

VAB 040-032-110 0152KI T81MVCCO OA
Vitacast Bloc - Hygienic centrifugal pump

Operating data

| | | | |
|------------------------------|--|--|--------------------------------------|
| Requested flow rate | 6.00 m ³ /h | Actual flow rate | 6.00 m ³ /h |
| Requested developed head | 11.70 m | Actual developed head | 11.70 m |
| Pumped medium | + Starch suspension + waterige suspensie met droge substantie | Efficiency | 46.3 % |
| Pumped medium details | Not containing chemical and mechanical substances which affect the materials | Power absorbed | 0.45 kW |
| Max. ambient air temperature | 20.0 °C | Pump speed of rotation | 2616 rpm |
| Min. ambient air temperature | 20.0 °C | NPSH required | 0.67 m |
| Fluid temperature | 60.0 °C | Permissible operating pressure | 10.00 bar.g |
| Fluid density | 1100 kg/m ³ | Discharge press. | 1.26 bar.g |
| Fluid viscosity | 1.10 mm ² /s | Shutoff head | 12.95 m |
| Suction pressure max. | 0.00 bar.g | Min. allow. flow for continuous stable operation | 0.86 m ³ /h |
| Mass flow rate | 1.83 kg/s | Min. allow. mass flow for continuous stable operation | 0.26 kg/s |
| Max. power on curve | 0.55 kW | Max. allow. mass flow Design | 3.16 kg/s Single system 1 x 100 % |

Design



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

| | |
|---|----------------------------------|
| Design | Close-coupled |
| Orientation | Horizontal |
| Suction nominal dia. | DN 40 |
| Suction nominal pressure | PN 10 |
| Suction position | axial |
| Connection standard | DIN 11851 (Milk thread) |
| Discharge nominal dia. | DN 32 |
| Discharge nominal pressure | PN 10 |
| Discharge position | top (0°/360°) |
| Discharge flange drilled according to standard | DIN 11851 (Milk thread) |
| Counter Flange | No |
| Shaft seal | Single acting mechanical seal |
| Shaft seal manufacturer | Roten |
| Shaft seal type | Uniten 3 |
| Mechanical Seal Form | Unbalanced |

| | |
|----------------------------------|--|
| Direction of rotation | Clockwise |
| Spring Shrouding | open |
| Material code | Q1Q1VGG |
| Shaft seal code | T81 |
| Sealing plan | I Single-acting mechanical seal(internal circulation) |
| Seal chamber design | Standard seal chamber |
| Impeller diameter | 110.0 mm |
| Free passage size | 4 mm |
| Direction of rotation from drive | Clockwise |
| Silicon free pump assembly | Yes |
| Bearing bracket construction | Close-coupled |
| Bearing type | Anti-friction bearings |
| Lubrication type | Grease |
| Color | White aluminium (similar RAL 9006) |
| Support or motor foot | 3 point ball feet |
| 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 | 0.78 |
| Model (make) | KSB-Motor | Motor efficiency at 4/4 load | 84.2 % |
| Drive supplied by | Standard motor supplied by KSB - mounted by KSB | Temperature sensor | 1 PTC resistor |
| Motor const. type | V1 | Terminal box position | 0°/360° (top) |
| Motor size | 90S | | Viewed from the drive |
| Efficiency class | Efficiency class IE3 acc. to IEC60034-30-1 | Motor winding | 230 / 400 V |
| Speed control selection | Speed adjustment | Number of poles | 2 |
| Frequency | 50 Hz | Connection mode | Star |
| Designed for operation with frequency inverter | Yes | Motor cooling method | Surface cooling |
| Rated voltage | 400 V | Motor material | Aluminium |
| Rated power P2 | 1.50 kW | Frequency inverter operation allowed | FI allowed |
| Available reserve | 198.93 % | Motor noise pressure level | 68 dBa |
| Rated current | 3.3 A | Motor data can vary from type plate information. Motor data describes KSB's choice functional specification and is used for pump selection. | |
| Starting current ratio | 8.5 | EAC Approval | Yes |
| 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) | FKM 75 with FDA approval | | |

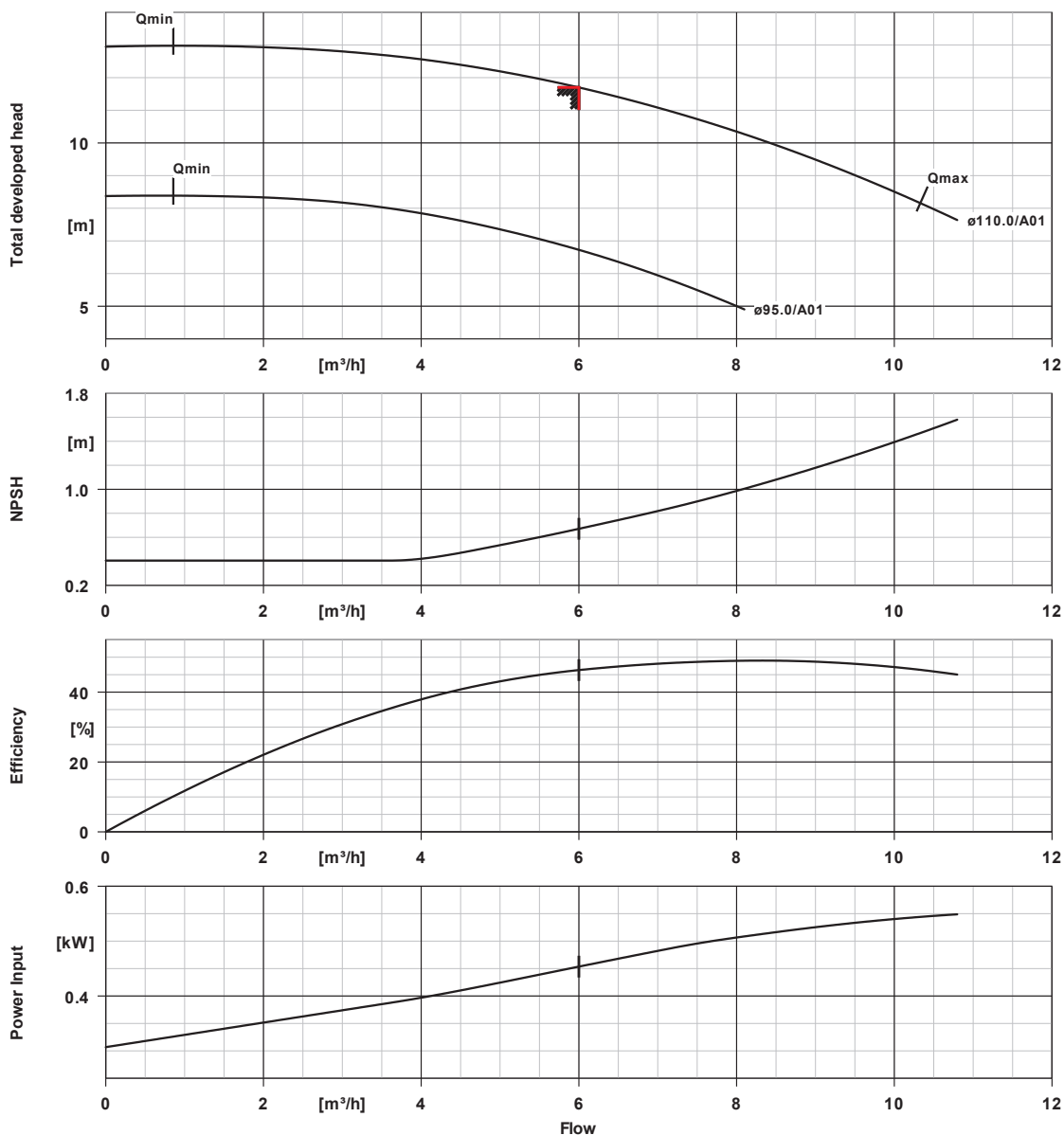
Packaging

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

Nameplates

| | |
|---------------------|---------------|
| Nameplates language | International |
|---------------------|---------------|

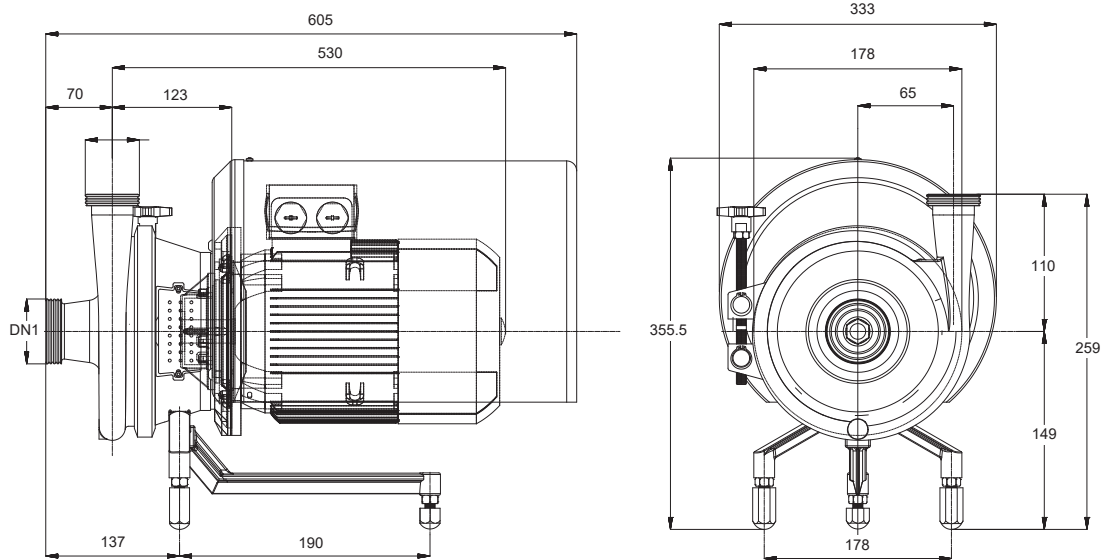
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Curve data

| | | | |
|----------------------|-------------------------|-----------------------------|---------------|
| Speed of rotation | 2616 rpm | Requested developed head | 11.70 m |
| Fluid density | 1100 kg/m ³ | Efficiency | 46.3 % |
| Viscosity | 1.10 mm ² /s | Power absorbed | 0.45 kW |
| Flow rate | 6.00 m ³ /h | NPSHR | 0.67 m |
| Requested flow rate | 6.00 m ³ /h | Curve number | VA-32110-2900 |
| Total developed head | 11.70 m | Effective impeller diameter | 110.0 mm |

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Drawing is not to scale

Dimensions in mm

Motor

| | |
|--------------------------|-----------------------|
| Motor manufacturer | KSB-Motor |
| Motor size | 90S |
| Motor power | 1.50 kW |
| Number of poles | 2 |
| Speed of rotation | 2969 rpm |
| Position of terminal box | 0°/360° (top) |
| | Viewed from the drive |

Connections

| | |
|----------------------------|---------------------------------|
| Suction nominal size DN1 | DN 40 / DIN 11851 (Milk thread) |
| Discharge nominal size DN2 | DN 32 / DIN 11851 (Milk thread) |
| Nominal pressure suct. | PN 10 |
| Rated pressure disch. | PN 10 |

Weight net

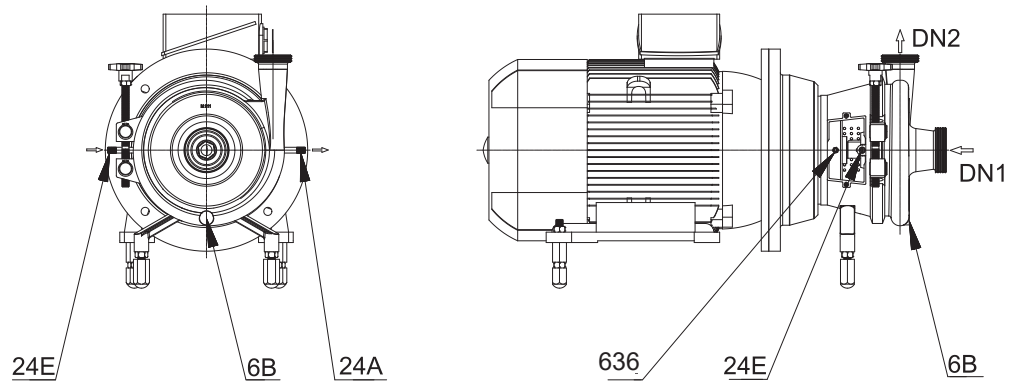
| | |
|-------|-------|
| Pump | 11 kg |
| Motor | 18 kg |
| Total | 29 kg |

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 |