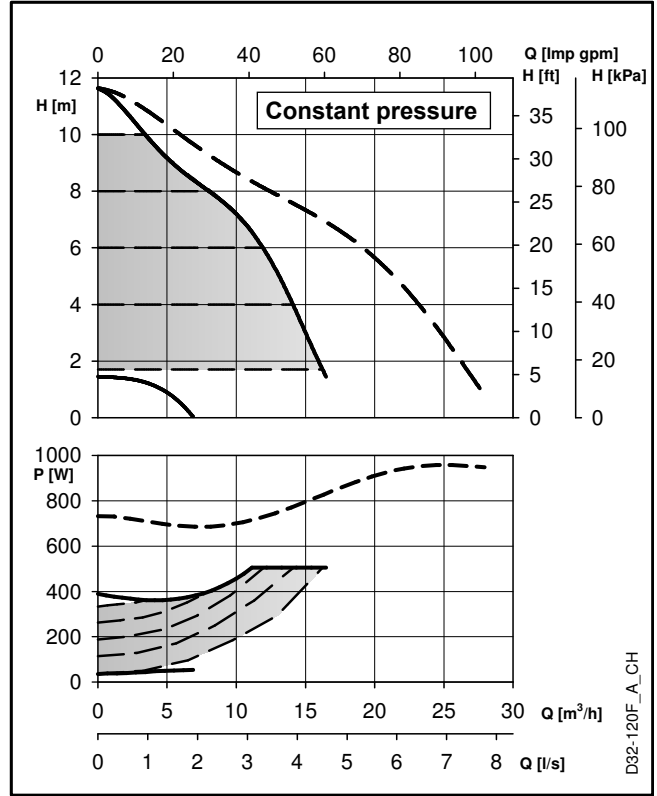
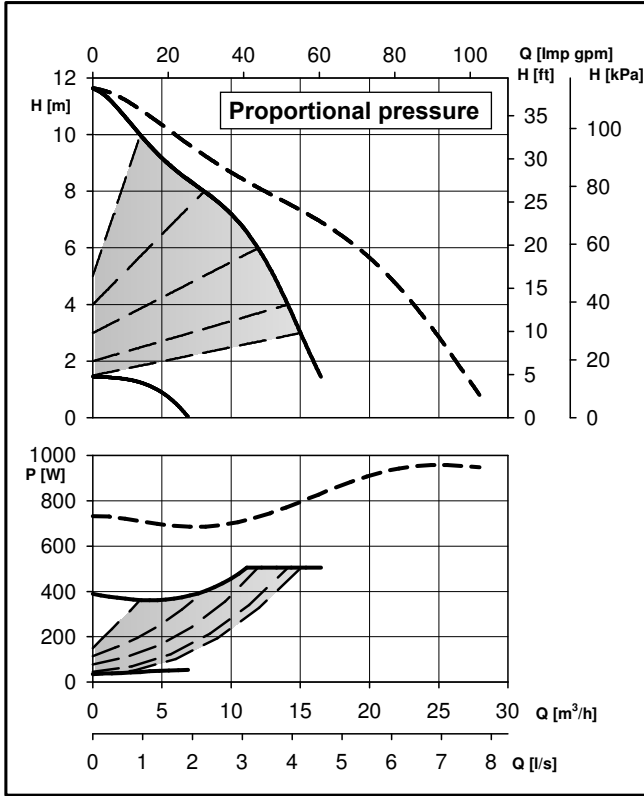


A0004_A_DD

ecocirc XL-XLplus 100-120 F (B)		Dimensions (mm)										Net weight 26,2 (Kg) - Gross weight 31,6 (Kg)						
L	G	B1	B2	B3	B4	B5	C3	C4	C5	H1	H2	H3	H4	D1	D2	D3	D4	D5
360	DN 100	403	306	97	147	60	148	241	93	360	120	120	120	220	100	180	8 x 19	156

En-Rev_A

ecocirc XL-XLplus D32-120 F

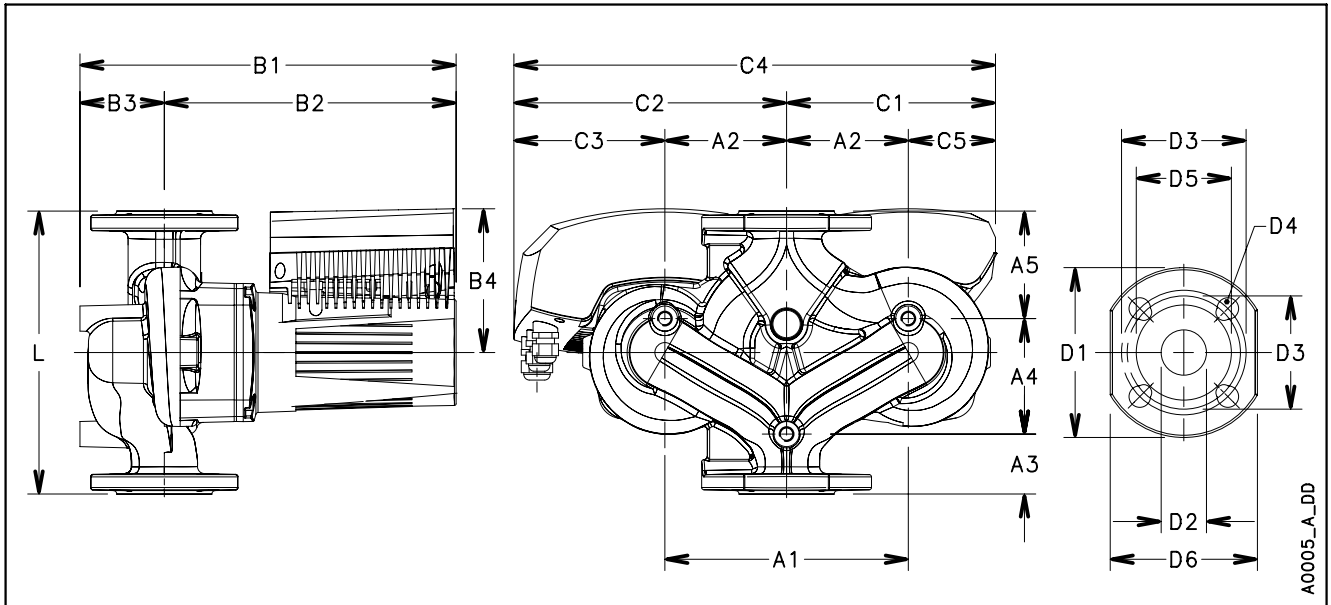


D32-120F_A_CH

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 $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	36 / 505	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) for heating pumps
Specific EEI \leq	0,27		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

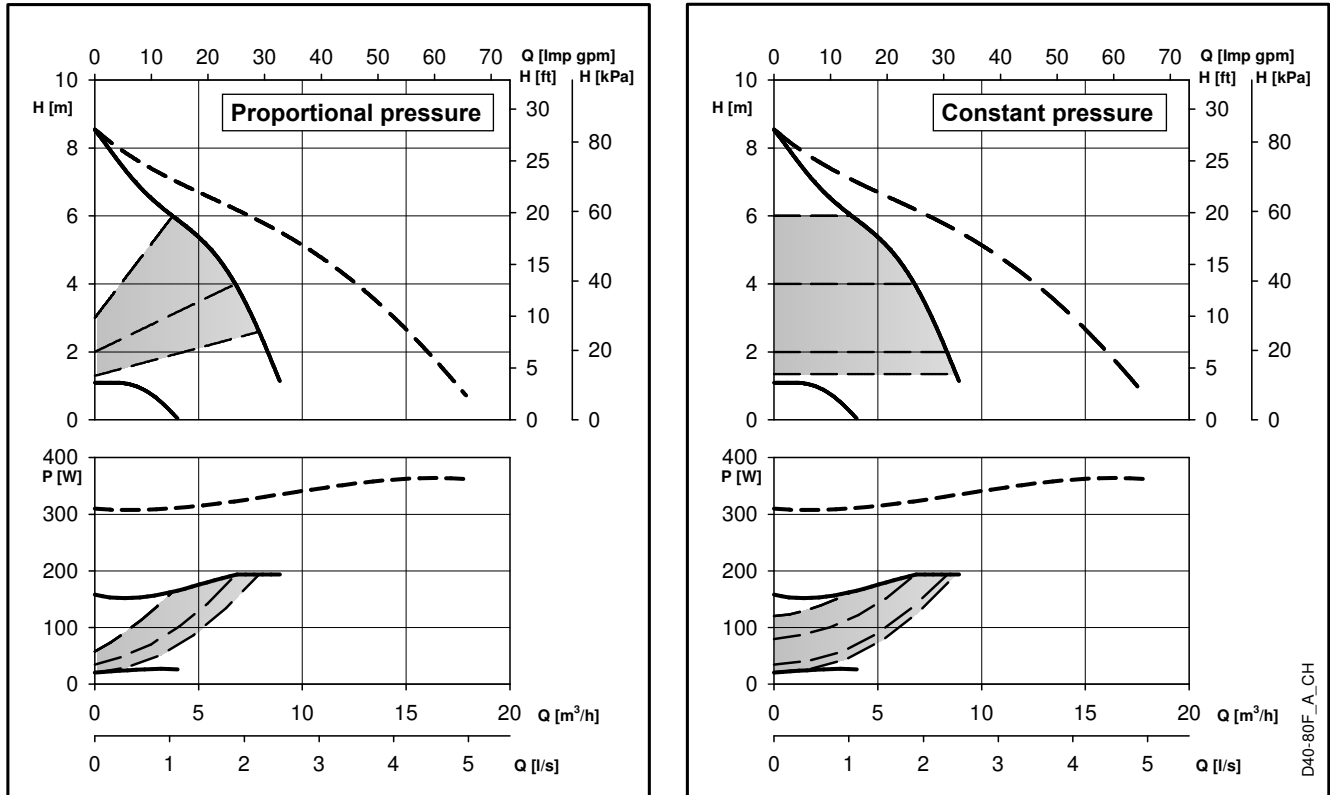


A0005_A_DD

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

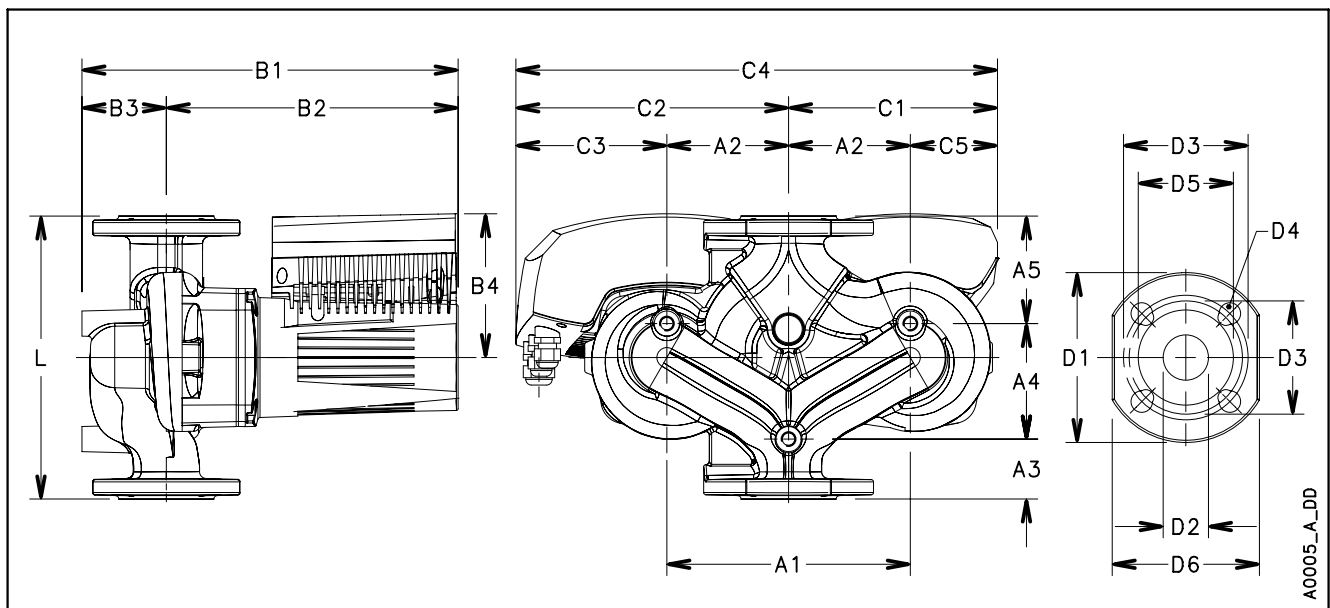
ecocirc XL-XLplus D40-80 F



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 D40-80 F		Pump Data	
Rated voltage	1 x 230 V $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	21 / 194	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) for heating pumps
Specific EEI \leq	0,27		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

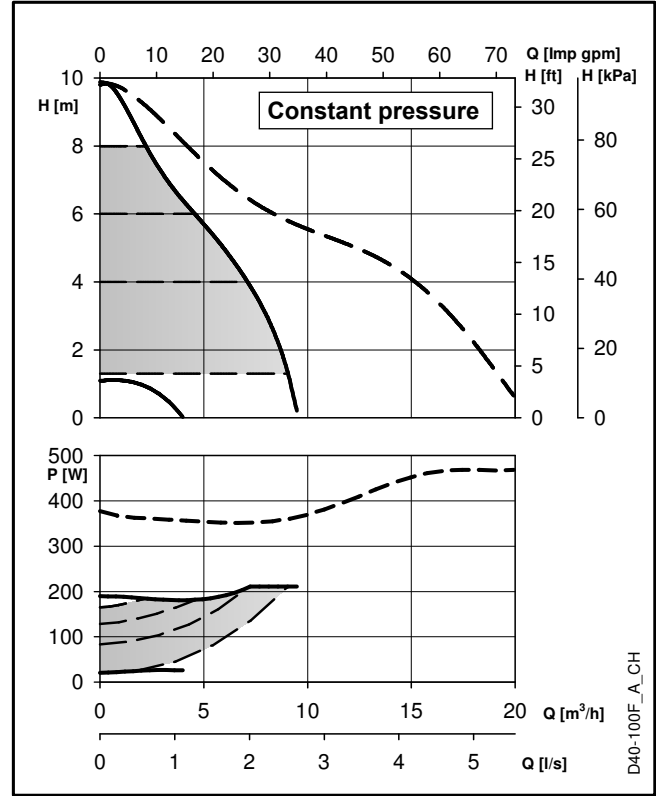
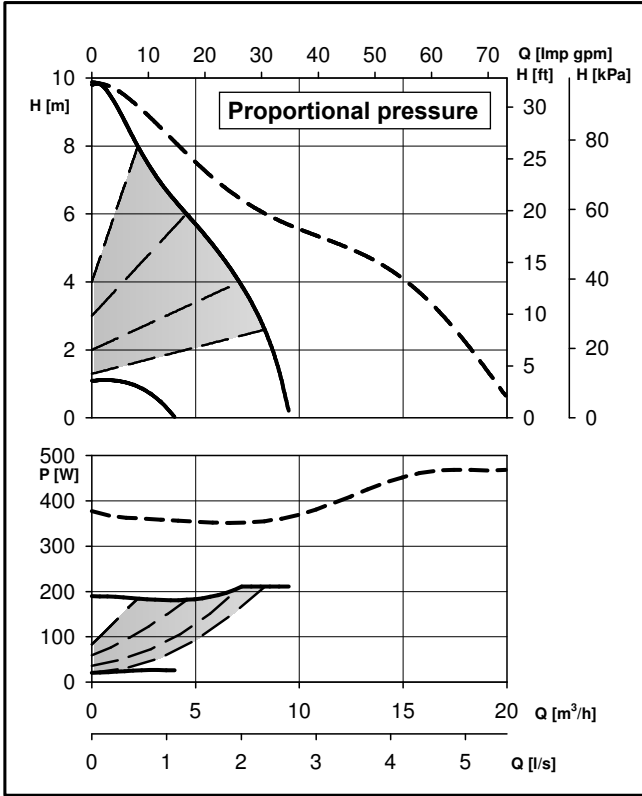


A0005_A_DD

ecocirc XL-XLplus D40-80 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 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

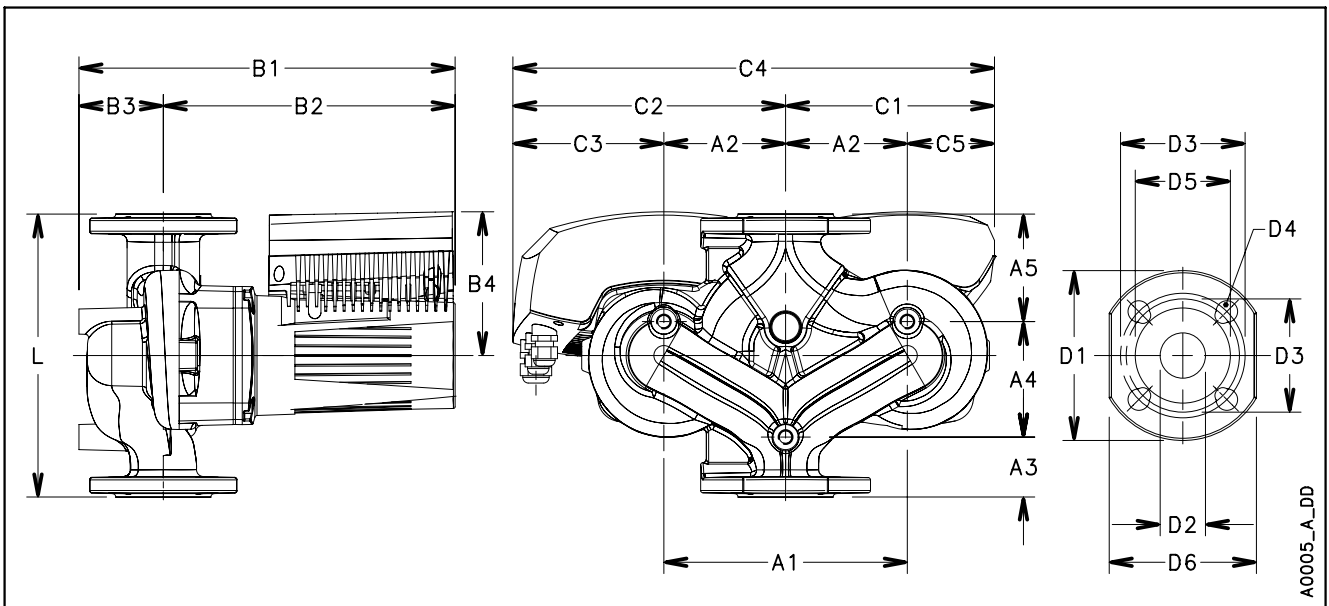


D40-100F_A_CH

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 $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	21 / 211	Max. working pressure	1,0 MPa (10 bar)
Input current [A] (min/max)	0,2 / 1,5	Liquid temperature	-10°C (14°F) to +110 °C (230°F) for heating pumps
Specific EEI \leq	0,27		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

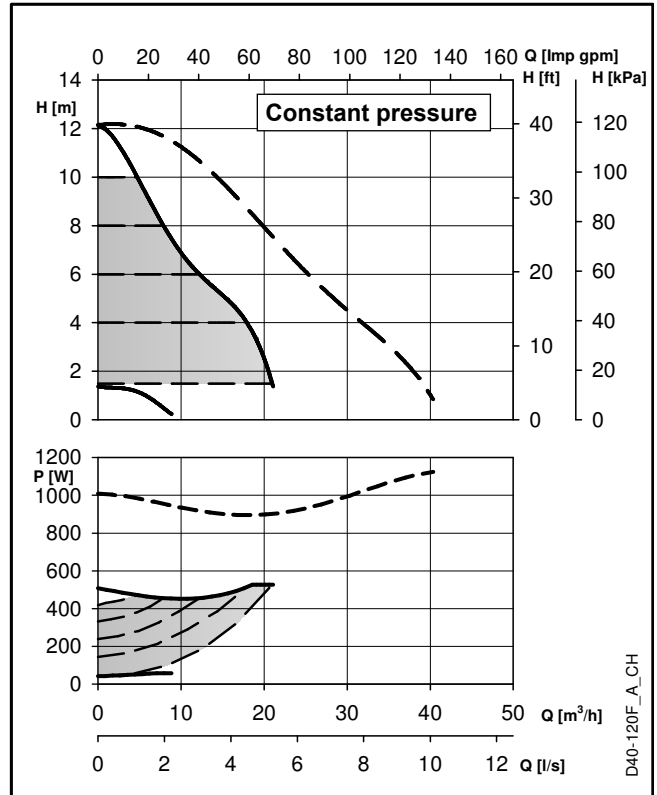
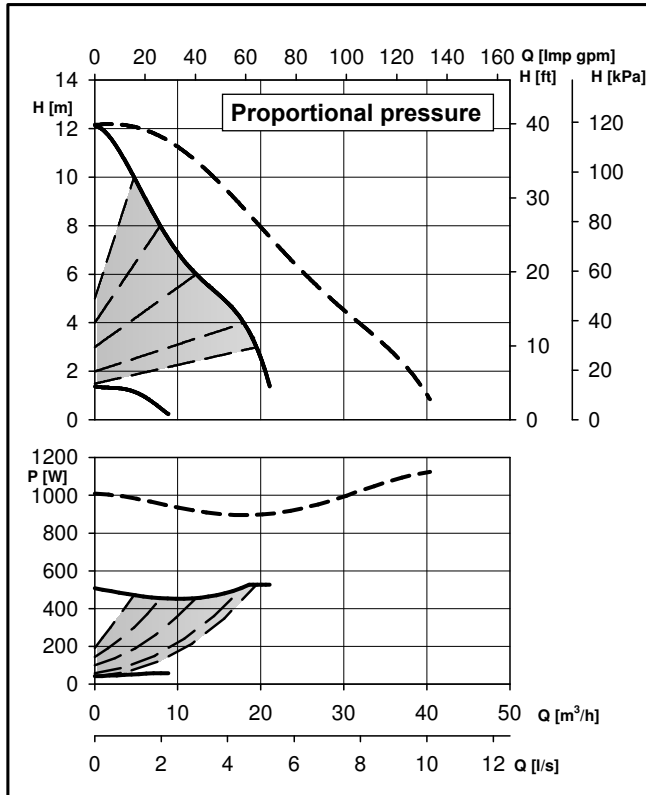


A0005_A_DD

ecocirc XL-XLplus D40-100 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 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

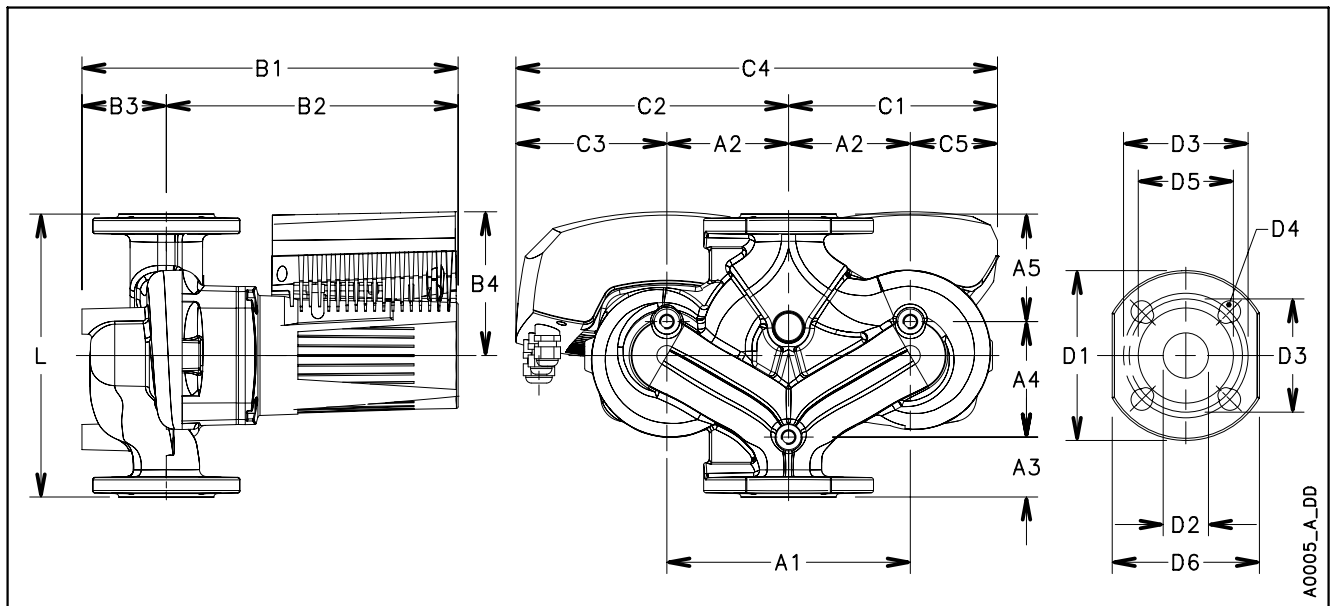
ecocirc XL-XLplus D40-120 F



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 $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	43 / 527	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) for heating pumps
Specific EEI \leq	0,27		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

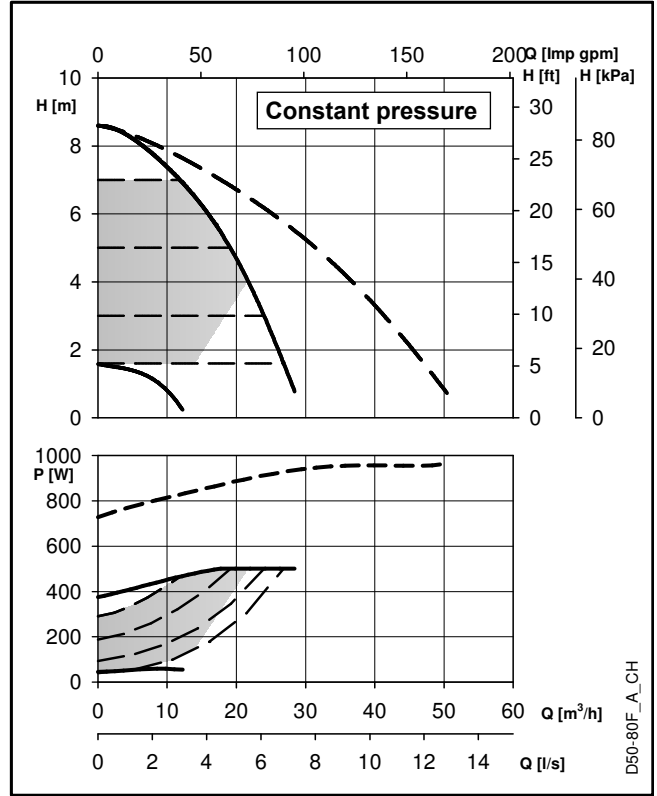
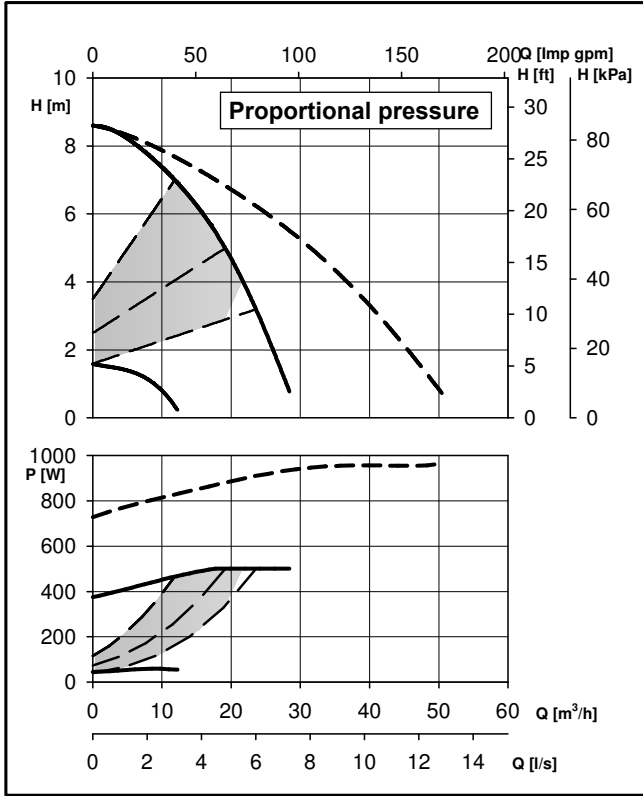
En-Rev_A



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

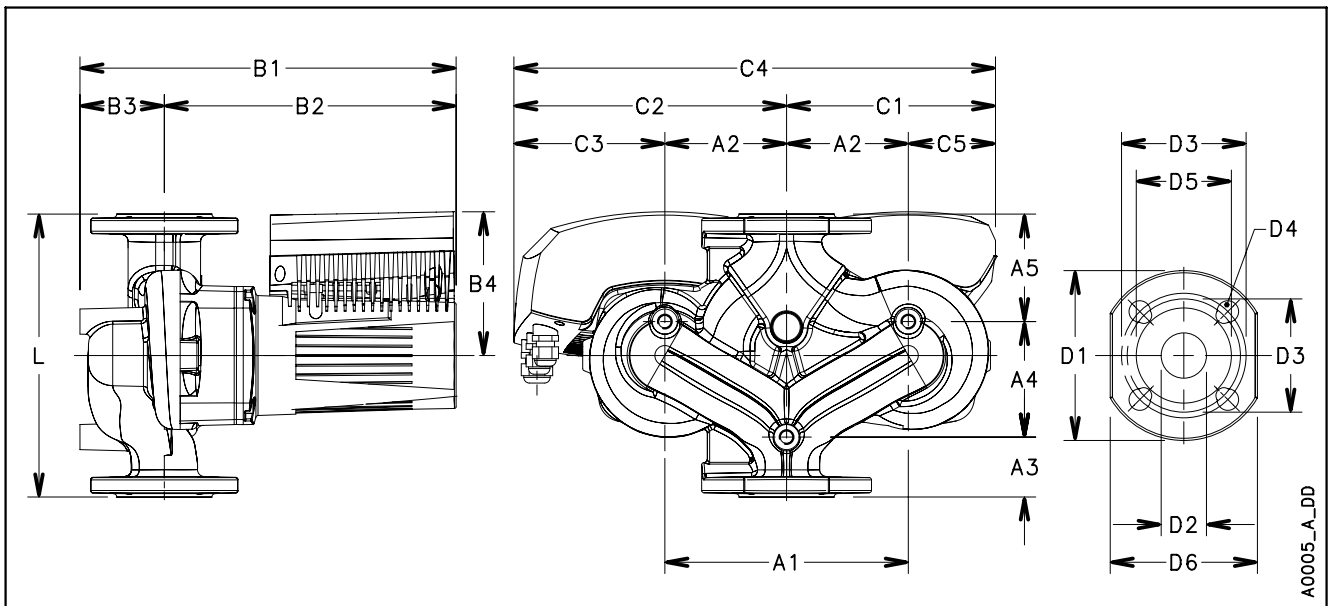
ecocirc XL-XLplus D50-80 F



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 $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	45 / 501	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) for heating pumps
Specific EEI \leq	0,27		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

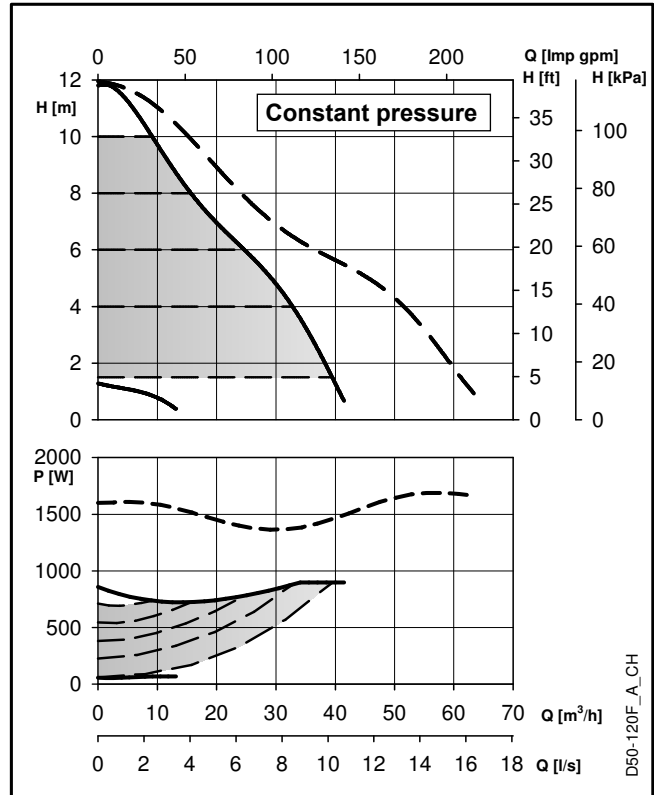
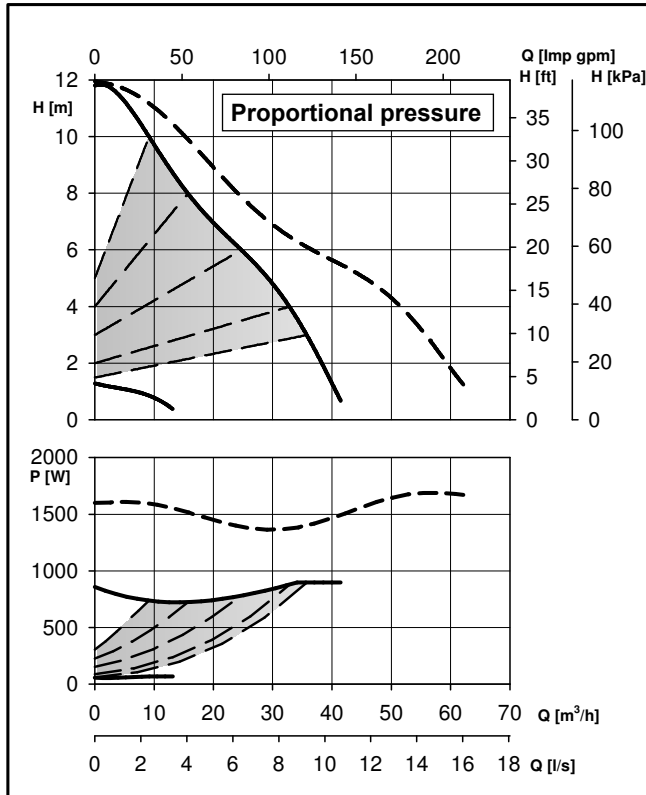


A0005_A_DD

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
280	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_A

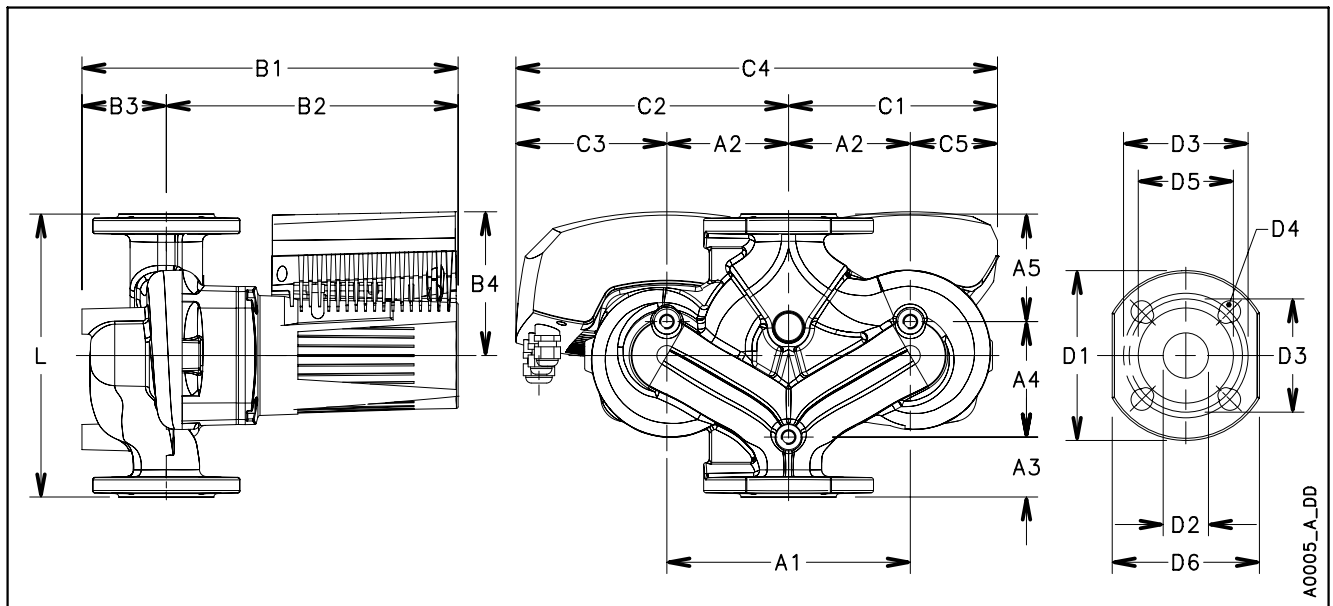
ecocirc XL-XLplus D50-120 F



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 $\pm 10\%$	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) for heating pumps
Specific EEI \leq	0,27		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

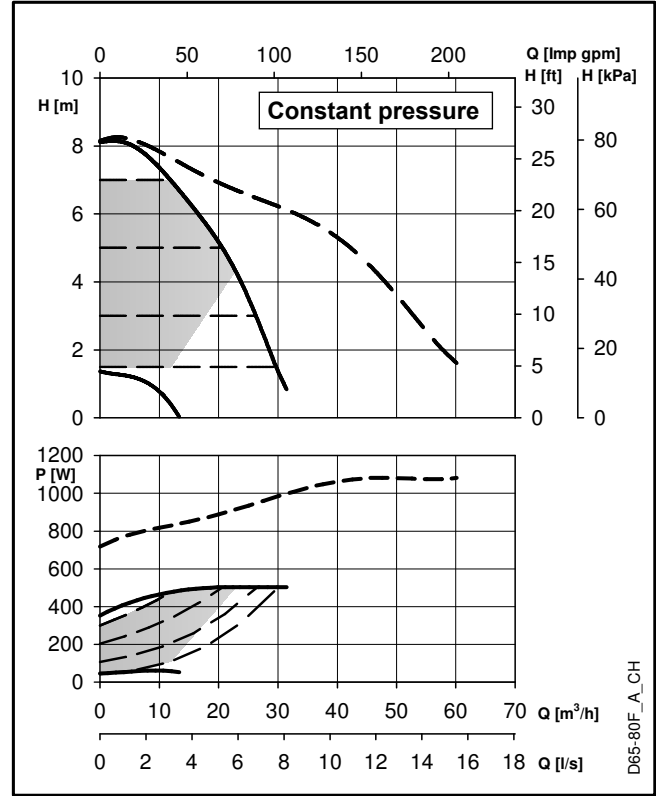
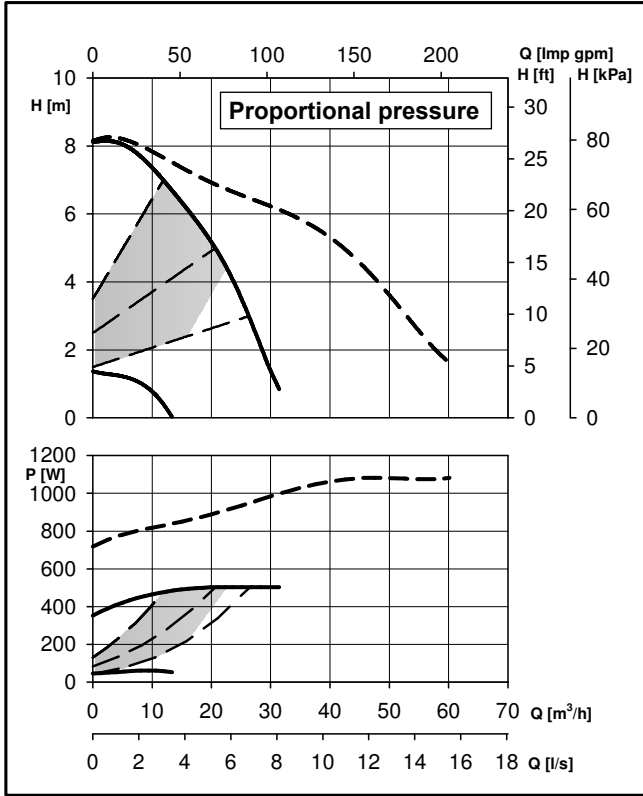


A0005_A_DD

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 D65-80 F

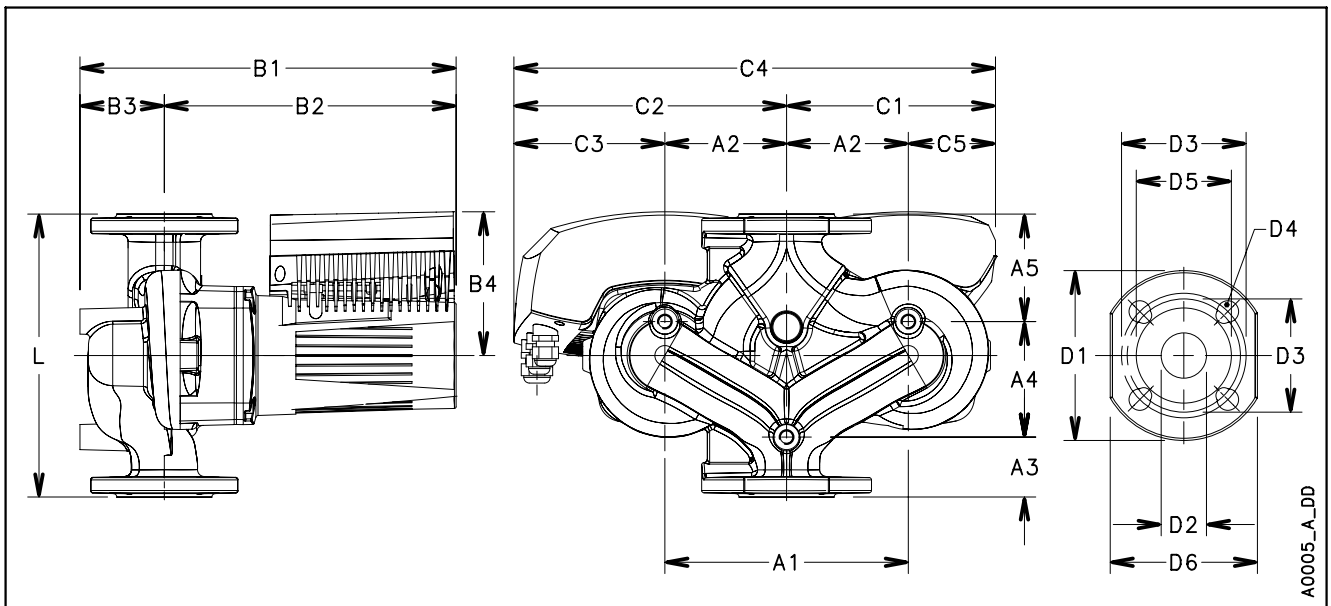


D65-80F_A_CH

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 $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	46 / 502	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) for heating pumps
Specific EEI \leq	0,27		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

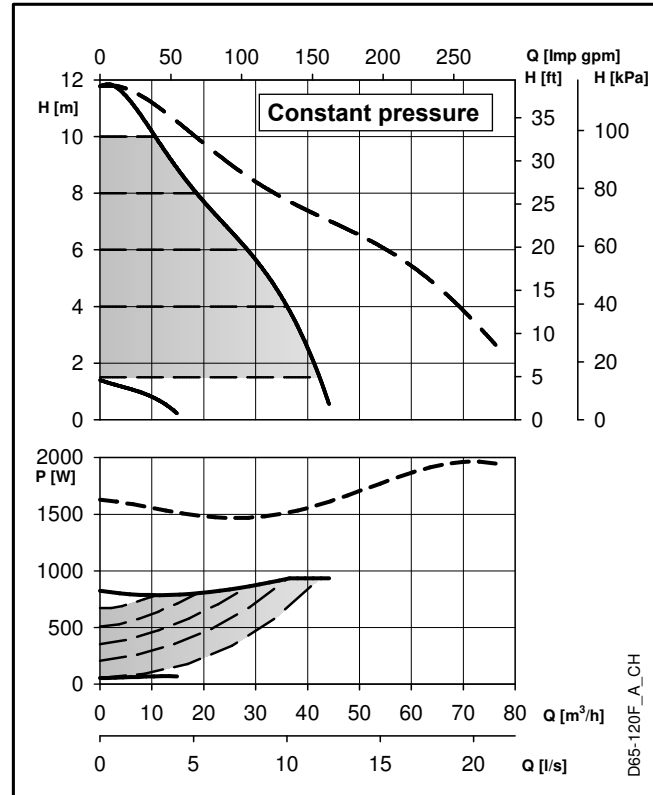
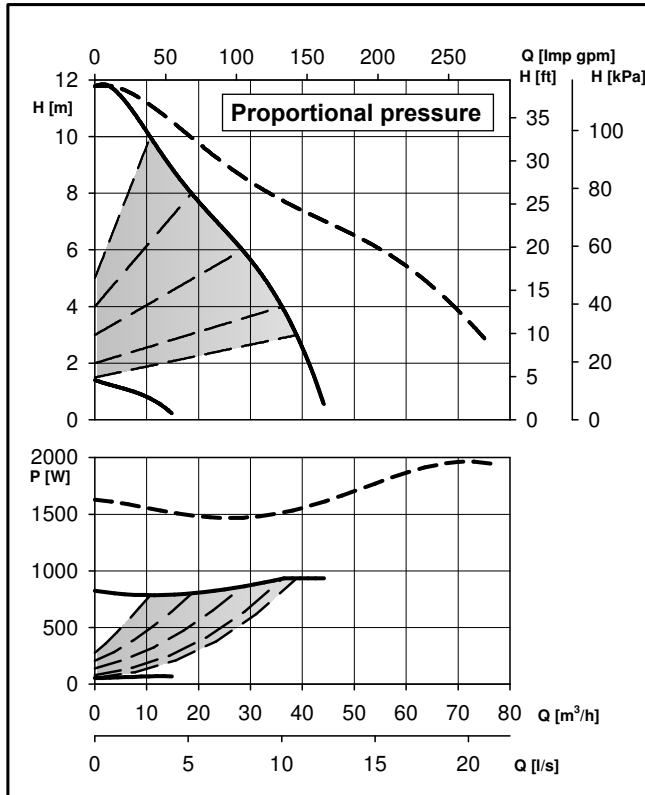


A0005_A_DD

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

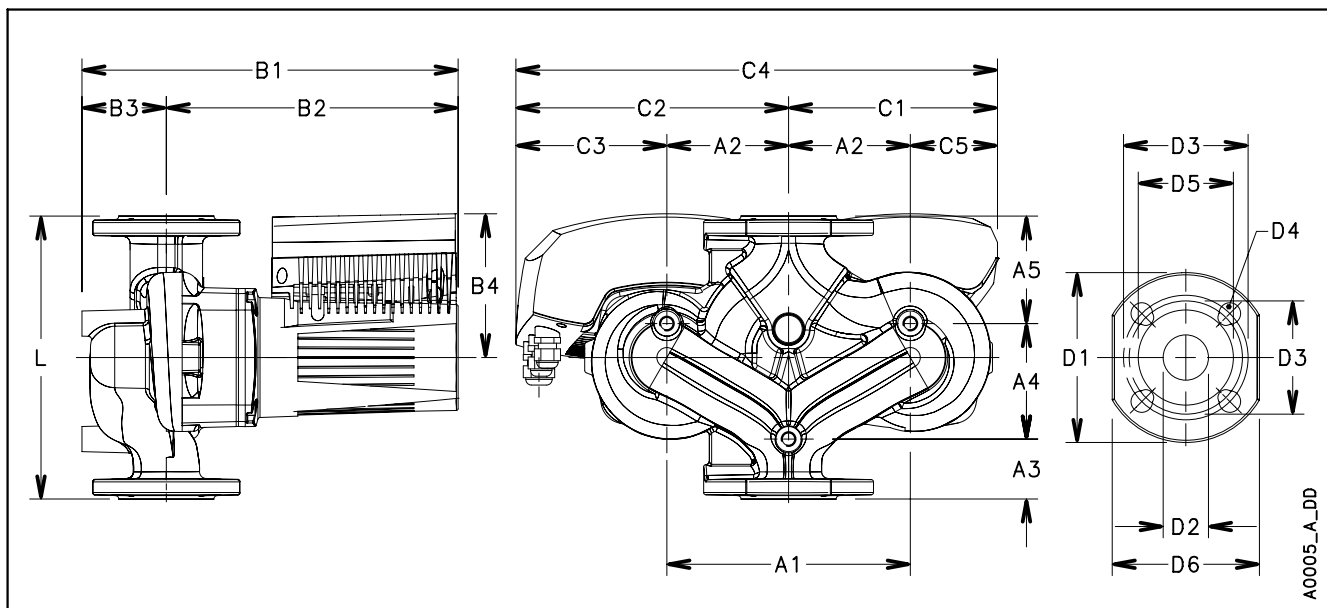
ecocirc XL-XLplus D65-120 F



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 $\pm 10\%$	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) for heating pumps
Specific EEI \leq	0,27		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A

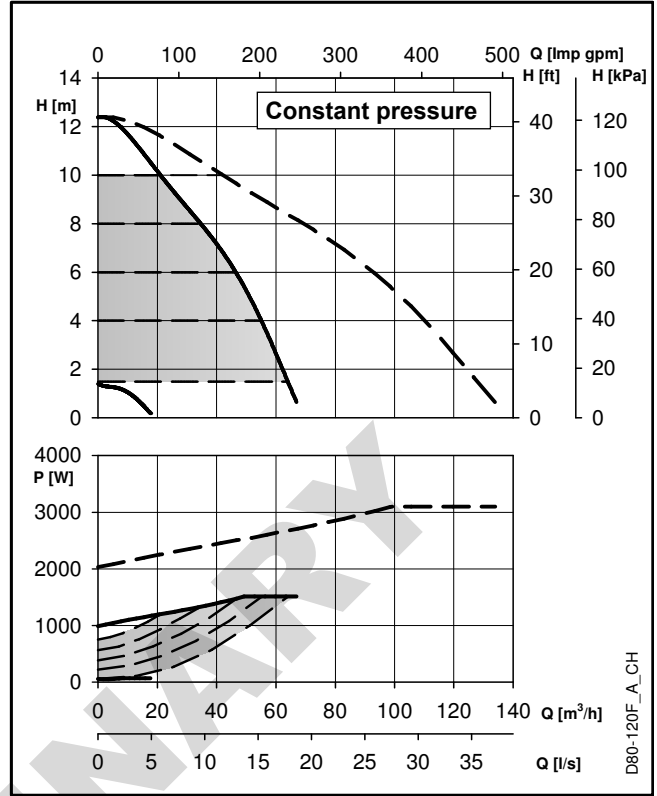
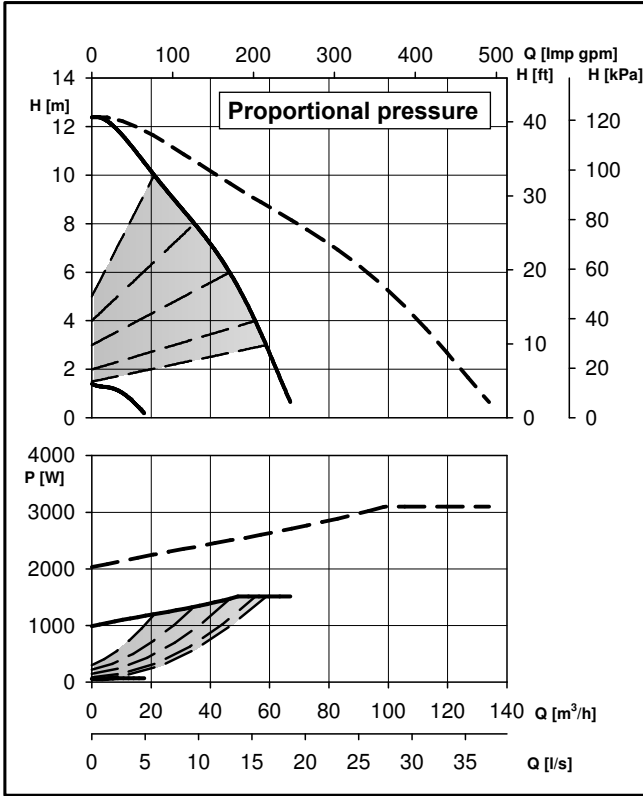


A0005_A_DD

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	202	268	148	470	93	240	120	55	155	130	185	65	130/145	4 x 14/19	118

En-Rev_A

ecocirc XL-XLplus D80-120 F

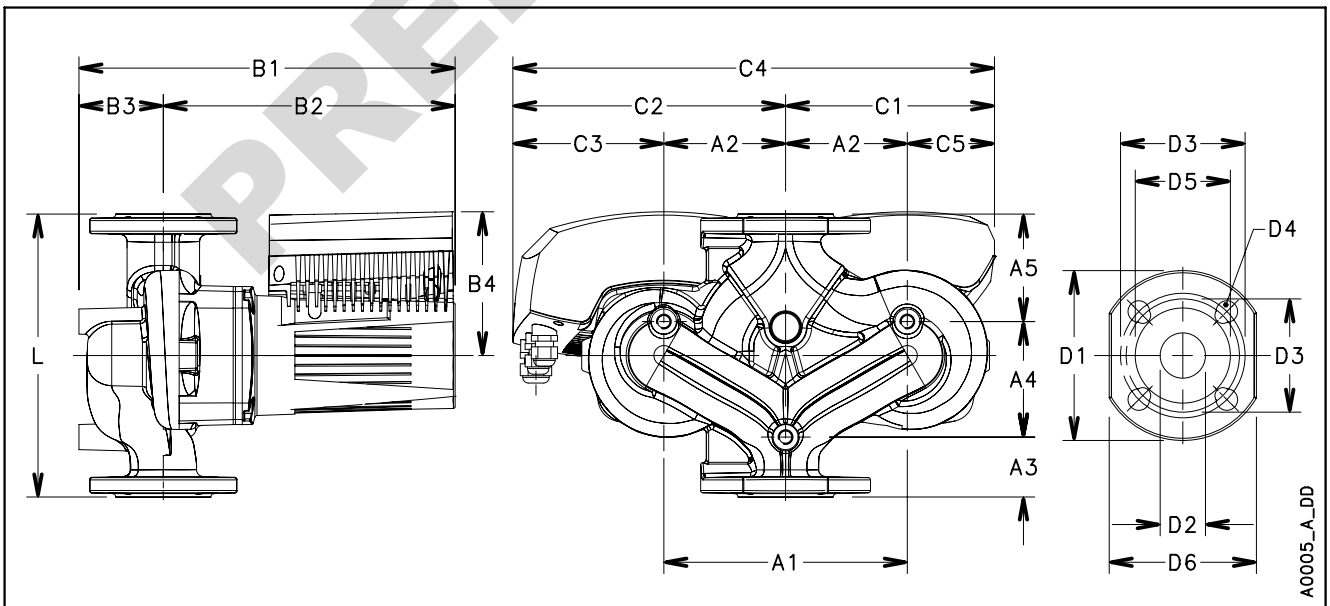


D80-120F_A_CH

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 $\pm 10\%$	IP protection	44
Frequency	50/60 Hz	Insulation class	155 (F)
Power absorbed [W] (min/max)	52 / 1511	Max. working pressure	0,6 MPa (6 bar) or 1,0 MPa (10 bar)
Input current [A] (min/max)	0,4 / 6,8	Liquid temperature	-10°C (14°F) to +110 °C (230°F) for heating pumps
Specific EEI \leq	0,27		-10°C (14°F) to +85 °C (185°F) for domestic hot water pumps

En-Rev_A



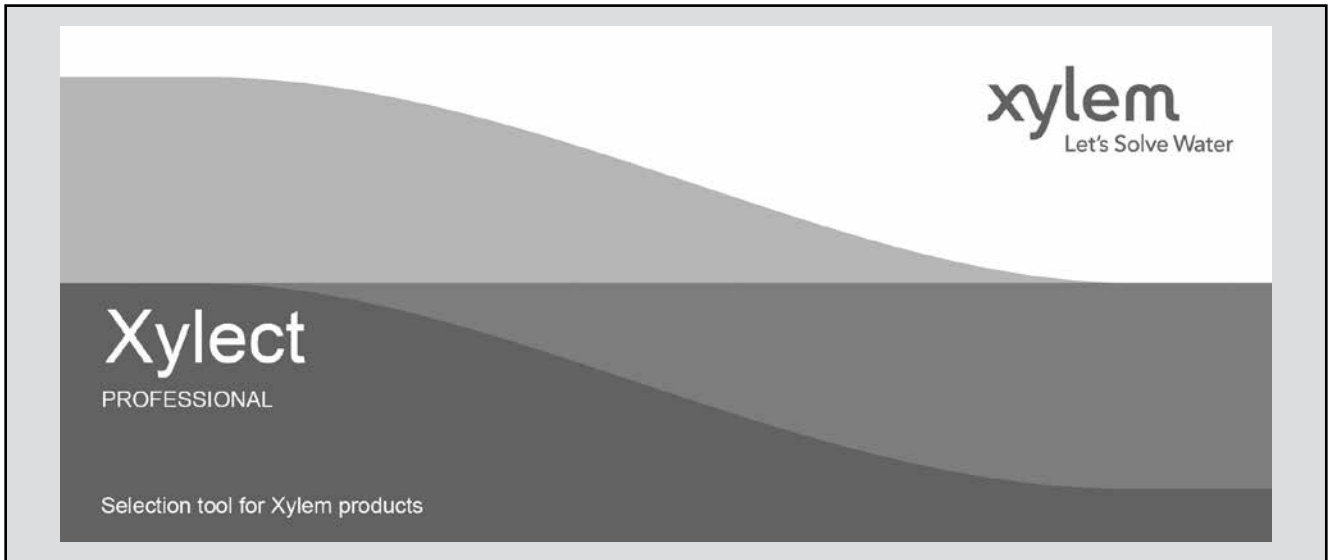
A0005_A_DD

ecocirc XL-XLplus D80-120 F		Dimensions (mm)										Net weight 51,3 (Kg) - Gross weight 61,8 (Kg)									
L	G	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5	A1	A2	A3	A4	A5	D1	D2	D3	D4	D5
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_A

FURTHER PRODUCT SELECTION AND DOCUMENTATION

Xylect™



Xylect™ is pump solution selection software with an extensive online database of product information across the entire Lowara, and Vogel 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.

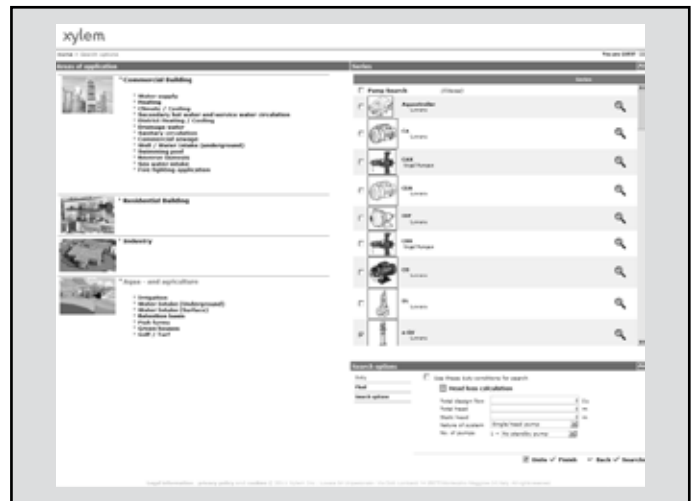
The possibility to search by applications and the detailed information output given makes it easy to make the optimal selection without having detailed knowledge about the Lowara and Vogel products.

The search can be made by:

- Application
- Product type
- Duty point

Xylect™ gives a detailed output:

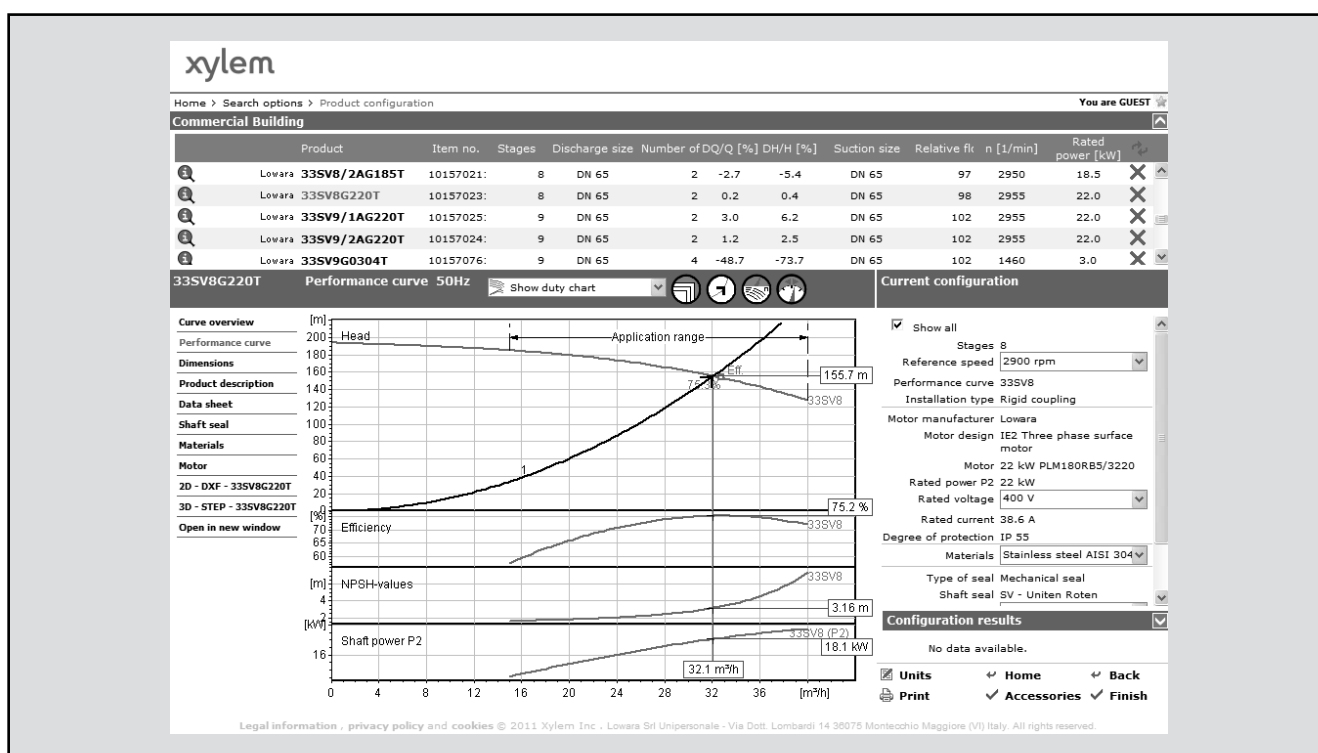
- List with search results
- Performance curves (flow, head, power, efficiency, NPSH)
- Motor data
- Dimensional drawings
- Options
- Data sheet printouts
- Document downloads incl dxf files



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

FURTHER PRODUCT SELECTION AND DOCUMENTATION

Xylect™



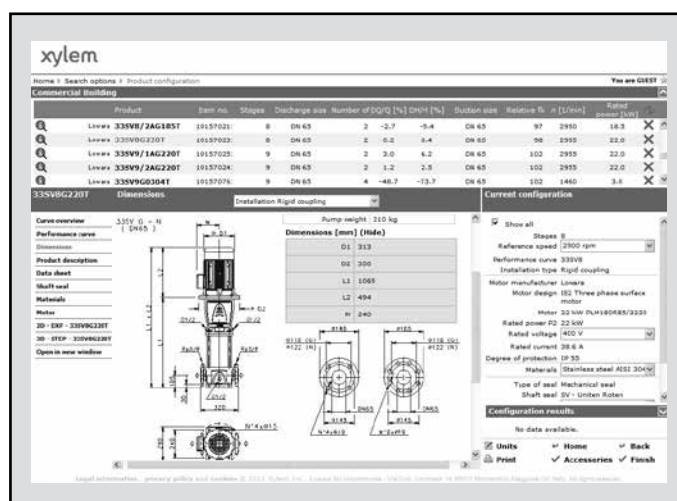
The detailed output makes it easy to select the optimal pump from the given alternatives.

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 user has a My Xylect 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 approximately 12,900 people unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. 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, backed by a legacy of innovation.

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



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