

**ETLZ040-040-250 GGS AV66D200224 BKS BIE3**

Inline pump

**Operating data**

Requested flow rate		Actual flow rate	10.00 m <sup>3</sup> /h
Requested developed head		Actual developed head	19.99 m
Pumped medium	Antifreeze on ethylene glycol base, inhibited, closed system, e.g. Antifrogen N or similar products	Efficiency	38.7 %
	Concentration 30%	MEI (Minimum Efficiency Index)	≥ 0.70
	Not containing chemical and mechanical substances which affect the materials	Power absorbed	1.47 kW
Max. ambient air temperature	20.0 °C	Pump speed of rotation	1460 rpm
Min. ambient air temperature	20.0 °C	NPSH required	2.07 m
Fluid temperature	15.0 °C	Permissible operating pressure	16.00 bar.g
Fluid density	1042 kg/m <sup>3</sup>	Discharge press.	2.04 bar.g
Fluid viscosity	2.55 mm <sup>2</sup> /s	Min. allow. mass flow for continuous stable operation	0.79 kg/s
Suction pressure max.	0.00 bar.g	Shutoff head	21.07 m
Mass flow rate	2.89 kg/s	Max. allow. mass flow	8.67 kg/s
Max. power on curve	2.33 kW	Design	Twin system one full duty + one standby pump
Min. allow. flow for continuous stable operation	2.74 m <sup>3</sup> /h		Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2

**Design**

Pump standard	Without	Material code	Q7Q7EGG
Design	Close coupled twin inline	Shaft seal code	66
Orientation	Vertical	Sealing plan	Single-acting mechanical seal with vented chamber (A-type casing cover, taper bore)
Suction nominal dia.	DN 40	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	245.0 mm
Discharge nominal dia.	DN 40	Free passage size	7.1 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	25
Surface type	Flat face	Bearing type	Anti-friction bearings
Shaft seal	Single acting mechanical seal	Lubrication type	Grease
Manufacturer	Burgmann	Color	Vermilion (RAL 2002)
Type	MG13G6		

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**Driver, accessories**

Driver type	Electric motor	Motor enclosure	IP55
Drive standard mech.	IEC	Cos phi at 4/4 load	0.82
Model (make)	KSB-Motor	Motor efficiency at 4/4 load	86.7 %
Drive supplied by	Standard motor supplied by KSB - mounted by KSB	Temperature sensor	3 PTC resistors
Motor const. type	V1	Terminal box position	0° same orientation Viewed from the drive
Motor size	100L	Motor winding	230 / 400 V
Efficiency class	Efficiency class IE3 acc. to IEC60034-30-1	Number of poles	4
Motor speed	1460 rpm	Connection mode	Star
Frequency	50 Hz	Motor cooling method	Surface cooling
Rated voltage	400 V	Motor material	Aluminium
Rated power P2	2.20 kW	Frequency inverter operation	FI allowed
Available reserve	49.82 %	allowed	
Rated current	4.8 A	Motor data can vary from type plate information. Motor data describes KSB's choice functional specification and is used for pump selection.	
Starting current ratio	8	CE-approval	Yes
Insulation class	F to IEC 34-1	Condensat drain motor	Yes

**Materials G**

Volute casing (102)	Grey cast iron EN-GJL-250/A48CL35B	Casing wear ring (502.2)	Grey cast iron GG/CAST IRON
Casing cover (161)	Grey cast iron EN-GJL-250/A48CL35B	Disc (550)	Steel ST
Shaft (210)	Tempered steel C45+N	Stud (902)	Steel 8.8
Impeller (230)	Grey cast iron EN-GJL-250/A48CL35B	Nut (920)	8+A2A/ 8+B633 SC1 TP3
Motor stool (341)	Grey cast iron EN-GJL-250/A48CL35B	Impeller nut (922)	Steel 8
Flat gasket (400)	DPAF seal plate asbestos free	Key (940)	Steel C45+C / A311 GR 1045 CLASS A
Joint ring (411)	Steel ST	Pipe line (700)	Steel ST
Casing wear ring (502.1)	Grey cast iron GG/CAST IRON		

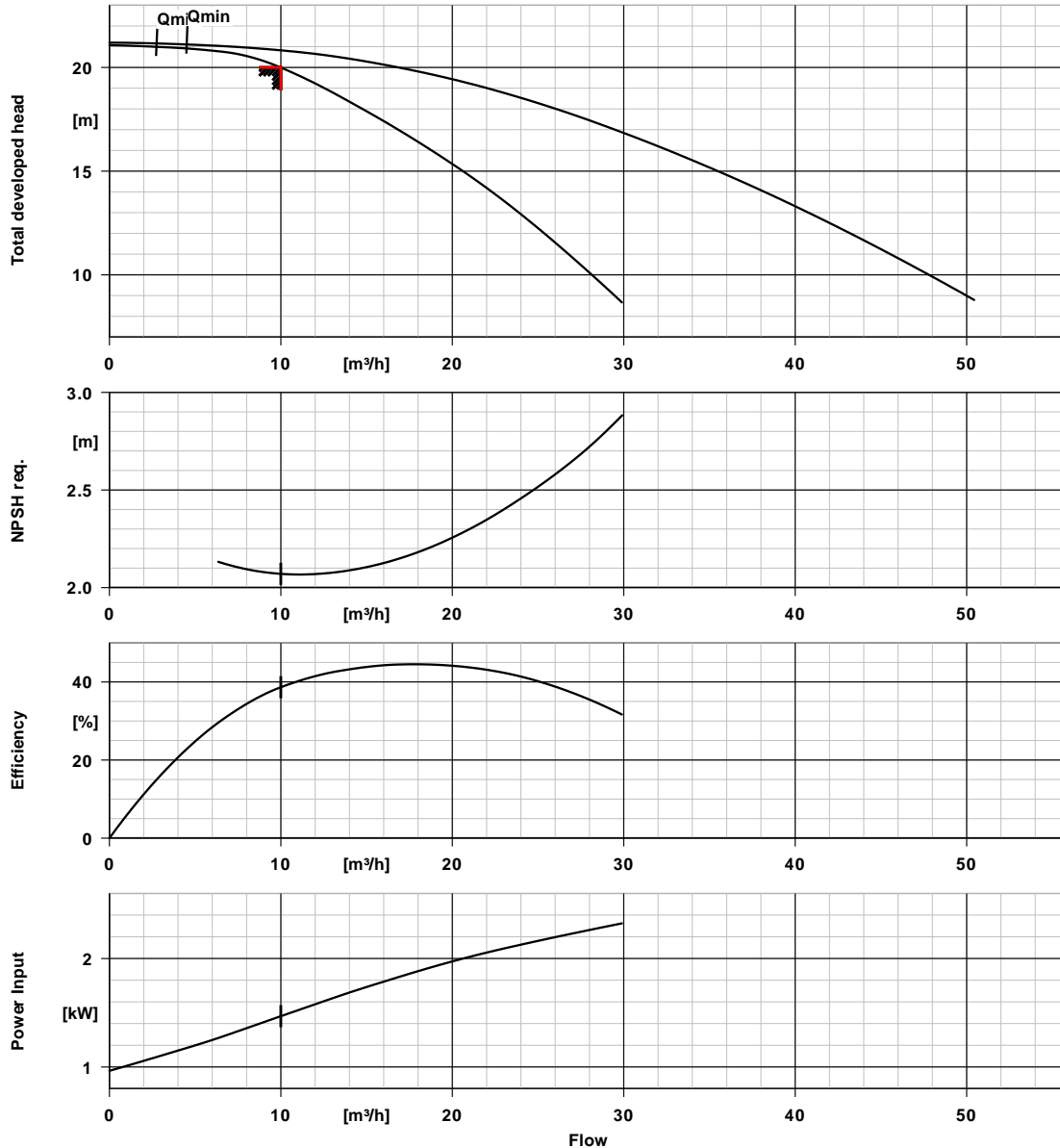
**FOOT 85X 50X 60**

3 pump feet with bolts for vertical installation  
 Pump foot for vertical installation  
 Etaline(Z) 32-160/ up to 100-160/

Material no 47077960

Pump foot, not for Etaline SY  
 Weight : 2,0 kg

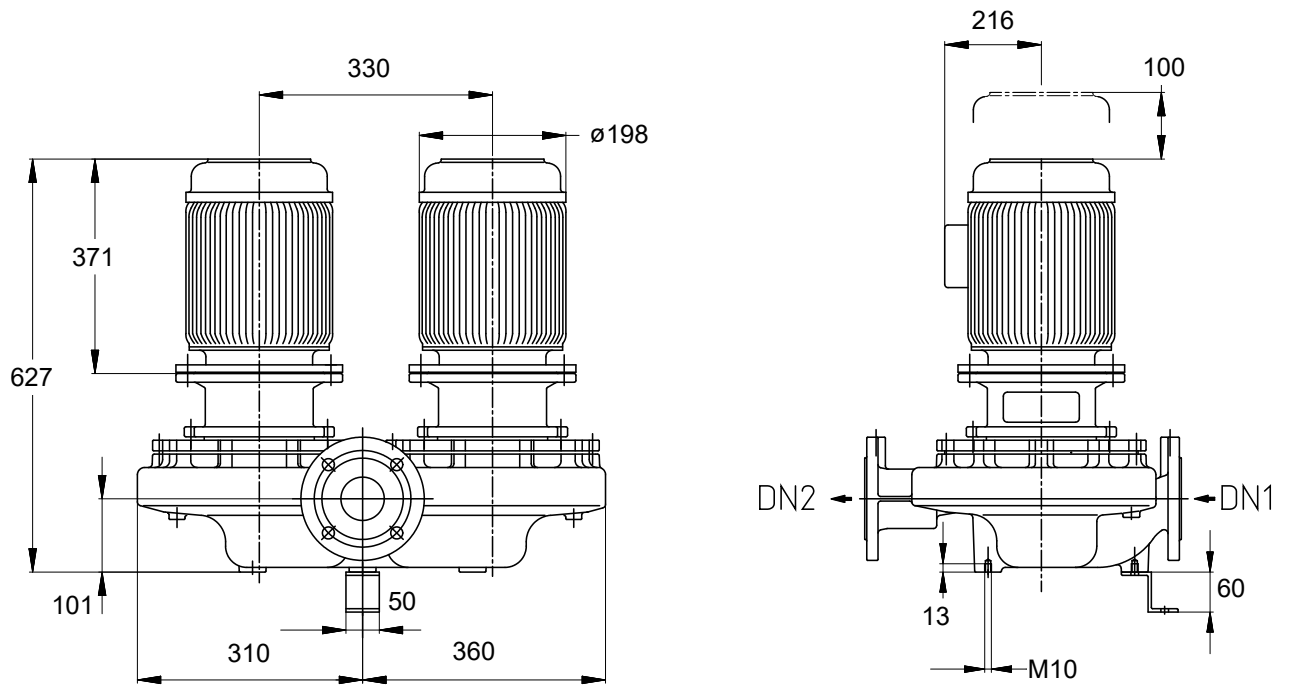
**ETLZ040-040-250 GGS AV66D200224 BKS BIE3**  
 Inline pump



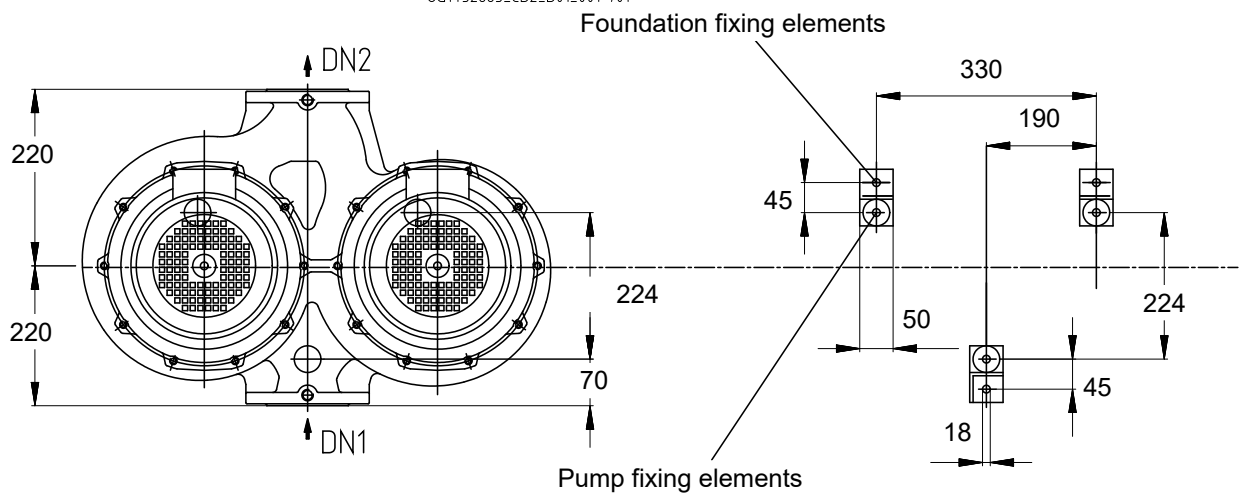
**Curve data**

Speed of rotation	1460 rpm	Efficiency	38.7 %
Fluid density	1042 kg/m <sup>3</sup>	MEI (Minimum Efficiency Index)	≥ 0.70
Viscosity	2.55 mm <sup>2</sup> /s	Power absorbed	1.47 kW
Flow rate	10.00 m <sup>3</sup> /h	NPSH required	2.07 m
Requested flow rate	10.00 m <sup>3</sup> /h	Curve number	K1161.454/24
Total developed head	19.99 m	Effective impeller diameter	245.0 mm
Requested developed head	20.00 m	Acceptance standard	Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2

**ETLZ040-040-250 GGS AV66D200224 BKSBI E3**  
 Inline pump



UG14-52885\_CD2\_D01\_001 /01



Drawing is not to scale

Dimensions in mm

**ETLZ040-040-250 GGS AV66D200224 BKS BIE3**

Inline pump

**Motor**

Motor manufacturer	KSB-Motor
Motor size	100L
Motor power	2.20 kW
Number of poles	4
Speed of rotation	1460 rpm
Position of terminal box	0° same orientation Viewed from the drive

**Connections**

Suction nominal size DN1	DN 40 / EN1092-2
Discharge nominal size DN2	DN 40 / EN1092-2
Nominal pressure suct.	PN 16
Rated pressure disch.	PN 16

**Weight net**

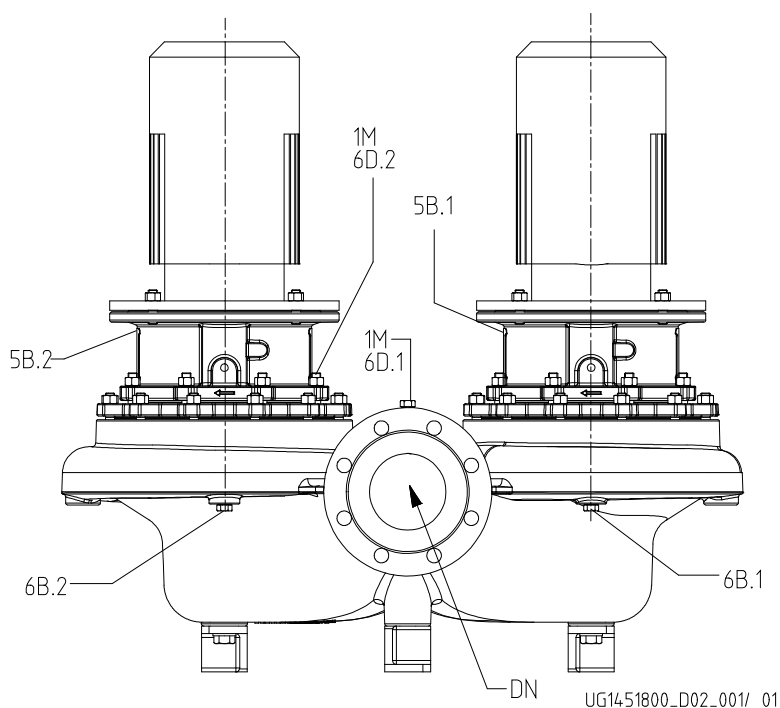
Pump	99 kg
Motor	68 kg
Other accessories	2 kg
Total	168 kg

**Connect pipes without stress or strain!**

**For auxiliary connections see separate drawing.**

**ETLZ040-040-250 GGS AV66D200224 BKS BIE3**

Inline pump



UG1451800\_D02\_001/ 01

**Connections**

Pump casing variant

- 1M.1 Pressure gauge connection
- 1M.2 Pressure gauge connection
- 6B.1 Pumped liquid drain
- 6B.2 Pumped liquid drain
- 6D.1 Pumped medium - filling/venting
- 6D.2 Pumped medium - filling / venting
- 5B.1 venting
- 5B.2 venting

- G 1/4
- G 1/4
- G 1/4
- G 1/4
- G 1/4
- G 1/4
- G 1/4
- G 1/4

XX46

- Not executed
- Not executed
- Drilled and plugged.
- Drilled and plugged.
- Drilled and plugged.
- Drilled and plugged.
- Closed with venting plug
- Closed with venting plug