

CPK-C3.2 100-200

Chemical pump to DIN EN ISO 2858 / ISO 5199

Operating data

Pumped medium	Water Clean water Not containing chemical and mechanical substances which affect the materials	Actual flow rate Actual developed head Efficiency Power absorbed Pump speed of rotation NPSH required Permissible operating pressure Discharge press.	208.83 m ³ /h 39.29 m 79.1 % 28.15 kW 2965 rpm 6.17 m 25.00 bar.g 3.84 bar.g
Ambient air temperature	20.0 °C		
Fluid temperature	20.0 °C		
Fluid density	998 kg/m ³		
Fluid viscosity	1.00 mm ² /s		
Suction pressure max.	0.00 bar.g		
Mass flow rate	57.89 kg/s	Min. allow. mass flow for continuous stable operation	5.82 kg/s
Max. power on curve	30.57 kW	Max. allow. mass flow	72.34 kg/s
Min. allow. flow for continuous stable operation	20.98 m ³ /h		Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2
Shutoff head	47.49 m		

Design

Pump standard	ISO 5199	Type	4A
Design	Baseplate mounted, long-coupled	Material code	Q1Q1VGG
Orientation	Horizontal	Sealing plan	A Single-acting mechanical seal (A-type casing cover, taper bore)
Shaft execution	Suction		A liquid free of solids is assumed
nominal dia. Suction	DN 125	Seal chamber design	Conical seal chamber (A-type cover)
nominal pressure	PN 25		184.0 mm
Suction position	axial	Impeller diameter	Clockwise
Suction flange drilled according to standard	EN 1092-1	Direction of rotation from drive	Reinforced (heavy)
Discharge nominal dia.	DN 100	Bearing bracket construction	UP03
Discharge nominal pressure	PN 25	Bearing bracket size	Lip seal
Discharge position	top (0°/360°)	Bearing seal	Anti-friction bearings
Discharge flange drilled according to standard	EN 1092-1	Bearing type	Oil
Surface type	Raised face (B / RF)	Lubrication type	Constant level oiler
Shaft seal	Single acting mechanical seal	Lubrication monitoring	Ultramarine blue (RAL 5002)
Manufacturer	KSB	Color	KSB-blue

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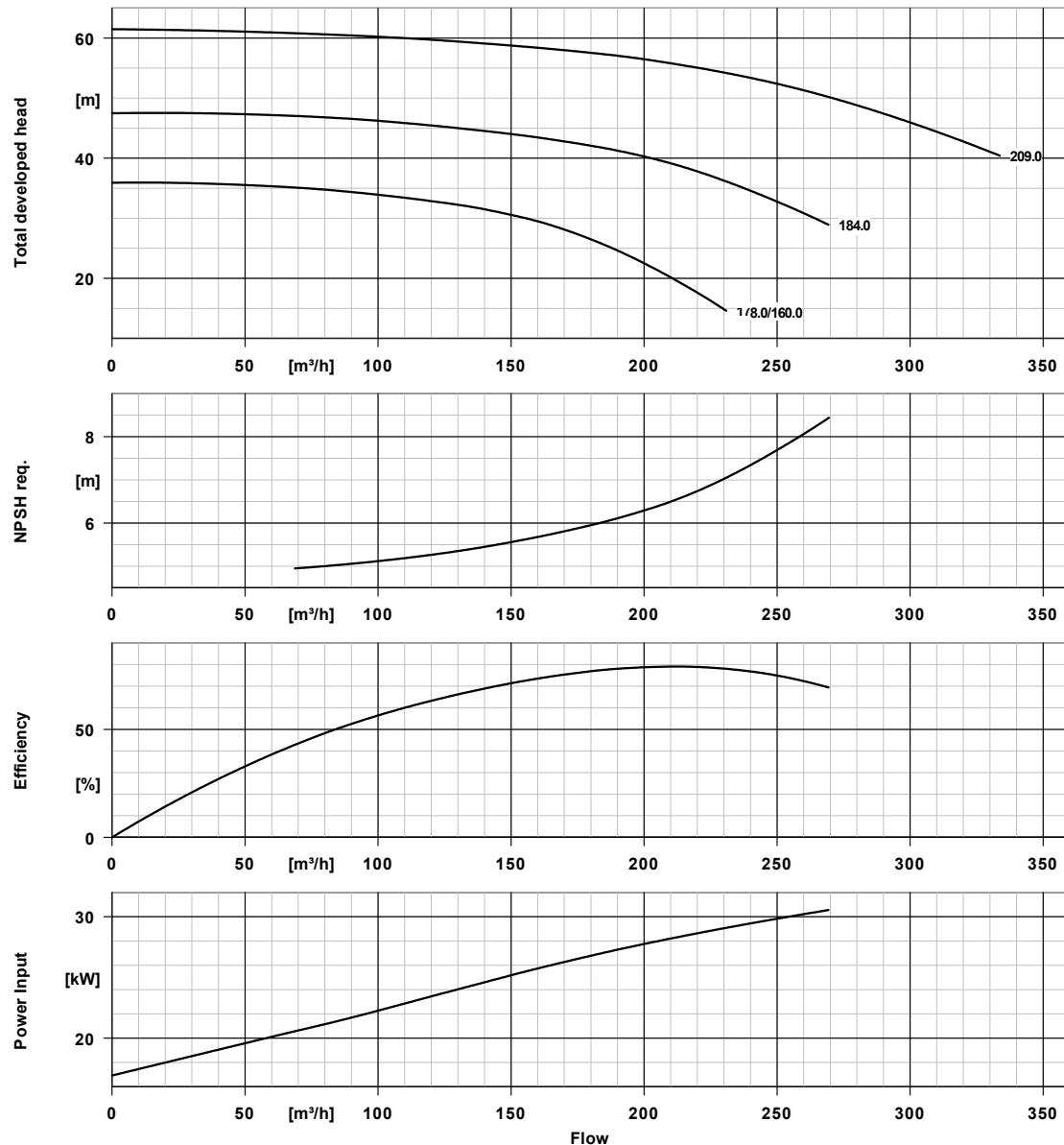
Driver, accessories (not included)

Manufacturer	Flender	Frequency	50 Hz
Coupling type	Eupex N	Rated voltage	400 V
Nominal size	125	Rated power P2	37.00 kW
Coupling guard type	Tread-proof (ZN3230)	Available reserve	31.43 %
Guard size	A1	Rated current	68.7 A
Guard material	Steel ST	Starting current ratio	8.8
Baseplate type	Cast iron to ISO standard	Insulation class	F to IEC 34-1
Baseplate size	6G	Motor enclosure	IP55
Baseplate drain	Drain channel	Cos phi at 4/4 load	0.80
Driver type	Electric motor	Motor efficiency at 4/4 load	93.7 %
Drive standard mech.	IEC	Temperature sensor	3 PTC resistors
Model (make)	KSB-Motor	Terminal box position	0°/360° (top) Viewed from the drive
Drive supplied by	Standard motor supplied by KSB - mounted by KSB	Motor winding	400 / 690 V
Motor const. type	B3	Number of poles	2
Motor size	200L	Connection mode	Delta
Efficiency class	Efficiency class IE3 acc. to IEC60034-30-1	Motor cooling method	Surface cooling
Motor speed	2966 rpm	Motor material	Aluminium
		Frequency inverter operation allowed	FI allowed
		Motor noise pressure level	78 dBA

Materials C3.2

Volute casing (102)	Duplex stainless steel 9.4460	Bearing bracket lantern (344) Joint ring (411.10)	Grey cast iron EN-GJL-250 Thermoplastic PTFE-GF25
Casing cover (161)	Duplex stainless steel 9.4460	Joint ring (411.31)	Thermoplastic PTFE-GF25
Shaft (210)	Duplex stainless steel 1.4462	Shaft protecting sleeve (524)	CrNiMo steel 1.4539
Impeller (230)	Duplex stainless steel 9.4460		

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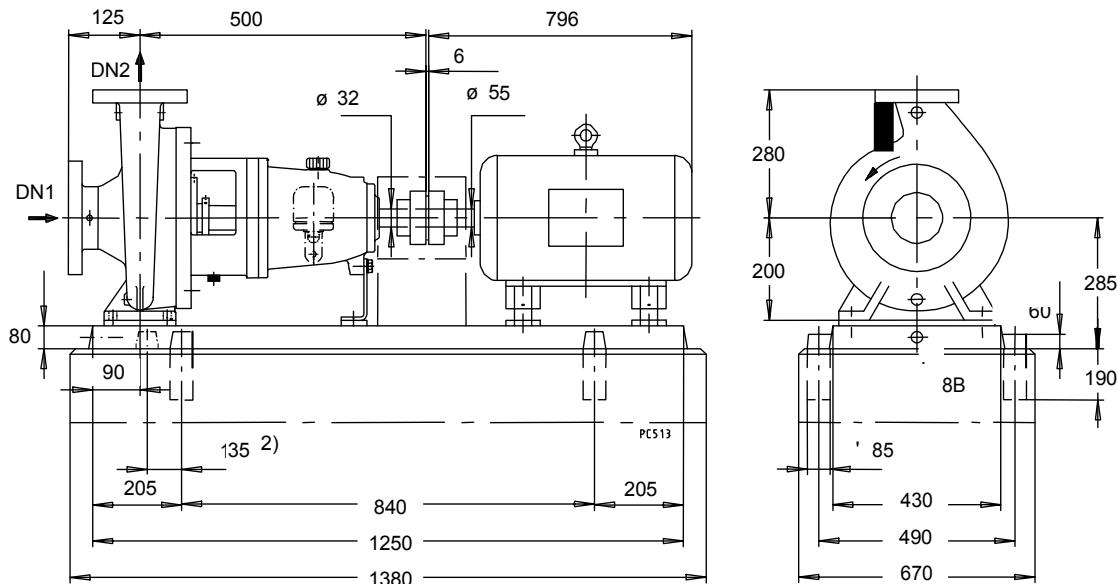


Curve data

Speed of rotation	2965 rpm	Power absorbed	28.15 kW
Fluid density	998 kg/m^3	NPSH required	6.47 m
Viscosity	1.00 mm^2/s	Curve number	K2721.452/382
Flow rate	208.83 m^3/h	Effective impeller diameter	184.0 mm
Total developed head	39.29 m	Acceptance standard	Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2
Efficiency	79.1 %		

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Drawing is not to scale

2) Mounting of baseplate is also possible in the casing feet area. Contact KSB if required

Dimensions in mm

Motor (not included)

Motor manufacturer	KSB-Motor
Motor size Motor	200L
power Number of poles	37.00 kW
Speed of rotation	2
Position of terminal box	2966 rpm 0°/360° (top) Viewed from the drive

Connections

Suction nominal size DN1	DN 125 / EN 1092-1
Discharge nominal size DN2	DN 100 / EN 1092-1
Nominal pressure suct.	PN 25
Rated pressure disch.	PN 25

Baseplate

Design	Cast iron to ISO standard
Size	6G
Material	Grey cast iron EN-GJL-250
Leakage drain baseplate (8B)	Rp1, Drain channel
Foundation bolts	M20x250 (Not in scope of supply)

Coupling

Coupling manufacturer	Flender
Coupling type	Eupex N
Coupling size	125
Spacer	0.0 mm

Weight net

Pump	100 kg
Baseplate	81 kg
Coupling	6 kg
Coupling guard	4 kg
Motor	0, kg
Total	191 kg

For auxiliary connections see separate drawing.

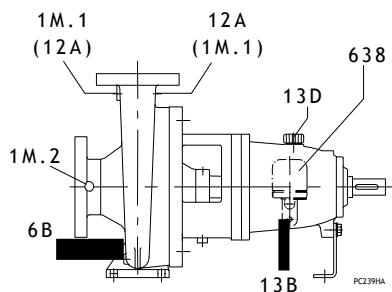
Connect pipes without stress or strain!

Dimensional tolerances for shaft axis height:
Dimensions without tolerances, middle tolerances to:
Connection dimensions for pumps:
Dimensions without tolerances - welded parts:
Dimensions without tolerances - gray cast iron parts:

DIN 747
ISO 2768-m
EN735
ISO 13920-B
ISO 8062-CT9

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Connections

1M.1 Pressure gauge connection	G 1/4	Not executed
1M.2 Pressure gauge connection	G 1/4	Not executed
6B Pumped liquid drain	G 3/8	Drilled and plugged.
12A Circulation out	G 1/4	Drilled and plugged.
13B Oil drain	G 1/4	Drilled and plugged.
13D Refill / venting	Dia. 20	Closed with venting plug
638 Constant level oiler	Rp 1/4	Supplied unassembled with main equipment, to be installed by customer in acc. with operating instructions