Data sheet

ETL 065-065-250 GBHAV11D203002 BKSBIE3
Inline pump

Operating data

Requested flow rate	
Requested developed head	
Pumped medium	Water, drinking water / tap water Mashing liquor Not containing chemical and mechanical substances which affect the materials
Max. ambient air temperature	20.0 °C
Min. ambient air temperature	20.0 °C
Fluid temperature	20.0 °C
Fluid density	998 kg/m³
Fluid viscosity	1.00 mm²/s
Suction pressure max.	0.00 bar.g
Mass flow rate	44.34 kg/s
Mass flow rate (pump)	22.17 kg/s
Max. power on curve	25.58 kW
Min. allow. flow for continuous stable operation	31.92 m³/h
Min. allow. flow rate (pump)	15.96 m³/h
Min. allow. mass flow (pump)	4.42 kg/s
Actual flow rate	159.94 m³/h
Flow rate (pump)	79.97 m³/h
Actual developed head	64.98 m
Efficiency	72.0 %
Power absorbed	19.60 kW
Pump speed of rotation	2970 rpm
NPSH required	5.15 m
Permissible operating pressure	16.00 bar.g
Discharge press.	6.36 bar.g
Min. allow. mass flow for continuous stable operation	8.85 kg/s
Shutoff head	76.87 m
Max. allow. mass flow	81.60 kg/s
Design	Twin system, each pump 50 % of total (Duty Assist)
No. of parallel pumps	2
Stand-by pump	0
	Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2

Design

Pump standard	Without
Design	Close-coupled in-line
Orientation	Vertical
Design according to standard	Drinking water acc. to ACS
Suction nominal dia.	DN 65
Suction nominal pressure	PN 16
Suction position	180° (down)
Suction flange drilled according to standard	EN1092-2
Discharge nominal dia.	DN 65
Discharge norminal pressure	PN 16
Discharge position	top (0°/360°)
Discharge flange drilled according to standard	EN1092-2
Surface type	Raised face (form B to EN 1092)
Shaft seal	Single acting mechanical seal
Manufacturer	KSB
Type	1
Material code	BQ1EGG-WA
Shaft seal code	11
Sealing plan	Single-acting mechanical seal with vented chamber (A-type casing cover, taper bore)

A liquid free of solids is assumed

Seal chamber design	Conical seal chamber (A-type cover)
Contact guard	With
Wear ring	Casing wear ring
Impeller diameter	226.0 mm
Free passage size	10.0 mm
Direction of rotation from drive	Clockwise
Silicon free pump assembly	Yes
Bearing bracket construction	Close-coupled
Bearing bracket size	25
Bearing type	Anti-friction bearings
Lubrication type	Grease

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Driver, accessories

Driver type	Electric motor
Drive standard mech.	IEC
Drive supplied by	without motor
Motor const. type	V1
Motor size	200L

Frequency	50 Hz
Rated power P2	30.00 kW
Available reserve	53.10 %
Number of poles	2

Motor data can vary from type plate information. Motor data describes KSB´s choice functional specification and is used for pump selection.

Materials G

Notes 2

Notes 1
Ammonium (NH4+) <= 2 mg/kg, free of H2S; Chlorine (Cl2) <=0.6 mg/kg.
General criteria for a water analysis: pH-value >= 7; chloride content (Cl) <=250 mg/kg. Chlorine (Cl2) <=0.6 mg/kg.

Volute casing (102)	Grey cast iron EN-GJL-250/A48CL35B
Casing cover (161)	Grey cast iron EN-GJL-250/A48CL35B
Shaft (210)	Tempered steel C45+N
Impeller (230)	CC480K DW
Motor stool (341)	Grey cast iron EN-GJL-250/A48CL35B
Flat gasket (400)	DPAF seal plate asbestos free
Joint ring (411)	Steel ST
Casing wear ring (502.1)	Grey cast iron GG/CAST IRON
Casing wear ring (502.2)	Grey cast iron GG/CAST IRON
Shaft sleeve (523)	CrNiMo steel
Stud (902)	Steel 8.8
Impeller nut (922)	CrNiMo steel
Key (940)	Steel C45+C / A311 GR 1045 CLASS A

Coating

KSB coating code	A1 to KSB AN 1897
Surface preparation	Free from dirt, grease, rust
Primer	Hydro primer, water based
Final coating	Acrylate dispersion, water-dilutable
Color	Ultramarine blue (RAL 5002) KSB-blue
Total film thickness approx.	100 µm

Components made of stainless/non-rusting materials will not be primer coated.
The primer coat is applied to the unmachined part.
During the mechanical production process, the primer is partly removed and is not replaced.
A two-component zinc dust primer will be applied to parts made of nodular cast iron, film thickness: approx. 20 ym.

Performance curve

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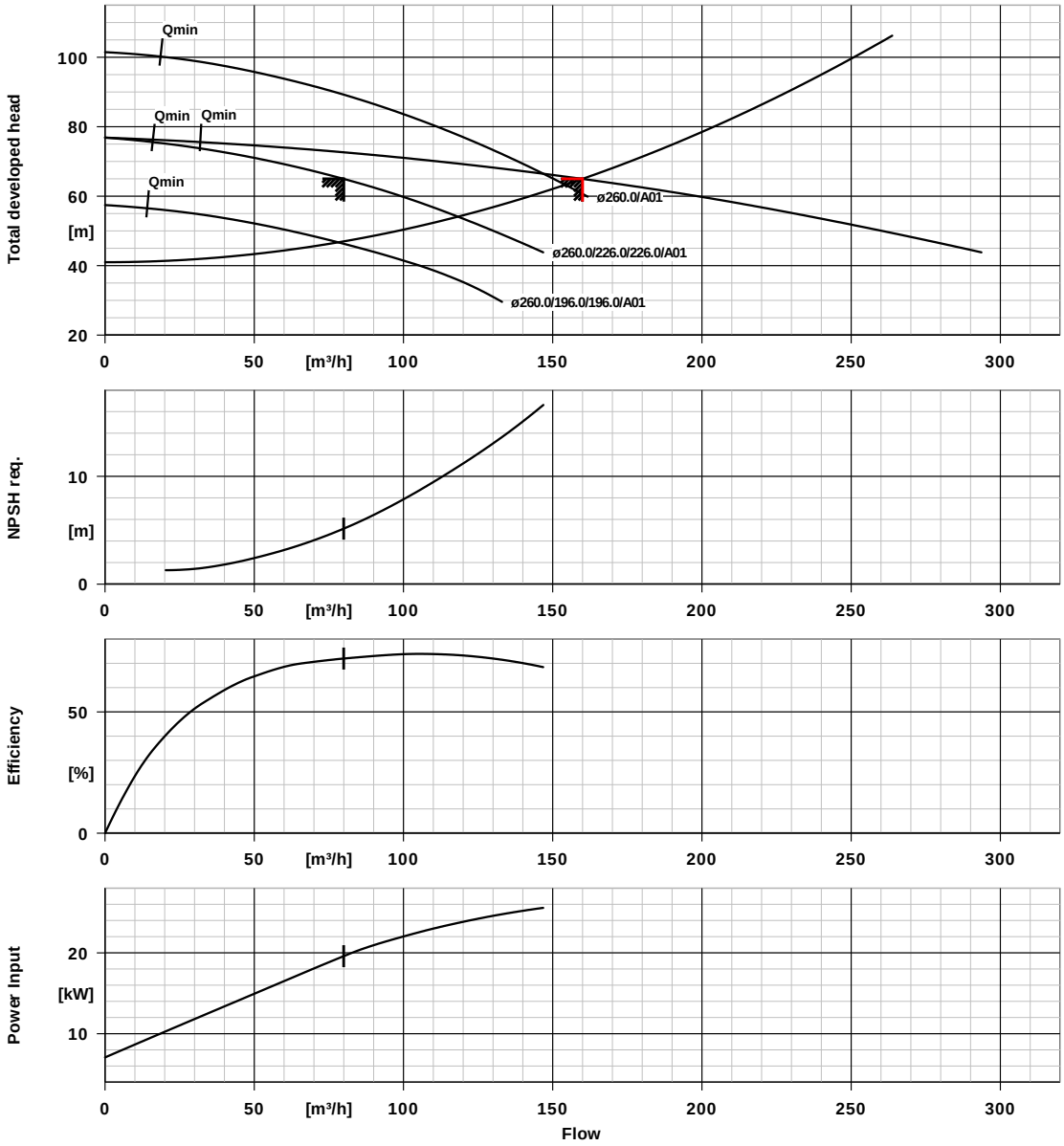

Curve data

No. of parallel pumps	2	Total developed head	64.98 m
Stand-by pump	0	Requested developed head	65.00 m
Speed of rotation	2970 rpm	Efficiency	72.0 %
Fluid density	998 kg/m³	Power absorbed	19.60 kW
Viscosity	1.00 mm²/s	NPSH required	5.15 m
Flow rate	159.94 m³/h	Curve number	K1159.452/33
Requested flow rate	160.00 m³/h	Effective impeller diameter	226.0 mm
Max. allowable flow rate (pump)	147.18 m³/h	Acceptance standard	Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2

Installation plan

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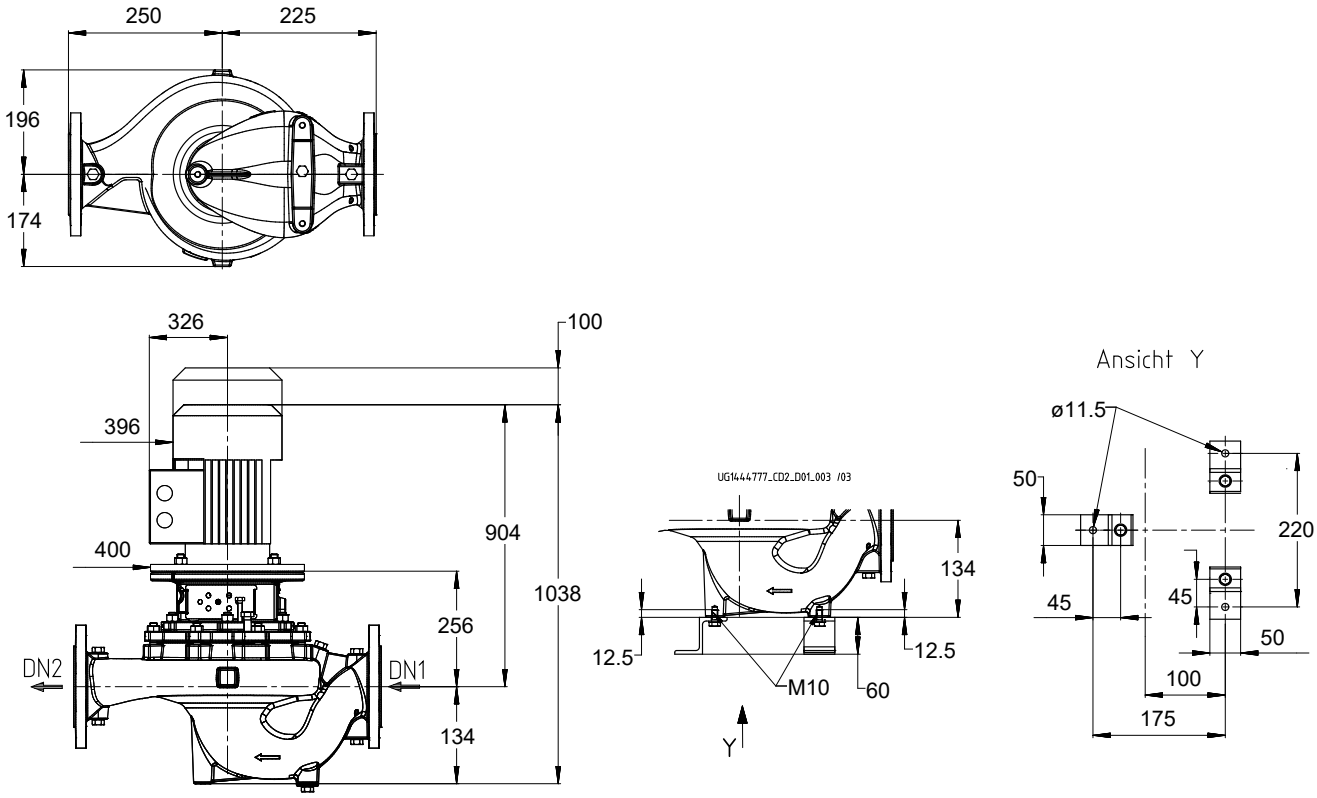

Drawing is not to scale

Dimensions in mm

Motor
required but not scope of supply

Motor size	200L
Motor power	30.00 kW
Number of poles	2
Speed of rotation	2970 rpm

Connections

Suction nominal size DN1	DN 65 / EN1092-2
Discharge nominal size DN2	DN 65 / EN1092-2
Nominal pressure suct.	PN 16
Rated pressure disch.	PN 16

Weight net

Pump	43 kg
Total	43 kg

Connect pipes without stress or strain!

For auxiliary connections see separate drawing.

Connection plan

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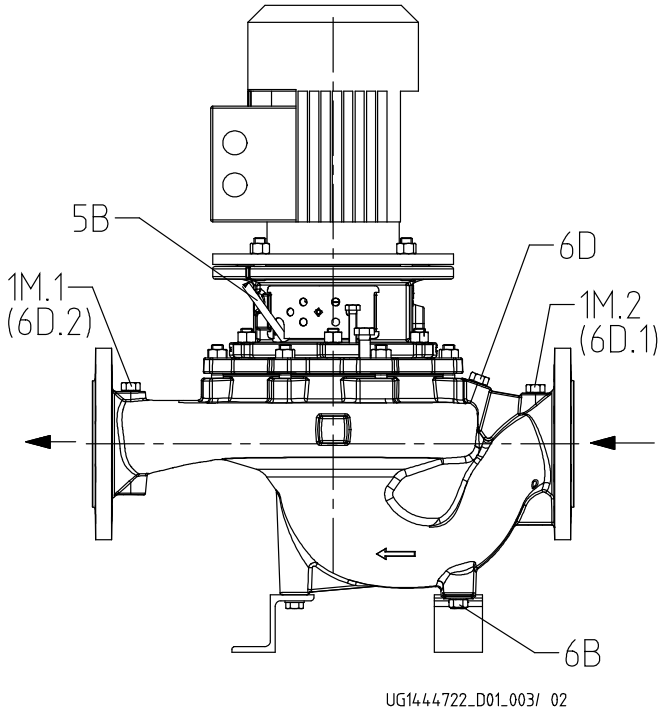

Connections

Pump casing variant		XX46
1M.1 Pressure gauge connection	G 1/4	Drilled and plugged.
1M.2 Pressure gauge connection	G 1/4	Drilled and plugged.
6B Pumped liquid drain	G 1/4	Drilled and plugged.
6D Pumped medium - filling / venting	G 1/4	Drilled and plugged.
5B venting	G 1/4	Closed with venting plug