

## Operating data

Requested flow rate		Actual flow rate	50.02 m³/h
Requested developed head		Actual developed head	10.01 m
Pumped medium	Water	Efficiency	61.6 %
	Clean water	MEI (Minimum Efficiency Index)	≥ 0.70
Pumped medium details	Not containing chemical and mechanical substances which affect the materials	Power absorbed	2.21 kW
		Pump speed of rotation	1456 rpm
Max. ambient air temperature	20.0 °C	NPSH required	2.30 m
Min. ambient air temperature	20.0 °C	Permissible operating pressure	16.00 bar.g
Fluid temperature	20.0 °C		
Fluid density	998 kg/m³	Discharge press.	0.98 bar.g
Fluid viscosity	1.00 mm²/s	Shutoff head	15.77 m
Suction pressure max.	0.00 bar.g	Min. allow. flow for continuous stable operation	5.98 m³/h
Mass flow rate	13.87 kg/s		
Max. power on curve	2.33 kW	Min. allow. mass flow for continuous stable operation	1.66 kg/s
Max. allow. mass flow	16.24 kg/s		
Design	Twin system one full duty + one standby pump		Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2
		Yearly energy consumption	2212.29 kWh
		Annual Time Spent at Duty Point	1000.00 h

Pump standard	Without	Material code	BQEGG-DW001
Design	Close coupled twin inline	Shaft seal code	11
Orientation	Vertical	Sealing plan	Single-acting mechanical seal with vented chamber (A-type casing cover, taper bore)
Suction nominal dia.	DN 65	A liquid free of solids is assumed	Conical seal chamber (A-type cover)
Suction nominal pressure	PN 16		
Suction position	180° (down)		
Suction flange drilled according to standard	EN1092-2		
Discharge nominal dia.	DN 65	Contact guard	With
Discharge nominal pressure	PN 16	Wear ring	Casing wear ring
Discharge position	top (0°/360°)	Impeller diameter	211.0 mm
Discharge flange drilled according to standard	EN1092-2	Free passage size	10 mm
Surface type	Flat face	Direction of rotation from drive	Clockwise
Flanges DN 65 will be drilled with 4 holes		Bearing bracket construction	Close-coupled
Shaft seal	Single acting mechanical seal	Bearing bracket size	25
		Bearing type	Anti-friction bearings
Shaft seal manufacturer	KSB's Choice	Lubrication type	Grease
Shaft seal type	KSB's Choice	Color	Ultramarine blue (RAL 5002)
			KSB-blue

**ETLZ065-065-250 GGS AV11D200304 BKS BIE3**

Inline pump

**Driver, accessories**

Driver type	Electric motor	Temperature sensor	3 PTC resistors
Drive standard mech.	IEC	Terminal box position	0° same orientation
Model (make)	KSB-Motor		Viewed from the drive
Drive supplied by	Standard motor supplied by KSB - mounted by KSB	Motor winding	400 / 690 V
Motor const. type	V1	Number of poles	4
Motor size	100L	Connection mode	Delta
Efficiency class	Efficiency class IE3 acc. to IEC60034-30-1	Motor cooling method	Surface cooling
Motor speed	1456 rpm	Motor material	Aluminium
Frequency	50 Hz	Frequency inverter operation allowed	FI allowed
Rated voltage	400 V	Motor noise pressure level	63 dBa
Rated power P2	3.00 kW	Motor data can vary from type plate information. Motor data describes KSB's choice functional specification and is used for pump selection.	
Available reserve	35.61 %		
Rated current	6.2 A	CE-approval	Yes
Starting current ratio	8.2	EAC Approval	Yes
Insulation class	F to IEC 34-1	Condensat drain motor	Yes
Motor enclosure	IP55	Ambient temperature	40.0 °C
Cos phi at 4/4 load	0.82	Max. absolute humidity	30 g/m <sup>3</sup>
Motor efficiency at 4/4 load	87.7 %	Temp. sensor mtr. bearing	Without
		UKCA conformity	Yes

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

General criteria for a water analysis: pH-value  $\geq 6.5$ ; chloride content (Cl)  $\leq 250$  mg/kg. Chlorine (Cl<sub>2</sub>)  $\leq 0.6$  mg/kg.

Volute casing (102)	Grey cast iron EN-GJL-250/A48CL35B	Casing wear ring (502.1)	Grey cast iron GG/CAST IRON
Casing cover (161)	Grey cast iron EN-GJL-250/A48CL35B	Casing wear ring (502.2)	Grey cast iron GG/CAST IRON
Shaft (210)	Tempered steel C45+N	Disc (550)	Steel ST
Impeller (230)	Grey cast iron EN-GJL-250/A48CL35B	Stud (902)	Steel 8.8
Motor stool (341)	Grey cast iron EN-GJL-250/A48CL35B	Nut (920)	8+A2A/ 8+B633 SC1 TP3
Flat gasket (400)	DPAF DW001	Impeller nut (922)	Steel 8
Joint ring (411)	Steel ST	Key (940)	Steel C45+C / A311 GR 1045 CLASS A
		Pipe line (700)	Steel ST

**Packaging**

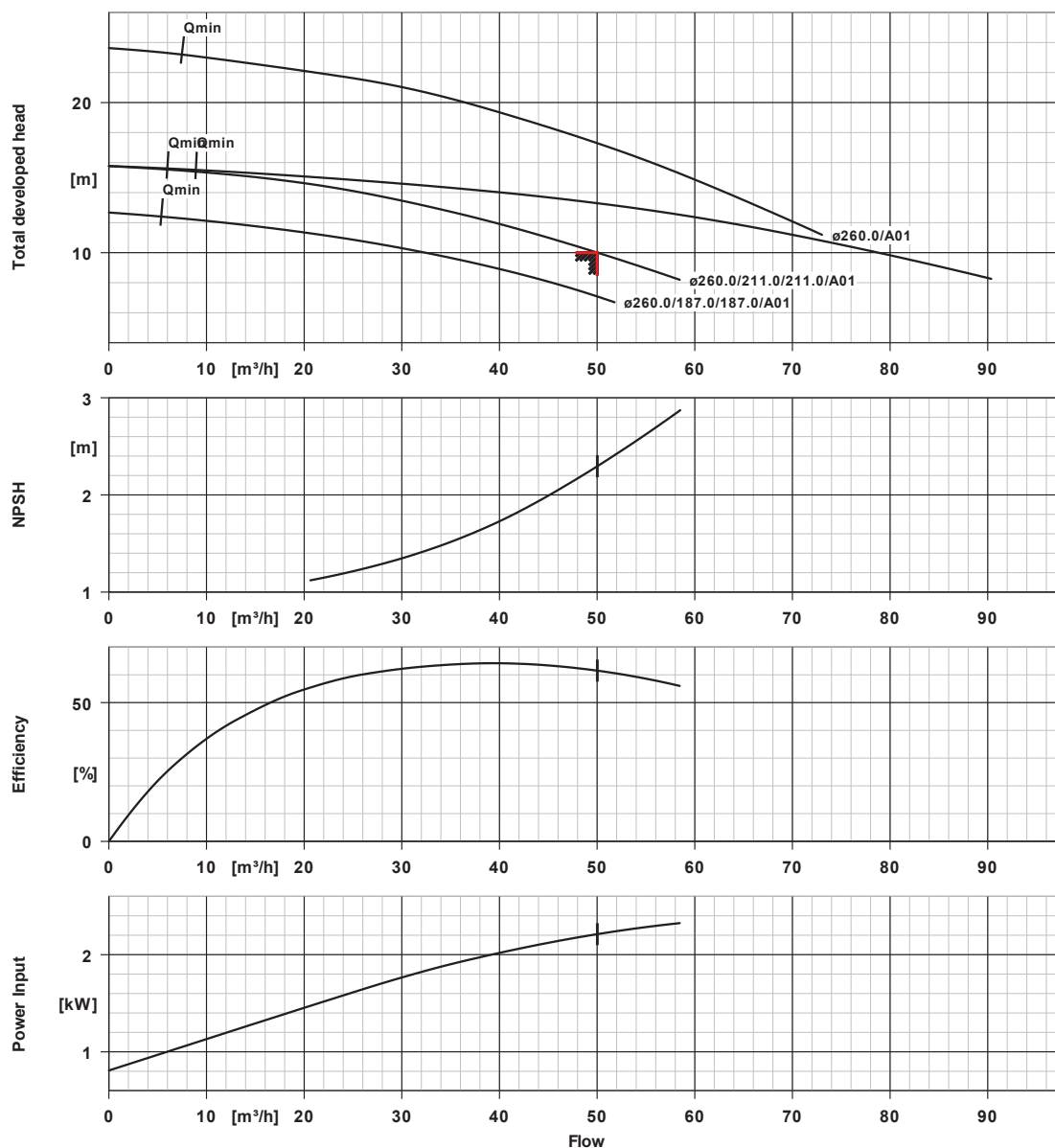
Packaging category	A0 Packing acc. to KSB choice	Packaging for transport	Truck
Packaging for storage	Indoor		

**Nameplates**

Nameplates language	International
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## ETLZ065-065-250 GGS AV11D200304 BKS BIE3

Inline pump

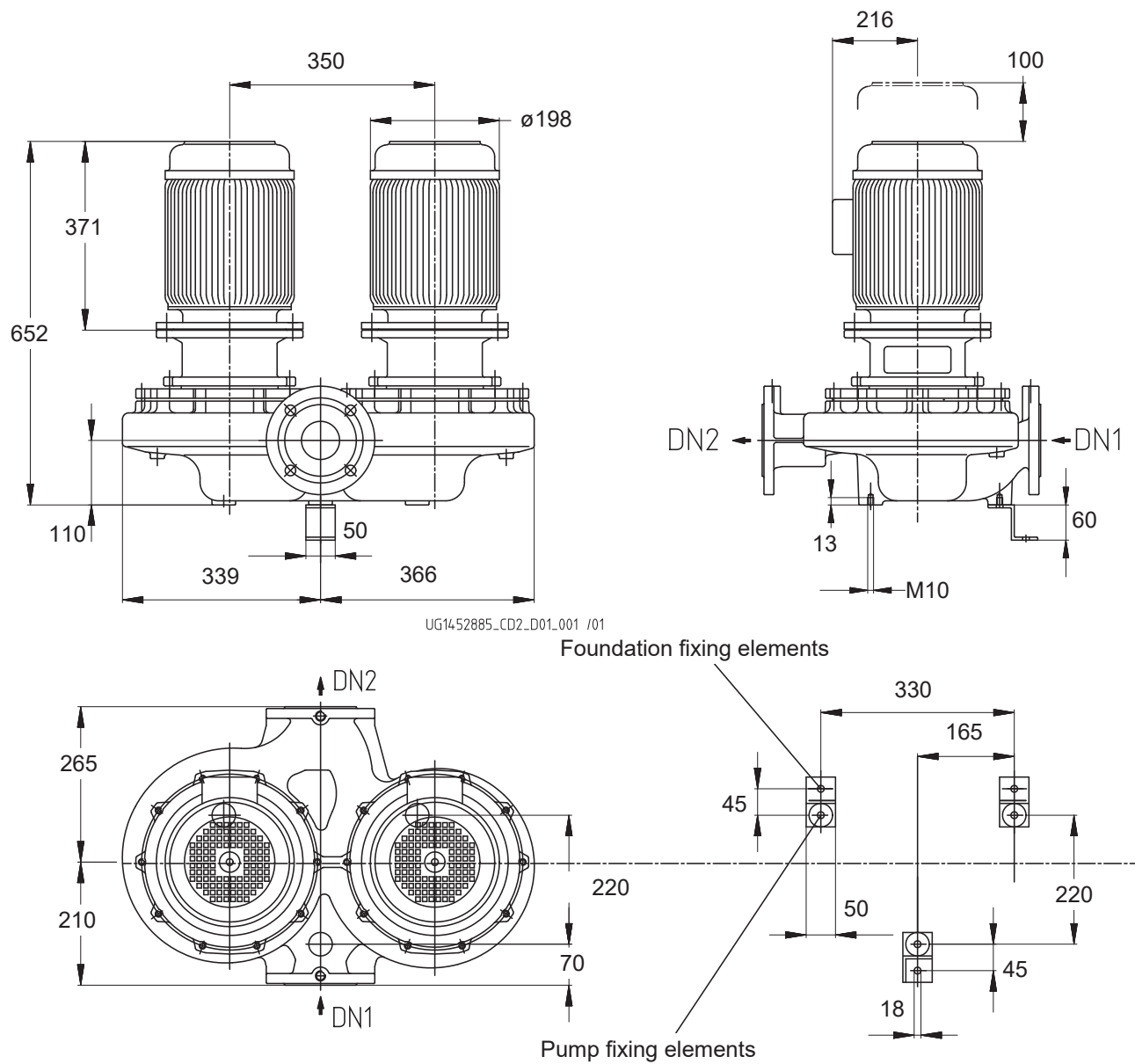


### Curve data

Speed of rotation	1456 rpm	Efficiency	61.6 %
Fluid density	998 $\text{kg}/\text{m}^3$	MEI (Minimum Efficiency Index)	$\geq 0.70$
Viscosity	1.00 $\text{mm}^2/\text{s}$	Power absorbed	2.21 kW
Flow rate	50.02 $\text{m}^3/\text{h}$	NPSHR	2.30 m
Requested flow rate	50.00 $\text{m}^3/\text{h}$	Curve number	K1161.454/33
Total developed head	10.01 m	Effective impeller diameter	211.0 mm
Requested developed head	10.00 m	Acceptance standard	Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2

ETLZ065-065-250 GGS AV11D200304 BKSBI E3

Inline pump



Drawing is not to scale

Dimensions in mm

### ETLZ065-065-250 GGS AV11D200304 BKSBIE3

Inline pump

#### Motor

Motor manufacturer	KSB-Motor
Motor size	100L
Motor power	3.00 kW
Number of poles	4
Speed of rotation	1456 rpm
Position of terminal box	0° same orientation Viewed from the drive

#### Connections

Suction nominal size DN1	DN 65 / EN1092-2
Discharge nominal size DN2	DN 65 / EN1092-2
Nominal pressure suct.	PN 16
Rated pressure disch.	PN 16
Flanges DN 65 will be drilled with 4 holes	

#### Weight net

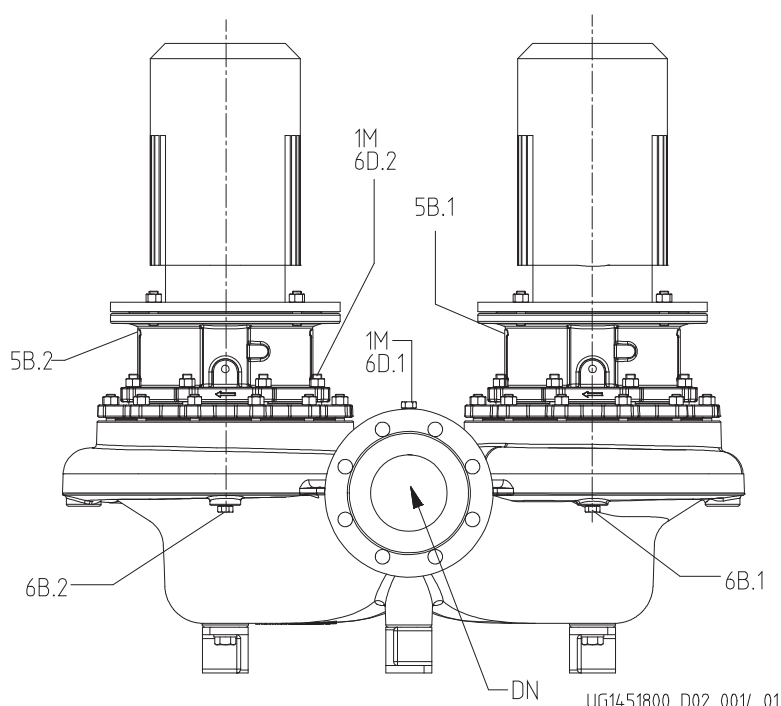
Pump	115 kg
Motor	76 kg
Total	191 kg

**Connect pipes without stress or strain!**

**For auxiliary connections see  
separate drawing.**

**ETLZ065-065-250 GGS AV11D200304 BKS BIE3**

Inline pump



## 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

Drilled and plugged.

Drilled and plugged.

Drilled and plugged.

Drilled and plugged.

Drilled and plugged.

Drilled and plugged.

Closed with venting plug

Closed with venting plug