

ETLZ080-080-250 GGS AV11D300554 BKS BIE3

Inline pump

Operating data

Pumped medium	Water Clean water Not containing chemical and mechanical substances which affect the materials	Actual flow rate	59.09 m ³ /h
Ambient air temperature	20.0 °C	Actual developed head	18.65 m
Fluid temperature	20.0 °C	Efficiency	61.2 %
Fluid density	998 kg/m ³	MEI (Minimum Efficiency Index)	= 0.70
Fluid viscosity	1.00 mm ² /s	Power absorbed	4.90 kW
Suction pressure max.	0.00 bar.g	Pump speed of rotation	1469 rpm
Mass flow rate	16.38 kg/s	NPSH required	1.92 m
Max. power on curve	6.32 kW	Permissible operating pressure	16.00 bar.g
Min. allow. flow for continuous stable operation	8.97 m ³ /h	Discharge press.	1.83 bar.g
Shutoff head	23.05 m	Min. allow. mass flow for continuous stable operation Design	2.49 kg/s Twin system one full duty + one standby pump Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2
Max. allow. mass flow	29.03 kg/s		

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	A liquid free of solids is assumed	
Suction nominal dia.	DN 80	Seal chamber design	Conical seal chamber (A-type cover)
Suction nominal pressure	PN 16	Contact guard	With
Suction position	180° (down)	Wear ring	Casing wear ring
Suction flange drilled according to standard	EN1092-2	Impeller diameter	253.0 mm
Discharge nominal dia.	DN 80	Free passage size	14.3 mm
Discharge nominal pressure	PN 16	Direction of rotation from drive	Clockwise
Discharge position	top (0°/360°)	Bearing bracket construction	Close-coupled
Discharge flange drilled according to standard	EN1092-2	Bearing bracket size	35
Shaft seal	Single acting mechanical seal	Bearing type	Anti-friction bearings
Manufacturer	KSB	Lubrication type	Grease
Type	1	Color	Vermilion (RAL 2002)
Material code	BQ1EGG-WA		

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Inline pump

Driver, accessories

Driver type	Electric motor	Insulation class	F to IEC 34-1
Drive standard mech.	IEC	Motor enclosure	IP55
Model (make)	KSB-Motor	Cos phi at 4/4 load	0.80
Drive supplied by	Standard motor supplied by KSB - mounted by KSB	Motor efficiency at 4/4 load	89.6 %
Motor const. type	V1	Temperature sensor	3 PTC resistors
Motor size	132S	Terminal box position	0° same orientation
Efficiency class	Efficiency class IE3 acc. to IEC60034-30-1	Motor winding	Viewed from the drive
Motor speed	1471 rpm	Number of poles	400 / 690 V
Frequency	50 Hz	Connection mode	4
Rated voltage	400 V	Motor cooling method	Delta
Rated power P2	5.50 kW	Motor material	Surface cooling
Available reserve	12.26 %	Frequency inverter operation allowed	Aluminium
Rated current	11.0 A	Motor noise pressure level	FI allowed
Starting current ratio	8.9		67 dBa

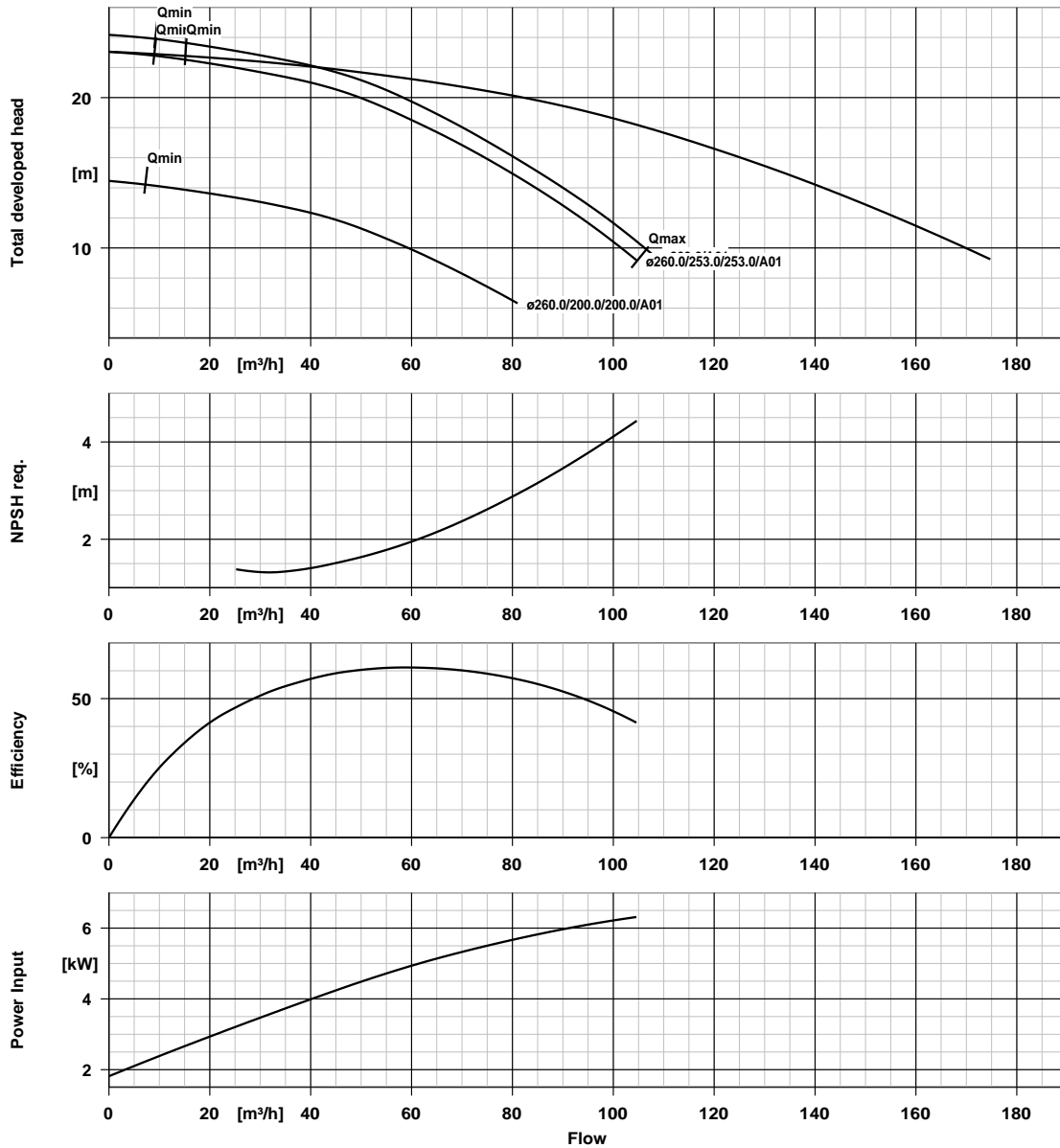
Materials G**Notes 1**

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

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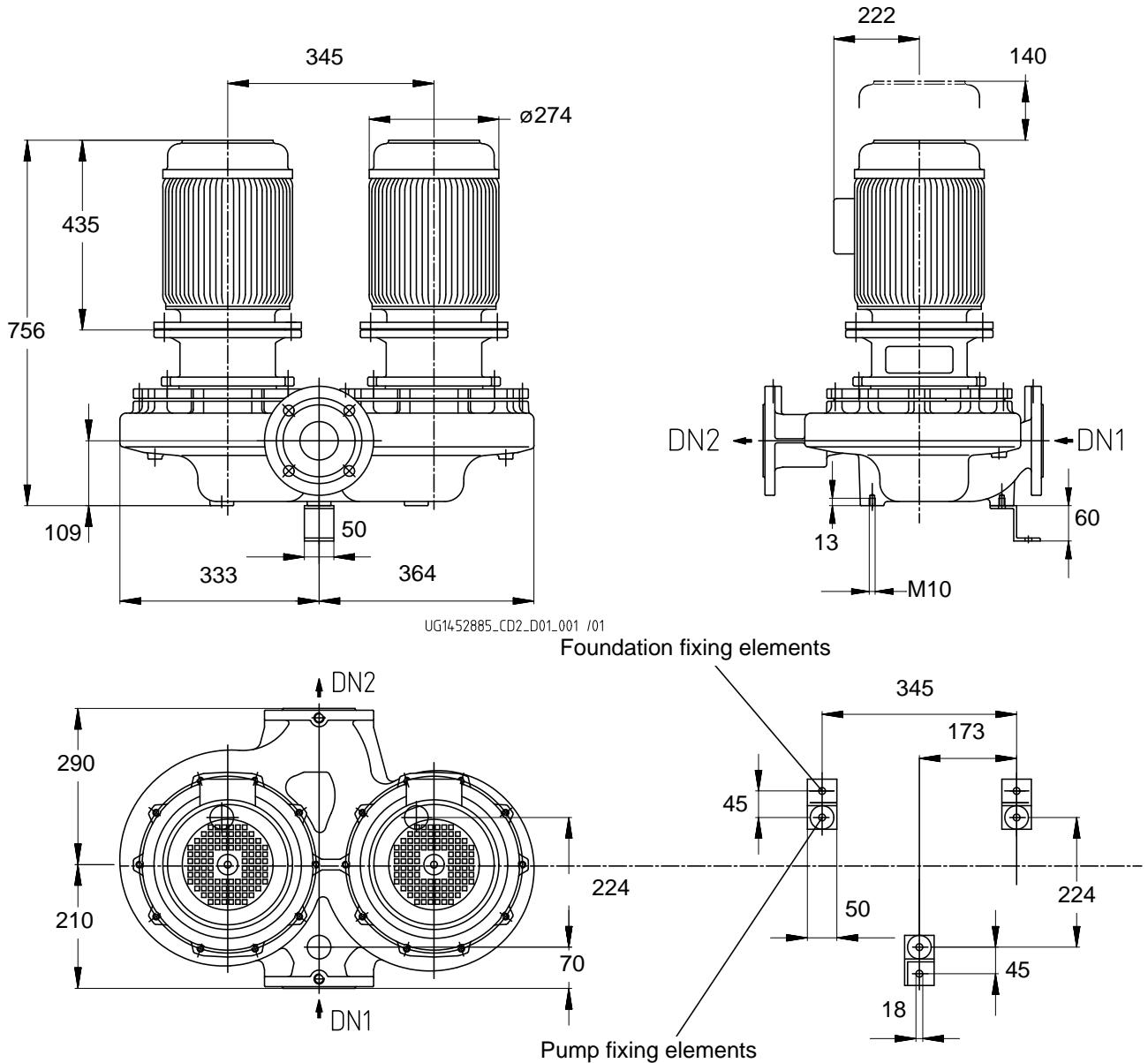
Inline pump



Curve data

Speed of rotation	1469 rpm	MEI (Minimum Efficiency Index)	= 0.70
Fluid density	998 kg/m³	Power absorbed	4.90 kW
Viscosity	1.00 mm²/s	NPSH required	1.92 m
Flow rate	59.09 m³/h	Curve number	K1161.454/38
Total developed head	18.65 m	Effective impeller diameter	253.0 mm
Efficiency	61.2 %	Acceptance standard	Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2

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Drawing is not to scale

Dimensions in mm

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Motor

Motor manufacturer	KSB-Motor
Motor size	132S
Motor power	5.50 kW
Number of poles	4
Speed of rotation	1471 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

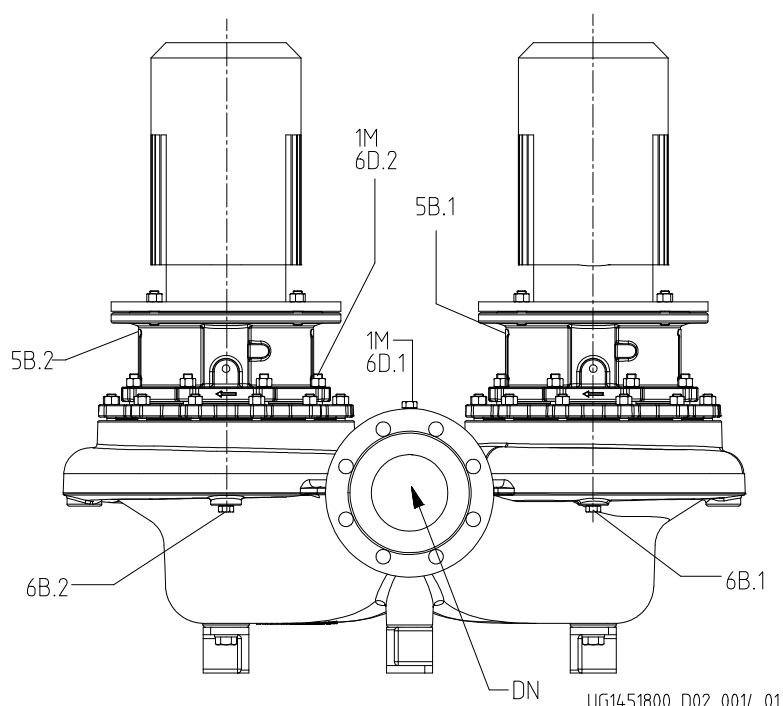
Pump	144 kg
Motor	67 kg
Total	211 kg

Connect pipes without stress or strain!

For auxiliary connections see separate drawing.

ETLZ080-080-250 GGS AV11D300554 BKSBIE3

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UG1451800_D02_001/ 01

Connections

Pump casing variant		XX46
1M.1 Pressure gauge connection	G 3/8	Not executed
1M.2 Pressure gauge connection	G 3/8	Not executed
6B.1 Pumped liquid drain	G 3/8	Drilled and plugged.
6B.2 Pumped liquid drain	G 3/8	Drilled and plugged.
6D.1 Pumped medium - filling/venting	G 3/8	Drilled and plugged.
6D.2 Pumped medium - filling / venting	G 3/8	Drilled and plugged.
5B.1 venting	G 1/4	Closed with venting plug
5B.2 venting	G 1/4	Closed with venting plug