

ETLZ080-080-250 GGSAV11D300304 BKSBI3

Inline pump

Operating data

Requested flow rate		Actual flow rate	57.46 m ³ /h
Requested developed head		Actual developed head	10.00 m
Pumped medium	Water Clean water Not containing chemical and mechanical substances which affect the materials	Efficiency MEI (Minimum Efficiency Index)	57.8 % ≥ 0.70
Ambient air temperature	20.0 °C	Power absorbed	2.71 kW
Fluid temperature	20.0 °C	Pump speed of rotation	1446 rpm
Fluid density	998 kg/m ³	NPSH required	1.85 m
Fluid viscosity	1.00 mm ² /s	Permissible operating pressure	16.00 bar.g
Suction pressure max.	0.00 bar.g	Discharge press.	0.98 bar.g
Mass flow rate	15.93 kg/s	Min. allow. mass flow for continuous stable operation	2.03 kg/s
Max. power on curve	3.09 kW	Max. allow. mass flow	22.25 kg/s
Min. allow. flow for continuous stable operation	7.31 m ³ /h	Design	Twin system one full duty + one standby pump Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2
Shutoff head	14.74 m		

Design

Pump standard	Without	Shaft seal code	11
Design	Close coupled twin inline	Sealing plan	Single-acting mechanical seal with vented chamber (A-type casing cover, taper bore)
Orientation	Vertical		
Suction nominal dia.	DN 80	A liquid free of solids is assumed	
Suction nominal pressure	PN 16	Seal chamber design	Conical seal chamber (A-type cover)
Suction position	180° (down)	Contact guard	With
Suction flange drilled according to standard	EN1092-2	Wear ring	Casing wear ring
Discharge nominal dia.	DN 80	Impeller diameter	204.0 mm
Discharge nominal pressure	PN 16	Free passage size	14.3 mm
Discharge position	top (0°/360°)	Direction of rotation from drive	Clockwise
Discharge flange drilled according to standard	EN1092-2	Bearing bracket construction	Close-coupled
Shaft seal	Single acting mechanical seal	Bearing bracket size	35
Manufacturer	KSB	Bearing type	Anti-friction bearings
Type	1	Lubrication type	Grease
Material code	BQ1EGG-WA	Color	Vermilion (RAL 2002)

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Driver, accessories

Driver type	Electric motor	Motor enclosure	IP55
Drive standard mech.	IEC	Cos phi at 4/4 load	0.82
Model (make)	KSB-Motor	Motor efficiency at 4/4 load	87.7 %
Drive supplied by	Standard motor supplied by KSB - mounted by KSB	Temperature sensor	3 PTC resistors
Motor const. type	V1	Terminal box position	0° same orientation
Motor size	100L		Viewed from the drive
Efficiency class	Efficiency class IE3 acc. to IEC60034-30-1	Motor winding	400 / 690 V
Motor speed	1450 rpm	Number of poles	4
Frequency	50 Hz	Connection mode	Delta
Rated voltage	400 V	Motor cooling method	Surface cooling
Rated power P2	3.00 kW	Motor material	Aluminium
Available reserve	10.88 %	Frequency inverter operation allowed	FI allowed
Rated current	6.2 A	Motor noise pressure level	63 dBA
Starting current ratio	8.2	Motor data can vary from type plate information. Motor data describes KSB's choice functional specification and is used for pump selection.	
Insulation class	F to IEC 34-1		

Materials G**Notes 1**

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 wear ring (502.1)	Grey cast iron GG/CAST IRON
Casing cover (161)	Grey cast iron EN-GJL-250/A48CL35B	Casing wear ring (502.2)	Grey cast iron GG/CAST IRON
Shaft (210)	Tempered steel C45+N	Disc (550)	Steel ST
Impeller (230)	Grey cast iron EN-GJL-250/A48CL35B	Stud (902)	Steel 8.8
Motor stool (341)	Grey cast iron EN-GJL-250/A48CL35B	Nut (920)	8+A2A/ 8+B633 SC1 TP3
Flat gasket (400)	DPAF seal plate asbestos free	Impeller nut (922)	Steel 8
Joint ring (411)	Steel ST	Key (940)	Steel C45+C / A311 GR 1045 CLASS A
		Pipe line (700)	Steel ST

FOOT 85X 50X 60

3 pump feet with bolts for vertical installation
Pump foot for vertical installation
Etaline(Z) 32-160/ up to 100-160/

Pump foot, not for Etaline SY
Weight : 2,0 kg

Material no

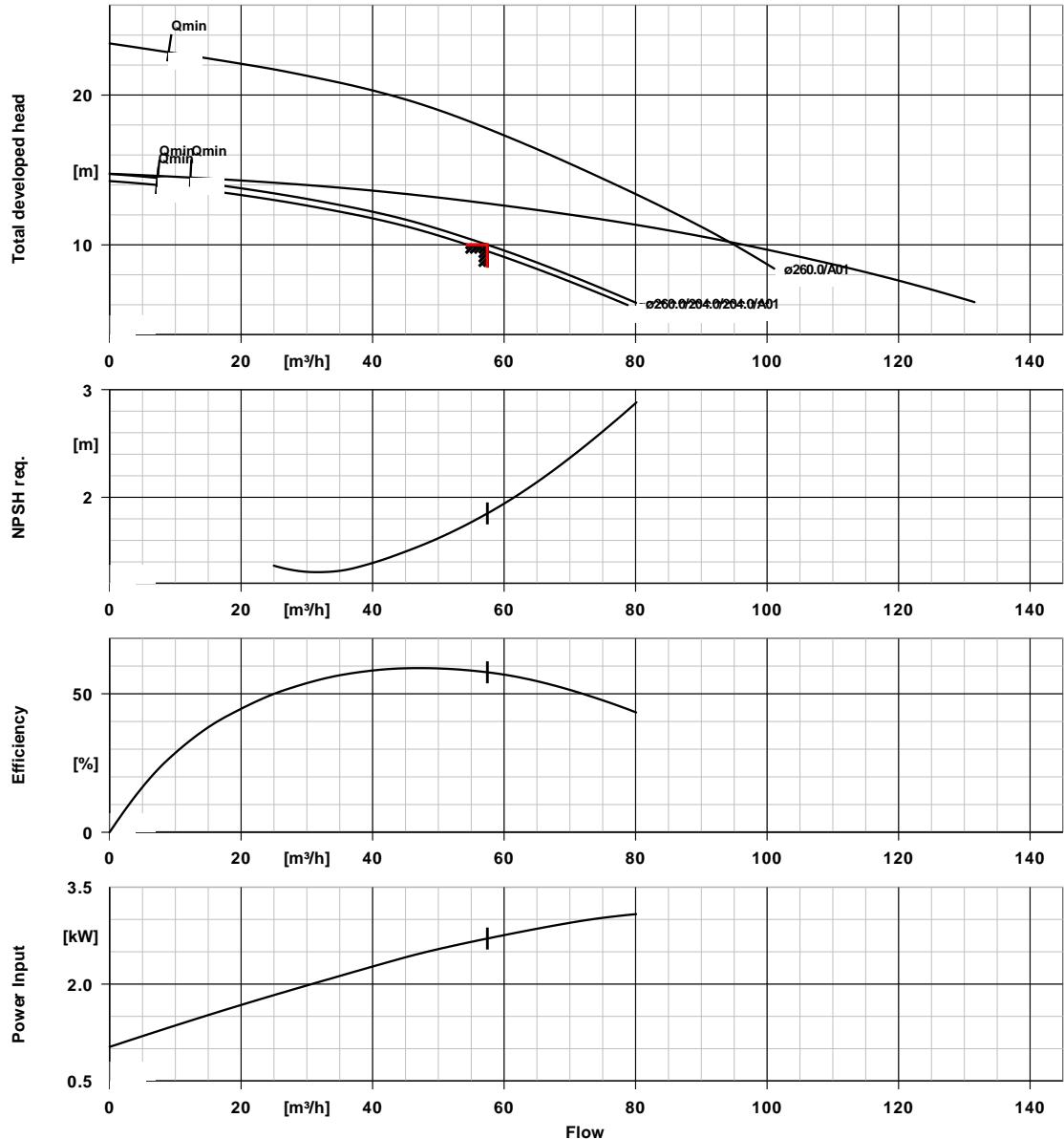
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Performance curve



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Curve data

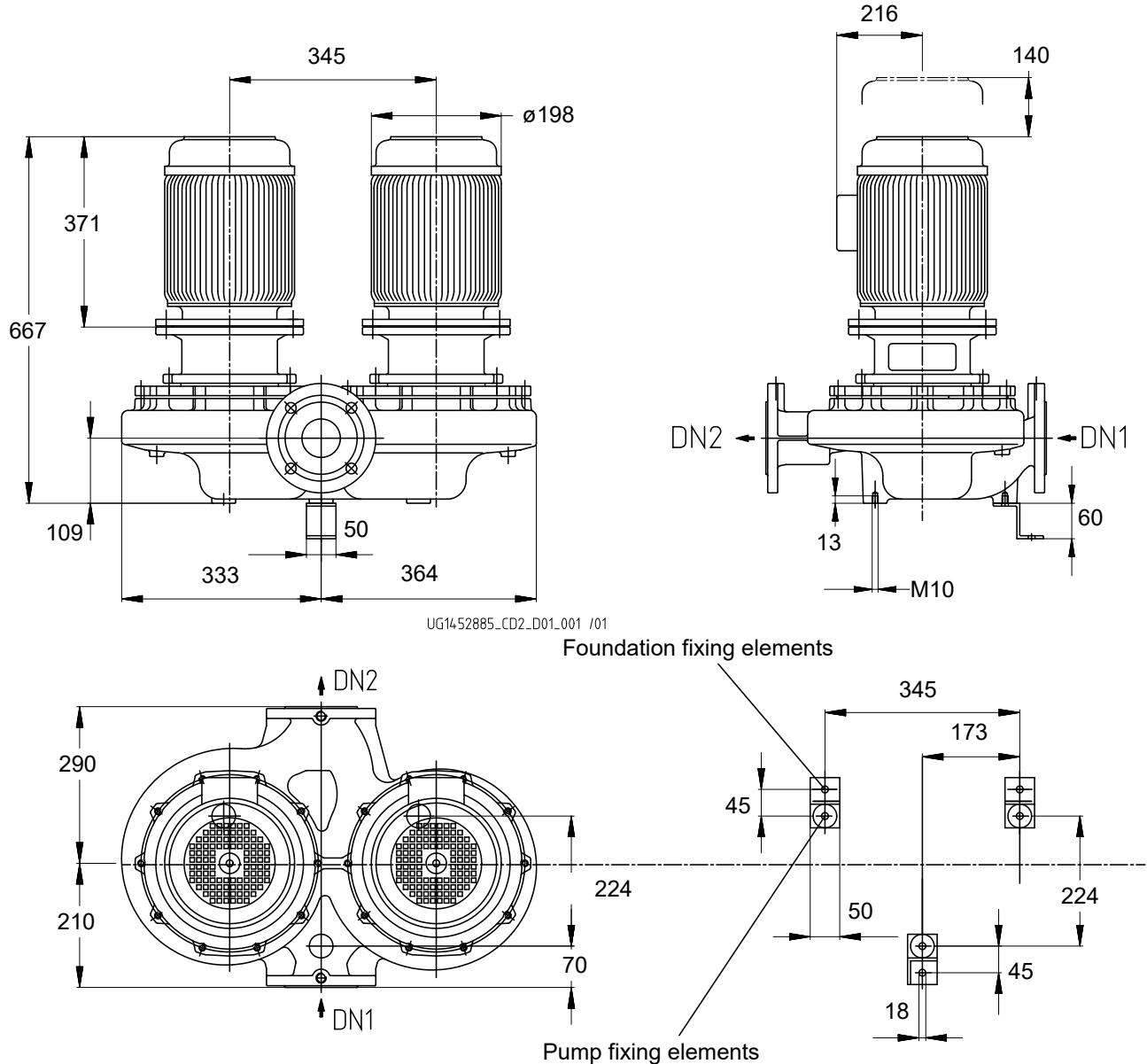
Speed of rotation	1446 rpm	Efficiency	57.8 %
Fluid density	998 kg/m³	MEI (Minimum Efficiency Index)	≥ 0.70
Viscosity	1.00 mm²/s	Power absorbed	2.71 kW
Flow rate	57.46 m³/h	NPSH required	1.85 m
Requested flow rate	57.45 m³/h	Curve number	K1161.454/38
Total developed head	10.00 m	Effective impeller diameter	204.0 mm
Requested developed head	10.00 m	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

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Motor

Motor manufacturer	KSB-Motor
Motor size	100L
Motor power	3.00 kW
Number of poles	4
Speed of rotation	1450 rpm
Position of terminal box	0° same orientation Viewed from the drive

Connections

Suction nominal size DN1	DN 80 / EN1092-2
Discharge nominal size DN2	DN 80 / EN1092-2
Nominal pressure suct.	PN 16
Rated pressure disch.	PN 16

Weight net

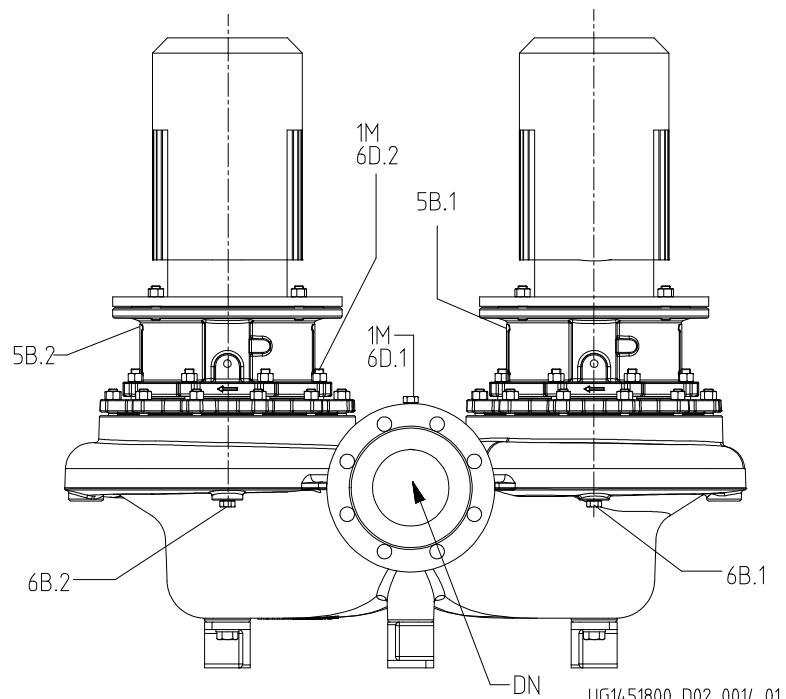
Pump	141 kg
Motor	68 kg
Other accessories	2 kg
Total	210 kg

For auxiliary connections see
separate drawing.

Connect pipes without stress or strain!

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Connections

Pump casing variant	XX46
1M.1 Pressure gauge connection	G 3/8
1M.2 Pressure gauge connection	G 3/8
6B.1 Pumped liquid drain	G 3/8
6B.2 Pumped liquid drain	G 3/8
6D.1 Pumped medium - filling/venting	G 3/8
6D.2 Pumped medium - filling / venting	G 3/8
5B.1 venting	G 1/4
5B.2 venting	G 1/4