



## Data sheet

### Hydraulic data

Maximum operating pressure <i>P<sub>N</sub></i>	1 bar
Impeller type	Open multi-channel impeller
Free ball passage of the hydraulics	10 mm
Max. immersion depth	12.5 m
Min. fluid temperature <i>T<sub>min</sub></i>	3 °C
Max. fluid temperature <i>T<sub>max</sub></i>	40 °C
Min. ambient temperature <i>T<sub>min</sub></i>	-15 °C
Max. ambient temperature <i>T<sub>max</sub></i>	40 °C

### Motor data

Mains connection	1~230 V, 50 Hz
Voltage tolerance	±10 %
Power factor <i>cos φ<sub>100</sub></i>	0.85
Rated power <i>P<sub>2</sub></i>	0.75 kW
Power consumption <i>P<sub>1 max</sub></i>	1100 W
Rated current <i>I<sub>N</sub></i>	5.7 A
Starting current <i>I</i>	16 A
Activation type	Direct On Line (DOL)
Rated speed <i>n</i>	2900 1/min
Max. switching frequency <i>t</i>	15 1/h
Insulation class	F
Protection class	IP68
Operating mode (immersed)	S1
Operating mode (non-immersed)	S1

### Cable

Connection cable length <i>L</i>	10 m
Cable type	H07RN-F
Cable cross-section	4G1,5 mm <sup>2</sup>
Mains plug	SMP 10MA
Type of connection cable	Detachable

### Equipment/function

Float switch	yes
Explosion protection type	-
Motor protection	no

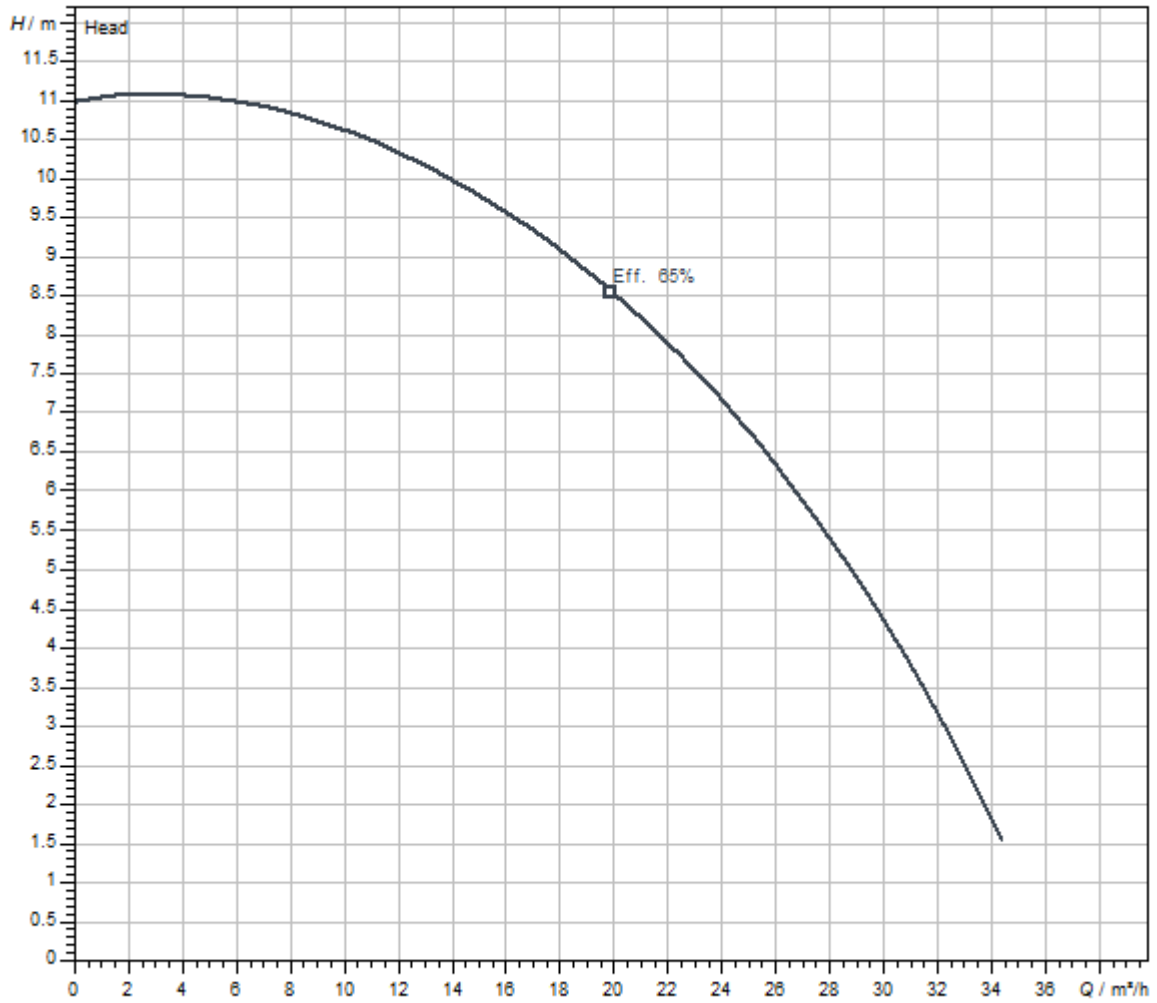
### Materials

Pump housing	Grey cast iron
Impeller	Grey cast iron
Sealing on pump side	QQPGG
Sealing on motor side	BVPGG
Gasket material	FKM
Motor housing	Aluminium

### Installation dimensions

Pipe connection on the discharge side <i>DN<sub>d</sub></i>	Storz C
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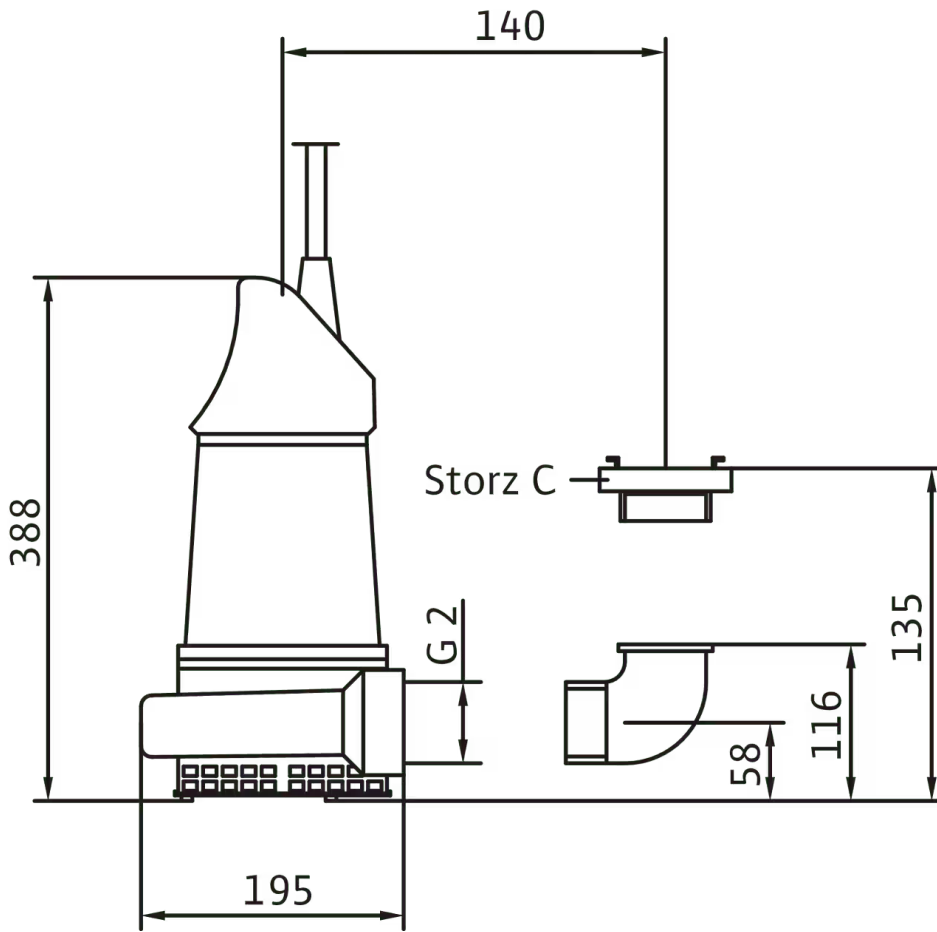
Pump curves



Fluid media	Water 100 %
Fluid temperature $T$	20.00 °C
speed at duty point $n_{hydr. @ OP}$	2,857 1/min
Impeller diameter $d_{imp.}$	103 mm

Dimensions and dimensions drawings

Wilo-EMU KS 14



### Tender text

Fully submersible drainage pump for vertical wet well installation for pumping contaminated and sandy water. Hydraulics housing and impeller made of cast iron, motor housing made of aluminium. Pressure connection with vertical pressure outlet and Storz coupling. Self-

cooling motor in single-phase version and detachable connection cable with float switch, shock-proof plug and operating capacitor. Sealing on the fluid and motor side is done by mechanical seal. The unit can be used without limits in slurping operation.

### Operating Data

#### Product data

Impeller type	Open multi-channel impeller
Free ball passage of the hydraulics	10 mm
Maximum operating pressure $P_N$	1 bar
Max. immersion depth	12.5 m
Fluid temperature $T$	3 °C
Max. fluid temperature $T_{max}$	40 °C

#### Motor data

Mains connection	1~230 V, 50 Hz
Voltage tolerance	±10 %
Power factor $\cos \varphi_{100}$	0.85
Rated power $P_2$	0.75 kW
Power consumption $P_{1 max}$	1.10 kW
Rated current $I_N$	5.7 A
Starting current $I$	16 A
Activation type	Direct On Line (DOL)
Rated speed $n$	2900 1/min
Max. switching frequency $t$	15 1/h
Insulation class	F
Protection class	IP68
Operating mode (immersed)	S1
Operating mode (non-immersed)	S1

### Cable

Connection cable length $L$	10 m
Cable type	H07RN-F
Cable cross-section	4G1,5 mm <sup>2</sup>
Mains plug	SMP 10MA
Type of connection cable	Detachable

### Equipment/function

Float switch	yes
Explosion protection type	-
Motor protection	no

### Materials

Pump housing	Grey cast iron
Impeller	Grey cast iron
Shaft	Stainless steel
Sealing on pump side	QQPGG
Sealing on motor side	BVPGG
Gasket material	FKM
Motor housing	Aluminium

### Installation dimensions

Pipe connection on the suction side $D_Ns$	-
Pipe connection on the discharge side $D_Nd$	Storz C

### Ordering information

Brand	Wilo
Product description	EMU KS 14ES
Net weight, approx. $m$	22 kg
Article number	<b>6019449</b>

## Installation type

### Level control with float switch

Level measurement using a level sensor with various measurement ranges, including high water alarm and dry-running protection.

#### Wilo-Control MS-Lift

MS-L-1x4kW-DOL	2539741
MS-L-2x4kW-DOL	2539745

#### Battery 9V,200mA

NiMh rechargeable battery, 9 V/200 mAh	2522850
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#### Float switch WA

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 WA65 with 5 m cable	503211390

#### Intermediate float switch for 1~ units

ZSE shock-proof with 10 m cable	6017313
ZSE shock-proof with 5 m cable	6017150

#### Signal horn

Signal horn 1~230 V	501459398
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#### Flash light

Flash light 1~230 VAC	2551613
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### Mains-independent alarm signal

Alarm signal for detection of flooding in rooms and buildings. The alarm signal is acoustic, optical or wireless. In addition, other consumers can be controlled directly.

#### Float switch WA

Float switch WA65 with 10 m cable	503211893
Float switch WA65 with 5 m cable	503211390

#### AlarmControl

AlarmControl 1	2522846
AlarmControl 2	2522847

#### DrainAlarm

DrainAlarm	2545133
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**Signal horn**

Signal horn 1~230 V	501459398
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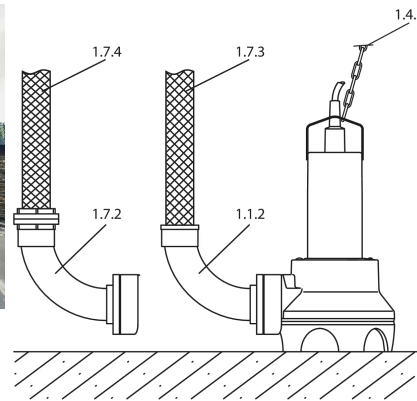
**Flash light**

Flash light 1~230 VAC	2551613
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**Portable wet well installation**



Installation example



Installation drawing

The pump is equipped with a pump foot (integrated in the pump housing or separately as an accessory). With this pump foot, the pump can be easily and flexibly installed in any operating space. Hoses are used as discharge pipes. Connection is with a hose nipple or Storz coupling. For a level-dependent operation, it is recommended to use a pump with a float switch.

**Flat suction 1.4.11**

Flat suction KS 8/KS 9	6032495
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**Suction strainer extension 1.4.11**

Suction strainer extension KS 8/KS 9	6032496
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**Plastic spiral hose with coupling 1.7.4**

Plastic spiral hose 10 m, with Storz A	6022276
Plastic spiral hose 10 m, with Storz B	6035187
Plastic spiral hose 10 m, with Storz C	6022270
Plastic spiral hose 20 m, with Storz A	6022277
Plastic spiral hose 20 m, with Storz B	6022274
Plastic spiral hose 20 m, with Storz C	6022271
Plastic spiral hose 5 m, with Storz A	6022275
Plastic spiral hose 5 m, with Storz B	6022272
Plastic spiral hose 5 m, with Storz C	6022269

**Synthetic fibre hose with coupling 1.7.4**

Synthetic fibre pressure hose 10 m, with Storz A	6022392
Synthetic fibre pressure hose 10 m, with Storz B	6003051
Synthetic fibre pressure hose 10 m, with Storz C	6003650
Synthetic fibre pressure hose 20 m, with Storz A	6022393
Synthetic fibre pressure hose 20 m, with Storz B	6003050

Synthetic fibre pressure hose 20 m, with Storz C	6003649
Synthetic fibre pressure hose 5 m, with Storz A	6022391
Synthetic fibre pressure hose 5 m, with Storz B	6003052
Synthetic fibre pressure hose 5 m, with Storz C	6003651

**Coupling key** 1.7.7

Coupling key for Storz A, B, C	6022280
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## Mechanical accessories

### Adapter

#### Storz adapter

Storz B/C transition coupling	6000748
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### Hoses / hose joints

#### Coupling key

Coupling key for Storz A, B, C	6022280
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Coupling key for Storz F	6022281
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#### Plastic spiral hose with coupling

Plastic spiral hose 5 m, with Storz C	6022269
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Plastic spiral hose 10 m, with Storz C	6022270
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Plastic spiral hose 20 m, with Storz C	6022271
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Plastic spiral hose 5 m, with Storz B	6022272
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Plastic spiral hose 20 m, with Storz B	6022274
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Plastic spiral hose 5 m, with Storz A	6022275
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Plastic spiral hose 10 m, with Storz A	6022276
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Plastic spiral hose 20 m, with Storz A	6022277
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Plastic spiral hose 5 m, with Storz F	6022278
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Plastic spiral hose 10 m, with Storz B	6035187
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Plastic spiral hose 5 m, with Storz F	6044660
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#### Synthetic fibre hose with coupling

Synthetic fibre pressure hose 20 m, with Storz B	6003050
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Synthetic fibre pressure hose 10 m, with Storz B	6003051
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Synthetic fibre pressure hose 5 m, with Storz B	6003052
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Synthetic fibre pressure hose 20 m, with Storz F	6003647
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Synthetic fibre pressure hose 10 m, with Storz F	6003648
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Synthetic fibre pressure hose 20 m, with Storz C	6003649
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Synthetic fibre pressure hose 10 m, with Storz C	6003650
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Synthetic fibre pressure hose 5 m, with Storz C	6003651
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Synthetic fibre pressure hose 5 m, with Storz A	6022391
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Synthetic fibre pressure hose 10 m, with Storz A	6022392
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Synthetic fibre pressure hose 20 m, with Storz A	6022393
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## Installation/setup

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### Flat suction

Flat suction KS 8/KS 9

6032495

### Suction strainer extension

Suction strainer extension KS 8/KS 9

6032496

## Electrical accessories

### Pump control

#### Wilo-Control MS-Lift

MS-L-1x4kW-DOL	2539741
MS-L-2x4kW-DOL	2539745

### Pump control/accessories

#### Battery 9V,200mA

NiMh rechargeable battery, 9 V/200 mAh	2522850
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### Alarm signal

#### AlarmControl

AlarmControl 1	2522846
AlarmControl 2	2522847

#### DrainAlarm

DrainAlarm	2545133
DrainAlarm FIRST	2550526

#### Flash light

Mounted Flash light 1~230 VAC	2510429
Flash light 24 VDC	2551612
Flash light 1~230 VAC	2551613

#### Signal horn

Signal horn 12-24 VDC	2017208
Signal horn 1~230 V	501459398

#### Small alarm switchgear

Small alarm switchgear KAS	501534094
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### Level control

#### Float switch MS1

Float switch MS1 with 10 m cable	2004593
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#### 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

**Intermediate float switch for 1~ units**

ZSE shock-proof with 5 m cable	6017150
ZSE shock-proof with 10 m cable	6017313

## 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

Commissioning Drainage pumps	2219491
Wilo-Live Assistant Service	2216415
Maintenance BASIC Drainage pumps	2219540
Maintenance COMFORT Drainage pumps	2219514
Maintenance PREMIUM Drainage pumps	2219567

### More suitable services

Service Package L Drainage pumps	2219719
Service Package M Drainage pumps	2219690
Extended Warranty Drainage pumps	2219465
Supervision Drainage pumps	2219348
Installation Drainage pumps	2219383
System Optimisation Drainage pumps	2219278
Energy Solutions Drainage pumps	2219313
Repair Drainage pumps	2219632