wilo

Data sheet

Product data

Product description	HELIX V2207-4/16/E/S/400-50-FF240

Hydraulic data

Minimum efficiency index (MEI)	≥0.7
Maximum inlet pressure $p\ inl$	10 bar
Maximum operating pressure PN	16 bar
Discharge port	DN 50
Min. fluid temperature T_{min}	-20 °C
Max. fluid temperature T_{max}	120 °C
Min. ambient temperature T_{min}	-15 °C
Max. ambient temperature T_{max}	50 °C

Motor data

|	
Mains connection	3~400 V, 50 Hz
Voltage tolerance	±10 %
Rated power P_2	9 kW
Motor efficiency class	IE3
Rated current I_N	16.7 A
Rated speed n	2900 1/min
Power factor $cos\ \varphi_{100}$	0.87
Activation type	Direct/Star-Delta
Motor efficiency 50% $\eta_M\ 50\%$	90.4 %
Motor efficiency 75% $\eta_M\ 75\%$	91 %
Motor efficiency 100% $\eta_M\ 100\%$	90.6 %
Insulation class	F
Protection class motor	IP55

Materials

Pump housing	Grey cast iron
Impeller	Stainless steel
Shaft	Stainless steel
Mechanical seal	BQ1EGG
Gasket material	EPDM

Installation dimensions

Pipe connection on the suction side DNs	DN 50
Pipe connection on the discharge side DNd	DN 50

Pump curves
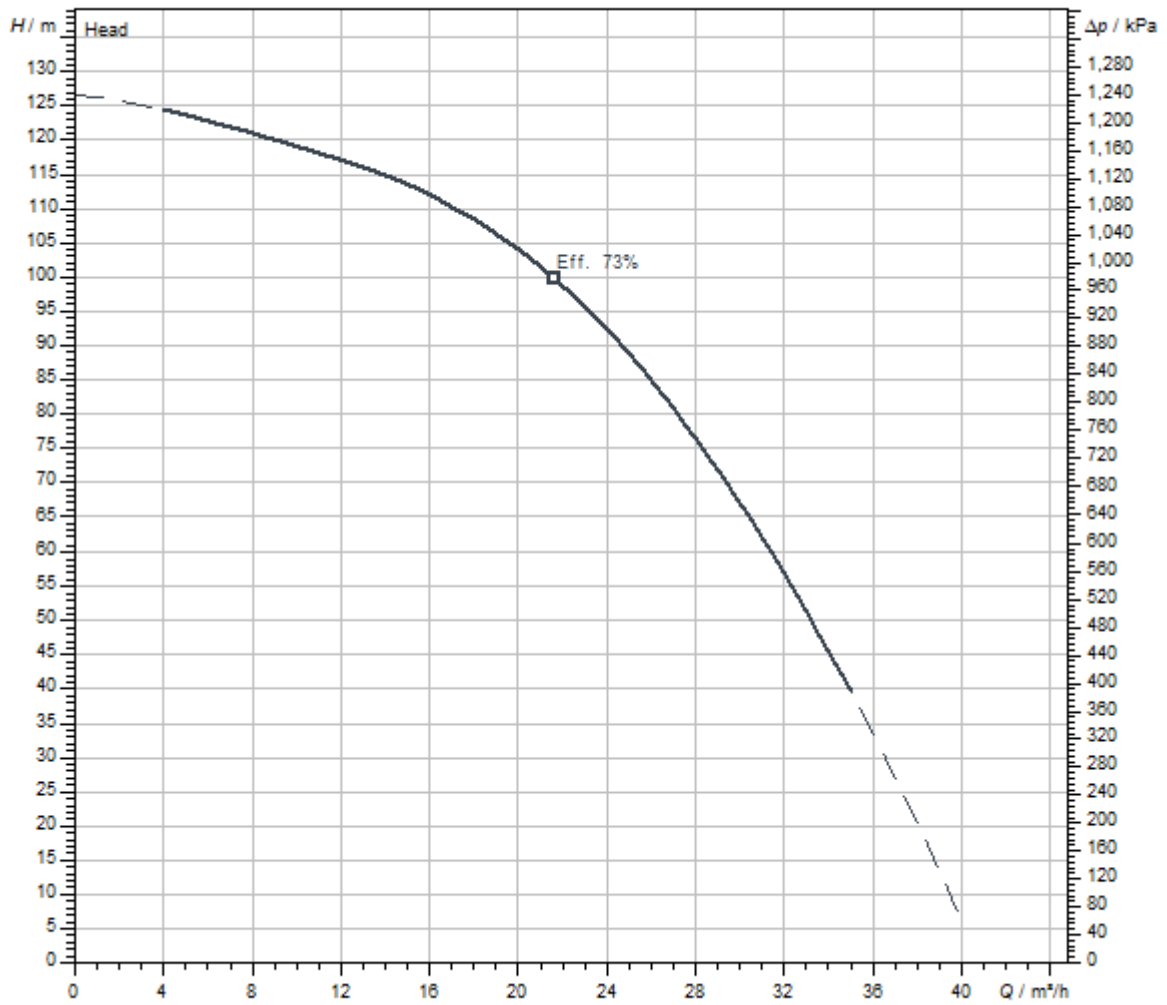
Fluid media	Water 100 %
Fluid temperature *T*	20.00 °C
speed at duty point *n hydr. @ OP*	2,985 1/min

Dimensions and dimensions drawings

Helix V 22
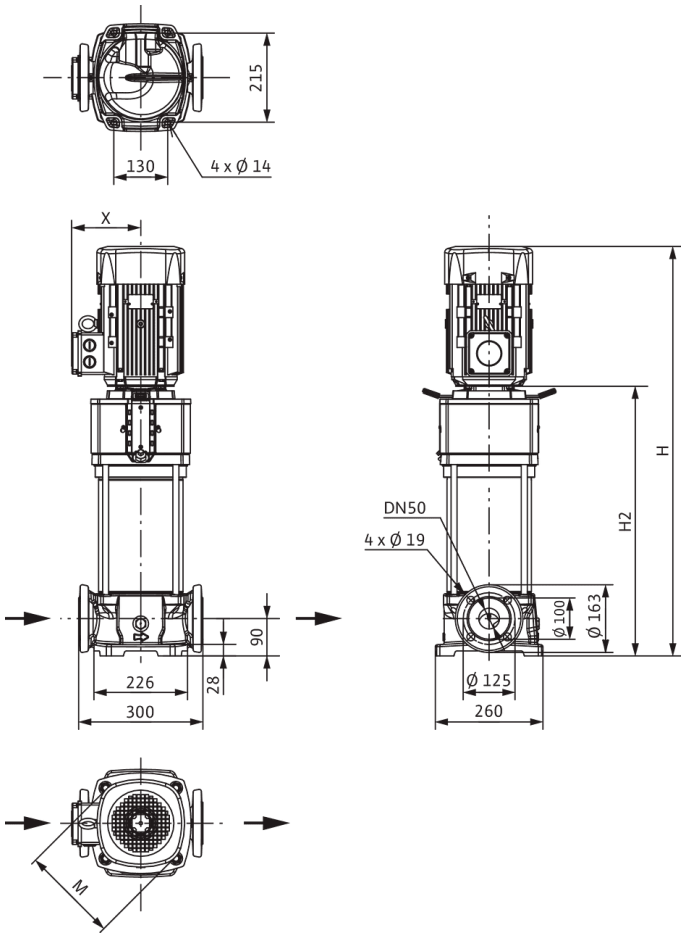
Dimensions _H_	1103 mm
Dimensions _H1_	172 mm
Dimensions _L1_	150 mm
Dimensions _X_	182 mm
Dimensions _Ø g_	279 mm
Pipe connection on the suction side _DNs_	DN 50
Pipe connection on the discharge side _DNd_	DN 50
Motor diameter _X_	182 mm

Wiring diagram
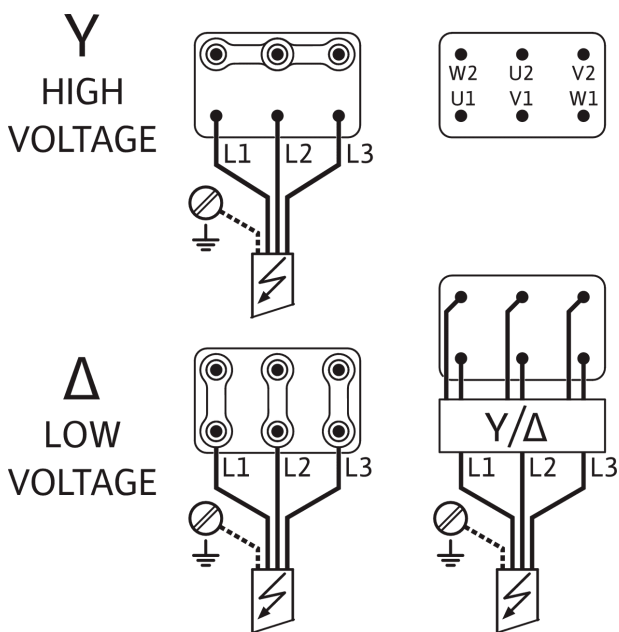
Ordering information

Product data

Brand	Wilo
Product description	HELIX V2207-4/16/E/S/400-50-FF240
Article number	**4183368**
EAN number	4048482356150
Colour	green/silver
Minimum order quantity	1
Date of sales availability	2014-03-01

Dimension, weight

Length with packaging	1600 mm
Length L	300 mm
Height with packaging	500 mm
Height H	1103 mm
Width with packaging	400 mm
Width W	260 mm
Gross weight, approx. m	126 kg
Net weight, approx. m	110 kg

Packaging

Packaging type	One-way pallet
Packaging property	Transport packaging
Pieces per pallet	1
Number per layer	1

Tender text

Highly efficient high-pressure multistage centrifugal pump in vertical design with in-line connections.

The non self-priming high-pressure multistage centrifugal pump has a compact overall design and is particularly efficient and easy to maintain. The pump shaft and the motor shaft of the IEC standard motor are connected by means of a clamp coupling, while a separate lantern roller bearing ensures optimum admission of axial thrusts. Intermediate bearings in the hydraulics and corrosion-resistant shaft due to stainless steel sleeve ensure a long service life. Special, permanently attached lifting eyes enable easy pump installation.

The pump is suitable for water supply, water distribution and pressure boosting, industrial recirculation systems, process water and closed cooling circuits. It can also be used in fire extinguishing systems, washing systems as well as for irrigation.

Special features/product advantages

> Efficiency-optimised, laser-welded 2D/3D hydraulics, flow and degassing optimised
> Corrosion-resistant impellers, guide vanes and stage housings
> Flow and NPSH-optimised pump housing
> Maintenance-friendly design with particularly robust coupling guard
> Drinking water approval for pumps with parts that come in contact with the fluid made of stainless steel (EPDM version)

Scope of delivery

> Wilo-Helix V high-pressure multistage centrifugal pump
> Installation and operating instructions

Design notes

> Motor protection for 3-phase motor is to be provided on request or onsite
> Single-phase AC motor equipped with built-in thermal motor protection and capacitor
> In its standard position, the terminal box is aligned with the suction flange, but this can be changed if necessary
> The Wilo-Helix V is equipped with a user-friendly mechanical seal in a cartridge design and standard gasket for easy maintenance
> The spacer coupling (from ≥ 7.5 kW) allows the mechanical seal to be replaced without removing the motor
> The flexible lantern design, which is available in two alignments, enables direct access to the mechanical seal
> For pump versions PN16, PN25 and Pmax = 30 bar, round counter flanges in cast iron or stainless steel, screws, nuts and gaskets are available as accessories
> Bypass sets are available as accessories
> The Wilo-Helix V(F) VdS certified version upon request

Operating Data

Product data

Min. fluid temperature T_{min}	-20 °C
Max. fluid temperature T_{max}	120 °C
Max. ambient temperature T_{max}	50 °C
Maximum operating pressure PN	16 bar
Maximum inlet pressure $p\ inl$	10 bar
Minimum efficiency index (MEI)	≥0.7

Motor data

Mains connection	3~400 V, 50 Hz
Voltage tolerance	±10 %
Rated power P_2	9 kW
Motor efficiency class	IE3
Rated current I_N	16.7 A
Rated speed n	2900 1/min
Power factor $cos\ \varphi_{100}$	0.87
Motor efficiency 50% $\eta_M\ 50\%$	90.4 %
Motor efficiency 75% $\eta_M\ 75\%$	91 %
Motor efficiency 100% $\eta_M\ 100\%$	90.6 %
Insulation class	F
Protection class	IP55

Materials

Pump housing	Grey cast iron
Impeller	Stainless steel
Shaft	Stainless steel
Shaft seal	BQ1EGG
Gasket material	EPDM

Installation dimensions

Pipe connection on the suction side DNs	DN 50
Pipe connection on the discharge side DNd	DN 50

Ordering information

Brand	Wilo
Product description	HELIX V2207-4/16/E/S/400-50-FF240
Net weight, approx. m	110 kg
Article number	**4183368**

Installation type

In inlet mode

Counter flange (stainless steel)

Stainless steel counter flange (round, 2 piece), PN 16 DN 50	4038587

Counter flange (steel)

Steel counter flange (round, 2 piece), PN 16 DN 50	4038585

Stainless steel compensator

Stainless steel compensator DN 50, PN 16	2514241

Baseplate

Base plate	4157154

Level control with fault signal

Float switch WAO

Float switch WAO 65, 10 m cable	2006027
Float switch WAO 65, 20 m cable	2004429
Float switch WAO 65, 30 m cable	2004430
Float switch WAO 65, 5 m cable	503211595

Level control without fault signal

Float switch WAO

Float switch WAO 65, 10 m cable	2006027
Float switch WAO 65, 20 m cable	2004429
Float switch WAO 65, 30 m cable	2004430
Float switch WAO 65, 5 m cable	503211595

Pressure control with fault signal

Wilo-EFC

EFC11 3x380-480V 50/60Hz IP55	2193439

Sensor kit

Sensor kit	2501886

Mechanical accessories

Bypass line

Bypass line

Bypass line for Helix and Medana CV1-L series	4230276

Pipe installation

Counter flange (stainless steel)

Stainless steel counter flange (round, 2 piece), PN 16 DN 50	4038587

Counter flange (steel)

Steel counter flange (round, 2 piece), PN 16 DN 50	4038585

Stainless steel compensator

Stainless steel compensator DN 50, PN 16	2514241

Wall fixation/installation on a base

Baseplate

Base plate	4157154

Electrical accessories

Pump control

Wilo-EFC

EFC11 3x380-480V 50/60Hz IP55	2193439

Pump control/accessories

Low-water cut-out switchgear kit for domestic water systems

low-water cut-out switchgear kit WMS G 1¼	4204510
low-water cut-out switchgear kit WMS G2	4204512

Output filter EFC (150-500 m cable length)

24.2 A sin IP54 Wilo-EFC filter	6084564
24 A sin IP00 Wilo-EFC filter	6084579
24 A sin IP20 Wilo-EFC filter	6084905

Output filter EFC du/dt (up to 150m cable length)

40 A du/dt IP54 Wilo-EFC filter	6084544
40 A du/dt IP00 Wilo-EFC filter	6084548
40 A du/dt IP20 Wilo-EFC filter	6084553

Pressure control

Pressure sensor for systems

Pressure sensor, 0 - 6 bar	2550660
Pressure sensor, 0 - 10 bar	2550661
Pressure sensor, 0 - 16 bar	2550662
Pressure sensor, 0 - 25 bar	2550663
Pressure sensor, 0 - 40 bar	2550664

Sensor kit

Sensor kit	2501886

Level control

Float switch WA

Float switch WA65 with 5 m cable	503211390
Float switch WA65 with 10 m cable	503211893
Float switch WA65 with 20 m cable	2004431
Float switch WA65 with 30 m cable	2004432

Float switch WA KR1 S with 5 m cable	6082806
Float switch WA KR1 S with 10 m cable	6082807
Float switch WA65 (PSN-X) with 20 m cable	6088843
Float switch WA65 (PSN-X) with 10 m cable	6088844
Float switch WA65 (PSN-X) with 5 m cable	6088845

Float switch WAO

Float switch WAO 65, 5 m cable	503211595
Float switch WAO 65, 10 m cable	2006027
Float switch WAO 65, 20 m cable	2004429
Float switch WAO 65, 30 m cable	2004430

Motor protection

PTC thermistor tripping unit

PTC thermistor tripping unit	509275993

Surcharge for thermistor sensor (high-pressure centrifugal pumps)

Surcharge for thermistor sensor (high-pressure centrifugal pumps)	HDK_KLF

Services

With Wilo as your partner, you can not only be sure of choosing high-quality product solutions, but also of benefiting from a comprehensive, worry-free package of well thought-out services. We collaborate to develop a service concept tailored to your individual needs; with our expertise and personal consultancy, we make sure that the operation of your systems is as energy-efficient, reliable and economical as possible. All the while our competent Wilo service technicians are ready to assist you with fast, reliable and on-time support.

Recommended services

Maintenance BASIC Booster Set 1-2 pumps	2160453
Maintenance COMFORT Booster Set 1-2 pumps	2160468
Maintenance PREMIUM Booster Set 1-2 pumps	2160483
Commissioning Booster Set 1-2 pumps	2216414

More suitable services

Service Package L Booster Set 1-2 pumps	2216420
Service Package M Booster Set 1-2 pumps	2216419
Service Package S Booster Set 1-2 pumps	2216418
Wilo-Live Assistant Service	2216415
Extended Warranty Booster Set 1-2 pumps	2216416
Supervision Booster Set 1-2 pumps	2216412
Installation Booster Set 1-2 pumps	2216413
System Optimisation Booster Set 1-2 pump	2216410
Energy Solutions Booster Set 1-2 pumps	2216411
Repair Booster Set 1-2 pumps	2216417