



Etanorm 065-050-125 PP
ETN 065-050-125-PPKAA11 GSECX2AHB

Operating point 1 Dimensioning operating point

Operating conditions (purchaser requirements)

Target flow rate	70 m³/h
Target head	20 m
Fluid	Water, drinking water / tap water
Fluid variant	Tap water
Specified fluid temperature	20 °C
Density Fluid handled	998 kg/m³
Kinematic viscosity Fluid handled	1 mm²/s

Vapour pressure determined	0.02337 bar.a
Minimum inlet pressure required	-0.3 bar.r
Specified ambient temperature	20 °C
Installation altitude above sea level	1,000 m

Operating conditions (performance)

Flow rate	69.98 m³/h
Minimum permissible flow rate	12.96 m³/h
Maximum permissible flow rate Pump set	106.2 m³/h
Maximum permissible flow rate	106.2 m³/h
Head	19.99 m
Maximum pressure determined at duty point	1.956 bar.r
Shut-off head	24.75 m
Efficiency Pump	79.59 %
NPSH required	3.3 m

Maximum power input at duty point	4.78 kW
Maximum power input / curve	5.445 kW
Pump speed	2,940 1/min
Shut-off pressure	2.423 bar.r



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Design data pump

Scope of supply Pump supplied by KSB	Bare-shaft pump	Mains frequency	50 Hz
Pump standard	EN 733	Minimum efficiency index MEI	0.7
Design according to regulation	Drinking water	Minimum permissible fluid temperature	0 °C
Shaft axis position	Horizontal	Maximum permissible fluid temperature	60 °C
Pump design	Long-coupled (baseplate-mounted)	Quantity Stages, single-entry	1
Pump system design	Single-pump system	Casing wear ring design suction-side	Casing wear ring flat
Pump direction of rotation, viewed from casing side	Counterclockwise	Casing wear ring design discharge-side	Casing wear ring flat
Hydraulic impeller diameter	135.5 mm	Installation chamber Casing cover	Conical (A-type cover)
Impeller type	Radial, closed, multi-channel	Bearing bracket size / shaft unit	25
Free passage	11.6 mm	Bearing bracket design	Medium
		Lubrication type	Grease lubrication
		Bearing seal Pump	V-ring
		Pump directive	CE

Nozzle connections pump

Nominal diameter Suction nozzle	DN 65	Nominal diameter Discharge nozzle	DN 50
Nominal pressure Suction nozzle	PN 16	Nominal pressure Discharge nozzle	PN 16
Suction nozzle position	Axial	Discharge nozzle position	0 deg
Suction nozzle design acc.to	EN1092-2	Discharge nozzle design acc.to	EN1092-2
Suction flange bolt hole pattern as per standard	EN1092-2	Discharge flange bolt hole pattern as per standard	EN1092-2
Flange facing type Inlet	Raised face (B,RF)		
Flange facing type Outlet	Raised face (B,RF)		



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Auxiliary connections pump

1M Pressure gauge	G 1/4
Discharge nozzle	Drilled and plugged
1M Pressure gauge Suction nozzle	G 1/4
	Drilled and plugged
6B Fluid Drain	G 1/4
	Drilled and plugged
6D Fluid Filling and venting	G 1/4
	Drilled and plugged
8B Leakage Drain	G 1/2
	Drilled

Shaft sealing

Shaft seal type	Single mechanical seal (A-type cover) - A	Shaft seal code	Code 11
Operating mode of mechanical seal (function)	API plan 03	Shaft seal manufacturer inboard	KSB's choice
Determined pressure Seal chamber	-0.16 bar.r	Mechanical seal type inboard	KSB's choice
		Material Shaft seal inboard	BQEGG DW001

Materials

Material Volute casing	EN-GJL-250/A48 CL 35B +WITHOUT PROTECTIVE COATING	Material Bolts/Screws Volute casing	8.8
Material Casing cover	EN-GJL-250/A48 CL 35B +WITHOUT PROTECTIVE COATING	Material Nut Impeller fastening (ST)	
Material Shaft	C45+N		
Material Impeller	EN-GJL-250+WITHOUT PROTECTIVE COATING		
Material Casing wear ring suction-side	JL/LAMELLAR GRAPHITE CAST IRON		
Material Casing wear ring discharge-side	JL/LAMELLAR GRAPHITE CAST IRON		
Material Shaft protecting sleeve	(CRNIMO ST INT)		
Material Bearing bracket	EN-GJL-250/A48 CL 35B		
Material Static seal Discharge cover	DPAF DW001		

Technical Datasheet



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Driver

Electric motor, asynchronous	No	Rated speed Motor	2,930 1/min
Drive concept	Electric actuator	Number of motor poles	2
Drive standard, mechanical	IEC	Rated power Motor	5.5 kW
Drive standard electric	IEC		
Motor construction type	IM B3 (IM1001) IEC 60034-7		
Motor size	132S		

Coating

Surface preparation	Aggregate
Properties Primer coat	Free from dirt, grease, rust
Thickness Primer coat	Hydro dip primer, water-dilutable
Properties Top coat	60 µm
Thickness Top coat	Acrylate dispersion water-thinned
Colour Top coat	40 µm
	RAL5002 Ultramarine Blue

Energy cost and Environmental Impact

Result

Estimated Product Carbon Footprint (cradle-to-gate) (CO₂eq) 138 kg

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*is based on the product weight assuming typical material proportions. The conversion rate between product weight and CO₂ emissions is based on several life cycle analyses in acc. with ISO 14040 / 44 of sample products from the same series. The objective and scope of these LCAs was limited to the manufacturing phase (cradle-to-gate). With regard to the 'inputs', all materials, energy and auxiliary materials were taken into account; with regard to the 'outputs', emissions, scrap and waste were considered. The influence of outgoing logistics is not covered. The input variables of the analyses cover at least 95% of the total weight. The analysis focusses on the global warming potential (EF3.0 Climate Change - total).

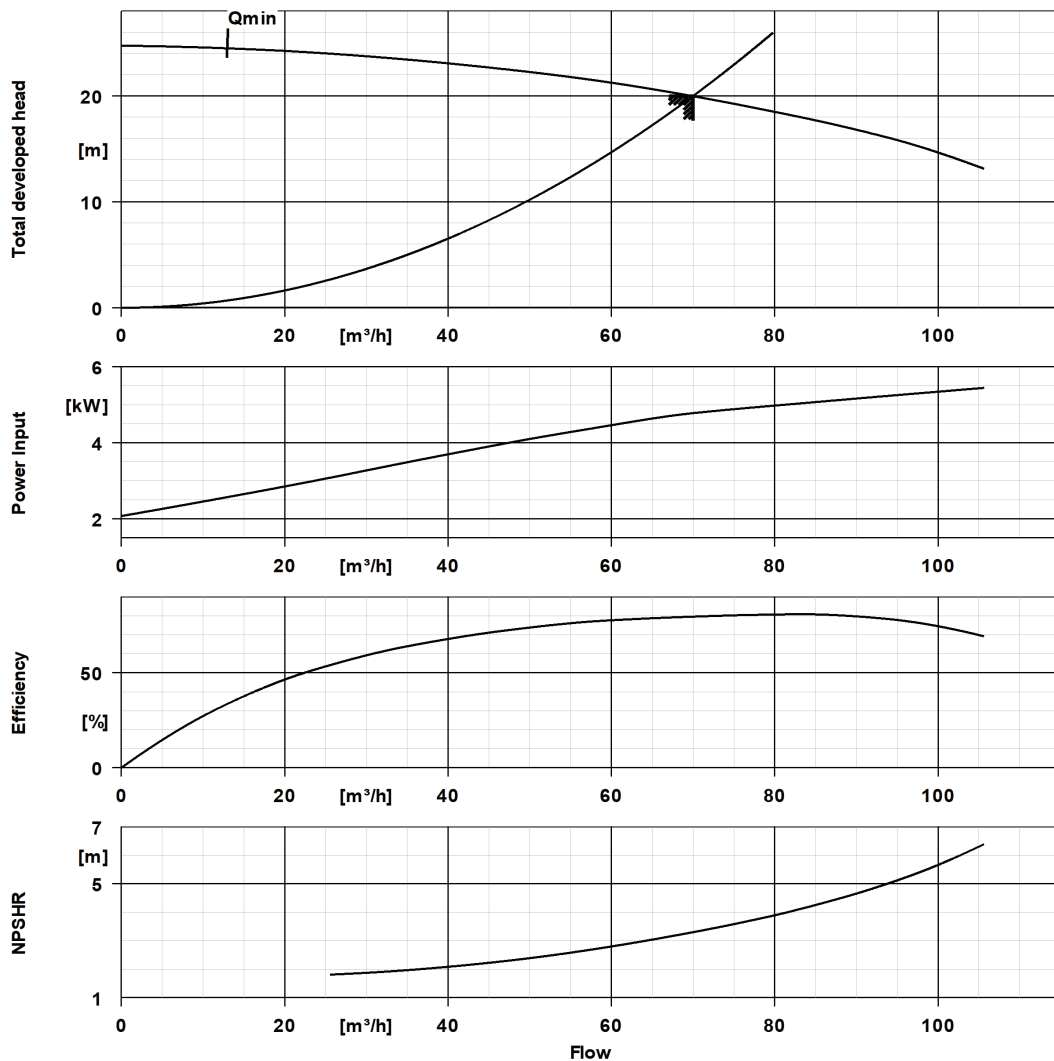
Packaging

Suitable for transport	Truck transport
Suitable for storage	Indoor storage
Packaging category	KSB's choice (A0)

Performance Curve (Pump)



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Curve Data

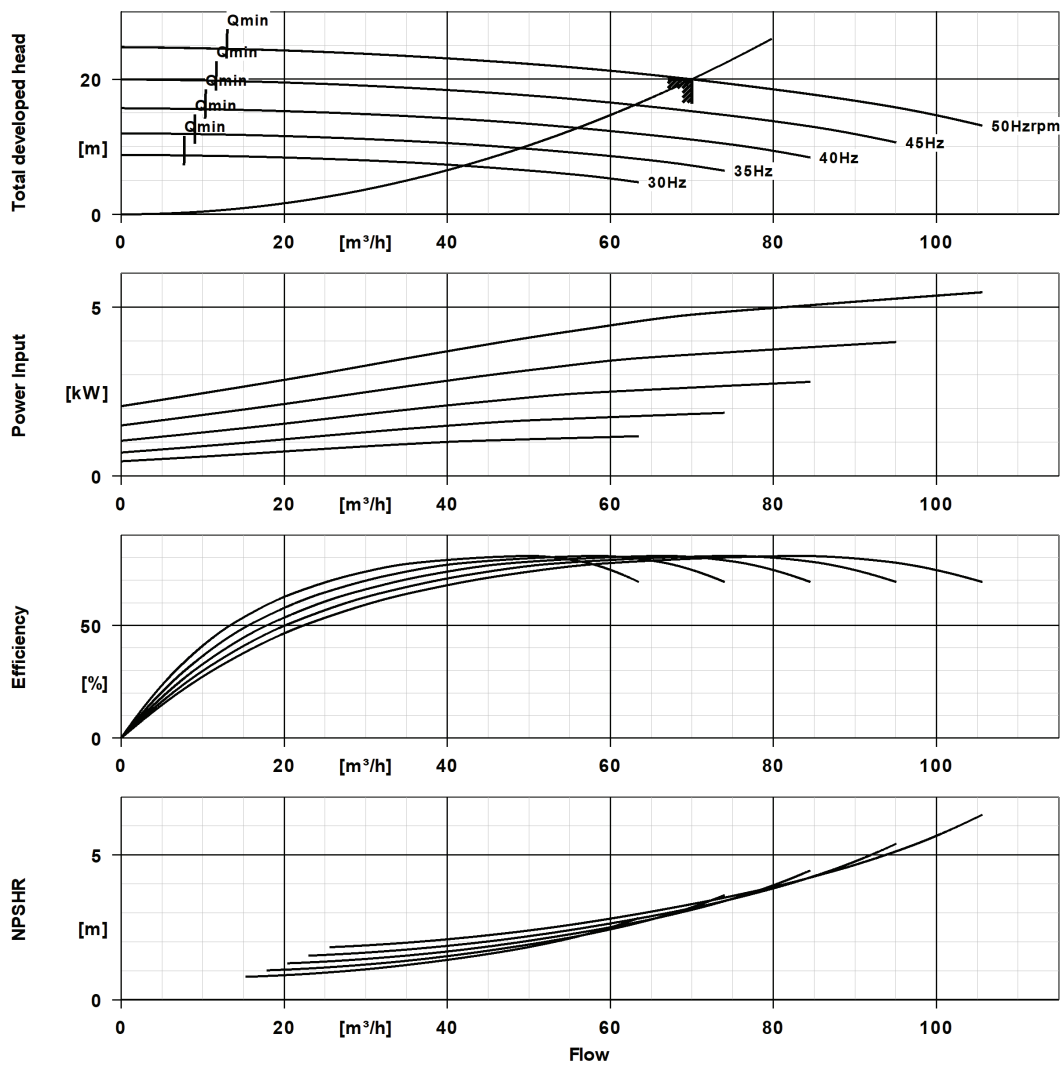
Pump speed	2,940 1/min	Efficiency Pump	79.6 %
Density Fluid handled	998 kg/m^3	Minimum efficiency index MEI	0.7
Kinematic viscosity Fluid handled	1 mm^2/s	Maximum power input at duty point	4.78 kW
Flow rate	70 m^3/h	NPSH required	3.3 m
Head	20 m	Hydraulic impeller diameter	135.5 mm
Maximum pressure determined at duty point	1.96 bar.r	Hydraulic values according to	EN ISO 9906
			Class 3B

According to EN ISO 9906, §4.4.2 (pump input power below 10 kW)

Speed Curve



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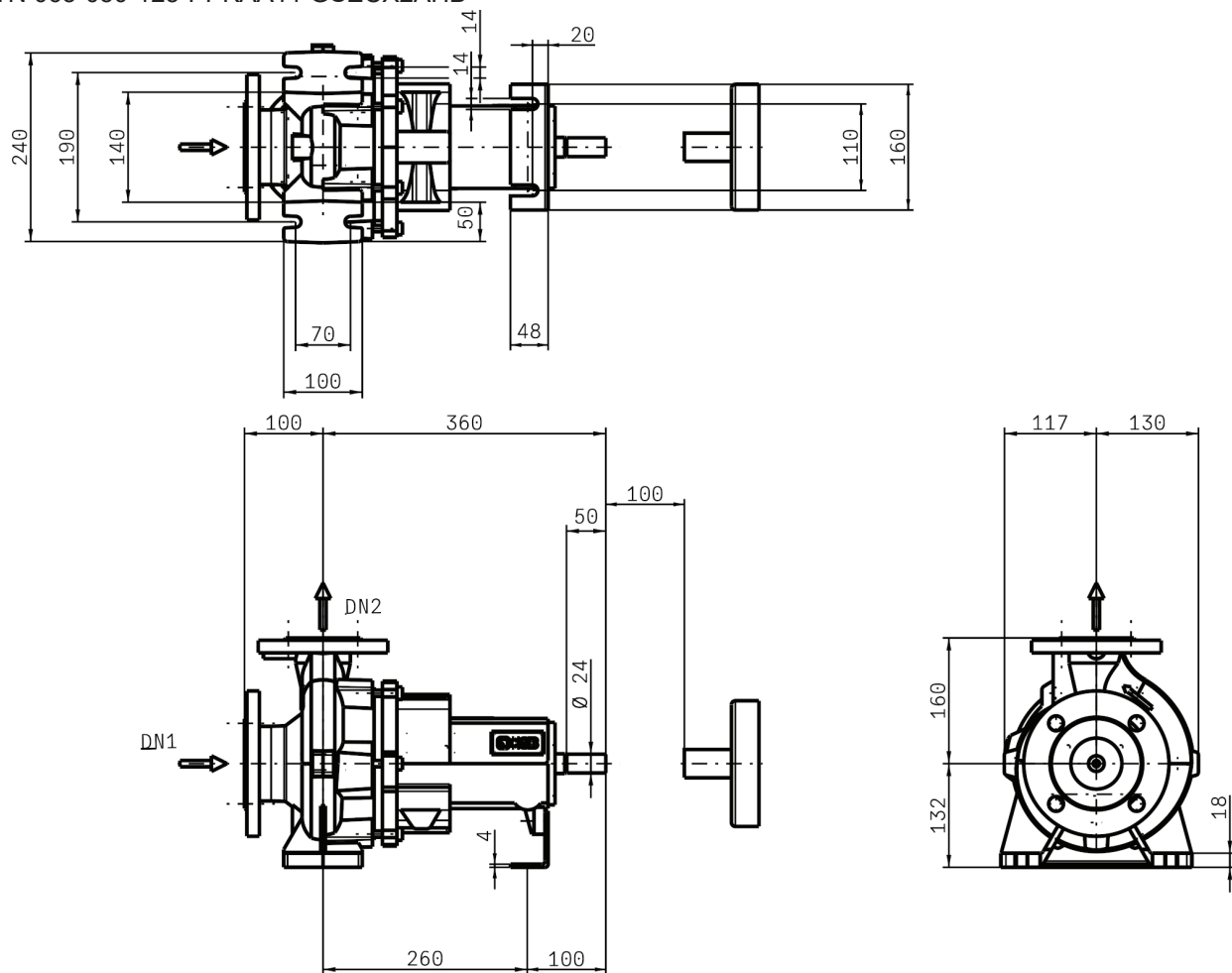
Curve Data

Density Fluid handled	998 kg/m^3	Minimum efficiency index MEI	0.7
Kinematic viscosity Fluid handled	1 mm^2/s	Hydraulic impeller diameter	135.5 mm
Flow rate	69.98 m^3/h	Head	19.99 m

Installation plan



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Drawing is not to scale.

Dimensions are given in mm

Motor

Motor size	132S
Rated power Motor	5.5 kW
Number of motor poles	2

Connections

Nominal diameter Suction nozzle	DN 65
Suction flange bolt hole pattern as per standard	EN1092-2
Nominal diameter Discharge nozzle	DN 50
Discharge flange bolt hole pattern as per standard	EN1092-2
Nominal pressure Suction nozzle	PN 16
Nominal pressure Discharge nozzle	PN 16

Installation plan



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Net weight

Total weight Pump 36.22 kg

Connect pipelines stress-free

Dimensional tolerances for shaft axis height: DIN 747

Dimensions without tolerances, middle tolerances to: ISO 2768-m

Connection dimensions for pumps: EN735

Dimensions without tolerances - welded parts: ISO 13920-B

Dimensions without tolerances - gray cast iron parts: ISO 8062-CT9

Plan for additional connections see extra drawing