

ETLL050-050-160 GGS AV11D400754C AATBIE3

Inline pump
Ident number 48270198

Operating data

Requested flow rate		Actual flow rate	17.69 m ³ /h
Pumped medium		Actual developed head	7.41 m
		Efficiency	63.4 %
		MEI (Minimum Efficiency Index)	≥ 0.40
		Power absorbed	0.56 kW
		Pump speed of rotation	1461 rpm
		NPSH required	0.20 m
		Permissible operating pressure	10.00 bar.g
Max. ambient air temperature	40.0 °C		
Min. ambient air temperature	20.0 °C		
Fluid temperature	47.0 °C		
Fluid density	989 kg/m ³		
Fluid viscosity	0.59 mm ² /s	Discharge press.	0.72 bar.g
Suction pressure max.	0.00 bar.g	Min. allow. mass flow for continuous stable operation	0.06 kg/s
Mass flow rate	4.86 kg/s	Shutoff head	8.32 m
Max. power on curve	0.68 kW	Max. allow. mass flow Design	11.75 kg/s
Min. allow. flow for continuous stable operation	0.23 m ³ /h		Single system 1 x 100 %

Design

Pump standard	Without	Type	TYPE 2100
Design	Close-coupled in-line	Material code	BQ1EGG
Orientation	Horizontal	Shaft seal code	11
Suction nominal dia.	DN 50	Sealing plan	Single-acting mechanical seal with vented chamber (A-type casing cover, taper bore)
Suction nominal pressure	PN 6/10		
Suction position	180° (down)	Minimum requirements for hot water quality: treatment acc. to VdTÜV regulation TCH 1466 and solids content up to max. 5 mg/l.	
Suction flange drilled according to standard	EN1092-2	Seal chamber design	Conical seal chamber (A-type cover)
Discharge nominal dia.	DN 50	Impeller diameter	159.0 mm
Discharge nominal pressure	PN 6/10	Direction of rotation from drive	Anticlockwise
Discharge position	top (0°/360°)	Bearing bracket construction	Close-coupled
Discharge flange drilled according to standard	EN1092-2	Bearing type	Anti-friction bearings
Shaft seal	Single acting mechanical seal	Lubrication type	Grease
Manufacturer	KSB	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	0.76
Model (make)	KSB	Motor efficiency at 4/4 load	82.5 %
Drive supplied by	Standard motor supplied by KSB - mounted by KSB	Temperature classes aggregate	""
Motor const. type	B14	Temperature class motor	""
Motor size	080M	Temperature sensor	Without
Efficiency class	Efficiency class IE3 acc. to IEC60034-30-1	Terminal box position	0°/360° (top) Viewed from the drive
Motor speed	1461 rpm	Motor winding	230 / 400 V
Frequency	50 Hz	Number of poles	4
Rated voltage	400 V	Connection mode	Star
Rated power P2	0.75 kW	Motor cooling method	Surface cooling
Available reserve	34.62 %	Motor material	AC-46200F-D
Rated current	1.7 A	Frequency inverter operation allowed	FI allowed
Starting current ratio	7.9	Motor noise pressure level	55 dBa
Insulation class	F to IEC 34-1		

Materials GG

Notes 1

Unalloyed cast iron components: pH = 9 to 10.5 and O2 content <= 0.02 mg/kg.

Volute casing (102)	Cast iron EN-GJL-200
Shaft (210)	Stainless steel 1.4571

Impeller (230)	Grey cast Iron EN-GJL-150
Motor stool (341)	Aluminium AC-46500
O-Ring (412.50)	EPDM 70 PEROXYD
Cap (580)	Polyamid 66

Order documentation

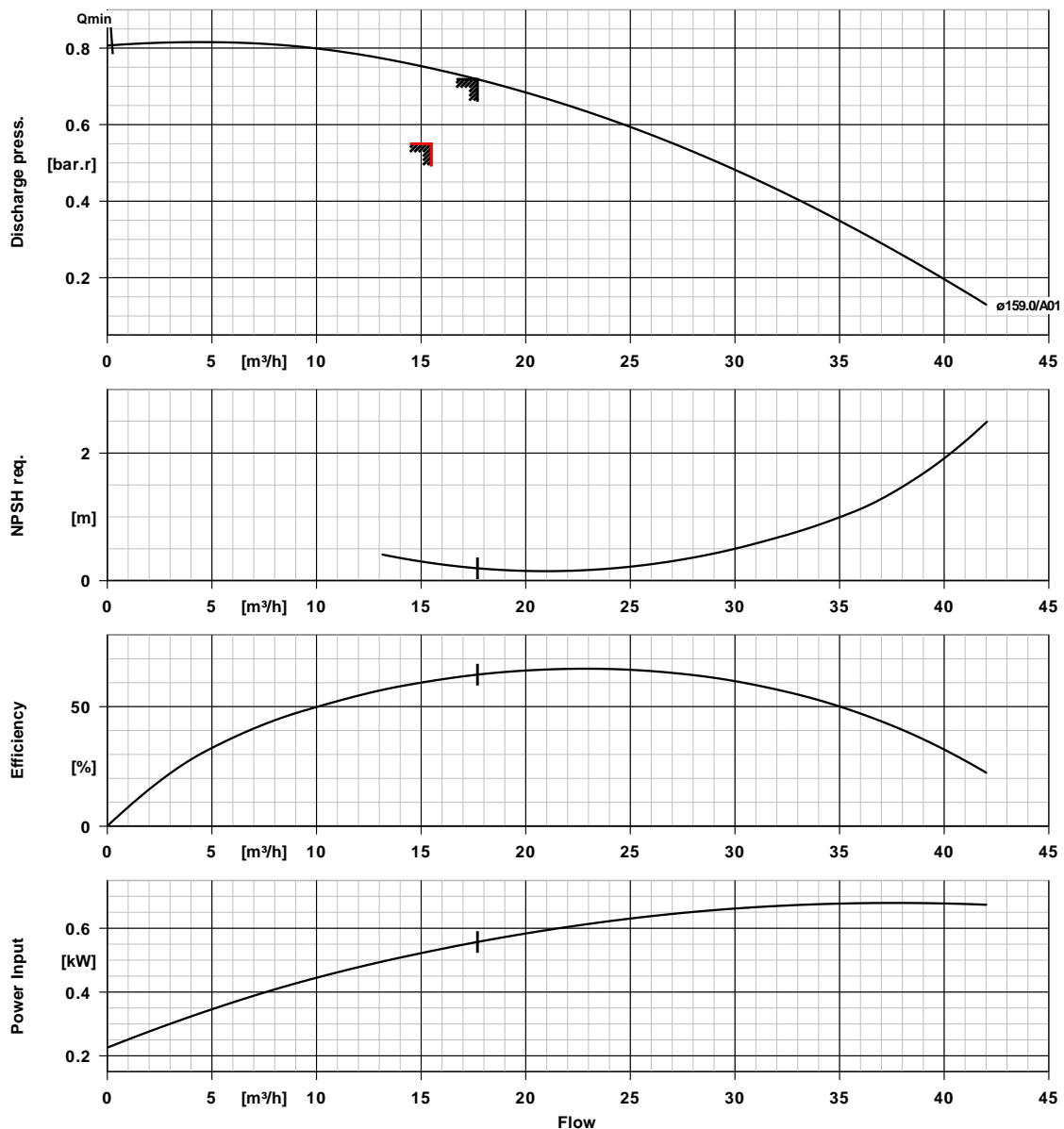
The following documents will be supplied with the order:
 Manufacturer's or conformity declaration
 General arrangement drawing
 Auxiliary connection plan

Operating manual	
Technical data sheet	
Performance curve	
Languages	English

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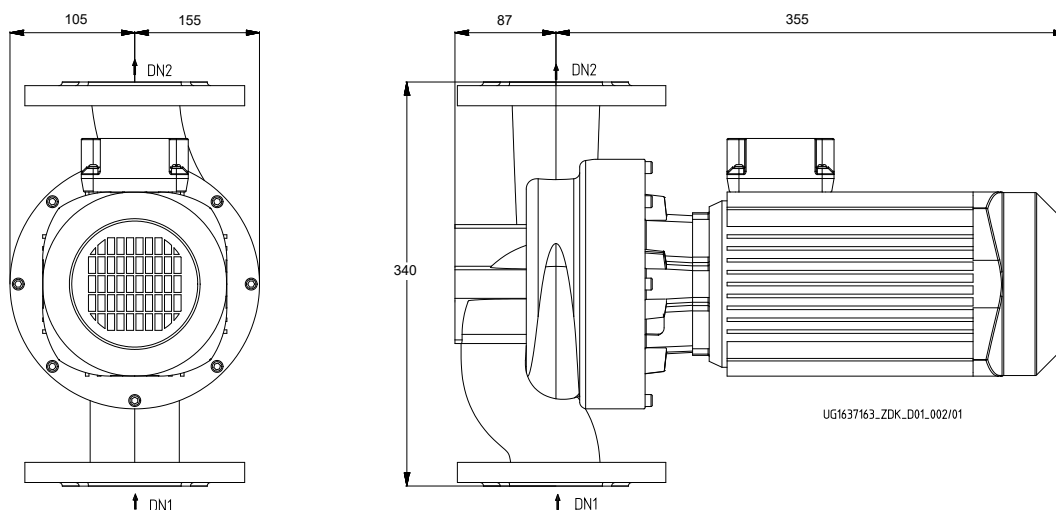
Curve data

Speed of rotation	1461 rpm	Efficiency	63.4 %
Fluid density	989 kg/m ³	MEI (Minimum Efficiency Index)	≥ 0.40
Viscosity	0.59 mm ² /s	Power absorbed	0.56 kW
Flow rate	17.69 m ³ /h	NPSH required	0.20 m
Requested flow rate	15.48 m ³ /h	Curve number	K1159.454/80
Total developed head	7.41 m	Effective impeller diameter	159.0 mm
Requested discharge pressure	0.55 bar.g		

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Drawing is not to scale

Dimensions in mm

Motor

Motor manufacturer	KSB
Motor size	080M
Motor power	0.75 kW
Number of poles	4
Speed of rotation	1461 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	35 kg
Total	35 kg

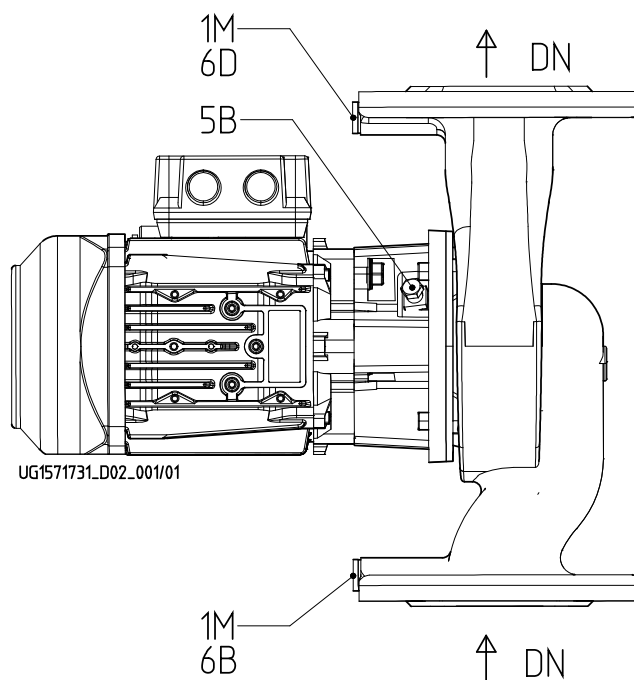
Connect pipes without stress or strain!

For auxiliary connections see separate drawing.

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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.