Data sheet

ETLY032-032-160 SGSDB08D200074 BKSBIE3

Inline pump

Operating data Point no. 1 (Defining)

Requested flow rate	3.00 m³/h	Actual flow rate	3.00 m³/h
Requested developed head	8.10 m	Actual developed head	8.10 m
Pumped medium	+ Fragol HT 250	Efficiency	37.3 %
	+	Power absorbed	0.12 kW
Pumped medium details	Not containing chemical and mechanical substances which affect the materials	Pump speed of rotation	1487 rpm
		NPSH required	2.06 m
		Permissible operating pressure	13.68 bar.g
Max. ambient air temperature	20.0 °C		
Min. ambient air temperature	20.0 °C	Discharge press.	0.53 bar.g
Fluid temperature	260.0 °C		
Fluid density	664 kg/m³	Shutoff head	8.26 m
Fluid viscosity	0.55 mm²/s	Min. allow. flow for continuous stable operation	1.50 m³/h
Suction pressure max.	0.00 bar.g		
Mass flow rate	0.55 kg/s	Min. allow. mass flow for continuous stable operation	0.28 kg/s
Max. power on curve	0.24 kW		
Max. allow. mass flow	2.97 kg/s	Design	Single system 1 x 100 % Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2

Point no. 2

Requested flow rate	3.00 m³/h	Actual flow rate	2.99 m³/h
Requested developed head	8.10 m	Actual developed head	8.07 m
Max. ambient air temperature	20.0 °C	Efficiency	37.3 %
Min. ambient air temperature	20.0 °C	Power absorbed	0.15 kW
Fluid temperature	20.0 °C	Pump speed of rotation	1487 rpm
Fluid density	830 kg/m³	NPSH required	2.05 m
Fluid viscosity	14.00 mm²/s	Permissible operating pressure	13.68 bar.g
Suction pressure max.	0.00 bar.g		
		Discharge press.	0.66 bar.g
Mass flow rate	0.69 kg/s	Shutoff head	8.24 m
Max. power on curve	0.30 kW	Min. allow. flow for continuous stable operation	1.50 m³/h
Max. allow. mass flow	3.71 kg/s		
Design	Single system 1 x 100 %	Min. allow. mass flow for continuous stable operation	0.34 kg/s

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Design

Pump standard	Without

Caution: The overall length from suction to discharge can be different to the previous generation of Etaline.

Design	Close-coupled in-line
Orientation	Horizontal
Suction nominal dia.	DN 32
Suction nominal pressure	PN 16
Suction position	180° (down)
Suction flange drilled according to standard	EN1092-2
Discharge nominal dia.	DN 32
Discharge nominal 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
Shaft seal manufacturer	KSB
Shaft seal type	4EYS
Material code	AQ1V7GG
Shaft seal code	8
Sealing plan	BS Dead-end with air cooling
Seal chamber design	Standard seal chamber
Contact guard	With
Wear ring	Casing wear ring
Impeller diameter	153.0 mm
Free passage size	5.4 mm
Direction of rotation from drive	Clockwise
Silicon free pump assembly	Yes
Bearing bracket construction	Close-coupled
Bearing bracket size	25
Bearing type	Plain bearings
Lubrication type	Medium lubricated
Color	White aluminium (similar RAL 9006)

Driver, accessories

Driver type	Electric motor
Drive standard mech.	IEC
Model (make)	KSB-Motor
Drive supplied by	Standard motor supplied by KSB - mounted by KSB
Motor const. type	V1
Motor size	080M
Efficiency class	Efficiency class IE3 acc. to IEC60034-30-1
Motor speed	1487 rpm
Frequency	50 Hz
Rated voltage	400 V
Rated power P2	0.75 kW
Available reserve	410.81 %
Rated current	1.9 A
Starting current ratio	7.5
Insulation class	F to IEC 34-1
Motor enclosure	IP55
Cos phi at 4/4 load	0.81
Motor efficiency at 4/4 load	82.5 %
Temperature sensor	1 PTC resistor
Terminal box position	0°/360° (top) Viewed from the drive
Motor winding	230 / 400 V
Number of poles	4
Connection mode	Star
Motor cooling method	Surface cooling
Motor material	Aluminium
Frequency inverter operation allowed	FI allowed
Motor noise pressure level	56 dBa

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

CE-approval	Yes
EAC Approval	Yes
Condensat drain motor	Yes
Ambient temperature	40.0 °C
Max. absolute humidity	30 %
Temp. sensor mtr. bearing	Without
UKCA conformity	Yes

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Materials SYT

Volute casing (102)	Spheroidal graphite cast iron EN-GJS-400-15 / ASTM A536 gr.60.40.18	Flat gasket (400)	BU 9593/HDR
		Joint ring (411)	Steel ST
		Casing wear ring (502.1)	Grey cast iron GG/CAST IRON
Casing cover (161)	Spheroidal graphite cast iron EN-GJS-400-15 / ASTM A536 gr.60.40.18	Casing wear ring (502.2)	Grey cast iron GG/CAST IRON
		Stud (902)	Steel 8.8
		Impeller nut (922)	Steel 8
Shaft (210)	Chrome steel 1.4021+QT800	Key (940)	Steel C45+C / A311 GR 1045 CLASS A
Impeller (230)	Grey cast iron EN-GJL-250/A48CL35B		
Plain bearing (310)	Carbon KHK		
Motor stool (341)	Grey cast iron EN-GJL-250/A48CL35B		
Bearing housing (350)	Spheroidal graphite cast iron EN-GJS-400-15 / ASTM A536 gr.60.40.18		

Packaging

Packaging category	A0 Packing acc. to KSB choice	Packaging for transport	Truck
		Packaging for country	Poland
Packaging for storage	Indoor		

Nameplates

Nameplates language	International

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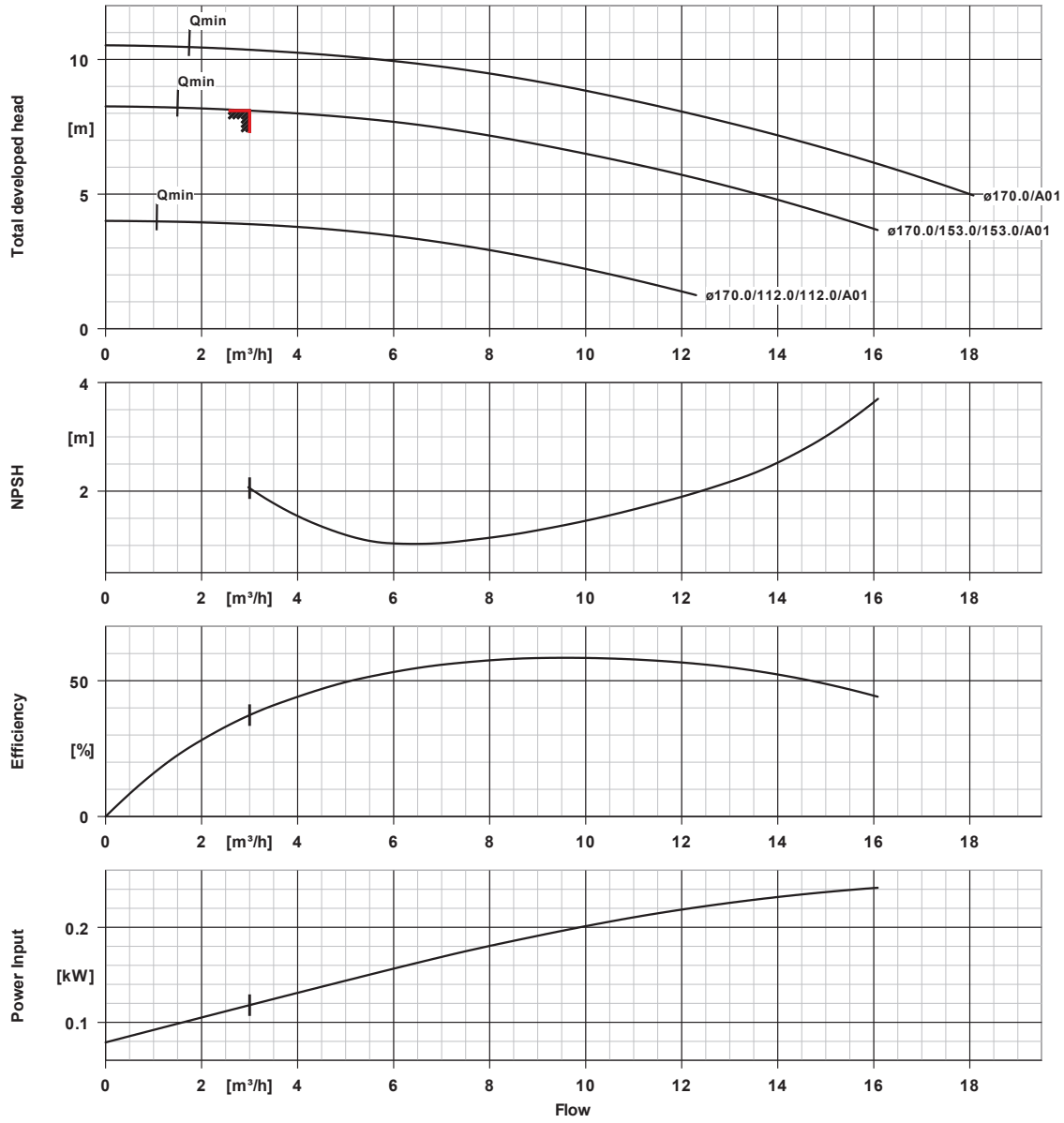

Curve data

Speed of rotation	1487 rpm	Efficiency	37.3 %
Fluid density	664 kg/m³	Power absorbed	0.12 kW
Viscosity	0.55 mm²/s	NPSHR	2.06 m
Flow rate	3.00 m³/h	Curve number	K1159.454/18
Requested flow rate	3.00 m³/h	Effective impeller diameter	153.0 mm
Total developed head	8.10 m	Acceptance standard	Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2
Requested developed head	8.10 m		

Installation plan

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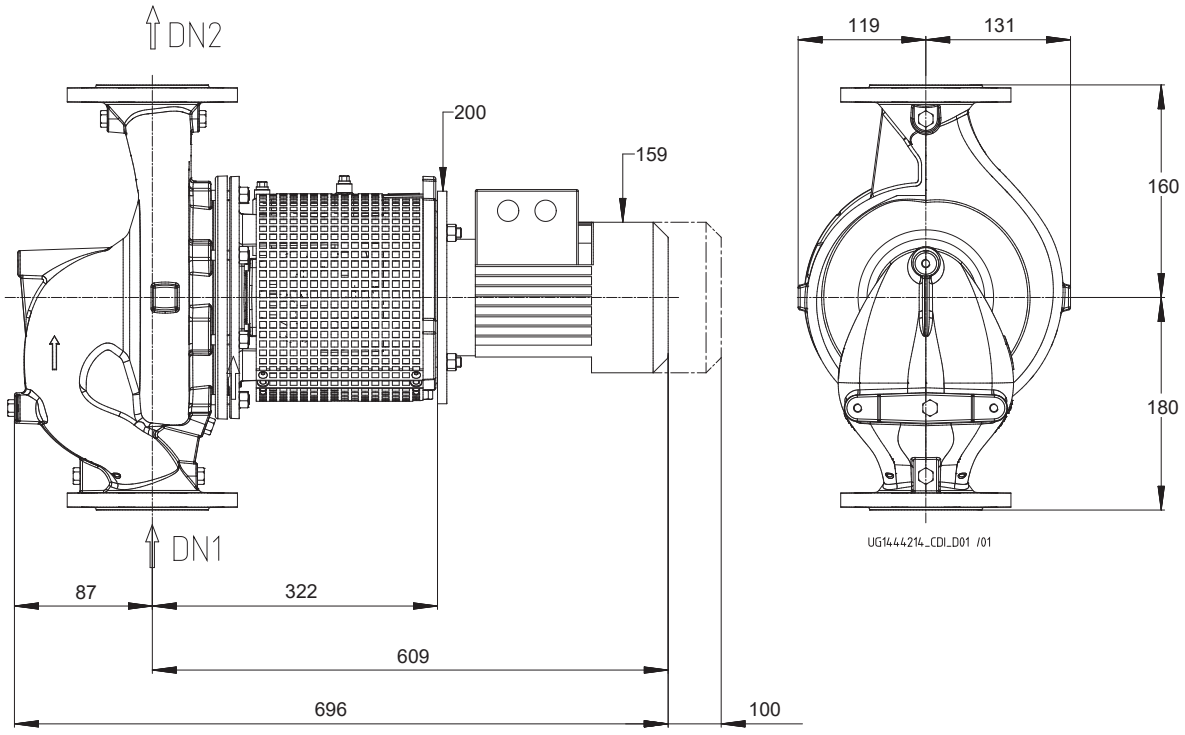

Drawing is not to scale

Dimensions in mm

Motor

Motor manufacturer	KSB-Motor
Motor size	080M
Motor power	0.75 kW
Number of poles	4
Speed of rotation	1487 rpm
Position of terminal box	0°/360° (top) Viewed from the drive

Connections

Suction nominal size DN1	DN 32 / EN1092-2
Discharge nominal size DN2	DN 32 / EN1092-2
Nominal pressure suct.	PN 16
Rated pressure disch.	PN 16

Weight net

Pump	26 kg
Motor	15 kg
Total	41 kg

Connect pipes without stress or strain!

For auxiliary connections see separate drawing.

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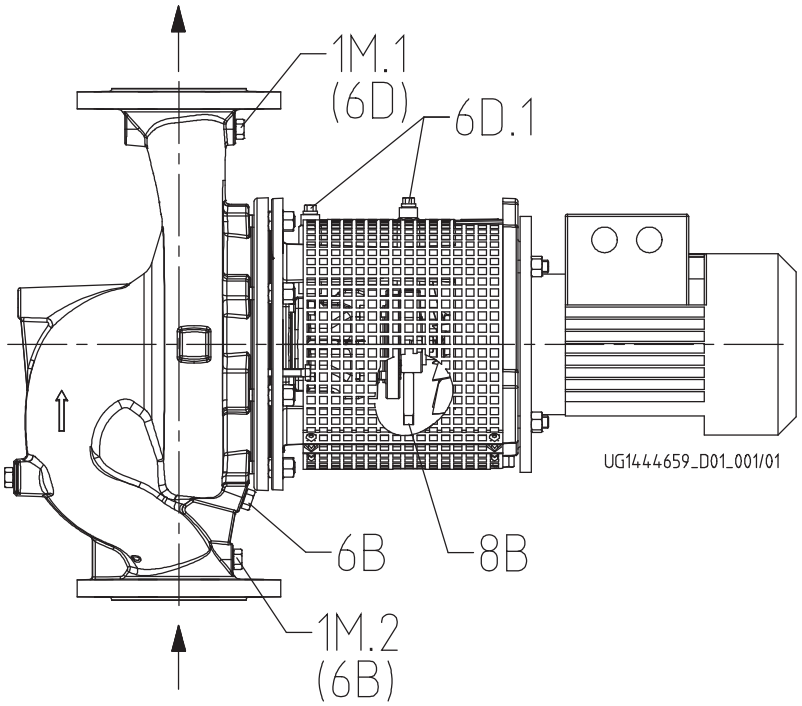

Connections

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.1 Pumped medium - filling/venting	G 1/4	Drilled and plugged.
8B Leakage drain	G 1/8	Drilled