

**MovitecVSF004/24-B1P55ES112D5VW**

High pressure Inline Pump

**Operating data**

Requested flow rate	4.00 m <sup>3</sup> /h	Actual flow rate	4.00 m <sup>3</sup> /h
Pumped medium	Water	Actual developed head	179.32 m
	Clean water	Efficiency	61.2 %
Pumped medium details	Not containing chemical and mechanical substances which affect the materials	MEI (Minimum Efficiency Index)	≥ 0.70
Max. ambient air temperature	20.0 °C	Power absorbed	3.20 kW
Min. ambient air temperature	20.0 °C	Pump speed of rotation	2931 rpm
Fluid temperature	20.0 °C	NPSH required	1.85 m
Fluid density	998 kg/m <sup>3</sup>	Permissible operating pressure	25.00 bar.g
Fluid viscosity	1.00 mm <sup>2</sup> /s	Discharge press.	17.55 bar.g
Suction pressure max.	0.00 bar.g	Shutoff head	225.54 m
Mass flow rate	1.11 kg/s	Min. allow. flow for continuous stable operation	0.60 m <sup>3</sup> /h
Max. power on curve	3.58 kW	Min. allow. mass flow for continuous stable operation	0.17 kg/s
Max. allow. mass flow	1.82 kg/s		
Design	Single system 1 x 100 %		
			Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2

**Design**

Pump standard	KSB high pressure in-line international execution	Shaft seal manufacturer	DP
Design	Close-coupled	Shaft seal type	RMG-AC
Orientation	Vertical	Material code	BQ7VGG
Suction nominal dia.	DN 25	Shaft seal code	55
Suction nominal pressure	PN 25	Sealing plan	I Single-acting mechanical seal(internal circulation)
Suction position	90° (right)		
Connection standard	EN 1092-1	A liquid free of solids is assumed	
discharge		Seal chamber design	Standard seal chamber
Discharge nominal dia.	DN 25	Contact guard	With
Discharge nominal pressure	PN 25	Impeller diameter	86.0 mm
Discharge position	270° (left 90°)	Direction of rotation from drive	Clockwise
Round flange (F)		Color	Graphite black (RAL 9011)
Shaft seal	Single acting mechanical seal		

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**Driver, accessories**

Driver type	Electric motor	Insulation class	F to IEC 34-1
Drive standard mech.	IEC	Motor enclosure	IP55
Model (make)	KSB (DMW)	Cos phi at 4/4 load	0.88
Drive supplied by	Standard motor supplied by KSB - mounted by KSB	Motor efficiency at 4/4 load	88.1 %
Motor const. type	V18	Temperature sensor	3 PTC resistors
Motor size	112M	Terminal box position	90° (right)
Efficiency class	Efficiency class IE3 acc. to IEC60034-30-1	Motor winding	Viewed from the drive
Motor speed	2931 rpm	Number of poles	400 / 690 V
Frequency	50 Hz	Fixed bearing reinforced	2
Rated voltage	400 V	Connection mode	axial
Rated power P2	4.00 kW	Motor cooling method	Delta
Performance limit P2max	4.60 kW	Motor material	Surface cooling
Available reserve	43.95 %	Frequency inverter operation allowed	Aluminium
Rated current	7.5 A	Motor noise pressure level	FI allowed
Starting current ratio	8		63 dBA

**Materials VS**

Pump shroud (10-6)	CrNiMo steel 1.4404	O-Ring (412)	Fluor caoutchouc FPM
Pump casing (101)	Stainless steel 1.4408	Seal cover (471)	Stainless steel 1.4408
Stage casing (108)	CrNiMo steel 1.4404	Bearing sleeve (529)	Tungsten Carbide
Cover (160)	CrNiMo steel 1.4404	Flange (723)	Stainless Steel 1.4308
Diffuser (171)	CrNiMo steel 1.4404	Baseplate (890)	Grey cast iron EN-GJL-250
Shaft (210)	Duplex steel 1.4460	Screwed plug (903)	CrNiMo steel 1.4404
Impeller (230)	CrNiMo steel 1.4404	Tie bolt (905)	Chrome steel 1.4057+QT800
Motor stool (341)	Grey cast iron EN-GJL-250	Nut (920)	CrNiMo steel 1.4404

**Packaging**

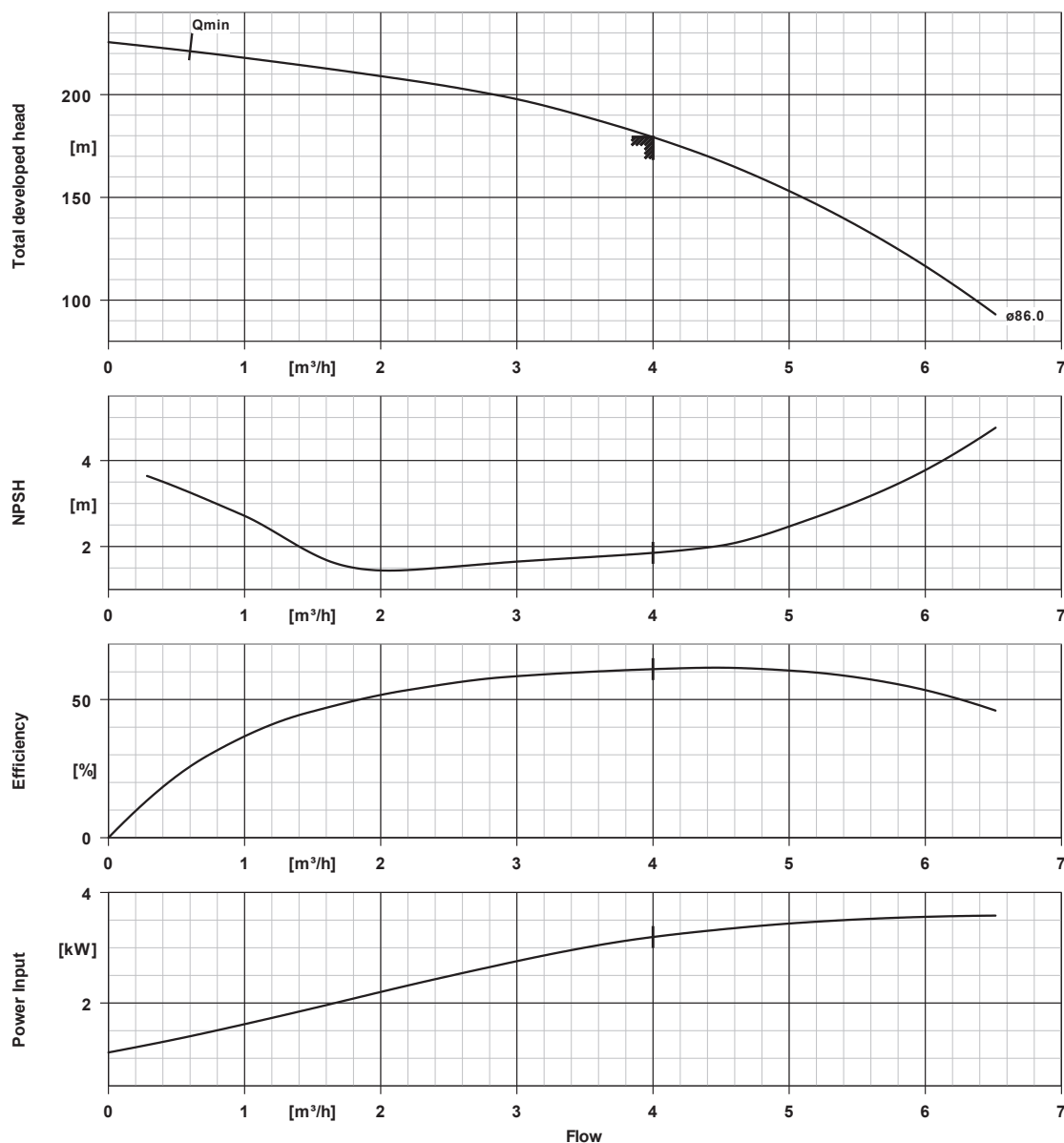
Packaging for transport	Truck	Packaging category	A0 Packing acc. to KSB
Packaging for storage	Indoor		choice

**Nameplates**

Nameplates language	International
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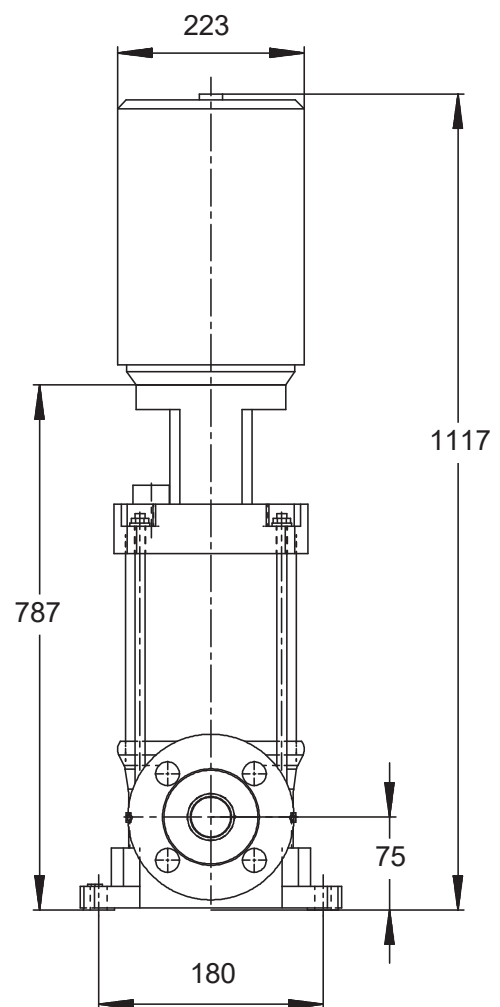
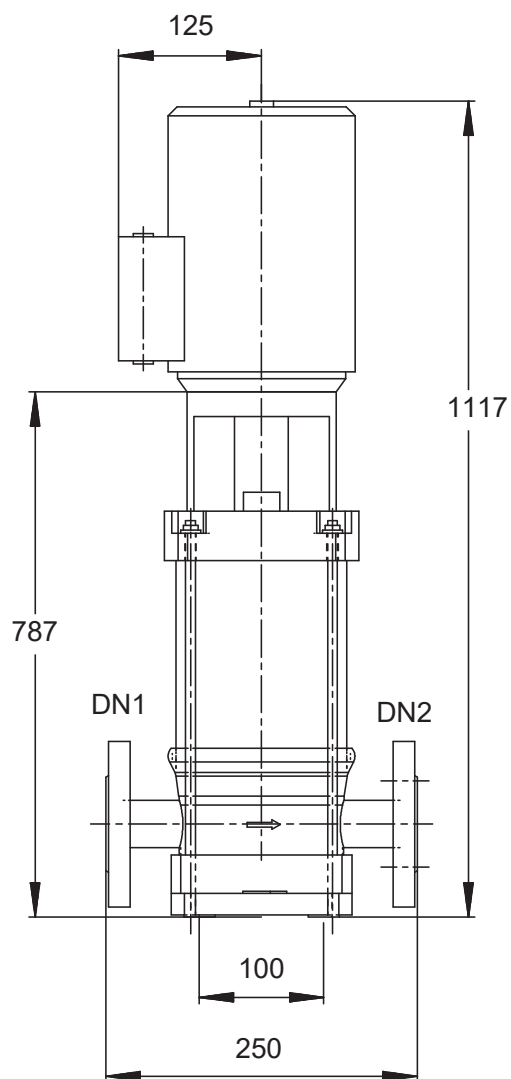


**Curve data**

Speed of rotation	2931 rpm	MEI (Minimum Efficiency Index)	$\geq 0.70$
Fluid density	998 $\text{kg}/\text{m}^3$	Power absorbed	3.20 kW
Viscosity	1.00 $\text{mm}^2/\text{s}$	NPSH required	1.85 m
Flow rate	4.00 $\text{m}^3/\text{h}$	Curve number	K95000400
Requested flow rate	4.00 $\text{m}^3/\text{h}$	Effective impeller diameter	86.0 mm
Total developed head	179.32 m	Acceptance standard	Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2
Efficiency	61.2 %		

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*Drawing is not to scale*

*Dimensions in mm*

### **MovitecVSF004/24-B1P55ES112D5VW**

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#### **Motor**

Motor manufacturer	KSB (DMW)
Motor size	112M
Motor power	4.00 kW
Number of poles	2
Speed of rotation	2931 rpm
Position of terminal box	90° (right)
	Viewed from the drive
Thrust bearing housing	No

#### **Connections**

Suction nominal size DN1	DN 25 / EN 1092-1
Discharge nominal size DN2	DN 25 / EN 1092-1
Nominal pressure suct.	PN 25
Rated pressure disch.	PN 25
Round flange (F)	

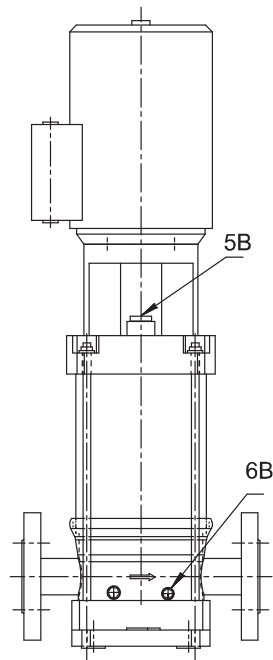
#### **Weight net**

Pump	42 kg
Motor	31 kg
Total	73 kg

**Connect pipes without stress or strain!**

**For auxiliary connections see separate drawing.**

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### Connections

5B venting  
6B Pumped liquid drain

G 3/8  
G 1/4

Closed with venting plug  
Drilled and plugged.