Technical Datasheet

Etabloc 125-100-160 CC
ETB 125-100-160-CCSCV01 WS3FO4HHB

Operating point 1 Dimensioning operating point

Operating conditions (purchaser requirements)

Target flow rate	290 m³/h	Vapour pressure determined	0.02337 bar.a
Target head	18 m		
Fluid	Water, contaminated water	Specified ambient temperature	20 °C
Fluid variant	Slightly contaminated water	Installation altitude above sea level	1,000 m
Specified fluid temperature	20 °C		
Density Fluid handled	998 kg/m³		
Kinematic viscosity Fluid handled	1 mm²/s		

Operating conditions (performance)

Flow rate	290 m³/h	Maximum power input at duty point	17.37 kW
Minimum permissible flow rate	38.1 m³/h	Maximum power input / curve	17.42 kW
Head	18 m	Pump speed	2,359 1/min
Shut-off head	26.49 m	Discharge pressure-max.	2.593 bar
Efficiency Pump	81.62 %		
NPSH required	5.33 m		

Design data pump

Scope of supply Pump supplied by KSB	Pump	Mains voltage	400 V
		Mains frequency	50 Hz
Pump standard	EN 733	Minimum efficiency index MEI	0.6
Shaft axis position	Vertical	Minimum permissible fluid temperature	0 °C
Pump design	Close-coupled		
Pump system design	Single-pump system	Maximum permissible fluid temperature	60 °C
Specification of wetted parts	Manufactured without paint wetting impairment substances	Quantity Stages, single-entry	1
Pump direction of rotation, viewed from casing side	Counterclockwise	Casing wear ring design suction-side	Flat
Hydraulic impeller diameter	185 mm	Casing wear ring design discharge-side	Flat
Impeller type	Radial, closed, multi-channel		
Free passage	16.4 mm	Installation chamber Casing cover	Conical (A-type cover)
Nut lock for Impeller	No	Bearing bracket size / shaft unit	35
Swirl break	No		
Support foot	No	Pump bearing type, non-drive end	Anti-friction bearing
		Pump bearing type, drive end	Anti-friction bearing
		Pump directive	CE

Etabloc 125-100-160 CC
ETB 125-100-160-CCSCV01 WS3FO4HHB

Nozzle connections pump

Nominal diameter Suction nozzle	DN 125	Nominal diameter Discharge nozzle	DN 100
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	EN1092-1	Discharge nozzle design acc.to	EN1092-1
Suction flange bolt hole pattern as per standard	EN1092-1	Discharge flange bolt hole pattern as per standard	EN1092-1
Flange facing type Inlet	Raised face (B,RF,C)		
Flange facing type Outlet	Raised face (B,RF,C)		

Auxiliary connections pump

6B Fluid Drain	G 1/2 Drilled and plugged	1M Pressure gauge Discharge nozzle	Without Without
6D Fluid Filling and venting	G 1/2 Drilled and plugged	1M Pressure gauge Suction nozzle	Without Without
Connection type 24E Quench liquid inlet	Without Without		
Connection type 5B Venting and drain	G 1/4 Manual globe valve, fitted		

Shaft sealing

Shaft seal type	SMS A-type cover, vented	Shaft seal code	Code 01
Piping plan	API plan 03	Shaft seal manufacturer inboard	KSB's choice
Determined pressure Seal chamber	0.08 bar	Mechanical seal type inboard	1A
		Material Shaft seal inboard	Q1Q1VGG

Etabloc 125-100-160 CC
ETB 125-100-160-CCSCV01 WS3FO4HHB

Materials

Material Volute casing (102)	1.4408/A743CF8M	Material Bolts/Screws Hydraulic casing (902.01)	A4-70/A193 GR B8M CL2
Material Casing cover (161)	1.4408/A743CF8M	Material Screw plug Hydraulic casing (903.01)	A4/AISI 316
Material Shaft	1.4571	Material Static seal Screw plug Volute casing	A4/AISI 316
Material Impeller (230)	1.4408/A743CF8M	Material Nut Impeller fastening (920.95)	(CRNIMO ST INT)
Material Casing wear ring suction-side (502.01)	(CRNIMO ST INT)	Material Key	1.4571+C/A276 TP 316 COND B
Material Casing wear ring discharge-side (502.02)	(CRNIMO ST INT)		
Material Shaft protecting sleeve (523)	(CRNIMO ST INT)		
Material Bearing bracket	WITHOUT		
Material Static seal Discharge cover	DPAF DW001		
Material Drive lantern	EN-GJL-250/A48 CL 35B		
Material Support foot	WITHOUT		

Driver

Electric motor	Yes	Rated speed Motor	3,000 1/min
Drive concept	With electric actuator	Number of motor poles	4
Drive standard, mechanical	IEC	Rated power Motor	30 kW
Drive standard electric	IEC	Motor power reserve determined	34.5 %
Motor bearing, insulated	No		
Motor manufacturer	KSB	Rated voltage Motor	400 V
Customer supply Drive	No	Motor winding	- / 400 V
Motor construction type	IM V15 (IM2011) IEC 60034-7	Rated frequency Motor	100Hz
Motor size	200L	Motor switching type	Star
Efficiency class	IE4 (Super Premium)	Rated current Motor	67 A
Material motor housing	JL/LAMELLAR GRAPHITE CAST IRON	Motor cos phi at nominal speed	0.72
Enclosure Motor	IP55 (TEFC)	Rated efficiency Motor	93.7 %
Thermal class	155 (F) nach IEC 60085	Directive Drive	CE
Temperature sensor motor	3 PTC thermistors		
Terminal box position of motor (looking at the motor shaft)	360 °		
Operation on a frequency inverter permitted	Required by design		
Sound pressure level Motor	72 dBa		
Type series Motor manufacturer	SuPremE C2		

Etabloc 125-100-160 CC
ETB 125-100-160-CCSCV01 WS3FO4HHB

Installation parts / Accessories

Baseplate
Material Installation part Pump (S185)

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-thin
Thickness Top coat	40 µm
Colour Top coat	RAL5002 Ultramarine Blue

Packaging

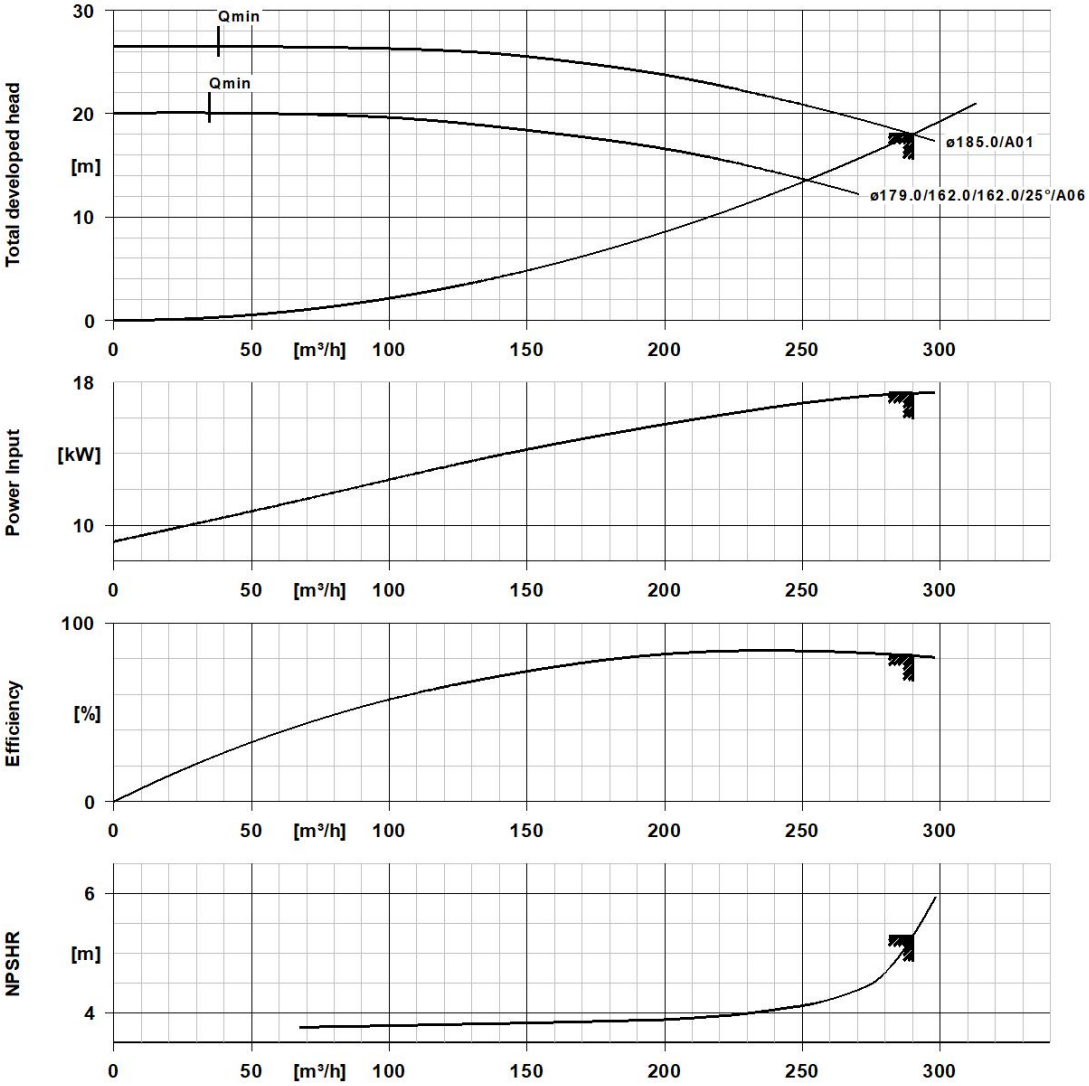
Suitable for transport	Truck transport
Suitable for storage	Indoor storage
Packaging category	KSB's choice (A0)

Nameplates

Duplicate name plate	No
Material Installation part Pump	(S185)

Performance Curve (Pump)

Etabloc 125-100-160 CC
ETB 125-100-160-CCSCV01 WS3FO4HHB

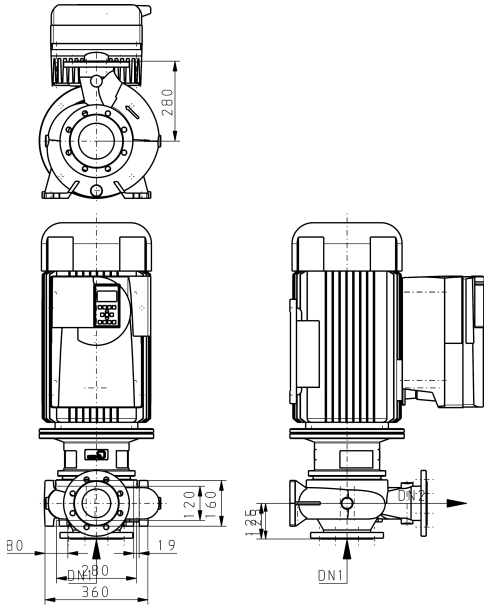


Curve Data

Pump speed	2,359 1/min	Efficiency Pump	81.62 %
Density Fluid handled	998 kg/m³	Minimum efficiency index MEI	0.6
Kinematic viscosity Fluid handled	1 mm²/s	Maximum power input at duty point	17.4 kW
		NPSH required	5.33 m
Flow rate	290 m³/h	Hydraulic calculation according to standard/ class	EN ISO 9906 class 3B
Head	18 m		

Installation plan

Etabloc 125-100-160 CC
ETB 125-100-160-CCSCV01 WS3FO4HHB



Drawing is not to scale.

Dimensions are given in mm

Motor

Motor manufacturer	KSB
Motor size	200L
Rated power Motor	30 kW
Number of motor poles	4
Rated speed Motor	3,000 1/min
Terminal box position of motor (looking at the motor shaft)	360 °

Connections

Nominal diameter Suction nozzle	DN 125
Suction flange bolt hole pattern as per standard	EN1092-1
Nominal diameter Discharge nozzle	DN 100
Discharge flange bolt hole pattern as per standard	EN1092-1
Nominal pressure Suction nozzle	PN 16
Nominal pressure Discharge nozzle	PN 16

Net weight

Total weight Pump	90.3 kg
Total weight Drive	246 kg
Total weight Pump set	336 kg

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