Data sheet

ETLL050-050-100 GGSAV11D200752C AATBIE2
Inline pump

Operating data

Requested flow rate		Actual flow rate	5.000 l/s
Requested developed head		Actual developed head	8.50 m
Pumped medium	Water Clean water Not containing chemical and mechanical substances which affect the materials	Efficiency	63.9 %
		MEI (Minimum Efficiency Index)	= 0.40
		Power absorbed	0.65 kW
		Pump speed of rotation	2710 rpm
Ambient air temperature	20.0 °C	NPSH required	1.74 m
Fluid temperature	20.0 °C	Permissible operating pressure	10.00 bar.g
Fluid density	998 kg/m³		
Fluid viscosity	1.00 mm²/s	Discharge press.	0.83 bar.g
Suction pressure max.	0.00 bar.g	Min. allow. mass flow for continuous stable operation	0.05 kg/s
Mass flow rate	4.99 kg/s		
Max. power on curve	0.73 kW	Shutoff head	10.52 m
Min. allow. flow for continuous stable operation	0.046 l/s	Max. allow. mass flow	8.40 kg/s
		Design	Single system 1 x 100 %

Design

Pump standard	Without	Manufacturer	KSB
Design	Close-coupled in-line	Type	TYPE 2100
Orientation	Horizontal	Material code	BQ1EGG
Suction nominal dia.	DN 50	Shaft seal code	11
Suction nominal pressure	PN 6/10	Sealing plan	Single-acting mechanical seal with vented chamber (A-type casing cover, taper bore)
Suction position	180° (down)		
Suction flange drilled according to standard	EN1092-2	Seal chamber design	Conical seal chamber (A-type cover)
Discharge nominal dia.	DN 50		
Discharge norminal pressure	PN 6/10	Impeller diameter	98.0 mm
Discharge position	top (0°/360°)	Direction of rotation from drive	Anticlockwise
Discharge flange drilled according to standard	EN1092-2	Bearing bracket construction	Close-coupled
		Bearing type	Anti-friction bearings
Shaft seal	Single acting mechanical seal	Lubrication type	Grease
		Color	Vermilion (RAL 2002)

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Driver, accessories

Driver type	Electric motor	Cos phi at 4/4 load	0.84
Drive standard mech.	IEC	Motor efficiency at 4/4 load	77.4 %
Model (make)	KSB	Temperature classes aggregate	""
Drive supplied by	Standard motor supplied by KSB - mounted by KSB	Temperature class motor	""
Motor const. type	B14	Temperature sensor	Without
Motor size	071M	Terminal box position	0°/360° (top) Viewed from the drive
Efficiency class	Efficiency class IE2 acc. to IEC60034-30-1	Motor winding	400 V
Speed control selection	Speed adjustment	Number of poles	2
Frequency	50 Hz	Connection mode	Star
Rated voltage	400 V	Motor cooling method	Surface cooling
Rated power P2	0.75 kW	Motor material	AC-46200F-D
Available reserve	15.33 %	Motor noise pressure level	64 dBa
Rated current	1.6 A	Designed for operation with frequency inverter	Yes
Starting current ratio	7.7	Frequency inverter operation allowed	VFD-suitability only in connection with KSB PumpDrive
Insulation class	F to IEC 34-1		
Motor enclosure	IP55		

Materials GG

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)	Cast iron EN-GJL-200	Impeller (230)	Grey cast Iron EN-GJL-150
Shaft (210)	Stainless steel 1.4571	Motor stool (341)	Aluminium AC-46500
		O-Ring (412.50)	EPDM 70 PEROXYD
		Cap (580)	Polyamid 66

Performance curve

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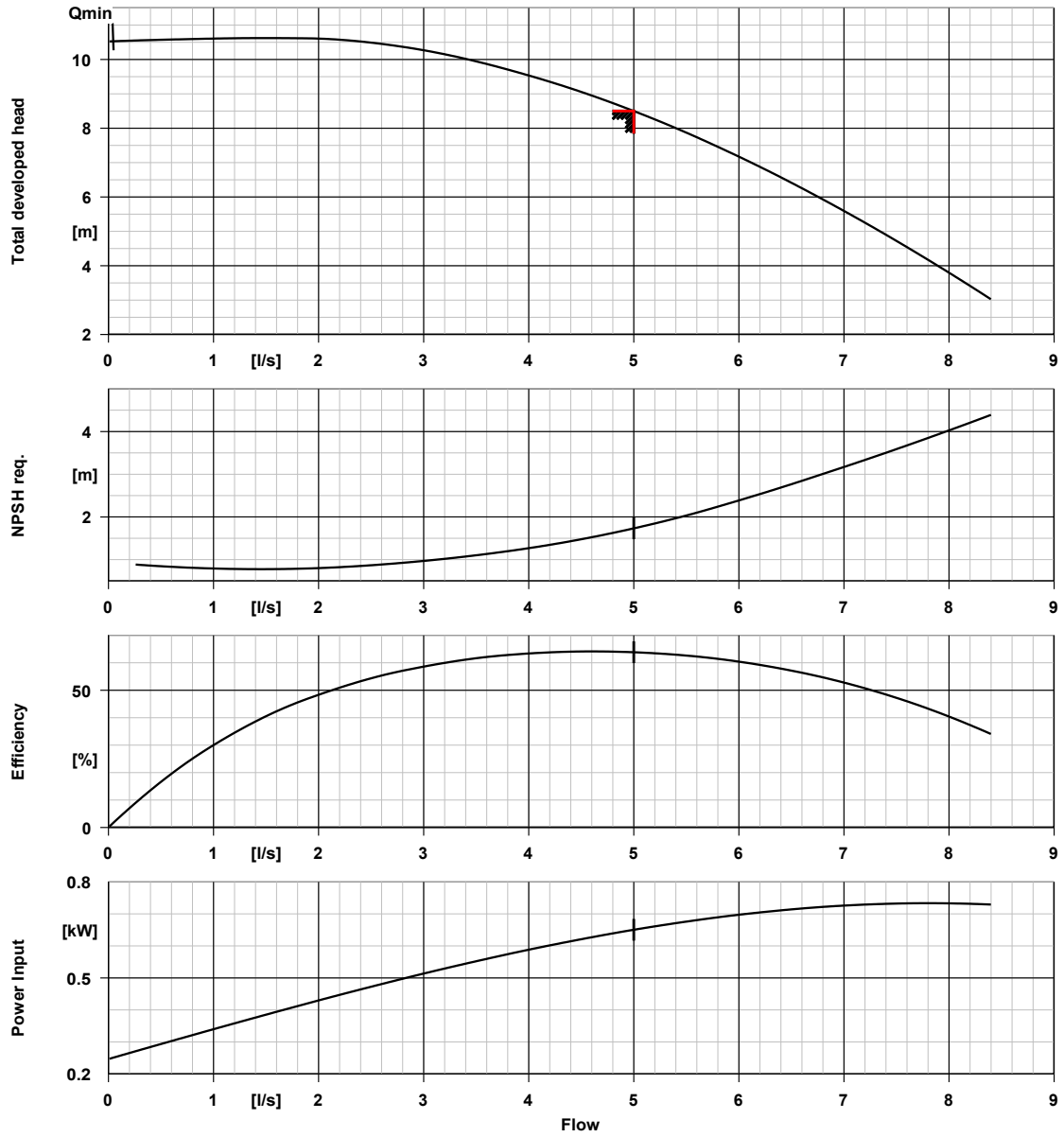

Curve data

Speed of rotation	2710 rpm	Efficiency	63.9 %
Fluid density	998 kg/m³	MEI (Minimum Efficiency Index)	= 0.40
Viscosity	1.00 mm²/s		
Flow rate	5.000 l/s	Power absorbed	0.65 kW
Requested flow rate	5.000 l/s	NPSH required	1.74 m
Total developed head	8.50 m	Curve number	K1159.452/78Ø98
Requested developed head	8.50 m	Effective impeller diameter	98.0 mm

Installation plan

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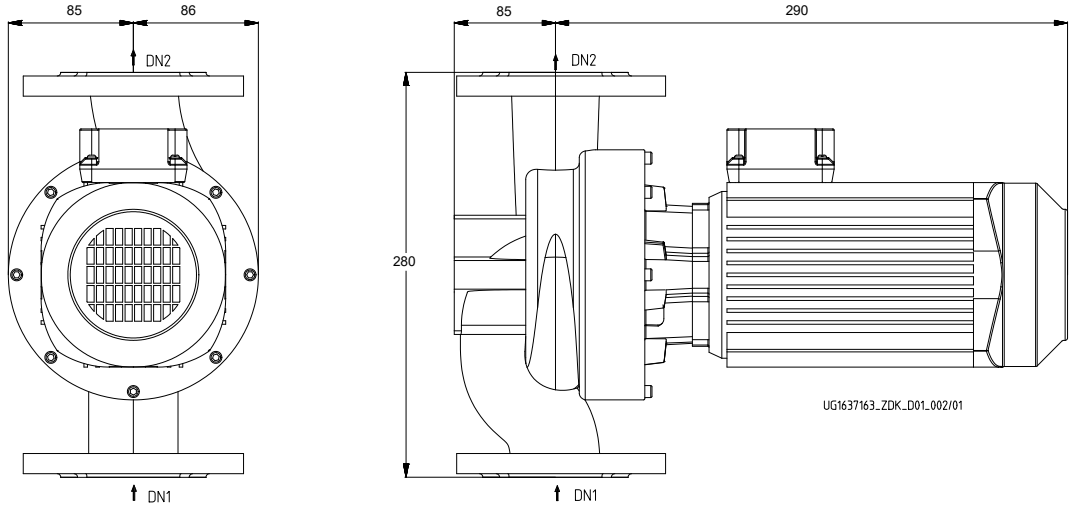

Drawing is not to scale

Dimensions in mm

Motor

Motor manufacturer	KSB
Motor size	071M
Motor power	0.75 kW
Number of poles	2
Speed of rotation	2876 rpm
Position of terminal box	0°/360° (top) Viewed from the drive

Connections

Suction nominal size DN1	DN 50 / EN1092-2
Discharge nominal size DN2	DN 50 / EN1092-2
Nominal pressure suct.	PN 6/10
Rated pressure disch.	PN 6/10

Weight net

Pump	24 kg
Total	24 kg

Connect pipes without stress or strain!

For auxiliary connections see separate drawing.

Supplementary drawing for PumpDrive

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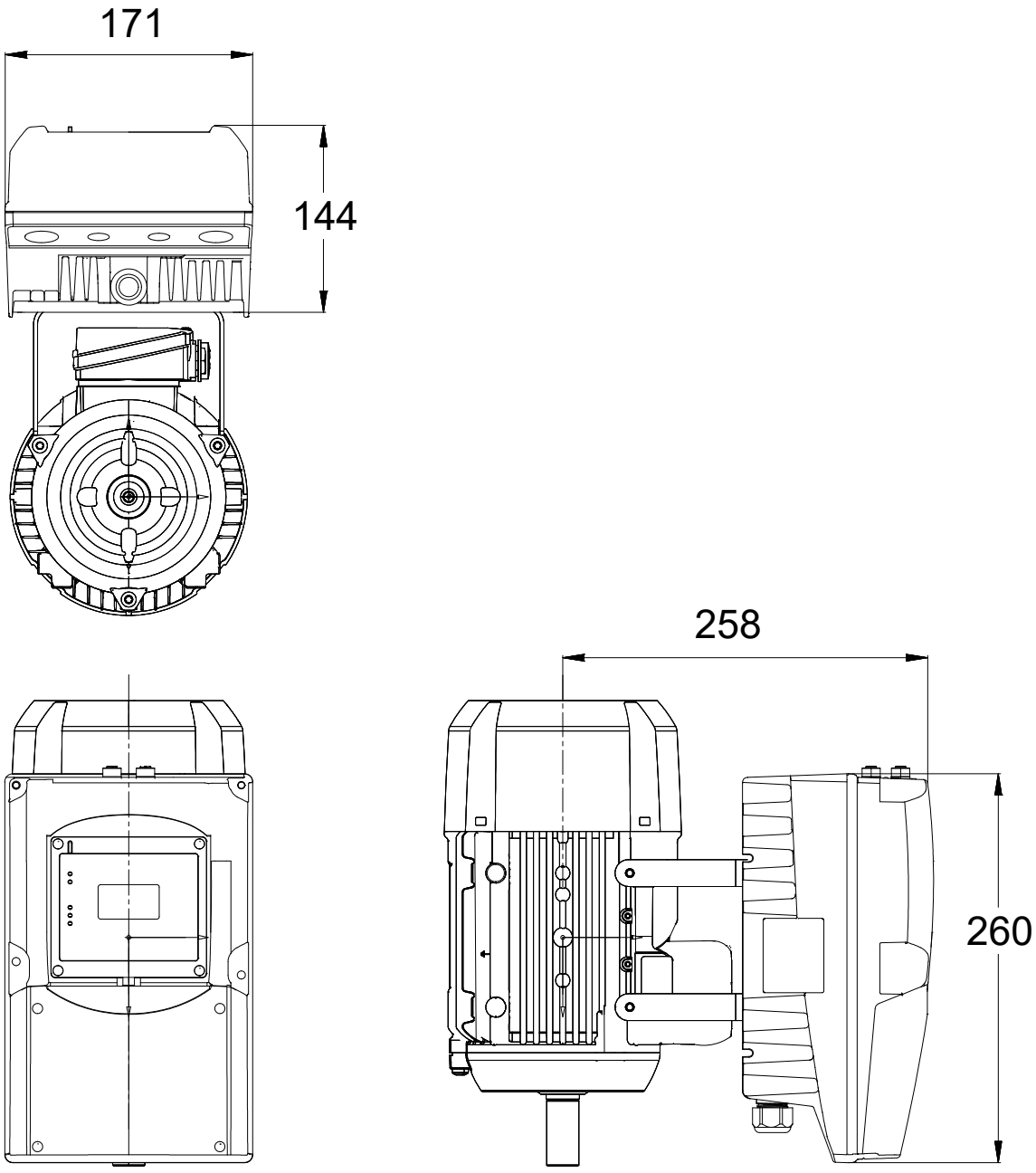

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Connection plan

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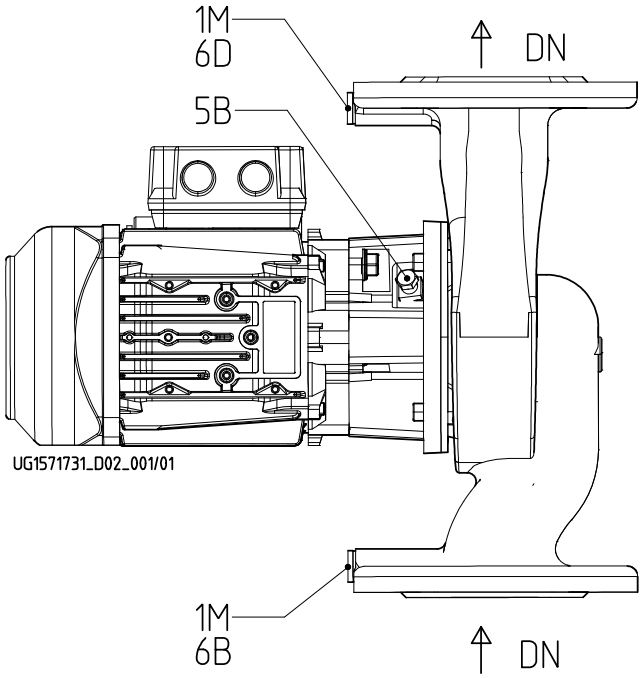

Connections

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