

## Data sheet

### Hydraulic data

Minimum efficiency index (MEI)	0.4
Maximum operating pressure $P_N$	10 bar
Min. fluid temperature $T_{min}$	-20 °C
Max. fluid temperature $T_{max}$	120 °C
Min. ambient temperature $T_{min}$	0 °C
Max. ambient temperature $T_{max}$	40 °C

### Motor data

Mains connection	3~380 V, 50/60 Hz
Motor efficiency class	IE4
Rated power $P_2$	1.1 kW
Rated current $I_N$	2.8 A
Rated speed $n$	2900 1/min
Max. speed $n_{max}$	2900 1/min
Interference emission	EN 61800-3
Interference immunity	EN 61800-3
Insulation class	F
Protection class motor	IP55
Integrated full motor protection	-
Threaded cable connection	1 x M16x1.5

### Materials

Pump housing	Cast iron
Impeller	PPE/PS-GF30
Shaft	Stainless steel
Shaft seal	AQ1EGG
Lantern	Cast iron

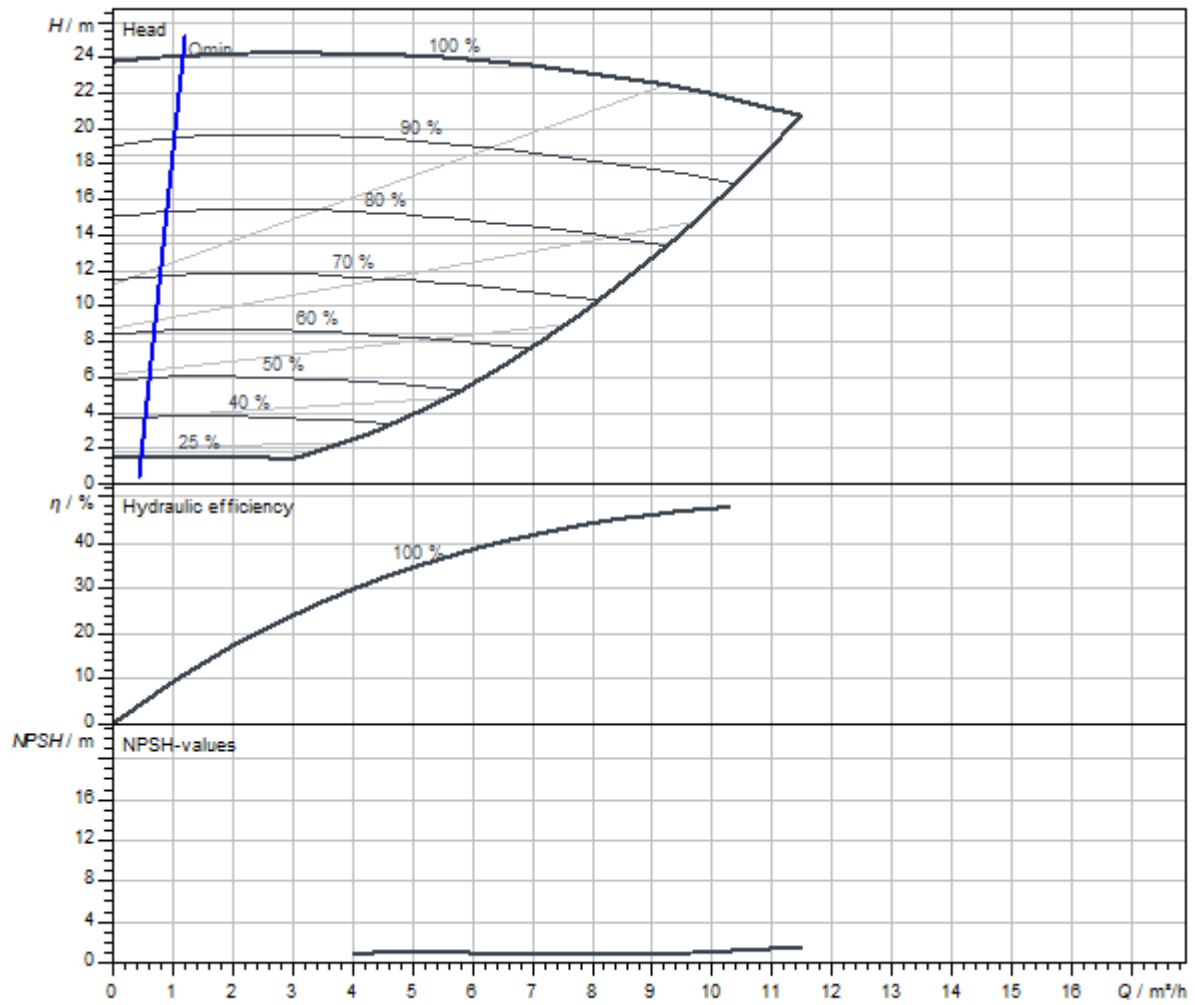
### Approved liquids (other liquids upon request)

Heating water (as per VDI 2035)	yes
Heat carrier oil	Special version at additional charge
Cooling and cold water circulation systems	yes
Water-glycol mixtures (at 20 - 40 vol. % glycol and fluid temperature $\leq 40$ °C)	yes

### Installation dimensions

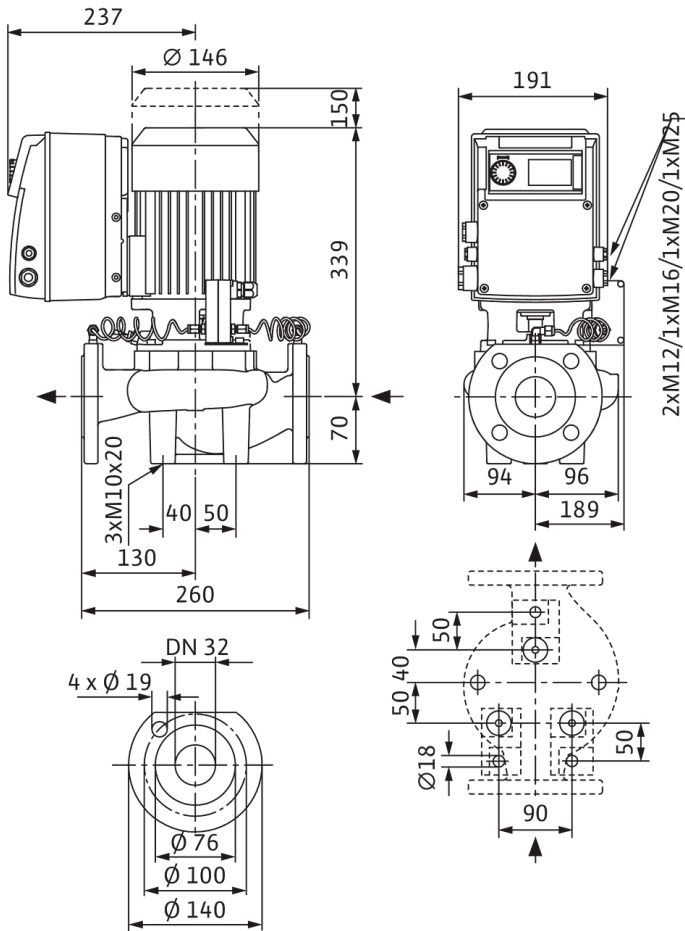
Port-to-port length $L_0$	260 mm
Pipe connection on the suction side $DN_s$	DN 32
Pipe connection on the discharge side $DN_d$	DN 32

Pump curves



Dimensions and dimensions drawings

VeroLine-IP-E 32/135-1,1/2-R1



**Note:**

Housing with feet for installation on a base and drilled holes M10, brackets on request.

## Ordering information

### Product data

Brand	Wilo
Product description	VeroLine-IP-E 32/135-1,1/2-R1
Article number	2158876
EAN number	4048482604473
Colour	Green
Minimum order quantity	1
Date of sales availability	2015-09-01

### Dimension, weight

Length with packaging	526 mm
Length <i>L</i>	415 mm
Height with packaging	385 mm
Height <i>H</i>	353 mm
Width with packaging	314 mm
Width <i>W</i>	290 mm
Gross weight, approx. <i>m</i>	31.8 kg
Net weight, approx. <i>m</i>	30 kg

### Packaging

Number per layer	1
Packaging property	Transport packaging
Packaging type	Cardboard box
Pieces per pallet	1

## Tender text

Glanded centrifugal pump with in-line design for pipe installation with built-in frequency converter for electronic control for constant or variable differential pressure (dp-c/dp-v). Three-phase AC motor with frequency converter.

### Design:

- > Single-stage low-pressure centrifugal pump with one-piece shaft
- > Spiral housing, in-line design
- > PN 16 flange – drilled according to EN 1092-2
- > Pressure measuring connections (R 1/8) for mounted differential pressure sensor (version ...-R1 without differential pressure sensor)
- > Pump housing and motor flange with cataphoretic coating as standard
- > Mechanical seal for water feed up to  $T=120\text{ °C}$ . A glycol admixture of 20 to 40% by vol. is permitted up to  $T_{\text{max}} = +40\text{ °C}$ . Other mechanical seals or other fluids/temperatures on request.

### Accessories:

- > Mounting brackets for fixing to the foundation
- > IR-Monitor
- > IR-Stick
- > IF module PLR
- > IF module LON
- > IF module Modbus
- > IF module BACnet
- > IF module CAN
- > Control systems VR-HVAC/CCe-HVAC/SCe-HVAC
- > Differential pressure sensor (DDG) sets 0-10 V for pumps in version ...-R1

### Standard equipment:

- > One-button manual operation level for:
  - > Pump On/Off
  - > Setpoint and speed adjustment
  - > Selecting the control mode:  $\Delta p\text{-c}$  (constant differential pressure),  $\Delta p\text{-v}$  (variable differential pressure), PID controller, n-constant (constant speed)
  - > Selection of operating mode in dual pump operation (main/standby operation, parallel operation)
  - > Configuration of operating parameters
  - > Fault acknowledgement
- > Pump display for displaying:
  - > Control mode
  - > Setpoint (e.g. differential pressure or speed)
  - > Error and warning messages
  - > Actual values (e.g. power consumption, actual value of the sensor)
  - > Operating data (e.g. operating hours, energy consumption)
  - > Status data (e.g. status of SSM and SBM relay)
  - > Device data (e.g. pump name)

### Additional functions:

- > Interfaces: Control input "Overriding Off", "External pump cycling" (effective only in dual pump operation), analogue input 0–10 V, 2–10 V, 0–20 mA, 4–20 mA for control mode (DDC) or for remote setpoint adjustment, analogue input 0–10 V, 2–10 V, 0–20 mA, 4–20 mA for actual value signal of the pressure sensor, Infrared interface for wireless communication with the operating and service unit Wilo-IR-Stick/IR-Monitor, plug-in position for Wilo IF-Module Modbus, BACnet, CAN, PLR, LON for connecting to the building automation, configurable, potential-free fault and operating/ready message, interface for dual pump communication
- > Adjustable time interval for pump cycling (in dual pump mode)
- > Integrated full motor protection
- > Different operating modes for heating mode (HV) or air-conditioning mode (AC)
- > Access disable
- > Different operation levels: Standard / Service

### Operating data

Fluid temperature $T$	-20 °C
Ambient temperature $T$	0 °C

### Operating data

Maximum operating pressure $P_N$	10 bar
Minimum efficiency index (MEI)	0.4

### Motor data

Motor efficiency class	IE4
Interference emission	EN 61800-3
Interference immunity	EN 61800-3
Mains connection	3~380 V, 50/60 Hz
Rated power $P_2$	1100 W
Max. speed $n_{\max}$	2900 1/min
Rated current $I_N$	2.8 A
Insulation class	F
Protection class motor	IP55
Motor protection	

### Materials

Pump housing	Cast iron
Impeller	PPE/PS-GF30
Shaft	Stainless steel
Shaft seal	AQ1EGG
Lantern	Cast iron

### Installation dimensions

Pipe connection on the suction side $DN_s$	DN 32
Pipe connection on the discharge side $DN_d$	DN 32
Port-to-port length $L_0$	260 mm

### Ordering information

Brand	Wilo
Product description	VeroLine-IP-E 32/135-1,1/2-R1
Net weight, approx. $m$	30 kg
Article number	2158876