Technical Datasheet

Etanorm 065-050-125 GG
ETN 065-050-125-GGSAA10 GSEDN2AHB

Operating point 1 Dimensioning operating point

Operating conditions (purchaser requirements)

Fluid	Water	Vapour pressure determined	0.02337 bar.a
Fluid variant	Clean water	Minimum inlet pressure required	-0.3 bar.r
Specified fluid temperature	20 °C		
Density Fluid handled	998 kg/m³	Specified ambient temperature	20 °C
Kinematic viscosity Fluid handled	1 mm²/s	Installation altitude above sea level	1,000 m

Operating conditions (performance)

Flow rate	87.82 m³/h	Maximum power input at duty point	5.866 kW
Minimum permissible flow rate	13.7 m³/h		
Maximum permissible flow rate Pump unit	113.09 m³/h	Maximum power input / curve	6.331 kW
		Pump speed	2,953 1/min
Head	20.17 m	Discharge pressure-max.	2.666 bar.r
Shut-off head	27.24 m		
Efficiency Pump	82.07 %		
NPSH required	4.39 m		

Design data pump

Scope of supply Pump supplied by KSB	Bare-shaft pump	Mains frequency	50 Hz
		Minimum efficiency index MEI	0.7
Pump standard	EN 733	Minimum permissible fluid temperature	0 °C
Shaft axis position	Horizontal		
Pump design	Long-coupled (basepl-mounted)	Maximum permissible fluid temperature	60 °C
Pump system design	Single-pump system	Quantity Stages, single-entry	1
Specification of wetted parts	Manufactured without paint wetting impairment substances	Casing wear ring design suction-side	Flat
Pump direction of rotation, viewed from casing side	Counterclockwise	Casing wear ring design discharge-side	Flat
Hydraulic impeller diameter	142 mm	Installation chamber Casing cover	Conical (A-type cover)
Impeller type	Radial, closed, multi-channel		
Free passage	11.6 mm	Bearing bracket size / shaft unit	25
Nut lock for Impeller	Yes	Bearing bracket design	Medium
		Lubrication type	Grease lubrication
		Bearing seal Pump	V-ring
		Pump directive	CE

Etanorm 065-050-125 GG
ETN 065-050-125-GGSAA10 GSEDN2AHB

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)		

Auxiliary connections pump

6B Fluid Drain	G 1/4 Drilled and plugged	1M Pressure gauge Discharge nozzle	Without Without
6D Fluid Filling and venting	G 1/4 Drilled and plugged	1M Pressure gauge Suction nozzle	Without Without
8B Leakage Drain	G 1/2 Drilled		

Shaft sealing

Shaft seal type	Single mechanical seal (A-type cover) - A	Shaft seal code	Code 10
Operating mode of mechanical seal (function)	API plan 03	Shaft seal manufacturer inboard	KSB's choice
Determined pressure Seal chamber	-0.14 bar.r	Mechanical seal type inboard	KSB's choice
		Material Shaft seal inboard	QQXGG

Etanorm 065-050-125 GG
ETN 065-050-125-GGSAA10 GSEDN2AHB

Materials

Material Volute casing	EN-GJL-250/A48 CL 35B	Material Bolts/Screws Volute casing	8.8
Material Casing cover	EN-GJL-250/A48 CL 35B	Material Nut Impeller fastening	(CRNIMO ST INT)
Material Shaft	C45+N		
Material Impeller	EN-GJL-250/A48 CL 35B		
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		

Driver

Electric motor	No	Rated speed Motor	2,935 1/min
Drive concept	Electric actuator	Number of motor poles	2
Drive standard, mechanical	IEC	Rated power Motor	7.5 kW
Drive standard electric	IEC		
Motor construction type	IM B3 (IM1001) IEC 60034-7		
Motor size	132S		

Coating

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

Etanorm 065-050-125 GG
ETN 065-050-125-GGSAA10 GSEDN2AHB

Energy cost and Environmental Impact

Result

Product Carbon Footprint indication (cradle-to-gate) (CO_2eq) 710 kg

This PCF indication is based on the product mass assuming the typical shares of materials in use. The conversion rate between product mass and CO_2 emissions is based on several life cycle assessments acc. ISO 14040 / 14044 of sample products of the same type series. Objective and scope of these LCAs was defined as being limited to the manufacturing phase (cradle-to-gate). With regard to inputs, all materials, energy and auxiliary materials were accounted for, and with regard to outputs, emissions, scrap and waste were accounted for. The impact of outbound logistics is not covered. The assessments' input variables has covered at least 95% of the total product mass. The analysis focuses exclusively on the Global Warming Potential (EF3.0 Climate Change – total).

Packaging

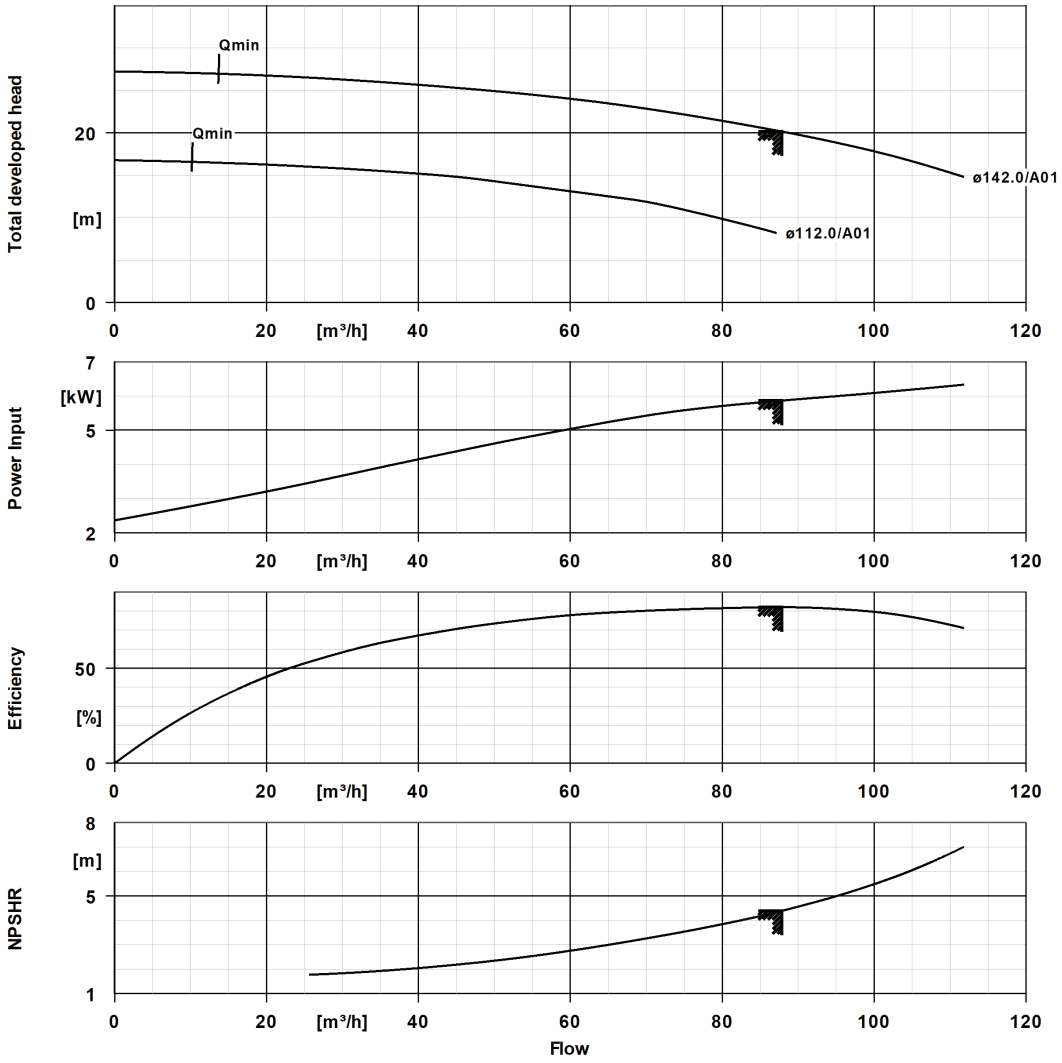
Suitable for transport	Truck transport
Suitable for storage	Indoor storage
Packaging category	KSB's choice (A0)

Product properties

Specification of wetted parts	Manufactured without paint wetting impairment substances
Standard Test of specification of wetted parts	KSB documentation
Certificate Check of specification of wetted parts	Without

Performance Curve (Pump)

Etanorm 065-050-125 GG
ETN 065-050-125-GGSAA10 GSEDN2AHB



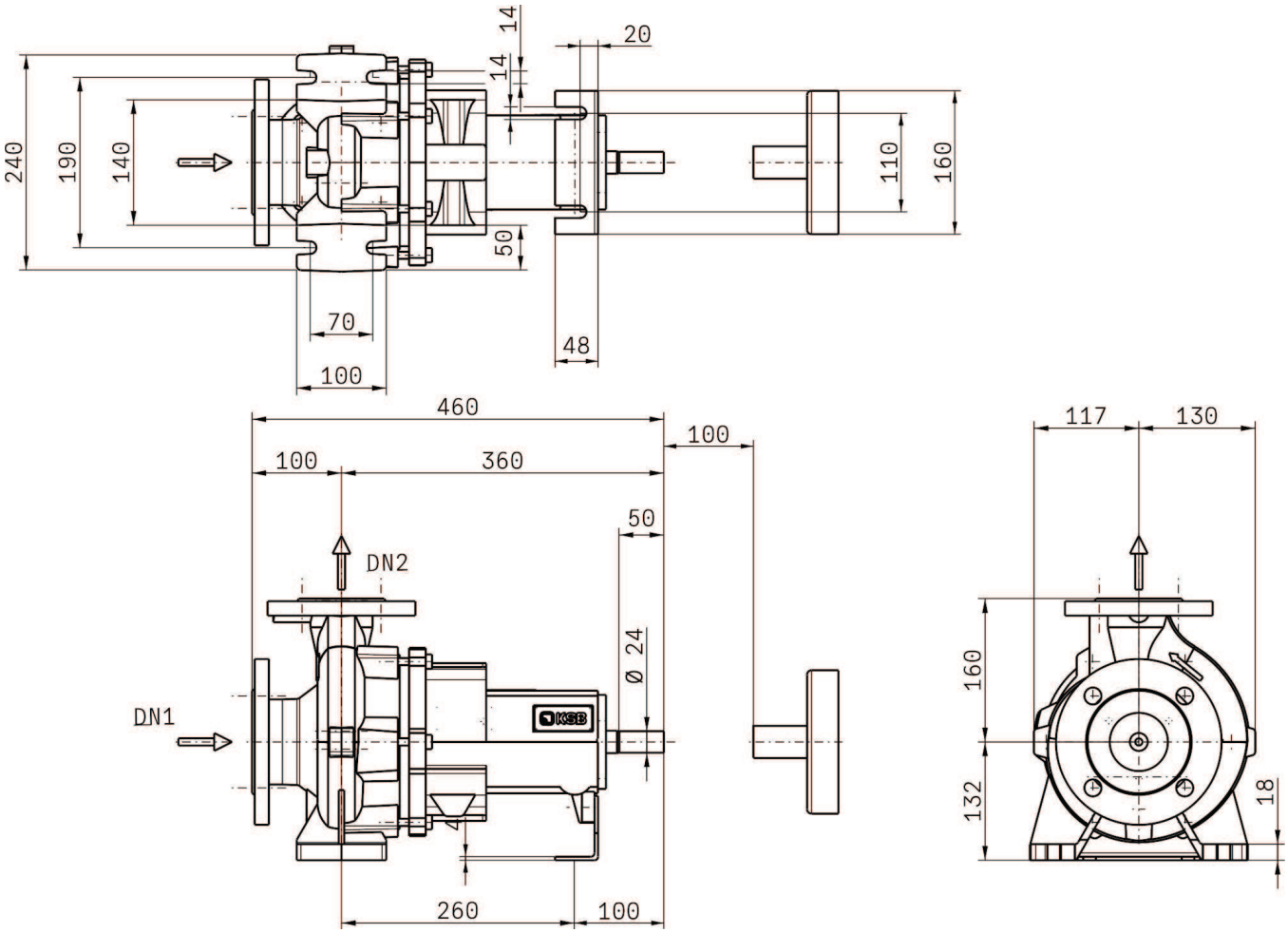
Curve Data

Pump speed	2,953 1/min	Efficiency Pump	82.1 %
Density Fluid handled	998 kg/m³	Minimum efficiency index MEI	0.7
Kinematic viscosity Fluid handled	1 mm²/s	Maximum power input at duty point	5.87 kW
Flow rate	87.8 m³/h	NPSH required	4.39 m
Head	20.2 m	Hydraulic impeller diameter	142 mm
		Hydraulic calculation according to standard/class	EN ISO 9906 Class 3B

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

Installation plan

Etanorm 065-050-125 GG
ETN 065-050-125-GGSAA10 GSEDN2AHB



Drawing is not to scale.

Dimensions are given in mm

Motor

Electric motor	No
Rated power Motor	7.5 kW
Rated speed Motor	2,935 1/min

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

Net weight

Total weight Pump	36.74 kg

Installation plan

Etanorm 065-050-125 GG
ETN 065-050-125-GGSAA10 GSEDN2AHB

Connect pipelines stress-free

Plan for additional connections see extra drawing

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