Data sheet

MovitecV 004/05-B4G54FS080D5UW
High pressure Inline Pump

Operating data

Requested flow rate	3.00	Actual flow rate	3.00 m³/h
Requested developed head		Actual developed head	40.03 m
Pumped medium	Water Clean water	Efficiency	57.2 %
		MEI (Minimum Efficiency Index)	≥ 0.70
Pumped medium details	Not containing chemical and mechanical substances which affect the materials	Power absorbed	0.57 kW
		Pump speed of rotation	2919 rpm
Max. ambient air temperature	20.0 °C	NPSH required	1.63 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.	3.92 bar.g
Fluid viscosity	1.00 mm²/s	Shutoff head	46.34 m
Suction pressure max.	0.00 bar.g	Min. allow. flow for continuous stable operation	0.60 m³/h
Mass flow rate	0.83 kg/s		
Max. power on curve	0.71 kW	Min. allow. mass flow for continuous stable operation	0.17 kg/s
Max. allow. mass flow	1.81 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
		Shaft seal type	MG-FX
Design	Close-coupled	Material code	BQ7EGG-DW001
Orientation	Vertical	Shaft seal code	54
Suction nominal dia.	G 1	Sealing plan	I Single-acting mechanical seal(internal circulation)
Suction nominal pressure	PN 16		
Suction position	90° (right)	A liquid free of solids is assumed	
Connection standard discharge	EN ISO 228-1	Seal chamber design	Standard seal chamber
		Contact guard	With
Discharge nominal dia.	G 1	Impeller diameter	86.0 mm
Discharge nominal pressure	PN 16	Direction of rotation from drive	Clockwise
Discharge position	270° (left 90°)	Color	Graphite black (RAL 9011)
Oval flange			
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	0.83
Drive supplied by	Standard motor supplied by KSB - mounted by KSB	Motor efficiency at 4/4 load	80.7 %
		Temperature sensor	Without
Motor const. type	V18	Terminal box position	90° (right)
Motor size	080M		Viewed from the drive
Efficiency class	Efficiency class IE3 acc. to IEC60034-30-1	Motor winding	230 / 400 V
		Number of poles	2
Motor speed	2917 rpm	Fixed bearing reinforced	axial
Frequency	50 Hz	Connection mode	Delta
Rated voltage	230 V	Motor cooling method	Surface cooling
Rated power P2	0.75 kW	Motor material	Aluminium
Performance limit P2max	0.86 kW	Frequency inverter operation allowed	FI allowed
Available reserve	50.63 %		
Rated current	2.8 A	Motor noise pressure level	60 dBa
Starting current ratio	6		

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)	Stainless Steel 1.4308
Diffuser (171)	Stainless steel 1.4301	Baseplate (890)	Ductile cast iron EN-GJS-400-15
Shaft (210)	Chrome steel 1.4057+QT800		
Impeller (230)	Stainless steel 1.4301	Screwed plug (903)	Stainless steel 1.4301
Motor stool (341)	Grey cast iron EN-GJL-250	Tie bolt (905)	Chrome steel 1.4057+QT800
		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

Performance curve

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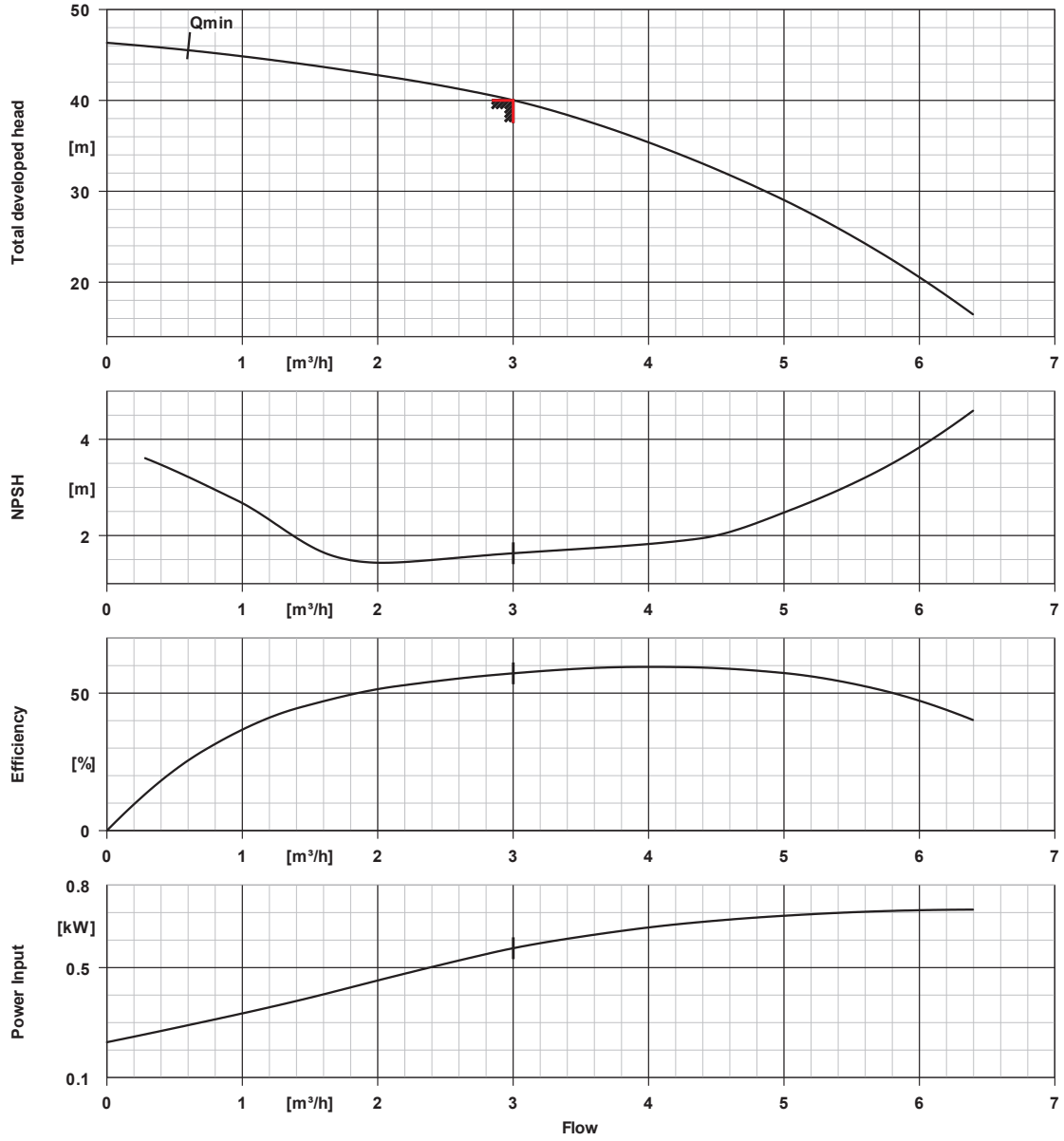

Curve data

Speed of rotation	2919 rpm	Efficiency	57.2 %
Fluid density	998 kg/m³	MEI (Minimum Efficiency Index)	≥ 0.70
Viscosity	1.00 mm²/s		
Flow rate	3.00 m³/h	Power absorbed	0.57 kW
Requested flow rate	3.00 m³/h	NPSHR	1.63 m
Total developed head	40.03 m	Curve number	K95000400/2
Requested developed head	40.00 m	Effective impeller diameter	86.0 mm
		Acceptance standard	Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2

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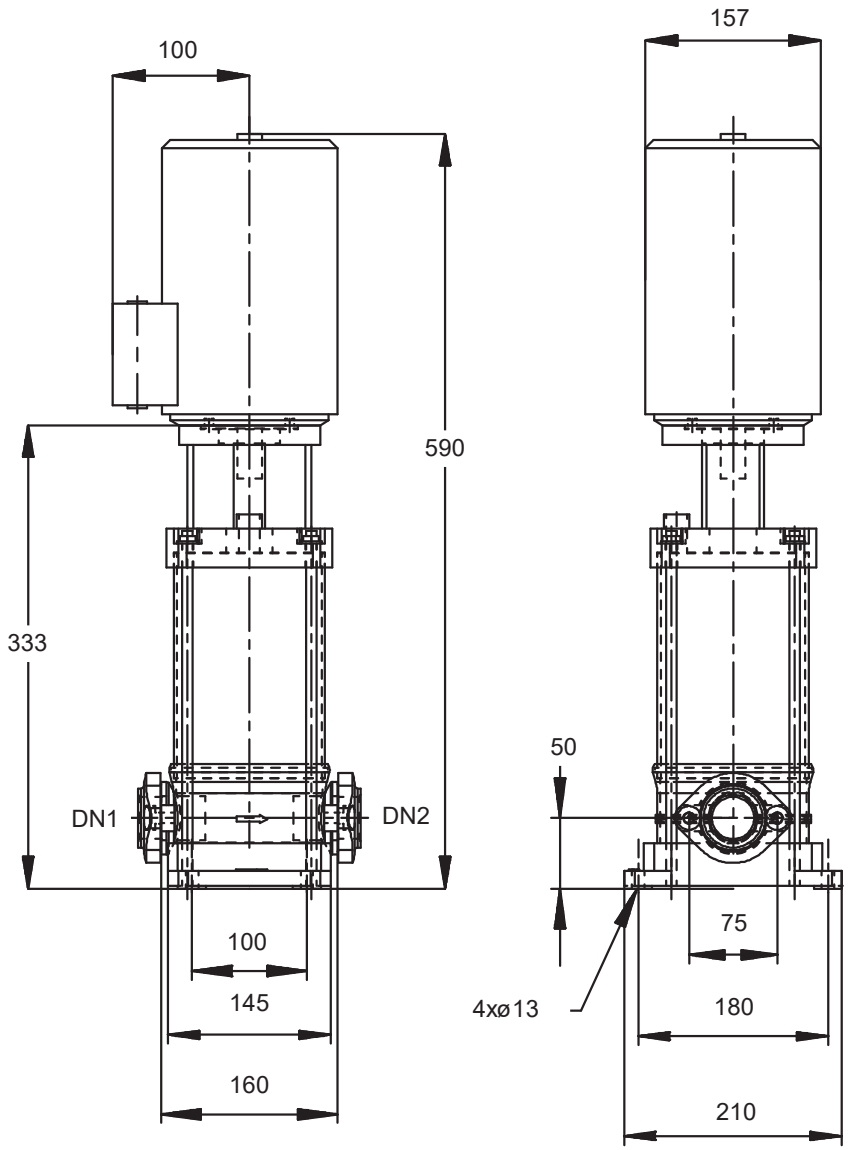

Drawing is not to scale

Dimensions in mm

Installation plan

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Motor

Motor manufacturer	KSB (DMW)
Motor size	080M
Motor power	0.75 kW
Number of poles	2
Speed of rotation	2917 rpm
Position of terminal box	90° (right) Viewed from the drive
Thrust bearing housing	No

Connections

Suction nominal size DN1	G 1 / EN ISO 228-1
Discharge nominal size DN2	G 1 / EN ISO 228-1
Nominal pressure suct.	PN 16
Rated pressure disch.	PN 16

Oval flange

Weight net

Pump	17 kg
Motor	10 kg
Total	27 kg

Connect pipes without stress or strain!

For auxiliary connections see separate drawing.

Connection plan

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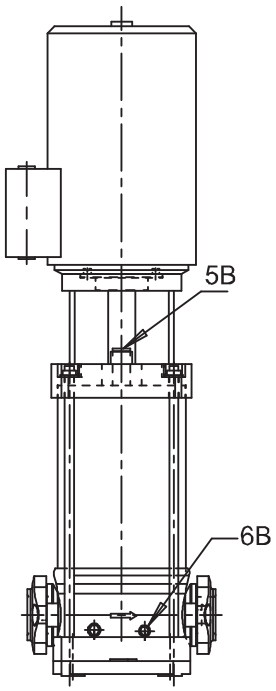

Connections

5B venting	G 3/8	Closed with venting plug
6B Pumped liquid drain	G 1/4	Drilled and plugged.