

Data sheet



Customer item no.:
Order dated:
Order no.:
Quantity: 1

Number: ES 2364690
Item no.: 100
Date: 23/05/2013
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KRTK 80-251/172UG-S

Version no.: 1

Operating data

Requested flow rate	85.00 m³/h	Actual flow rate	85.00 m³/h
Requested developed head	34.00 m	Actual developed head	34.00 m
Pumped medium	Wastewater, municipal untreated Not containing chemical and mechanical substances which affect the materials	Efficiency	61.8 %
		Power absorbed	13.13 kW
		Pump speed of rotation	2954 rpm
Ambient air temperature	20.0 °C	Shutoff head	48.32 m
Fluid temperature	20.0 °C	Design	Single system 1 x 100 %
Fluid density	1030 kg/m³	Performance test	No
Fluid viscosity	1.00 mm²/s		
Max. power on curve	16.27 kW		Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2

Design

Design	Close-coupled submersible	Material code	SIC/SIC/NBR
Orientation	Vertical	Impeller type	Multivane radial flow impeller (K)
Suction flange pump according to(DN1)	unmachined	Wear ring	Casing wear ring
Discharge flange pump according to(DN2)	DN 80 / PN 16 / Drilled according to EN 1092-2	Impeller diameter	189.0 mm
		Free passage size	33.0 mm
Shaft seal	2 mech. seals in tandem arrangement with oil reservoir	Direction of rotation from drive	Clockwise
Manufacturer	KSB	Color	Ultramarine blue (RAL 5002)
Type	MG		KSB-blue

Driver, accessories

Driver type	Electric motor	Motor winding	400 / 690 V
Model (make)	KSB	Number of poles	2
Motor const. type	KSB Sub. motor	Starting mode	Direct/Star-delta possible
Frequency	50 Hz	Connection mode	Delta
Operating voltage	400 V	Motor cooling method	Surface cooling
Rated power P2	17.00 kW	Motor version	U
available reserve	29.50 %	Cable design	Rubber hose
Rated current	31.5 A	Cable entry	Sealed along entire length
Starting current ratio	8.3	Power cable	S1BN8-F 12G2.5
Insulation class	F to IEC 34-1	Number of power cables	1
Motor enclosure	IP68	Moisture sensor	with
Cos phi at 4/4 load	0.88	Cable length	10.00 m
Motor efficiency at 4/4 load	88.3 %		
Temperature sensor	Bimetallic switch 2x		

Materials G

Pump casing (101)	Grey cast iron JL 1040	Casing wear ring (502.1)	Grey cast iron JL 1040
Discharge cover (163)	Grey cast iron JL 1040	Motor housing (811)	Grey cast iron JL 1040
Shaft (210)	Chrome steel 1.4021+QT800	Motor cable (824)	Chloroprene rubber
Impeller (230)	Grey cast iron JL 1040	Hexagon socket head cap screw (914)	CrNiMo steel A4
O-Ring (412)	Nitrile rubber NBR		

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Nameplates

Nameplates language	International	Duplicate nameplate	with
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Installation parts

Installation type	Stationary with guide wire	Type	Chain
Scope of supply	Pump with installation parts	Material	CrNiMo steel 1.4404
Installation depth	4.50 m	Length	5.00 m
Material concept	G	Max. load	450 kg

Duckfoot bend

Size	DN 80
Flange design	EN
Duckfoot bend size (DN2 / DN3)	DN 80 Drilled according to EN
Material	Grey cast iron JL 1040
Mounting type	Composite anchor bolts
Foundation rail	Without

Claw

Design	straight
Size	DN 80

Lifting chain / -rope

Performance curve



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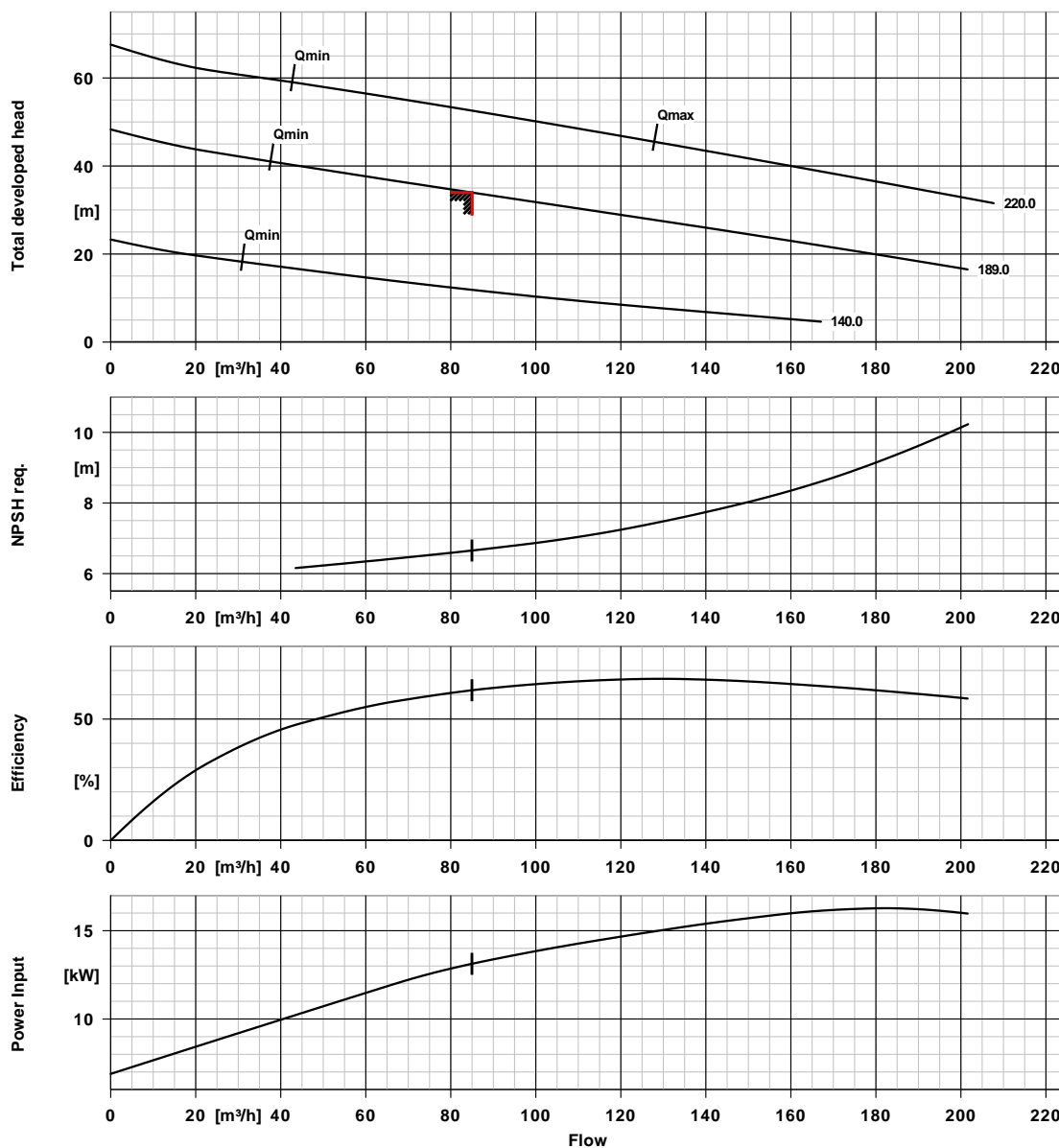
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Curve data

Speed of rotation	2954 rpm	Efficiency	61.8 %
Fluid density	1030 kg/m³	Power absorbed	13.13 kW
Viscosity	1.00 mm²/s	NPSH required	6.65 m
Flow rate	85.00 m³/h	Curve number	K43194s
Requested flow rate	85.00 m³/h	Effective impeller diameter	189.0 mm
Total developed head	34.00 m	Acceptance standard	Tolerances to ISO 9906
Requested developed head	34.00 m		Class 3B; below 10 kW
			acc. to paragraph 4.4.2

Installation plan

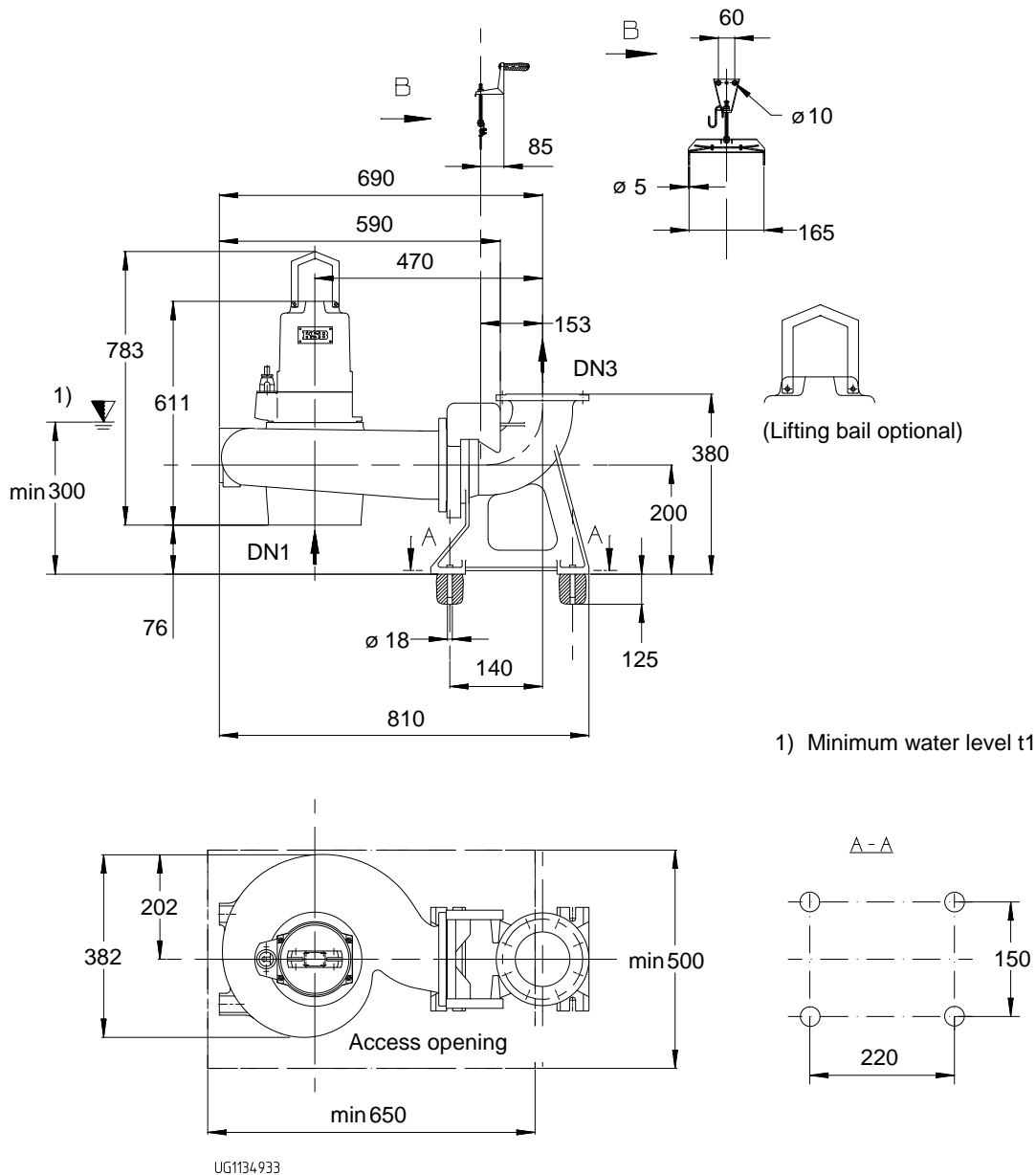


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Drawing is not to scale

Dimensions in mm

Installation plan



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Motor

Motor manufacturer	KSB
Motor size	17
Motor power	17.00 kW
Number of poles	2
Speed of rotation	2940 rpm

Connections

Suction flange pump	unmachined
according to(DN1)	
Duckfoot bend size (DN2 /	DN 80 Drilled according to
DN3)	EN

Weight net

Pump, Motor, Cable	175 kg
Claw / Foot	10 kg
Total	185 kg

Connect pipes without stress or strain!

Dimensional tolerances for shaft axis height:

Dimensions without tolerances, middle tolerances to:

Connection dimensions for pumps:

Dimensions without tolerances - welded parts:

Dimensions without tolerances - gray cast iron parts:

DIN 747
ISO 2768-m
EN735
ISO 13920-B
ISO 8062-CT9

**For auxiliary connections see
separate drawing.**