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## Data sheet

### Hydraulic data

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

### Materials

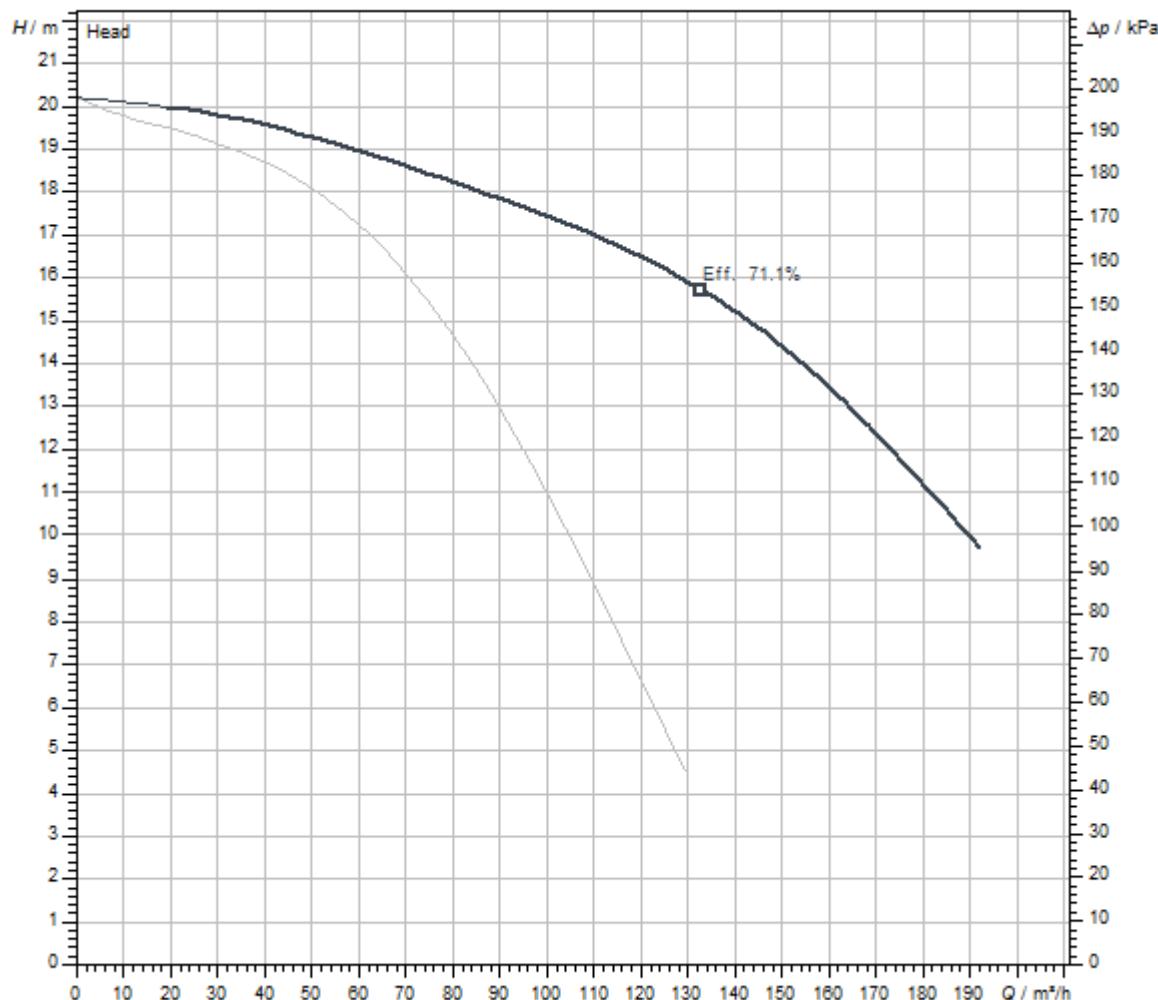
Pump housing	Grey cast iron
Impeller	PPE/PS-GF30
Shaft	Stainless steel
Mechanical seal	AQ1EGG
Lantern	Grey cast iron

### Motor data

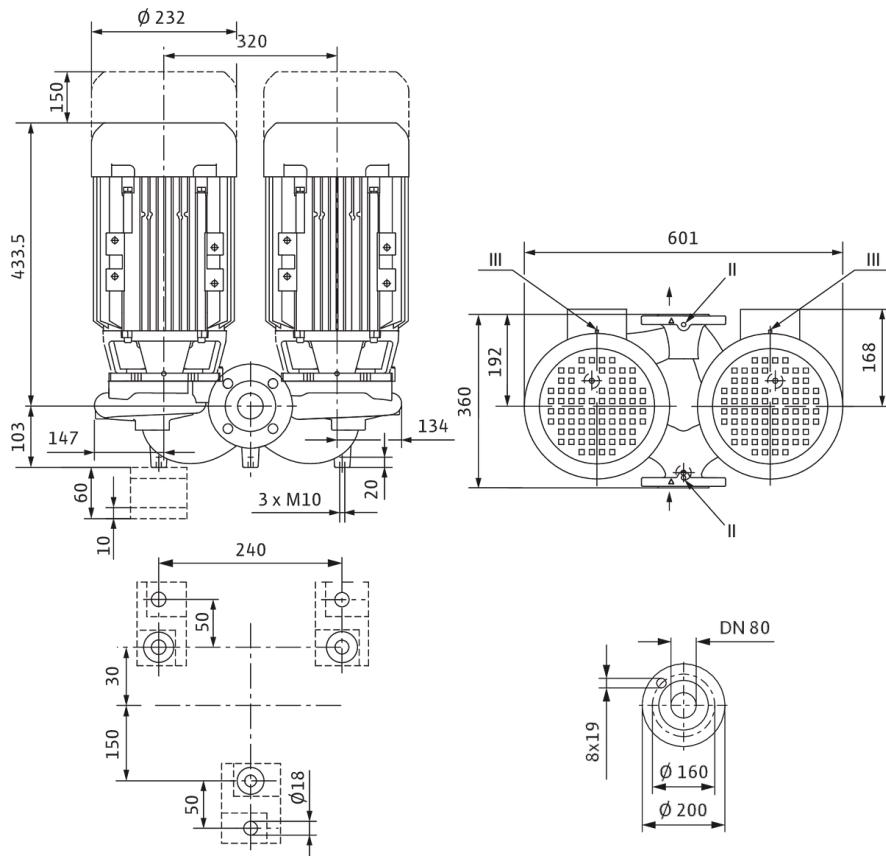
Mains connection	3~400 V, 50 Hz
Number of poles	2
Voltage tolerance	$\pm 10 \%$
Motor efficiency class	IE3
Rated power $P_2$	5.5 kW
Rated current $I_N$	10.5 A
Rated speed $n$	2900 1/min
Power factor $\cos \varphi_{100}$	0.85
Motor efficiency 50% $\eta_M$ 50%	87.3 %
Motor efficiency 75% $\eta_M$ 75%	88.9 %
Motor efficiency 100% $\eta_M$ 100%	89.2 %
Motor winding up to 3 kW	-
Motor winding from 4 kW	-
Insulation class	F
Protection class motor	IP55
Integrated full motor protection	-

### Installation dimensions

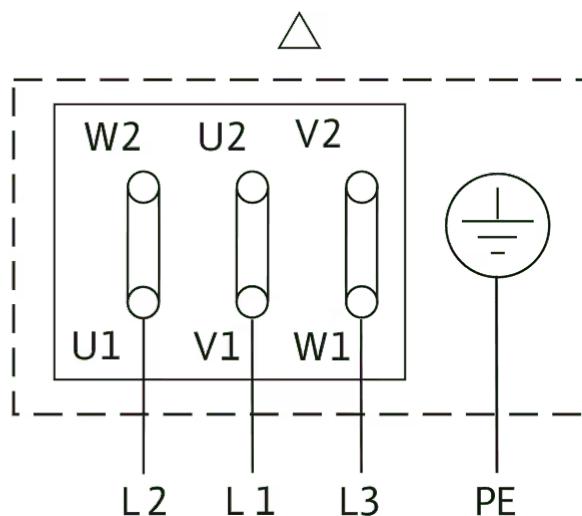
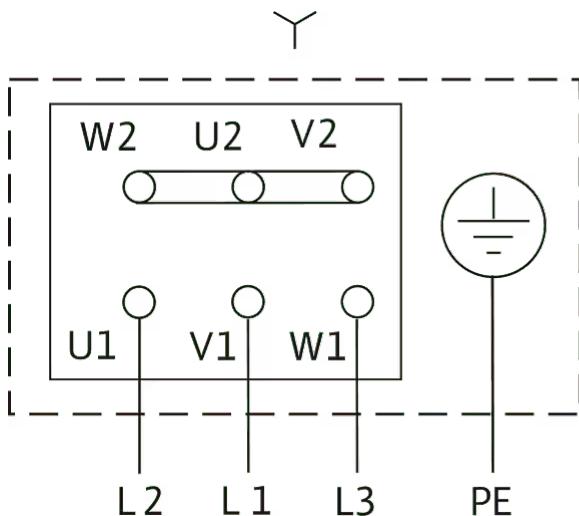
Pipe connection on the suction side $D_Ns$	DN 80
Pipe connection on the discharge side $D_Nd$	DN 80
Port-to-port length $L_O$	360 mm

**Pump curves**

Fluid media	Water 100 %
Fluid temperature $T$	20.00 °C
speed at duty point $n$ hydr. @ OP	2,900 1/min
Impeller diameter $d$ imp.	119 mm

**Dimensions and dimensions drawings****VeroTwin-DPL 80/120-5,5/2-S1**

### Wiring diagram



Δ: Connection diagram delta connection

Y: Connection diagram star connection

Motor protection switch required on-site. Check the direction of rotation! To change the direction of rotation, exchange any two phases.

$P_2 \leq 3 \text{ kW}$  3~400 V Y

3~230 V Δ

$P_2 \geq 4 \text{ kW}$  3~690 V Y

3~400 V Δ

After removing the bridges, Y-Δ start is possible.

## Tender text

In-line twin-head pump with two single-stage glanded centrifugal pumps in the same housing with switchover valve in the pressure port. Pump with compact in-line design with directly flanged three-phase current motor and one-piece shafts or with lanterns and standard motors (version N) rigidly connected by couplings.

The DPL series is suitable for pipe installation or installation on a base. Mounting brackets are available as accessories. With force-flushed circulation,

bidirectional bellows mechanical seals and cavitation-reducing plastic impeller.

Flanges with pressure measuring connections R 1/8. The pump housing and lantern are cataphoretic-coated.

The motor terminal box can be made of metal or plastic. If a metal terminal box is absolutely necessary, please order the appropriate special variant.

## Operating Data

Min. fluid temperature $T_{\min}$	-20 °C
Max. fluid temperature $T_{\max}$	120 °C
Min. ambient temperature $T_{\min}$	-15 °C
Max. ambient temperature $T_{\max}$	40 °C
Maximum operating pressure $P_N$	10 bar
Minimum efficiency index (MEI)	$\geq 0.4$

## Motor data

Motor efficiency class	IE3
Mains connection	3~400 V, 50 Hz
Voltage tolerance	$\pm 10 \%$
Rated power $P_2$	5500 W
Rated speed $n$	2900 1/min
Rated current $I_N$	10.5 A
Power factor $\cos \varphi_{100}$	0.85
Motor efficiency 50% $\eta_M$ 50%	87.3 %
Motor efficiency 75% $\eta_M$ 75%	88.9 %
Motor efficiency 100% $\eta_M$ 100%	89.2 %
Insulation class	F
Protection class	IP55

## Materials

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

## Installation dimensions

Pipe connection on the suction side $D_N$ s	DN 80
Pipe connection on the discharge side $D_N$ d	DN 80
Port-to-port length $L_O$	360 mm

## Ordering information

Brand	Wilo
Product description	VeroTwin-DPL 80/120-5,5/2
Net weight, approx. $m$	109 kg
Article number	<b>2155464</b>

## Installation type

### Continuous, infinitely variable control, differential pressure-sensitive CC-HVAC system

#### CC-HVAC system

CC-HVAC-System 1x13A-T34-SD-FC-BM	2527830
CC-HVAC-System 2x13A-T34-SD-FC-BM	2527831
CC-HVAC-System 3x13A-T34-SD-FC-BM	2527832

#### Antenna GSM/GPRS

D-network dual-band antenna with 3 m cable	2533862
D-network tri-band antenna 10 m cable	2533863
D-network tri-band antenna 15 m cable	2533864

#### Outdoor temperature sensor Pt 100

Outdoor temperature sensor Pt 100	2533772
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#### DDG impulse selector

DDG impulse selector	2533770
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#### BMS base module

BMS base module	2533800
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#### CC communication module BACnet

CC-communication module BACnet IP (slave)	2537051
CC-communication module BACnet MS/TP (slave)	2537050

#### Communication module LON

Communication module LON	2533868
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#### Communication module ModBus

Communication module Modbus RTU	2533869
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#### Communication module Profibus

Communication module Profibus DP	2533866
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#### Communication module GSM

GSM module	2533861
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#### Pump signalling module

Signalling module pump 1-2	2533812
Signalling module pump 3-6	2533836

**Signal converter retrofit kit**

Signal converter 0-10 V / 0-20 mA	2534992
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**Connection cable control modules/signalling modules**

Control modules connecting cable	2533790
Signalling modules connecting cable	2533890

**DDG (4-20mA)**

Wilo-DDG 10 Signal Trans.(4-20mA)2G VP.	2136454
Wilo-DDG 100 Signal Trans.(4-20mA)	2211740
Wilo-DDG 20 Signal Trans.(4-20mA)2G VP.	2136456
Wilo-DDG 40 Signal Trans.(4-20mA)2G VP.	2136458
Wilo-DDG 60 Signal Trans.(4-20mA)2G VP.	2136460

**PTC thermistor tripping unit**

PTC thermistor tripping unit	509275993
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**Continuous, infinitely variable control, temperature-dependent CC-HVAC system****CC-HVAC system**

CC-HVAC-System 1x13A-T34-SD-FC-BM	2527830
CC-HVAC-System 2x13A-T34-SD-FC-BM	2527831
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**Antenna GSM/GPRS**

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D-network tri-band antenna 10 m cable	2533863
D-network tri-band antenna 15 m cable	2533864

**Outdoor temperature sensor Pt 100**

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**BMS base module**

BMS base module	2533800
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**CC communication module BACnet**

CC-communication module BACnet IP (slave)	2537051
CC-communication module BACnet MS/TP (slave)	2537050

**Communication module LON**

Communication module LON	2533868
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**Communication module ModBus**

Communication module Modbus RTU	2533869
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**Communication module Profibus**

Communication module Profibus DP	2533866
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**Communication module GSM**

GSM module	2533861
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**Pump signalling module**

Signalling module pump 1-2	2533812
Signalling module pump 3-6	2533836

**Signal converter retrofit kit**

Signal converter 0-10 V / 0-20 mA	2534992
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**Temperature module**

Temperature module for systems with 1-3 pumps	2534991
Temperature module for systems with 4-6 pumps	2533771

**Connection cable control modules/signalling modules**

Control modules connecting cable	2533790
Signalling modules connecting cable	2533890

**PTC thermistor tripping unit**

PTC thermistor tripping unit	509275993
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**Continuous, infinitely variable control, differential pressure-sensitive SC-HVAC system****SC/SC-FC-HVAC system**

SC-FC-HVAC system 1x12A-FC-BM (direct starting)	2545446
SC-FC-HVAC system 1x13A-FC-BM (star-delta-starting)	2545466
SC-FC-HVAC system 2x12A-FC-BM (direct starting)	2545447
SC-FC-HVAC system 2x13A-FC-BM (star-delta-starting)	2545467
SC-FC-HVAC system 3x12A-FC-BM (direct starting)	2545448
SC-FC-HVAC system 3x13A-FC-BM (star-delta-starting)	2545468
SC-FC-HVAC system 4x12A-FC-BM (direct starting)	2545449
SC-FC-HVAC system 4x13A-FC-BM (star-delta-starting)	2545469
SC-HVAC system 1x12A-WM (direct starting)	2545330
SC-HVAC system 1x13A-WM (star-delta-starting)	2545350
SC-HVAC system 2x12A-WM (direct starting)	2545331

SC-HVAC system 2x13A-WM (star-delta-starting)	2545351
SC-HVAC system 3x12A-WM (direct starting)	2545332
SC-HVAC system 3x13A-WM (star-delta-starting)	2545352
SC-HVAC system 4x12A-WM (direct starting)	2545333
SC-HVAC system 4x13A-WM (star-delta-starting)	2545353

**Antenna GSM/GPRS**

D-network dual-band antenna with 3 m cable	2533862
D-network tri-band antenna 10 m cable	2533863
D-network tri-band antenna 15 m cable	2533864

**Outdoor temperature sensor Pt 100**

Outdoor temperature sensor Pt 100	2533772
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**DDG impulse selector**

DDG impulse selector	2533770
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**Communication module LON (SC)**

Communication module LON (SC)	2538243
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**SC communication module BACnet**

SC-communication module BACnet MS/TP (slave)	2538242
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**Communication module GSM (SC)**

Communication module GSM (SC)	2542216
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**Pump signalling module**

Signalling module pump 1-2	2533812
Signalling module pump 3-6	2533836

**SC-HVAC signal board**

SC-HVAC signal board	2119646
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**DDG (4-20mA)**

Wilo-DDG 10 Signal Trans.(4-20mA)2G VP.	2136454
Wilo-DDG 100 Signal Trans.(4-20mA)	2211740
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Wilo-DDG 60 Signal Trans.(4-20mA)2G VP.	2136460

**PTC thermistor tripping unit**

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PTC thermistor tripping unit

509275993

## Continuous, infinitely variable control, temperature-dependent SC-HVAC system

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### SC communication module BACnet

SC-communication module BACnet MS/TP (slave)	2538242
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### Communication module GSM (SC)

Communication module GSM (SC)	2542216
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### Pump signalling module

Signalling module pump 1-2	2533812
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Signalling module pump 3-6

2533836

SC-HVAC signal board

SC-HVAC signal board

2119646

PTC thermistor tripping unit

PTC thermistor tripping unit

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