

VAB 050-040-175 0114MB T82LECCO OA

Vitacast Bloc - Hygienic centrifugal pump

Operating data

Requested flow rate		Actual flow rate	3.00 m ³ /h
Requested developed head		Actual developed head	11.00 m
Pumped medium	+ Huile de colza	Efficiency	26.2 %
	+	Power absorbed	0.32 kW
Pumped medium details	Not containing chemical and mechanical substances which affect the materials	Pump speed of rotation	1489 rpm
		NPSH required	0.53 m
Max. ambient air temperature	20.0 °C	Permissible operating pressure	10.00 bar.g
Min. ambient air temperature	20.0 °C	Discharge press.	0.99 bar.g
Fluid temperature	90.0 °C		
Fluid density	0.920 kg/dm ³	Shutoff head	11.04 m
Fluid viscosity	13.34 mm ² /s	Min. allow. flow for continuous stable operation	1.18 m ³ /h
Suction pressure max.	0.00 bar.g	Min. allow. mass flow for continuous stable operation	0.30 kg/s
Mass flow rate	0.77 kg/s	Max. allow. mass flow	3.33 kg/s
Max. power on curve	0.52 kW	Design	Single system 1 x 100 %

Design

The pump conforms to the regulations of EGV 1935/2004.

Design	Close-coupled	Direction of rotation	Clockwise
Orientation	Horizontal	Spring Shrouding	open
Suction nominal dia.	DN 50	Material code	BQ1EGG
Suction nominal pressure	PN 10	Shaft seal code	T82
Suction position	axial	Sealing plan	B Dead-end
Connection standard	EN1092-1	Seal chamber design	Standard seal chamber
Discharge nominal dia.	DN 40	Impeller diameter	172.0 mm
Discharge nominal pressure	PN 10	Free passage size	6.5 mm
Discharge position	top (0°/360°)	Direction of rotation from drive	Clockwise
Discharge flange drilled according to standard	EN1092-1	Silicon free pump assembly	Yes
Counter Flange	No	Bearing bracket construction	Close-coupled
Shaft seal	Single acting mechanical seal	Bearing type	Anti-friction bearings
Shaft seal manufacturer	Roten	Lubrication type	Grease
Shaft seal type	Uniten 3	Color	White aluminium (similar RAL 9006)
Mechanical Seal Form	Unbalanced	Support or motor foot	Motor foot
		Motor shroud	Without
		Surface finish wetted parts	3.2 µm

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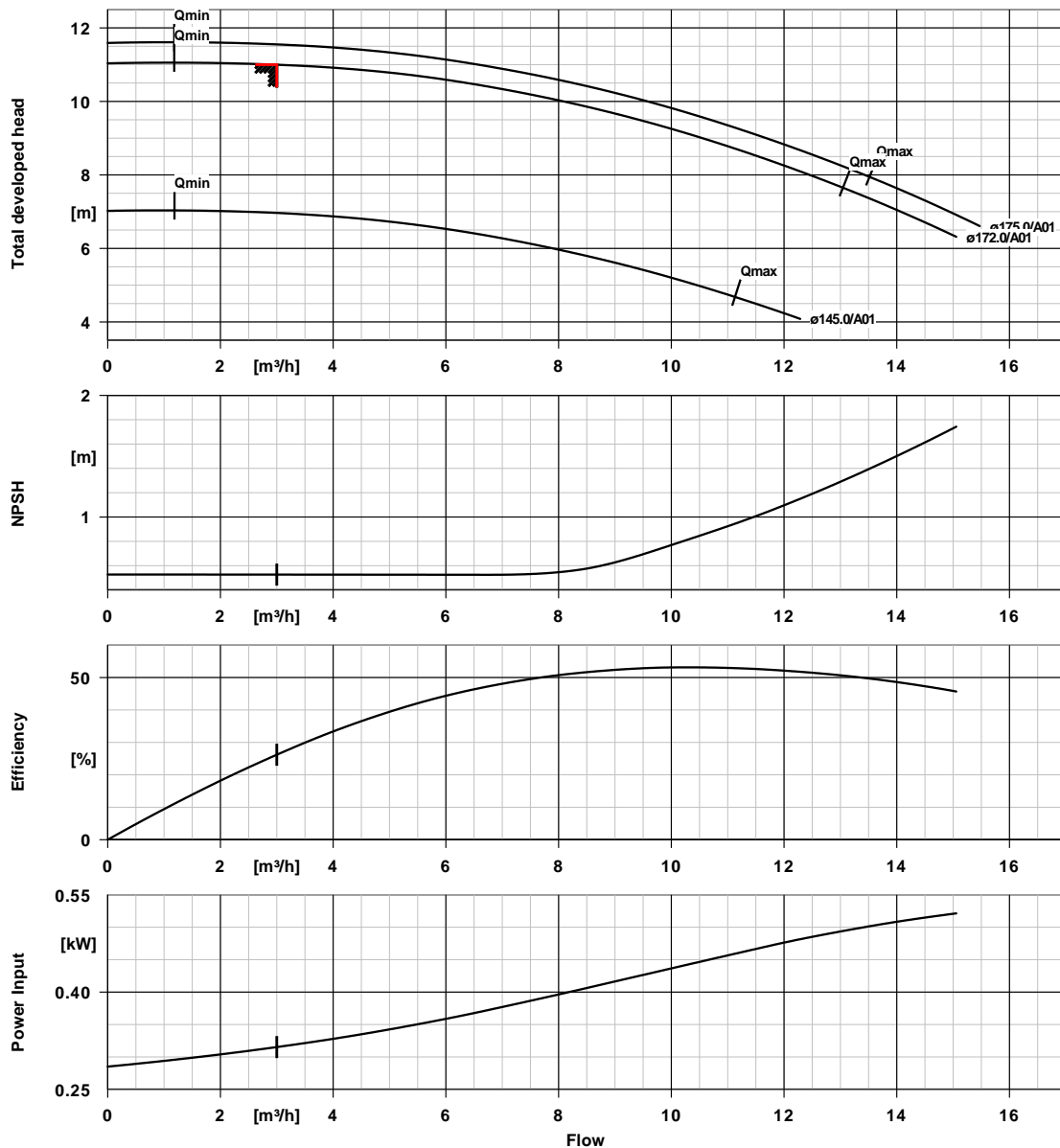
Driver, accessories

Driver type	Electric motor	Motor enclosure	IP55
Drive standard mech.	IEC	Cos phi at 4/4 load	0.80
Model (make)	KSB-Motor	Motor efficiency at 4/4 load	84.8 %
Drive supplied by	Standard motor supplied by KSB - mounted by KSB	Temperature sensor	1 PTC resistor
Motor const. type	V15	Terminal box position	0°/360° (top)
Motor size	90S	Motor winding	Viewed from the drive
Efficiency class	Efficiency class IE3 acc. to IEC60034-30-1	Number of poles	230 / 400 V
Motor speed	1489 rpm	Connection mode	4
Frequency	50 Hz	Motor cooling method	Star
Designed for operation with frequency inverter	Yes	Motor material	Surface cooling
Rated voltage	400 V	Frequency inverter operation allowed	Aluminium
Rated power P2	1.10 kW	Motor noise pressure level	FI allowed
Available reserve	248.87 %	Motor data can vary from type plate information. Motor data describes KSB's choice functional specification and is used for pump selection.	49 dBa
Starting current ratio	7.6		
Insulation class	F to IEC 34-1		

Materials C

Circular casing (103)	Stainless steel 1.4409	Taper locking ring (515)	Stainless steel 1.4301
Discharge cover (163)	Stainless steel 1.4409	Cover plate (68-3)	Stainless steel 1.4301
Shaft (210)	CrNiMo steel 1.4404	Motor shroud (683)	Without
Impeller (230)	Stainless steel 1.4409	Impeller nut (922)	CrNiMo steel 1.4404
O-Ring (412)	EPDM 70 FDA		

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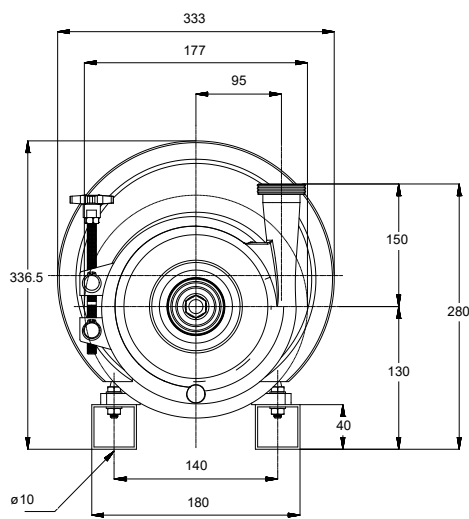
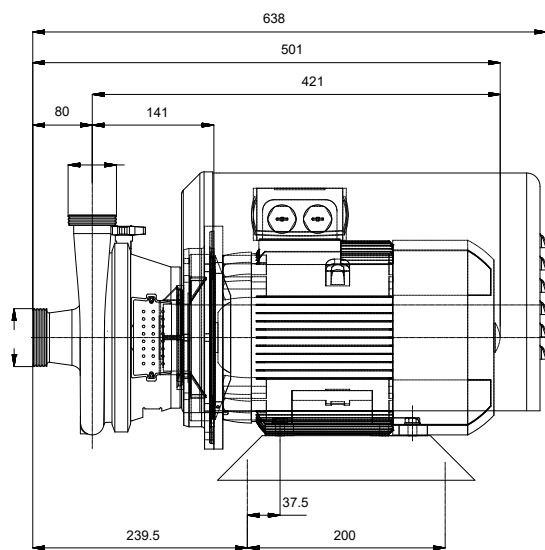


Curve data

Speed of rotation	1489 rpm	Requested developed head	11.00 m
Fluid density	0.920 kg/dm^3	Efficiency	26.2 %
Viscosity	13.34 mm^2/s	Power absorbed	0.32 kW
Flow rate	3.00 m^3/h	NPSH required	0.53 m
Requested flow rate	3.00 m^3/h	Curve number	VA-40175-1450
Total developed head	11.00 m	Effective impeller diameter	172.0 mm

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Drawing is not to scale

Dimensions in mm

Motor

Motor manufacturer	KSB-Motor
Motor size	90S
Motor power	1.10 kW
Number of poles	4
Speed of rotation	1489 rpm
Position of terminal box	0°/360° (top) Viewed from the drive

Connections

Suction nominal size DN1	DN 50 / EN1092-1
Discharge nominal size DN2	DN 40 / EN1092-1
Nominal pressure suct.	PN 10
Rated pressure disch.	PN 10

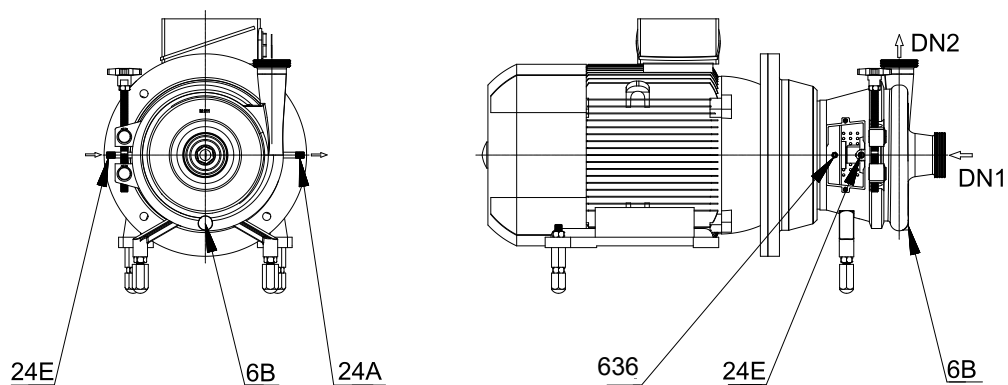
Weight net

Pump	22 kg
Motor	20 kg
Total	42 kg

Connect pipes without stress or strain!

For auxiliary connections see separate drawing.

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Connections

6B Pumped liquid drain	G 3/8	Not executed
24E/24A Quench liquid in/out	G 1/4	Not executed
10E/10A Sealing liquid in/out	G 1/4	Not executed
636 Lubrication for bearing		Not executed