

**MovitecV F125/01-B1X53CS160A5VW**

High pressure Inline Pump

**Operating data**

Requested flow rate		Actual flow rate	95.29 m <sup>3</sup> /h
Requested developed head		Actual developed head	28.02 m
Pumped medium	Water	Efficiency	71.2 %
	Clean water	Power absorbed	10.20 kW
Pumped medium details	Not containing chemical and mechanical substances which affect the materials	Pump speed of rotation	2966 rpm
		NPSH required	3.73 m
Max. ambient air temperature	20.0 °C	Permissible operating pressure	16.00 bar.g
Min. ambient air temperature	20.0 °C	Discharge press.	2.74 bar.g
Fluid temperature	20.0 °C		
Fluid density	998 kg/m <sup>3</sup>	Shutoff head	38.93 m
Fluid viscosity	1.00 mm <sup>2</sup> /s	Min. allow. flow for continuous stable operation	12.73 m <sup>3</sup> /h
Suction pressure max.	0.00 bar.g	Min. allow. mass flow for continuous stable operation	3.53 kg/s
Mass flow rate	26.42 kg/s	Design	Single system 1 x 100 % Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2
Max. power on curve	12.33 kW		
Max. allow. mass flow	45.37 kg/s		

**Design**

Pump standard	KSB high pressure in-line international execution	Shaft seal manufacturer	DP
Design	Close-coupled	Shaft seal type	EMG-CT
Orientation	Vertical	Material code	BQ7EGG-Y10-DW001
Suction nominal dia.	DN 125	Shaft seal code	53
Suction nominal pressure	PN 16	Sealing plan	CI Cartridge single-acting mechanical seal(internal circulation)
Suction position	90° (right)		
Connection standard	EN 1092-2	A liquid free of solids is assumed	
discharge		Seal chamber design	Standard seal chamber
Discharge nominal dia.	DN 125	Contact guard	With
Discharge nominal pressure	PN 16	Impeller diameter	161.0 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	0.90
Drive supplied by	Standard motor supplied by KSB - mounted by KSB	Motor efficiency at 4/4 load	91.9 %
Motor const. type	V1	Temperature sensor	3 PTC resistors
Motor size	160M	Terminal box position	90° (right)
Efficiency class	Efficiency class IE3 acc. to IEC60034-30-1	Motor winding	Viewed from the drive
Motor speed	2965 rpm	Number of poles	400 / 690 V
Frequency	50 Hz	Fixed bearing reinforced	2
Rated voltage	400 V	Connection mode	axial
Rated power P2	15.00 kW	Motor cooling method	Delta
Performance limit P2max	17.30 kW	Motor material	Surface cooling
Available reserve	69.65 %	Frequency inverter operation allowed	Grey cast iron GG/CAST IRON
Rated current	26.2 A	Motor noise pressure level	FI allowed
Starting current ratio	8		68 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 1.4408
Stage casing (108)	Stainless Steel 1.4308	Bearing sleeve (529)	Tungsten Carbide
Cover (160)	Stainless Steel 1.4308	Flange (723)	Ductile cast iron EN-GJS-400-15
Diffuser (171)	Stainless Steel 1.4308	Baseplate (890)	Ductile cast iron EN-GJS-400-15
Shaft (210)	Chrome steel 1.4057+QT800	Screwed plug (903)	Stainless steel 1.4301
Impeller (230)	Stainless Steel 1.4308	Tie bolt (905)	Chrome steel 1.4057+QT800
Motor stool (341)	Grey cast iron EN-GJL-250	Nut (920)	Stainless steel 1.4301

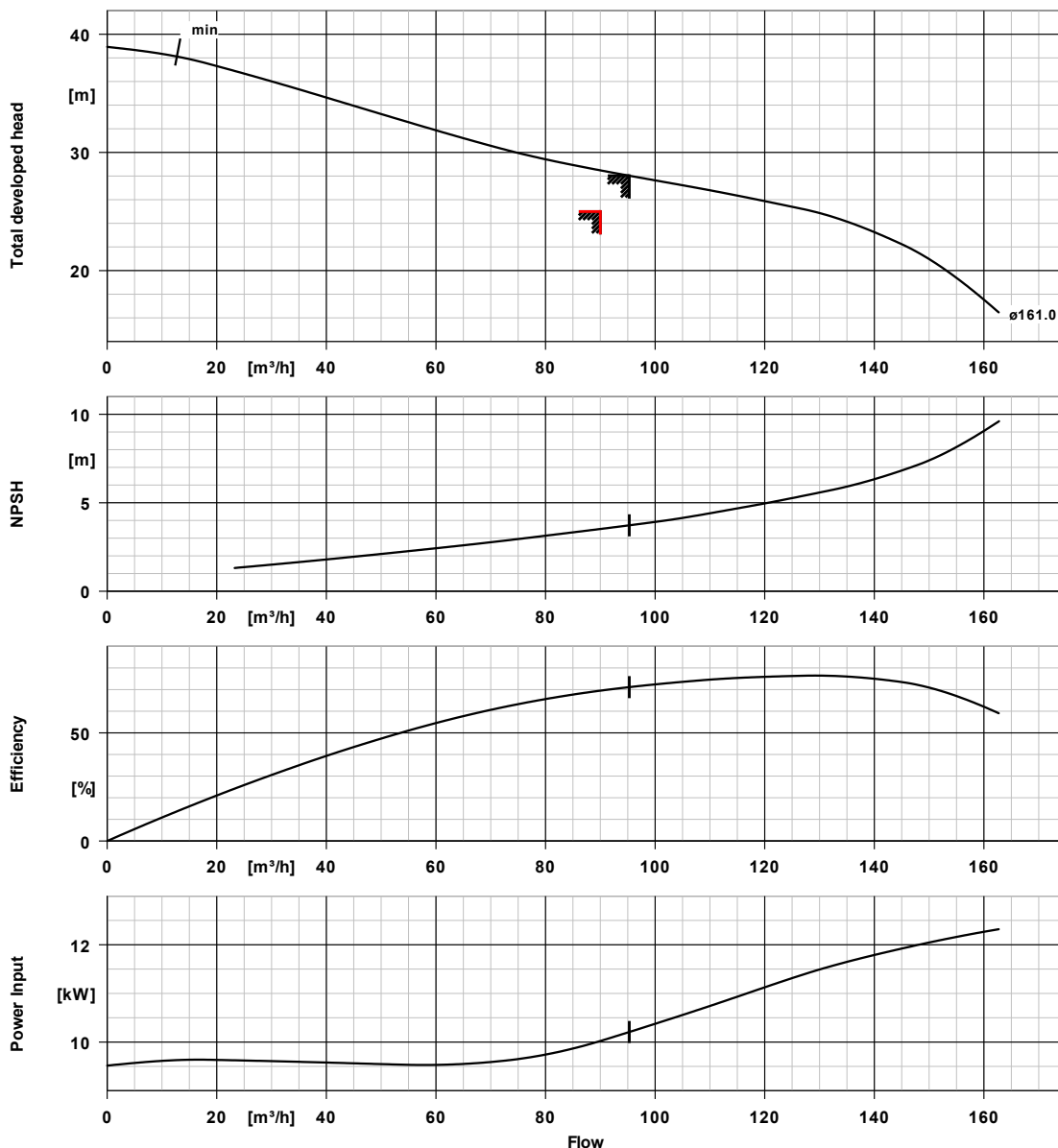
**Packaging**

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

**Nameplates**

Nameplates language	International
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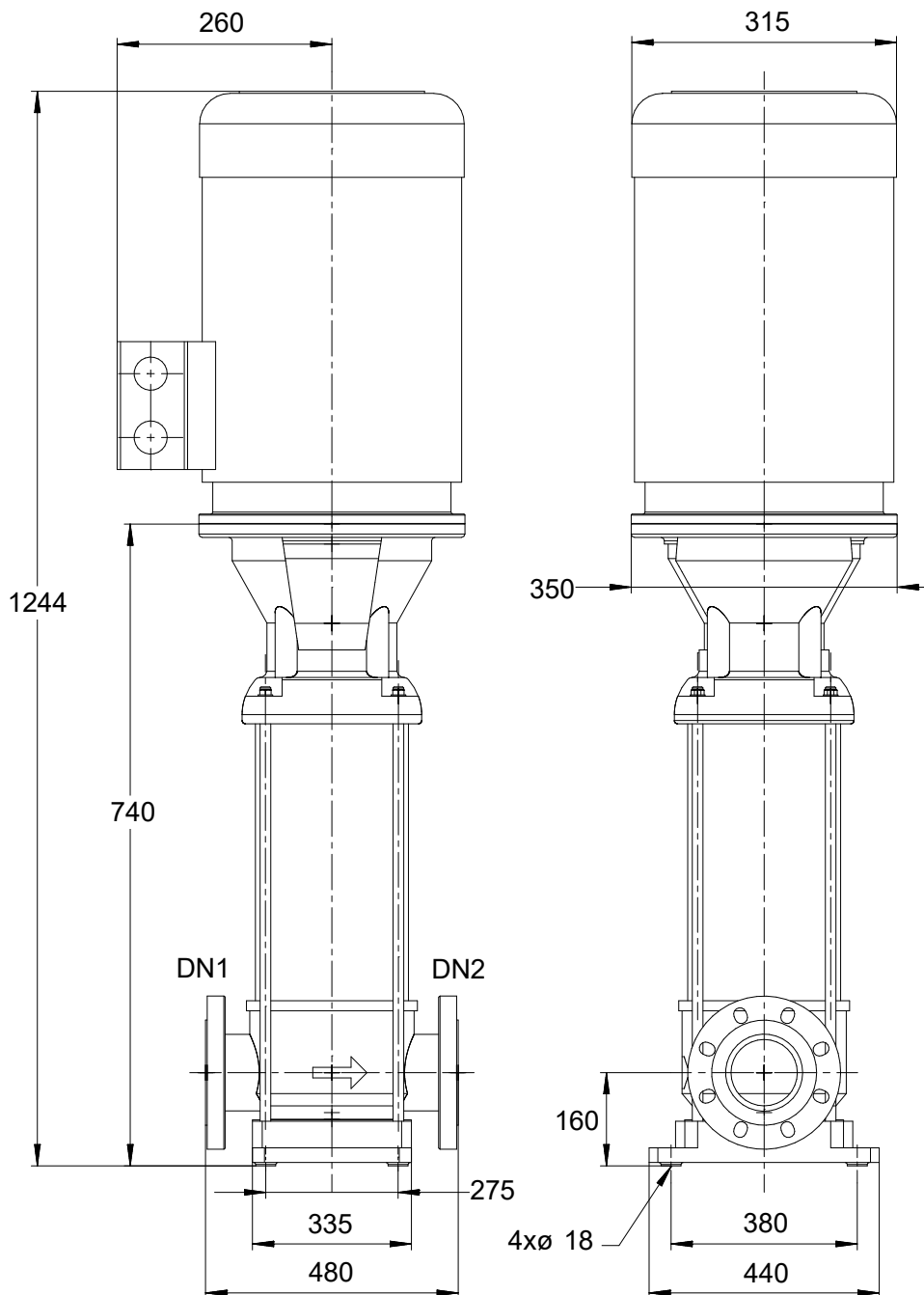


**Curve data**

Speed of rotation	2966 rpm	Efficiency	71.2 %
Fluid density	998 $kg/m^3$	Power absorbed	10.20 kW
Viscosity	1.00 $mm^2/s$	NPSHR	3.73 m
Flow rate	95.29 $m^3/h$	Curve number	Mt125_2900Red0/1
Requested flow rate	90.00 $m^3/h$	Effective impeller diameter	161.0 mm
Total developed head	28.02 m	Acceptance standard	Tolerances to ISO 9906
Requested developed head	25.00 m		Class 3B; below 10 kW
			acc. to paragraph 4.4.2

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*Drawing is not to scale*

*Dimensions in mm*

### **Motor**

Motor manufacturer	KSB (DMW)
Motor size	160M
Motor power	15.00 kW
Number of poles	2
Speed of rotation	2965 rpm
Position of terminal box	90° (right) Viewed from the drive
Thrust bearing housing	No

### **Connections**

Suction nominal size DN1	DN 125 / EN 1092-2
Discharge nominal size DN2	DN 125 / EN 1092-2
Nominal pressure suct.	PN 16
Rated pressure disch.	PN 16
Round flange (F)	

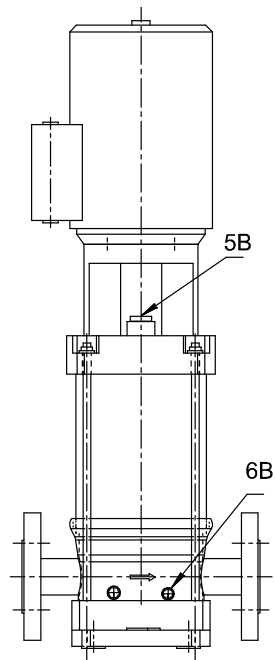
### **Weight net**

Pump	181 kg
Motor	106 kg
Total	287 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 3/8

Closed with venting plug  
Drilled and plugged.