



Data sheet

Hydraulic data

Maximum operating pressure P_N	2 bar
Impeller type	Single-channel impeller
Free ball passage of the hydraulics	45 mm
Max. immersion depth	12.5 m
Min. fluid temperature T_{min}	3 °C
Max. fluid temperature T_{max}	40 °C
Min. ambient temperature T_{min}	-15 °C
Max. ambient temperature T_{max}	40 °C

Motor data

Mains connection	3~400 V, 50 Hz
Voltage tolerance	±10 %
Power factor $\cos \varphi_{100}$	0.87
Rated power P_2	2.2 kW
Power consumption $P_{1 \max}$	2800 W
Rated current I_N	4.65 A
Starting current I	24 A
Activation type	Direct On Line (DOL)
Rated speed n	2820 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 ²
Mains plug	CEE M16W (3P+N+PE, 6h)
Type of connection cable	Detachable

Equipment/function

Float switch	no
Explosion protection type	-
Motor protection	no

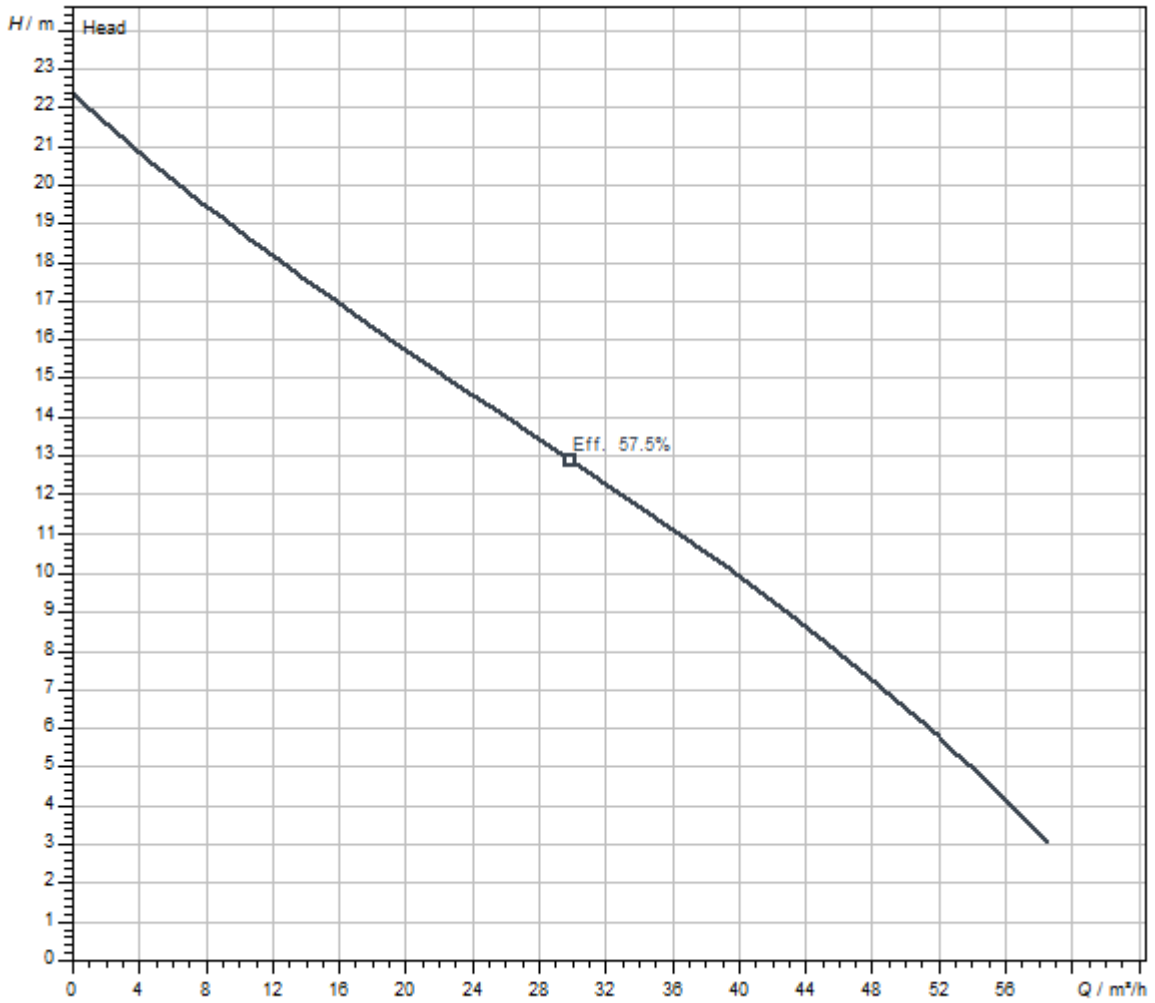
Materials

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

Installation dimensions

Pipe connection on the discharge side DNd	Storz B
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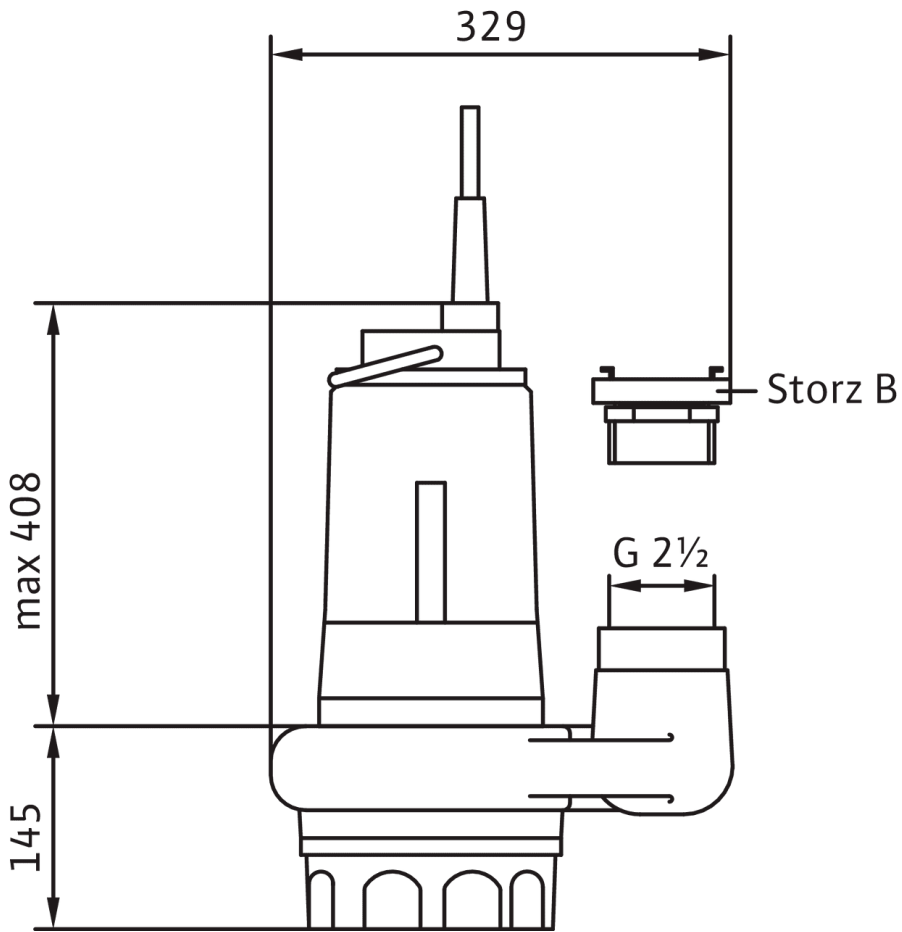
Pump curves



Fluid media	Water 100 %
Fluid temperature T	20.00 °C
speed at duty point $n_{hydr. @ OP}$	2,850 1/min
Impeller diameter $d_{imp.}$	125 mm

Dimensions and dimensions drawings

Wilo-EMU KS 20



Ordering information

Product data

Brand	Wilo
Product description	EMU KS 20D GG
Article number	6042090
EAN number	4044966435243
Colour	Green
Minimum order quantity	1
Date of sales availability	2010-01-01

Packaging

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

Dimension, weight

Length with packaging	400 mm
Length <i>L</i>	230 mm
Height with packaging	600 mm
Height <i>H</i>	553 mm
Width with packaging	400 mm
Width <i>W</i>	329 mm
Gross weight, approx. <i>m</i>	47 kg
Net weight, approx. <i>m</i>	42 kg

Tender text

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

current version and detachable connection cable with CEE plug. 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	Single-channel impeller
Free ball passage of the hydraulics	45 mm
Maximum operating pressure P_N	2 bar
Max. immersion depth	12.5 m
Fluid temperature T	3 °C
Max. fluid temperature T_{max}	40 °C

Motor data

Mains connection	3~400 V, 50 Hz
Voltage tolerance	±10 %
Power factor $\cos \varphi_{100}$	0.87
Rated power P_2	2.2 kW
Power consumption $P_{1\ max}$	2.80 kW
Rated current I_N	4.65 A
Starting current I	24 A
Activation type	Direct On Line (DOL)
Rated speed n	2820 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 ²
Mains plug	CEE M16W (3P+N+PE, 6h)
Type of connection cable	Detachable

Equipment/function

Float switch	no
Explosion protection type	-
Motor protection	no

Materials

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

Installation dimensions

Pipe connection on the suction side D_Ns	-
Pipe connection on the discharge side D_Nd	Storz B

Ordering information

Brand	Wilo
Product description	EMU KS 20D GG
Net weight, approx. m	42 kg
Article number	6042090

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.

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 3~ units

ZSD CEE16 with 10 m cable, 10m	6021206
ZSD CEE16 with 5 m cable, 5m	6023412

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

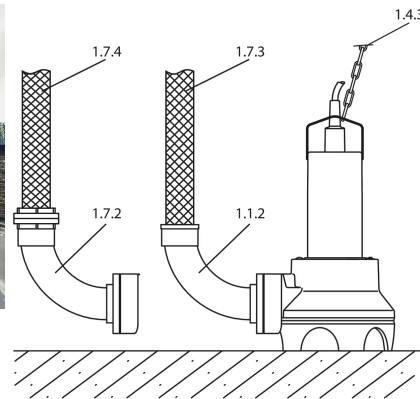
Signal horn 1~230 V	501459398
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Flash light

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

Mechanical accessories

Adapter

Storz adapter

Storz A/B transition coupling	6003026
Storz B/C transition coupling	6000748

Hoses / hose joints

Coupling key

Coupling key for Storz A, B, C	6022280
Coupling key for Storz F	6022281

Plastic spiral hose with coupling

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

Synthetic fibre hose with coupling

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

Installation/setup

Flat suction

Flat suction KS 8/KS 9	6032495
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Suction strainer extension

Suction strainer extension KS 8/KS 9	6032496
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Electrical accessories

Pump control

Wilo-Control MS-Lift

MS-L-1x4kW-DOL-T4	2550527
MS-L-2x4kW-DOL-T4	2550528

Wilo-Control SC-Lift

SC-L-2x6.3A-T34-DOL-WM	2538921
SC-L-2x6.3A-T34-DOL-WM-FTS	2543243

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 3~ units

ZSD CEE16 with 10 m cable, 10m	6021206
ZSD CEE16 with 5 m cable, 5m	6023412

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