

MovitecV F004/10-B1D54ES090D5UW
High pressure Inline Pump

Operating data

Requested flow rate	5.00 m ³ /h	Actual flow rate	5.01 m ³ /h
Requested developed head	61.20 m	Actual developed head	61.39 m
Pumped medium	Water	Efficiency	59.0 %
	Clean water	MEI (Minimum Efficiency Index)	≥ 0.70
Pumped medium details	Not containing chemical and mechanical substances which affect the materials	Power absorbed	1.42 kW
		Pump speed of rotation	2903 rpm
Max. ambient air temperature	20.0 °C	NPSH required	2.49 m
Min. ambient air temperature	20.0 °C	Permissible operating pressure	25.00 bar.g
Fluid temperature	20.0 °C		
Fluid density	998 kg/m ³	Discharge press.	6.01 bar.g
Fluid viscosity	1.00 mm ² /s	Shutoff head	92.59 m
Suction pressure max.	0.00 bar.g	Min. allow. flow for continuous stable operation	0.60 m ³ /h
Mass flow rate	1.39 kg/s	Min. allow. mass flow for continuous stable operation	0.17 kg/s
Max. power on curve	1.47 kW	Design	Single system 1 x 100 % Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2
Max. allow. mass flow	1.80 kg/s		

Design

Pump standard	KSB high pressure in-line international execution	Shaft seal manufacturer	DP
Design	Close-coupled	Shaft seal type	MG-FX
Orientation	Vertical	Material code	BQ7EGG-DW001
Suction nominal dia.	DN 25	Shaft seal code	54
Suction nominal pressure	PN 25	Sealing plan	I Single-acting mechanical seal(internal circulation)
Suction position	90° (right)	A liquid free of solids is assumed	
Connection standard	EN 1092-2	Seal chamber design	Standard seal chamber
discharge		Contact guard	With
Discharge nominal dia.	DN 25	Impeller diameter	86.0 mm
Discharge nominal pressure	PN 25	Direction of rotation from drive	Clockwise
Discharge position	270° (left 90°)	Color	Graphite black (RAL 9011)
Round flange (F)			
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	84.2 %
Motor const. type	V18	Temperature sensor	Without
Motor size	90S	Terminal box position	90° (right)
Efficiency class	Efficiency class IE3 acc. to IEC60034-30-1	Motor winding	Viewed from the drive
Motor speed	2902 rpm	Number of poles	230 / 400 V
Frequency	50 Hz	Fixed bearing reinforced	2
Rated voltage	400 V	Connection mode	axial
Rated power P2	1.50 kW	Motor cooling method	Star
Performance limit P2max	1.70 kW	Motor material	Surface cooling
Available reserve	20.05 %	Frequency inverter operation allowed	Aluminium
Rated current	2.9 A	Motor noise pressure level	FI allowed
Starting current ratio	7		63 dBa

Materials V

Pump shroud (10-6)	Stainless steel 1.4301	O-Ring (412)	EPDM WRc / ACS Approved
Pump casing (101)	Stainless Steel 1.4308	Seal cover (471)	Stainless Steel 1.4308
Stage casing (108)	Stainless steel 1.4301	Bearing sleeve (529)	Tungsten Carbide
Cover (160)	Stainless steel 1.4301	Flange (723)	Ductile cast iron EN-GJS-400-15
Diffuser (171)	Stainless steel 1.4301	Baseplate (890)	Grey cast iron EN-GJL-250
Shaft (210)	Chrome steel 1.4057+QT800	Screwed plug (903)	Stainless steel 1.4301
Impeller (230)	Stainless steel 1.4301	Tie bolt (905)	Chrome steel 1.4057+QT800
Motor stool (341)	Grey cast iron EN-GJL-250	Nut (920)	Stainless steel 1.4301

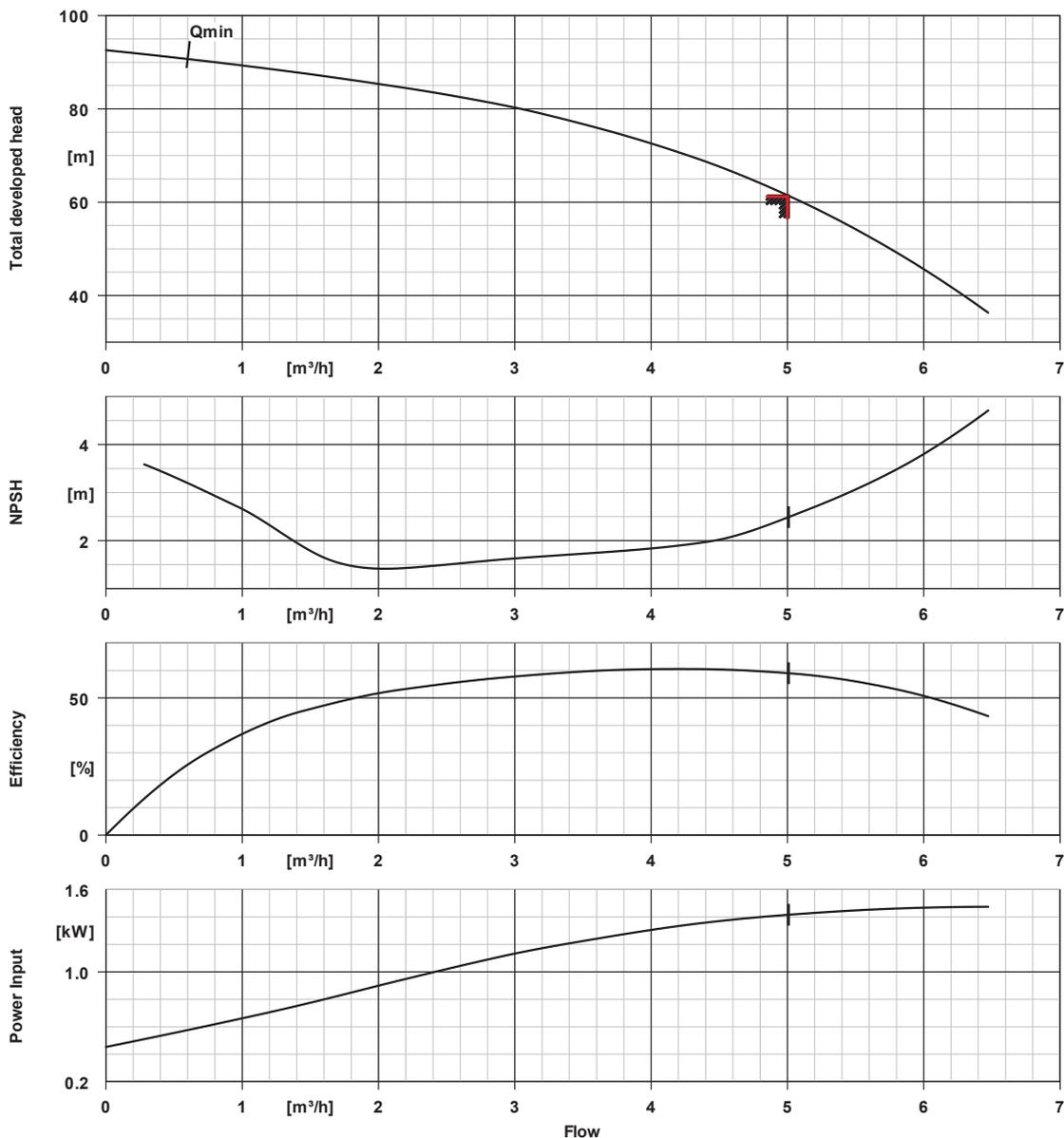
Packaging

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

Nameplates

Nameplates language	International
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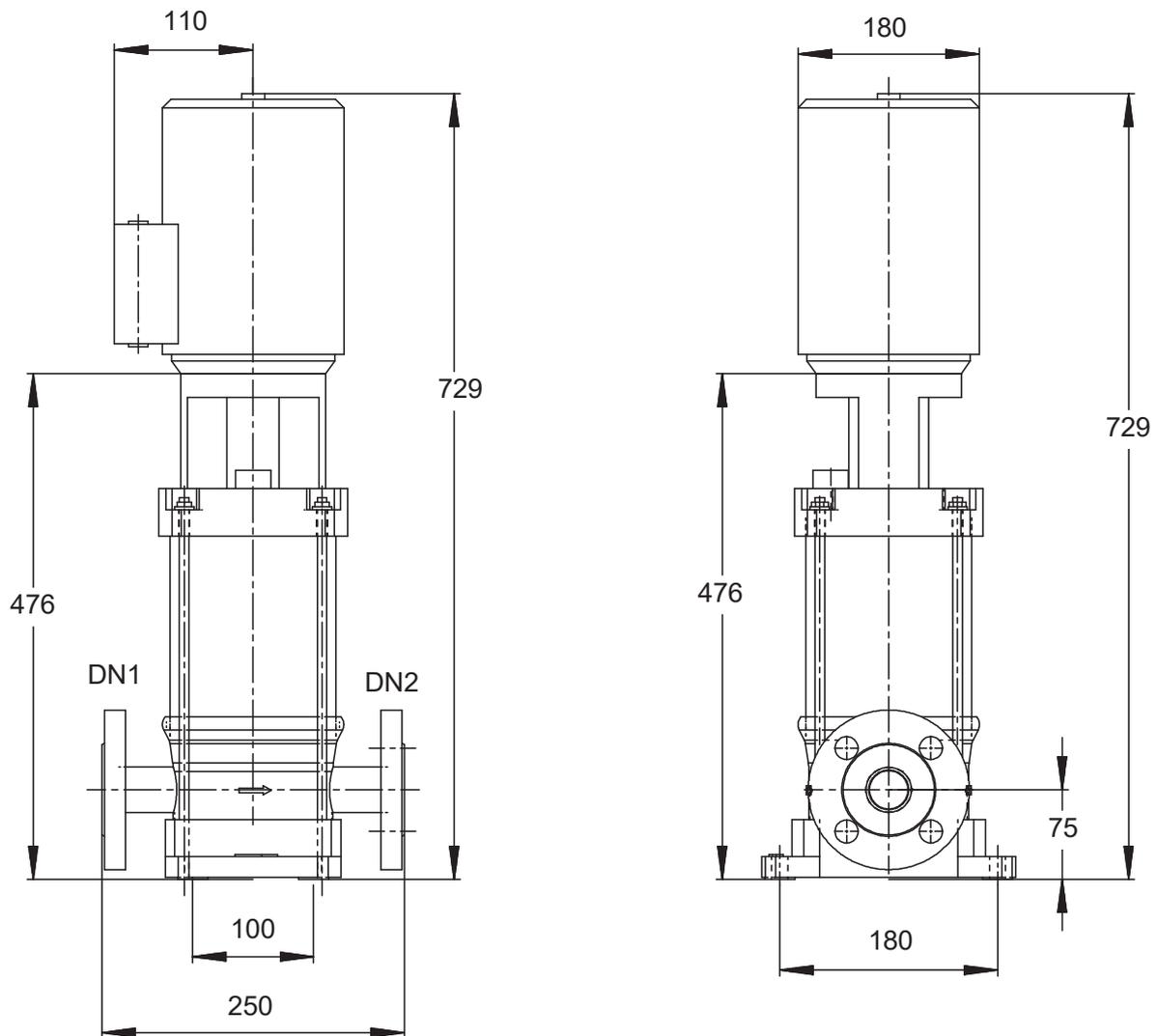


Curve data

Speed of rotation	2903 rpm	Efficiency	59.0 %
Fluid density	998 kg/m^3	MEI (Minimum Efficiency Index)	≥ 0.70
Viscosity	1.00 mm^2/s	Power absorbed	1.42 kW
Flow rate	5.01 m^3/h	NPSHR	2.49 m
Requested flow rate	5.00 m^3/h	Curve number	K95000400/2
Total developed head	61.39 m	Effective impeller diameter	86.0 mm
Requested developed head	61.20 m	Acceptance standard	Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2

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Drawing is not to scale

Dimensions in mm

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Motor

Motor manufacturer	KSB (DMW)
Motor size	90S
Motor power	1.50 kW
Number of poles	2
Speed of rotation	2902 rpm
Position of terminal box	90° (right) Viewed from the drive
Thrust bearing housing	No

Connections

Suction nominal size DN1	DN 25 / EN 1092-2
Discharge nominal size DN2	DN 25 / EN 1092-2
Nominal pressure suct.	PN 25
Rated pressure disch.	PN 25
Round flange (F)	

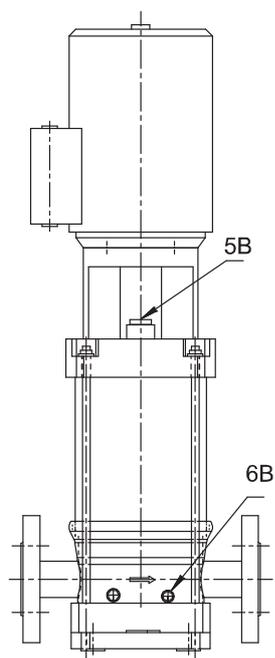
Weight net

Pump	20 kg
Motor	18 kg
Total	38 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.