

**MovitecV 004/06-B4G54ES080D5UW**

High pressure Inline Pump

**Operating data**

Requested flow rate	3.91 m <sup>3</sup> /h	Actual flow rate	3.94 m <sup>3</sup> /h
Requested developed head	42.50 m	Actual developed head	43.23 m
Pumped medium	Water	Efficiency	59.6 %
	Clean water	MEI (Minimum Efficiency Index)	≥ 0.70
Pumped medium details	Not containing chemical and mechanical substances which affect the materials	Power absorbed	0.78 kW
Max. ambient air temperature	20.0 °C	Pump speed of rotation	2905 rpm
Min. ambient air temperature	20.0 °C	NPSH required	1.82 m
Fluid temperature	20.0 °C	Permissible operating pressure	16.00 bar.g
Fluid density	998 kg/m <sup>3</sup>	Discharge press.	4.23 bar.g
Fluid viscosity	1.00 mm <sup>2</sup> /s	Shutoff head	55.11 m
Suction pressure max.	0.00 bar.g	Min. allow. flow for continuous stable operation	0.60 m <sup>3</sup> /h
Mass flow rate	1.09 kg/s	Min. allow. mass flow for continuous stable operation	0.17 kg/s
Max. power on curve	0.88 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	1.81 kg/s		

**Design**

Pump standard	KSB high pressure in-line international execution	Shaft seal	Single acting mechanical seal
Design	Close-coupled	Shaft seal manufacturer	DP
Orientation	Vertical	Shaft seal type	MG-FX
Design according to standard	Drinking water acc. to ACS	Material code	BQ7EGG-DW001
Suction nominal dia.	G 1	Shaft seal code	54
Suction nominal pressure	PN 16	Sealing plan	I Single-acting mechanical seal(internal circulation)
Suction position	90° (right)		
Connection standard	EN ISO 228-1	A liquid free of solids is assumed	
discharge		Seal chamber design	Standard seal chamber
Discharge nominal dia.	G 1	Contact guard	With
Discharge nominal pressure	PN 16	Impeller diameter	86.0 mm
Discharge position	270° (left 90°)	Direction of rotation from drive	Clockwise
Oval flange		Color	Graphite black (RAL 9011)

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**Driver, accessories**

Frequency inverter operation allowed only for rated voltage.	
Driver type	Electric motor
Drive standard mech.	IEC
Model (make)	KSB (DMW)
Drive supplied by	Standard motor supplied by KSB - mounted by KSB
Motor const. type	V18
Motor size	080M
Efficiency class	Efficiency class IE3 acc. to IEC60034-30-1
Motor speed	2904 rpm
Frequency	50 Hz
Designed for operation with frequency inverter	Yes
Rated voltage	230 V
Rated power P2	1.10 kW
Performance limit P2max	1.30 kW
Available reserve	67.11 %
Rated current	4.0 A

Starting current ratio	7
Insulation class	F to IEC 34-1
Motor enclosure	IP55
Cos phi at 4/4 load	0.83
Motor efficiency at 4/4 load	82.7 %
Temperature sensor	Without
Terminal box position	90° (right)
	Viewed from the drive
Motor winding	230 / 400 V
Number of poles	2
Fixed bearing reinforced	axial
Connection mode	Delta
Motor cooling method	Surface cooling
Motor material	Aluminium
Frequency inverter operation allowed	FI allowed
Motor noise pressure level	60 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)	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**

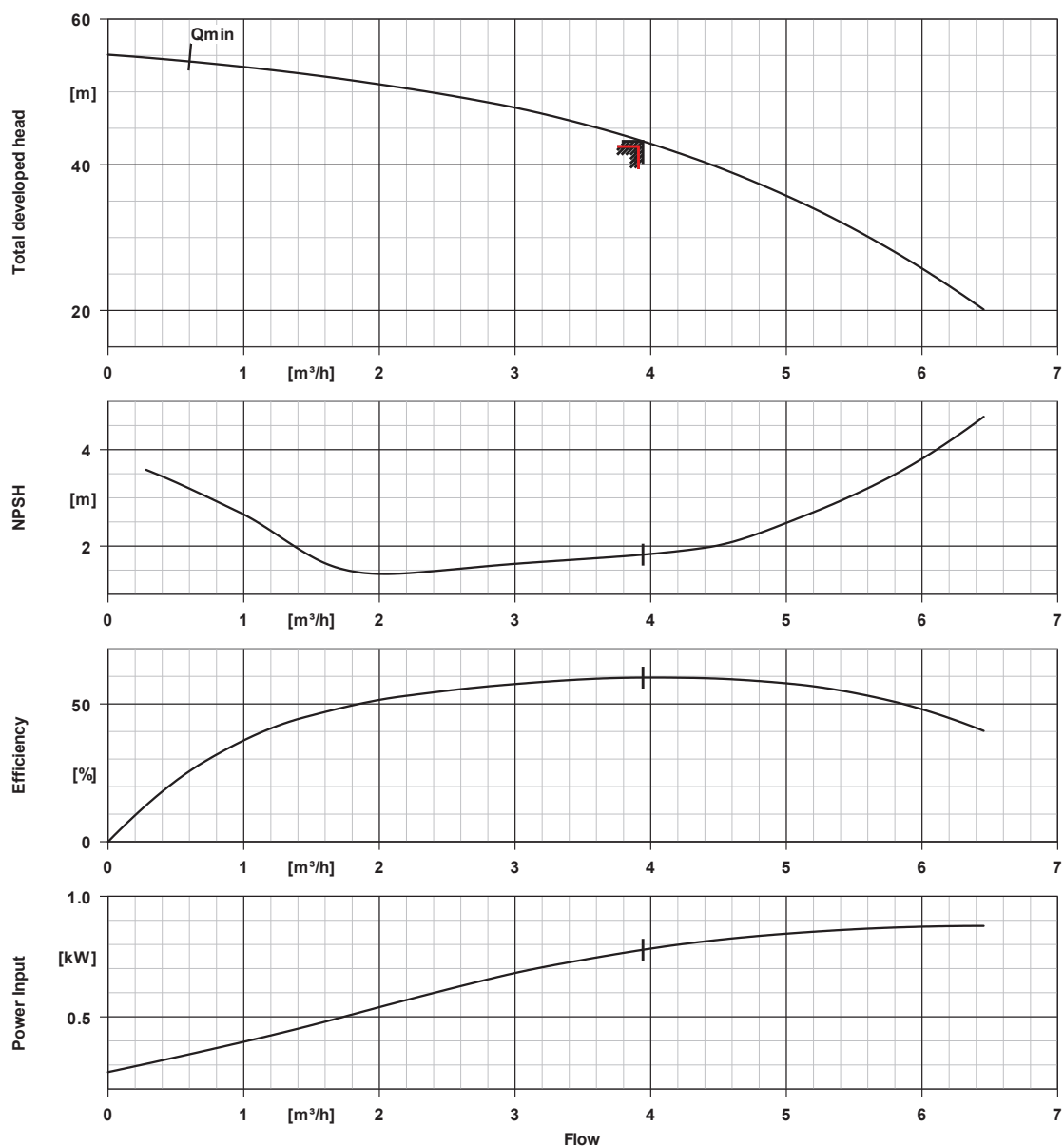
Packaging category	A0 Packing acc. to KSB choice	Packaging for transport	Truck
Packaging for storage	Indoor		

**Nameplates**

Nameplates language	International
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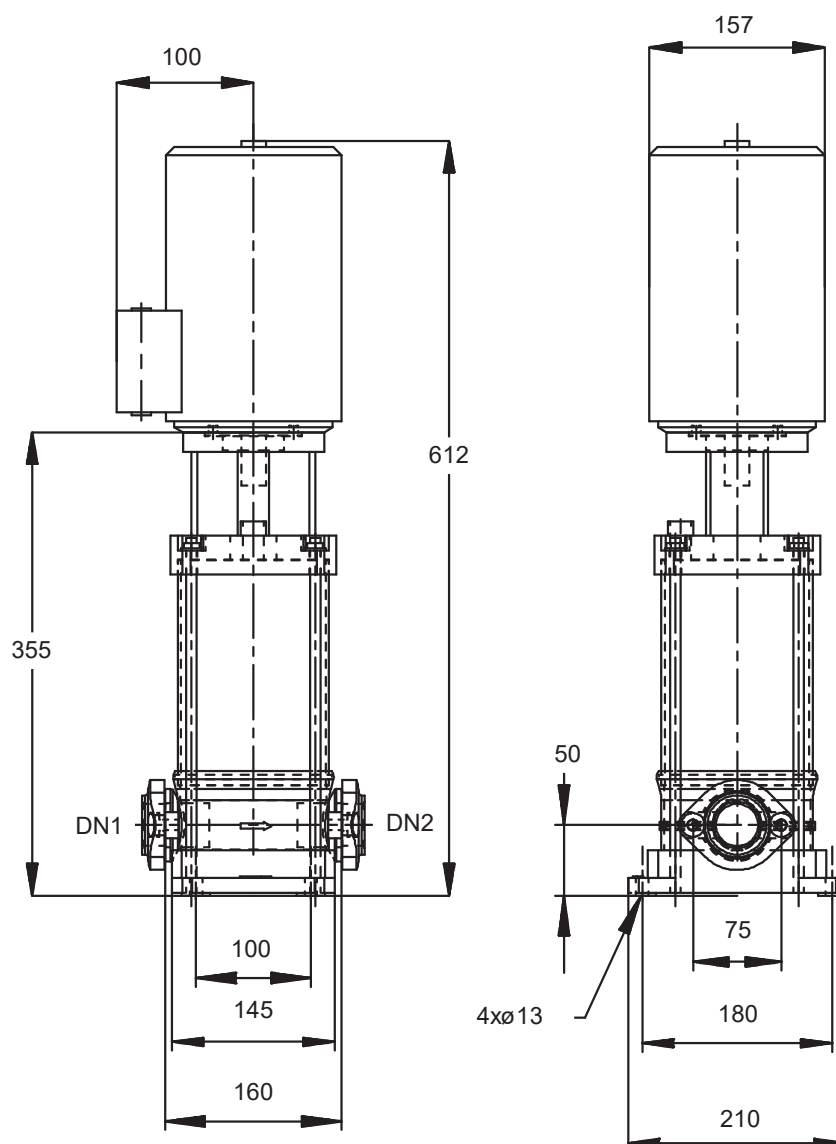
**Curve data**

Speed of rotation 2905 rpm  
 Fluid density 998  $\text{kg}/\text{m}^3$   
 Viscosity 1.00  $\text{mm}^2/\text{s}$   
 Flow rate 3.94  $\text{m}^3/\text{h}$   
 Requested flow rate 3.91  $\text{m}^3/\text{h}$   
 Total developed head 43.23 m  
 Requested developed head 42.50 m

Efficiency 59.6 %  
 MEI (Minimum Efficiency Index)  $\geq 0.70$   
 Power absorbed 0.78 kW  
 NPSHR 1.82 m  
 Curve number K95000400/2  
 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*

### **MovitecV 004/06-B4G54ES080D5UW**

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#### **Motor**

Motor manufacturer	KSB (DMW)
Motor size	080M
Motor power	1.10 kW
Number of poles	2
Speed of rotation	2904 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	

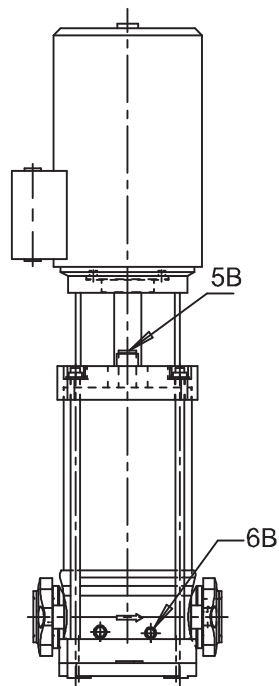
#### **Weight net**

Pump	18 kg
Motor	12 kg
Total	30 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.