

## Data sheet

Based on newer model of pump.



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### 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	208.83 m <sup>3</sup> /h
Ambient air temperature	20.0 °C	Actual developed head	39.29 m
Fluid temperature	20.0 °C	Efficiency	79.1 %
Fluid density	998 kg/m <sup>3</sup>	Power absorbed	28.15 kW
Fluid viscosity	1.00 mm <sup>2</sup> /s	Pump speed of rotation	2965 rpm
Suction pressure max.	0.00 bar.g	NPSH required	6.17 m
		Permissible operating pressure	25.00 bar.g
		Discharge press.	3.84 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 <sup>3</sup> /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	Dry		
nominal dia. Suction	DN 125	A liquid free of solids is assumed	
nominal pressure Suction position	PN 25 axial	Seal chamber design	Conical seal chamber (A-type cover)
Suction flange drilled according to standard	EN 1092-1	Impeller diameter	184.0 mm
Discharge nominal dia.	DN 100	Direction of rotation from drive	Clockwise
Discharge nominal pressure	PN 25	Bearing bracket construction	Reinforced (heavy)
Discharge position	top (0°/360°)	Bearing bracket size	UP03
Discharge flange drilled according to standard	EN 1092-1	Bearing seal Bearing type	Lip seal
Surface type	Raised face (B / RF)	Lubrication type	Anti-friction bearings
Shaft seal	Single acting mechanical seal	Lubrication monitoring	Oil
Manufacturer	KSB	Color	Constant level oiler Ultramarine blue (RAL 5002) 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)
Drive supplied by	Standard motor supplied by KSB - mounted by KSB	Motor winding	Viewed from the drive
Motor const. type	B3	Number of poles	400 / 690 V
Motor size	200L	Connection mode	2
Efficiency class	Efficiency class IE3 acc. to IEC60034-30-1	Motor cooling method	Delta
Motor speed	2966 rpm	Motor material	Surface cooling
		Frequency inverter operation allowed	Aluminium
		Motor noise pressure level	FI allowed
			78 dBa

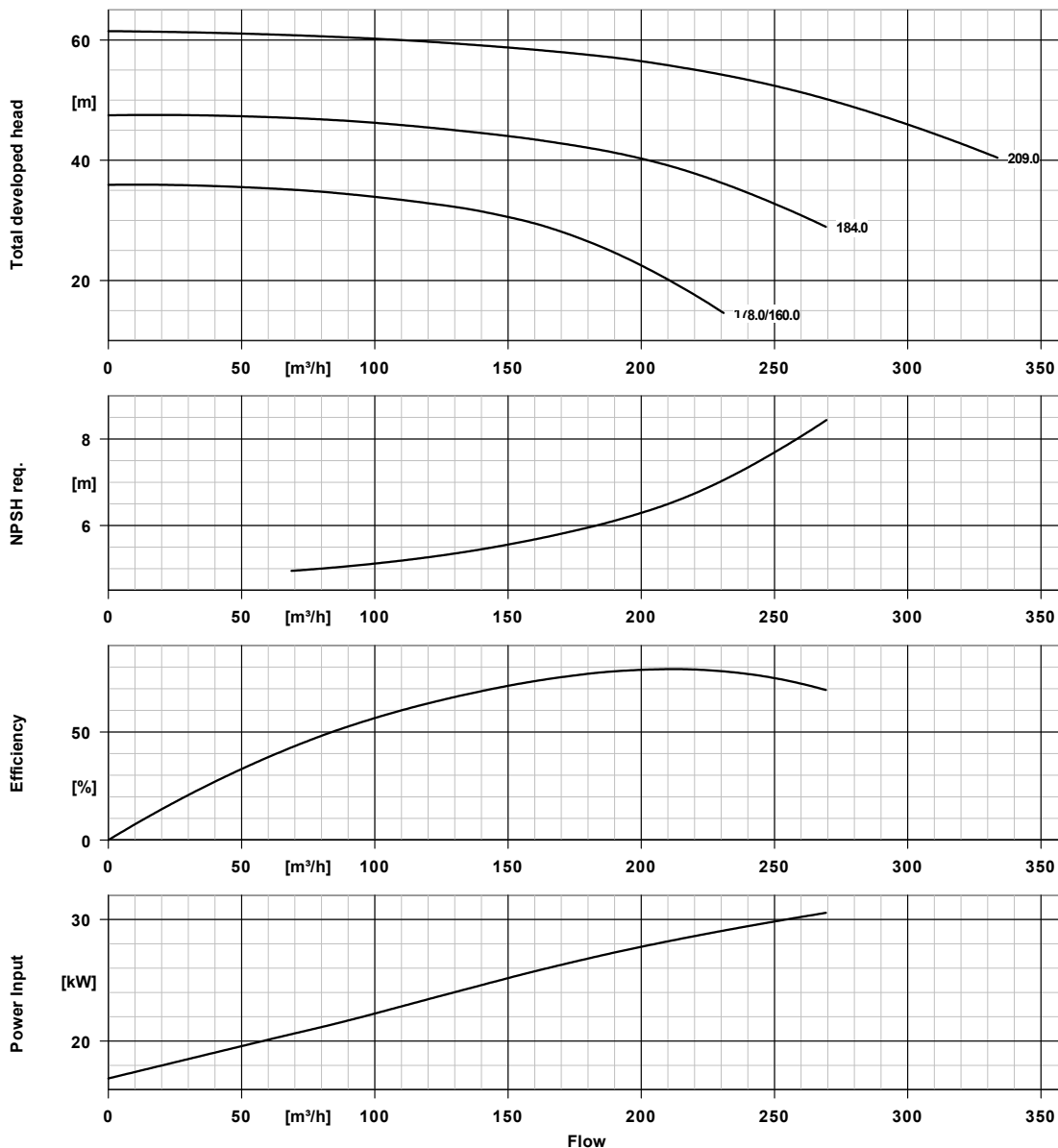
#### Materials C3.2

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

**Performance curve**  
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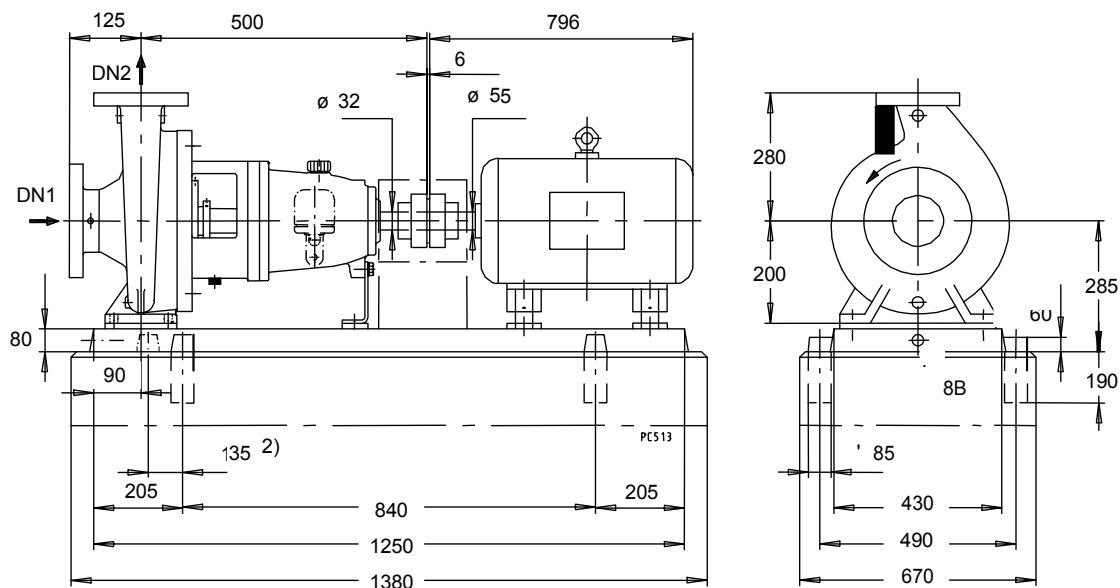
**Curve data**

Speed of rotation	2965 rpm	Power absorbed	28.15 kW
Fluid density	998 kg/m³	NPSH required	6.47 m
Viscosity	1.00 mm²/s	Curve number	K2721.452/382
Flow rate	208.83 m³/h	Effective impeller diameter	184.0 mm
Total developed head	39.29 m	Acceptance standard	Tolerances to ISO 9906
Efficiency	79.1 %		Class 3B; below 10 kW
			acc. to paragraph 4.4.2

**Installation plan**  
Based on newer model of pump.



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*Drawing is not to scale*

*Dimensions in mm*

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

**Motor** (not included)

Motor manufacturer	KSB-Motor
Motor size	200L
power	37.00 kW
Number of poles	2
Speed of rotation	2966 rpm
Position of terminal box	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

**Connect pipes without stress or strain!**

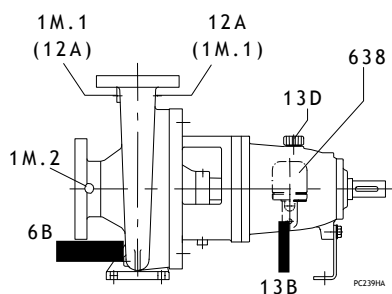
Dimensional tolerances for shaft axis height:	DIN 747
Dimensions without tolerances, middle tolerances to:	ISO 2768-m
Connection dimensions for pumps:	EN735
Dimensions without tolerances - welded parts:	ISO 13920-B
Dimensions without tolerances - gray cast iron parts:	ISO 8062-CT9

**For auxiliary connections see separate drawing.**

**Connection plan**  
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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