

**ETL 032-032-200 GG AV11D200034 BSIEIE1**

Inline pump

**Operating data**

Requested flow rate		Actual flow rate	3.20 m³/h
Requested developed head		Actual developed head	10.20 m
Pumped medium	Water	Efficiency	31.1 %
	Clean water	MEI (Minimum Efficiency Index)	≥ 0.70
	Not containing chemical and mechanical substances which affect the materials	Power absorbed	0.29 kW
Ambient air temperature	20.0 °C	Pump speed of rotation	1400 rpm
Fluid temperature	20.0 °C	NPSH required	1.15 m
Fluid density	998 kg/m³	Permissible operating pressure	16.00 bar.g
Fluid viscosity	1.00 mm²/s	Discharge press.	1.00 bar.g
Suction pressure max.	0.00 bar.g	Min. allow. mass flow for continuous stable operation	0.53 kg/s
Mass flow rate	0.89 kg/s	Shutoff head	10.74 m
Max. power on curve	0.49 kW	Max. allow. mass flow	4.87 kg/s
Min. allow. flow for continuous stable operation	1.92 m³/h	Design	Single system 1 x 100 %

**Design**

Pump standard	Without	Shaft seal code	11
Caution: This pump has a flange-to-flange installation length which is 60mm longer than the old generation Etaline		Sealing plan	Single-acting mechanical seal with vented chamber (A-type casing cover, taper bore)
Design	Close-coupled in-line	A liquid free of solids is assumed	
Orientation	Vertical	Seal chamber design	Conical seal chamber (A-type cover)
Suction nominal dia.	DN 32	Contact guard	With
Suction nominal pressure	PN 16	Wear ring	Casing wear ring
Suction position	180° (down)	Impeller diameter	184.0 mm
Suction flange drilled according to standard	EN1092-2	Free passage size	5.3 mm
Discharge nominal dia.	DN 32	Direction of rotation from drive	Clockwise
Discharge nominal pressure	PN 16	Silicon free pump assembly	Yes
Discharge position	top (0°/360°)	Bearing bracket construction	Close-coupled
Discharge flange drilled according to standard	EN1092-2	Bearing bracket size	25
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		

**ETL 032-032-200 GG AV11D200034 BSIEIE1**

Inline pump

**Driver, accessories**

Driver type	Electric motor	Insulation class	F to IEC 34-1
Drive standard mech.	IEC	Motor enclosure	IP55
Model (make)	Siemens	Cos phi at 4/4 load	0.78
Drive supplied by	Standard motor supplied by KSB - mounted by KSB	Motor efficiency at 4/4 load	65.8 %
Motor const. type	V1	Temperature sensor	3 PTC resistors
Motor size	071M	Terminal box position	0° same orientation
Efficiency class	Efficiency class IE1 acc. to IEC60034-30-1	Motor winding	Viewed from the drive
Motor speed	1400 rpm	Number of poles	230 / 400 V
Frequency	50 Hz	Connection mode	4
Rated voltage	400 V	Motor cooling method	Star
Rated power P2	0.37 kW	Motor material	Surface cooling
Available reserve	29.76 %	Frequency inverter operation allowed	Aluminium
Rated current	1.1 A	Motor noise pressure level	FI allowed
Starting current ratio	3.3		44 dBA

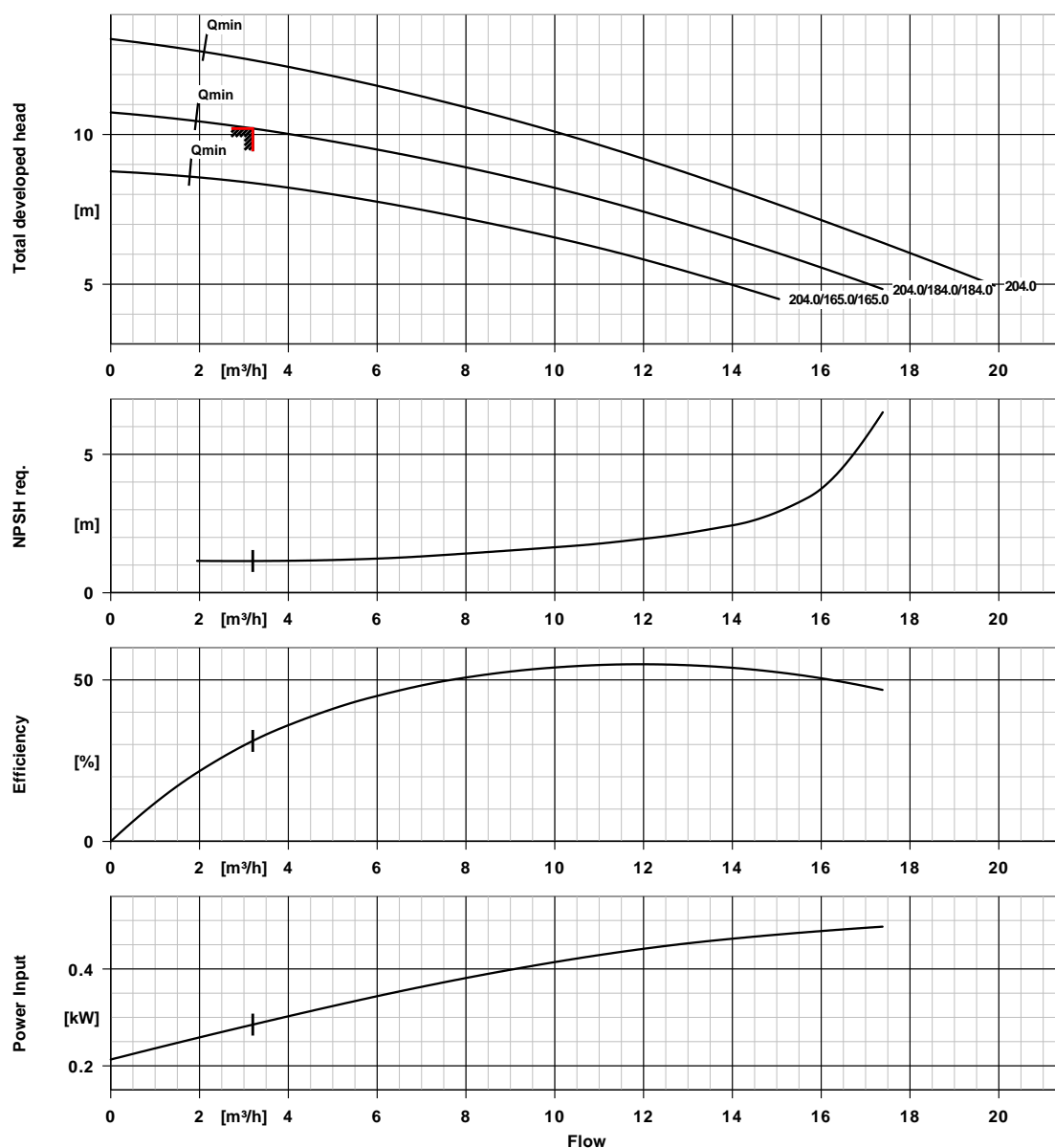
**Materials G****Notes 1**

General criteria for a water analysis: pH-value  $\geq 7$ ; chloride content (Cl)  $\leq 250$  mg/kg. Chlorine (Cl2)  $\leq 0.6$  mg/kg.

Volute casing (102)	Grey cast iron EN-GJL-250/A48CL35B	Joint ring (411)	Steel ST
Casing cover (161)	Grey cast iron EN-GJL-250/A48CL35B	Casing wear ring (502.1)	Grey cast iron GG/CAST IRON
Shaft (210)	Tempered steel C45+N	Casing wear ring (502.2)	Grey cast iron GG/CAST IRON
Impeller (230)	Grey cast iron EN-GJL-250/A48CL35B	Shaft sleeve (523)	CrNiMo steel
Motor stool (341)	Grey cast iron EN-GJL-250/A48CL35B	Stud (902)	Steel 8.8
Flat gasket (400)	DPAF seal plate asbestos free	Screwed plug (903)	Steel ST
		Impeller nut (922)	Steel 8
		Key (940)	Steel C45+C / A311 GR 1045 CLASS A

**ETL 032-032-200 GG AV11D200034 BSIEIE1**

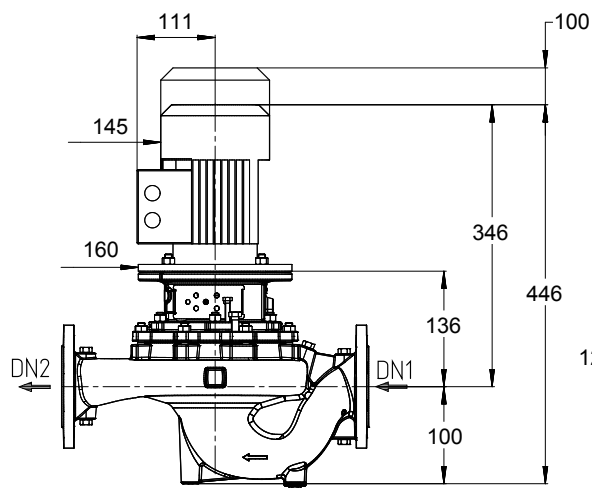
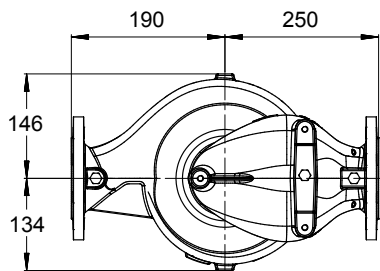
Inline pump

**Curve data**

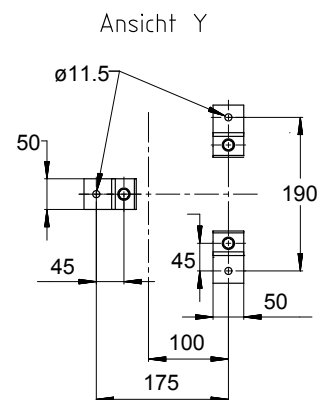
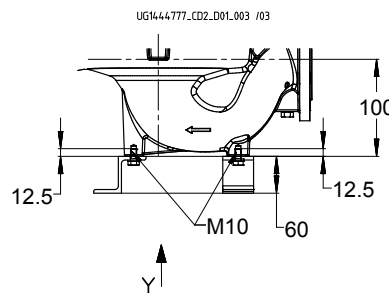
Speed of rotation	1400 rpm
Fluid density	998 $\text{kg}/\text{m}^3$
Viscosity	1.00 $\text{mm}^2/\text{s}$
Flow rate	3.20 $\text{m}^3/\text{h}$
Requested flow rate	3.20 $\text{m}^3/\text{h}$
Total developed head	10.20 m
Requested developed head	10.20 m

Efficiency	31.1 %
MEI (Minimum Efficiency Index)	$\geq 0.70$
Power absorbed	0.29 kW
NPSH required	1.15 m
Curve number	K1159.454/19
Effective impeller diameter	184.0 mm
Acceptance standard	Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2

## ETL 032-032-200 GG AV11D200034 BSIEIE1 Inline pump



*Drawing is not to scale*



*Dimensions in mm*

### Motor

Motor manufacturer	Siemens
Motor size	071M
Motor power	0.37 kW
Number of poles	4
Speed of rotation	1400 rpm
Position of terminal box	0° same orientation 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

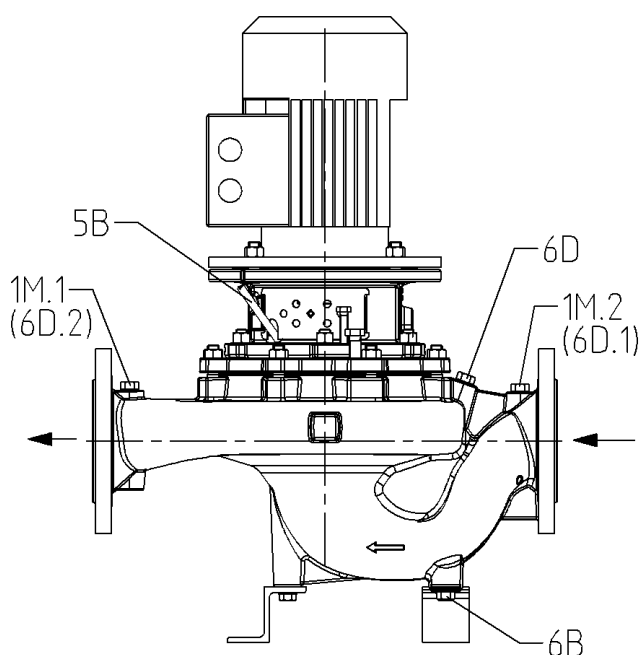
Pump	33 kg
Motor	6 kg
Total	39 kg

**Connect pipes without stress or strain!**

**For auxiliary connections see separate drawing.**

## ETL 032-032-200 GG AV11D200034 BSIEIE1

Inline pump



UG1444722\_D01.003/ 02

### Connections

Pump casing variant		XX36
1M.1 Pressure gauge connection	Rc 1/4	Drilled and plugged.
1M.2 Pressure gauge connection	Rc 1/4	Drilled and plugged.
6B Pumped liquid drain	Rc 1/4	Drilled and plugged.
6D Pumped medium - filling / venting	Rc 1/4	Drilled and plugged.
5B venting	G 1/4	Closed with venting plug