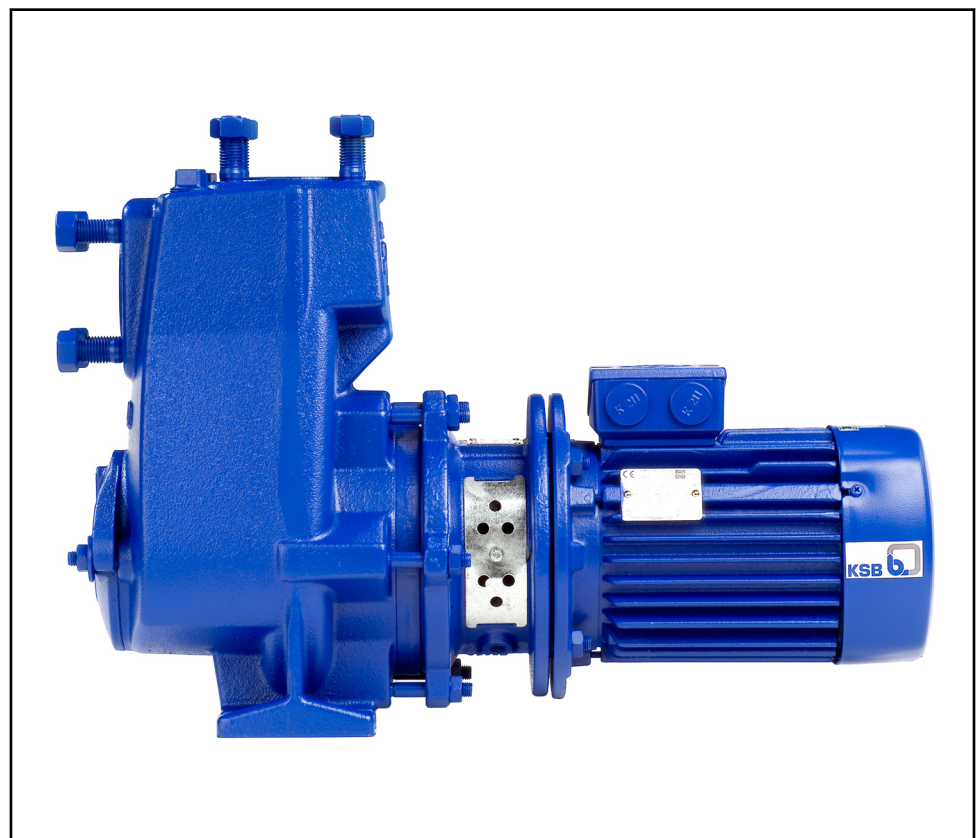


Self-priming Pump

Etaprime B

Type Series Booklet



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Type Series Booklet Etaprime B

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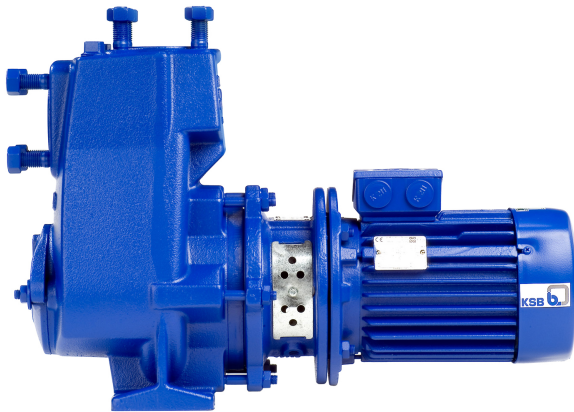
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Self-priming Pump in Close-coupled Design

Volute Casing Pumps

Etaprime B



Main applications

- Spray irrigation systems
- Service water supply systems
- Drainage
- Drainage systems
- Fire-fighting systems
- Lowering groundwater levels
- Domestic water supply
- Air-conditioning systems
- Cooling circuits
- Swimming pools
- Water supply systems

Fluids handled

- Drinking water
- Swimming pool water (0.4 to 1.4 mg/l free chlorine, max. 0.6 mg/l combined chlorine, pH value 6.9 to 7.7, water hardness 10 to 30 °dH, max. salt content 7 g/l)
- Fire-fighting water
- Seawater
- River, lake and groundwater
- Brackish water
- Condensate
- Brine
- Oil

- Service water
- Cleaning agents
- Cooling water

Operating data

Operating properties

Characteristic		Value	
		50 Hz	60 Hz
Flow rate	Q [m³/h]	≤ 130	≤ 150
	Q [l/s]	≤ 36	≤ 42
Head	H [m]	≤ 70	≤ 100
Fluid temperature	T [°C]	-30 to +90	
Operating pressure	p [bar]	≤ 10	
Static head	H _{Geo} [m]	≤ 9	

Designation

Example: ETPB080-080-200 GCXI10D3

Designation key

Code	Description
ETPB	Type series
	ETPB Etaprime B
080	Nominal suction nozzle diameter [mm]
080	Nominal discharge nozzle diameter [mm]
200	Nominal impeller diameter [mm]
G	Casing material
	C Stainless steel
	G Grey cast iron
C	Impeller material if different from casing material
	C Stainless steel
	G Grey cast iron
X	Design
	- Standard
	X Special design
I	Sealing system
	I Single mechanical seal
	D Double mechanical seal in back-to-back arrangement
	T Double mechanical seal in tandem arrangement
10	Seal code
	01 Q1Q1VGG
	08 AQ1VGG ¹⁾
	09 U3U3VGG
	10 Q1Q1X4GG
	11 BQ1EGG
D	Scope of supply
	D Pump with motor
3	Shaft unit
	1 SU 17
	2 SU 25
	3 SU 35

Further information on the designation

(⇒ Page 23)

1) BQVGG for shaft unit 17

Design details

Design

- Volute casing pump
- Back pull-out design (from size 40-40-140)
- Horizontal installation
- Self-priming
- Single-stage
- Single-entry
- Pump and motor with stub shaft

Pump casing

- Radially split volute casing
- Volute casing with integrally cast pump feet (from pump size 40-40-140)

Impeller type

- Open multi-channel impeller

Shaft seal

- The shaft is fitted with a replaceable shaft sleeve in the shaft seal area (from pump size 40-40-140).
- Single and double mechanical seals to EN 12756

Drive

- KSB IEC frame standardised IE3 motor (from 0.75 kW)
- Type of construction B34 ≤ 1.1 kW
- Type of construction V1 1.1 to 4 kW
- Type of construction V15 > 4 kW

- 230/400 V up to 2.2 kW and 400/690 V from 3 kW
- IP55 enclosure
- Thermal class F
- 3 PTC thermistors

Product benefits

- Maintenance-free mechanical seal ensures operating reliability
- Easy to dismantle due to back pull-out design; no need to remove the pump casing from the piping
- Good suction performance, self-priming up to 9 m suction lift, also suitable for applications with relatively poor inlet conditions (i.e. low or negative inlet pressure) and for handling fluids with entrained gas.
- Optimised hydraulic components for high efficiency help reduce energy consumption

Certifications

Overview

Label	Effective in:	Note
	All countries	Certified quality management to ISO 9001

Overview of fluids handled

Table of fluids handled and associated material combinations
X = standard

Fluid handled	Temperature [°C]	Materials			Shaft seal						Mechanical seal design code	Comments	
		Casing / impeller			Mechanical seal								
		Grey cast iron/grey cast iron	Grey cast iron/ Cr-Ni-Mo cast steel	CrNiMo cast steel/ CrNiMo cast steel	Q1Q1VGG	AQ1VGG ²⁾ BQVGG ³⁾	U3U3VGG	Q1Q1X4GG	BQ1EGG ²⁾	Q12Q1M1GG			
													Design code
G	GC	C	01	8	9	10	11	70 ⁴⁾					
Water													
Industrial waste water													Analysis of the fluid handled required
Ammonia water (ammonia solution)	≤ 40; conc. ≤ 10 %	X							X				Tandem seal Q1Q1EGG required. Quench liquid: use suitable water.
Brackish water	≤ 25			X				X			10		
Fire-fighting water ⁵⁾	≤ 60		X					X			10		
Condensate ²⁾	≤ 90	X							X		11		
Condensate, not conditioned	≤ 90			X					X		11		

2) Treatment to VdTÜV 1466; additional requirement: O2 ≤ 0.02 mg/l

3) Only applies to shaft unit 17.

4) Special mechanical seal design

5) General criteria for results of water analysis: pH value ≥ 7; chloride content (Cl) ≤ 250 mg/kg. Chlorine (Cl₂) ≤ 0.6 mg/kg.

Fluid handled	Temperature	Materials			Shaft seal						Mechanical seal design code	Comments
		Casing / impeller			Mechanical seal							
		Grey cast iron/grey cast iron	Grey cast iron/Cr-Ni-Mo cast steel	CrNiMo cast steel/CrNiMo cast steel	Q1Q1VGG	AQ1VGG ²⁾ BQVGG ³⁾	UBU3VGG	Q1Q1X4GG	BQ1EGG ²⁾	Q12Q1M1GG		
[°C]	G	GC	C	01	8	9	10	11	70 ⁴⁾			
Cooling water (without antifreeze) ⁵⁾	≤ 60	X					X				10	Open circuit: CL 10 required
Cooling water pH ≥ 7.5 (with antifreeze) ⁵⁾⁶⁾	≥ -30 p ≤ 10 bar ≤ 90	X							X		11	Open circuit: CL 11 required
Slightly contaminated water ⁵⁾	≤ 60	X					X				10	
Seawater	≤ 25			X			X				10	
Surface water ⁵⁾	≤ 40	X				X					8	Analysis of the fluids handled required
Pure water ⁷⁾	≤ 60	X							X		11	
Untreated water ⁵⁾	≤ 60	X					X				10	
Swimming pool water (fresh water) ⁵⁾	≤ 60	X					X				10	Also applies to requirements as per DIN 19643
Dam water ⁵⁾	≤ 60	X					X				10	If solids are contained, contact KSB.
Drinking water	≤ 60			X							11	
Partly desalinated water ²⁾	≤ 90	X							X		11	
Fully desalinated water	≤ 90			X					X		11	Requirements for ultra-pure water cannot be met.
Fully desalinated water as boiler feed water ²⁾	≤ 90	X							X		11	
Refrigerants, cooling brines												
Cooling brine; inorganic, pH value > 7.5, inhibited	≥ -30 ≤ 25	X							X		11	
Water with antifreeze, pH value > 7.5 ⁵⁾⁶⁾	≥ -30 ≤ 90	X							X		11	
Oils/emulsions												
Drilling/grinding emulsion	≤ 60	X					X				9	
Oil-water emulsion	≤ 60	X					X				9	
Cleaning agents												
Lyes for bottle rinsers ⁸⁾	≤ 90	X								X	10	EPDM only if oil-free
Acids												
Acetic acid	≤ 60; conc. ≤ 5 % ≤ 60; conc. ≤ 10 %			X					X		11	
Alum, potassium aluminium sulphate up to 3 %	≤ 80			X	X						01	

Overview of type series

Available sizes and designs

Size	Shaft unit	Etaprime L		Etaprime B	
		G	GC, C	G	GC, C
032-032-100	17	S / T	-	S / T	-
032-032-120	17	S / T	S / T	S / T	S / T

2) Treatment to VdTÜV 1466; additional requirement: O₂ ≤ 0.02 mg/l

3) Only applies to shaft unit 17.

4) Special mechanical seal design

6) Antifreeze on ethylene glycol basis with inhibitors. Content: 20 % to 50 % (e.g. Antifrogen N)

7) No ultra-pure water! Conductivity at 25 °C: ≤ 800 µS/cm

8) With 2 % sodium hydroxide

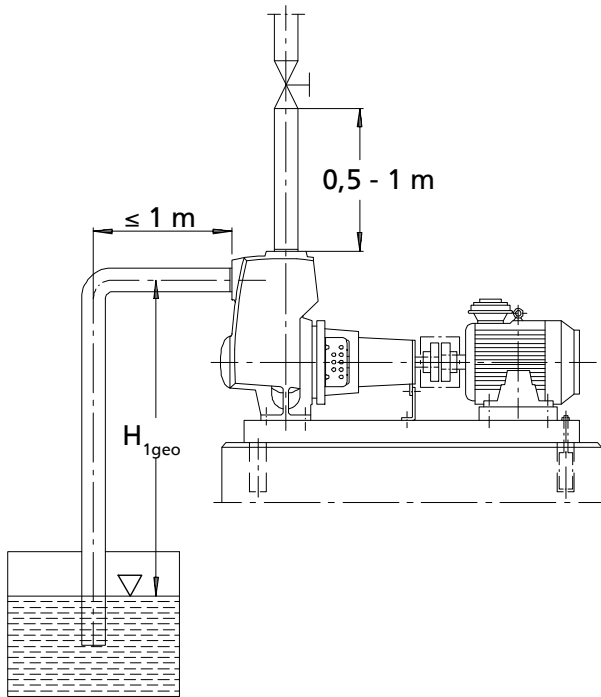
Size	Shaft unit	Etaprime L		Etaprime B	
		G	GC, C	G	GC, C
040-040-110	17	S/T	S/T	S/T	S/T
040-040-140	25	S/T/B	S/T/B	S/T/B	S/T/B
050-050-130	25	S/T/B	S/T/B	S/T/B	S/T/B
050-050-160	25	S/T/B	S/T/B	S/T/B	S/T/B
065-065-150	25	S/T/B	S/T/B	S/T/B	S/T/B
065-065-180	35	S/T/B	S/T/B	S/T/B	S/T/B
080-080-170	35	S/T/B	S/T/B	S/T/B	S/T/B
080-080-190	35	S/T/B	-	S/T/B	-
080-080-200	35	S/T/B	S/T/B	S/T/B	S/T/B
100-100-240.1	35	S/T/B	-	S/T/B	-
100-100-240	35	S/T/B	-	-	-
125-125-260	35	S/T/B	-	-	-

- E = Single mechanical seal (standard design)
- T = Available with double mechanical seal in tandem arrangement
- B = Available with double mechanical seal in back-to-back arrangement
- = Size not available

Priming time

For a 1-metre horizontal length of the suction line and DN suction line = DN pump, the priming times are as follows.

When handling gaseous fluids, fluids which tend to froth or water with a temperature $T > 60\text{ }^{\circ}\text{C}$, the pump will not be self-priming. In such cases, a check valve must be installed in the suction line.



Distances of suction line and discharge line

Size ⁹⁾	Shaft unit	Priming time [sec]					
		at a speed $n = 2900\text{ rpm}$					
		at a static suction lift $H_{1\text{geo}}$ of ... m					
		2 m	4 m	5 m	6 m	7 m	8 m
025-025-100	17	40	145	415	-	-	-
032-032-120		30	90	135	190	255	360
040-040-110		60	100	215	420	-	-
040-040-140	25	30	70	125	220	355	600
050-050-130		50	120	195	260	345	440
050-050-160		30	70	105	170	265	430
065-065-150	35	60	120	165	260	375	570
065-065-180		30	50	75	100	145	200
080-080-170		50	100	135	180	225	310
080-080-190		40	70	105	160	185	240
080-080-200		30	50	75	105	155	200
100-100-240.1		30	70	95	120	150	190
100-100-240		35	70	85	110	160	-
125-125-260	35	80	105	130	160	190	

Size ⁹⁾	Shaft unit	Priming time [sec]					
		at a speed $n = 3500\text{ rpm}$					
		at a static suction lift $H_{1\text{geo}}$ of ... m					
		2 m	4 m	5 m	6 m	7 m	8 m
025-025-100	17	30	85	135	-	-	-
032-032-120		20	60	105	140	175	250
040-040-110		30	85	125	200	265	470
040-040-140	25	25	50	85	120	145	230
050-050-130		30	90	140	190	245	300
050-050-160		25	55	75	150	215	280
065-065-150	35	40	80	125	170	225	370
065-065-180		20	40	65	90	105	150
080-080-170		30	80	105	130	165	220
080-080-190		30	55	75	100	125	160
080-080-200		25	40	55	80	125	160
100-100-240.1		25	60	85	115	145	180
100-100-240		25	70	85	100	155	360

⁹⁾ Stainless steel variant not available for all pump sizes.

Size 9)	Shaft unit	Priming time [sec] at a speed n = 1450 rpm at a static suction lift H _{1geo} of ... m							
		1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m
		025-025-100	17	130	-	-	-	-	-
032-032-120	17	100	210	-	-	-	-	-	-
040-040-110		120	-	-	-	-	-	-	-
040-040-140	25	130	-	-	-	-	-	-	-
050-050-130		210	410	-	-	-	-	-	-
050-050-160	35	210	430	-	-	-	-	-	-
065-065-150		190	350	540	-	-	-	-	-
065-065-180		90	140	220	370	-	-	-	-
080-080-170		110	180	280	480	-	-	-	-
080-080-190		100	110	200	310	-	-	-	-
080-080-200		70	110	190	270	320	420	-	-
100-100-240.1		130	150	220	300	440	-	-	-
100-100-240		110	160	270	480	-	-	-	-
125-125-260		60	70	110	160	200	330	430	610

Size 9)	Shaft unit	Priming time [sec] at a speed n = 1750 rpm at a static suction lift H _{1geo} of ... m							
		1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m
		025-025-100	17	70	170	-	-	-	-
032-032-120	17	80	150	260	-	-	-	-	-
040-040-110		90	180	-	-	-	-	-	-
040-040-140	25	80	150	200	-	-	-	-	-
050-050-130		130	240	380	-	-	-	-	-
050-050-160	35	130	260	480	-	-	-	-	-
065-065-150		140	260	350	430	-	-	-	-
065-065-180		80	110	170	220	330	-	-	-
080-080-170		90	130	200	320	480	-	-	-
080-080-190		80	100	130	160	210	390	-	-
080-080-200		60	100	160	230	280	350	-	-
100-100-240.1		90	110	140	210	260	400	-	-
100-100-240		80	100	140	200	300	-	-	-
125-125-260		50	60	80	115	170	220	300	400

Rated power requirement

Size	Motor code	IEC frame size	50 Hz [kW]	60 Hz [kW]	50 Hz / 60 Hz ~ 400 V [A] ¹⁰⁾
All	.../054	80	0,6	0,6	1,4
	.../154	90L	1,5	1,7	3,4
	.../224	100L	2,2	2,5	4,9
	.../304	100L	3,0	3,4	6,3
	.../404	112M	4,0	4,6	8,3
	.../112	80	1,1	1,3	2,6
	.../222	90L	2,2	2,5	4,6
	.../302	100L	3,0	3,4	6,3
	.../402	112M	4,0	4,6	8,3
	.../522	132S	5,5	6,3	11,0
	.../752	132S	7,5	8,6	14,6
	.../1102	160M	11,0	12,6	20,7
	.../1502	160M	15,0	17,3	28,0
	.../1852	160L	18,5	21,3	33,0
	.../2202	180M	22,0	24,5	40,0
	.../3002	200L	30,0	34,5	54,0

Pressure limits

Size	Discharge pressure p ₂ ¹¹⁾ [bar]	Test pressure ¹²⁾ [bar]
All sizes	10,0	15,0

Materials

A1 = default material variant
A2 = optional material variant

Part No.	Description	Material variants			
		G	GC	C	
102	Volute casing	Grey cast iron EN-GJL-250	A1	A1	-
		Stainless steel 1.4408	-	-	A1
161	Casing cover	Grey cast iron EN-GJL-250	A1	A1	-
		Stainless steel 1.4408	-	-	A1
210	Shaft seal for shaft units 25 and 35	Tempered steel C45+N	A1	A1	-
	Shaft for shaft unit 17	Stainless steel 1.4571	A2	A2	A1
230	Impeller	Stainless steel 1.4571	A1	A1	A1
		Grey cast iron EN-GJL-250	A1	-	-
341	Drive lantern for shaft units 25 and 35	Stainless steel 1.4408	-	A1	A1
		Grey cast iron EN-GJL-250	A1	A1	A1
		Drive lantern for shaft unit 17	Grey cast iron EN-GJL-250	A1	A1
		Stainless steel 1.4408	-	-	A1

¹⁰⁾ The currents indicated are for orientation only. For the exact currents refer to the motor name plate.

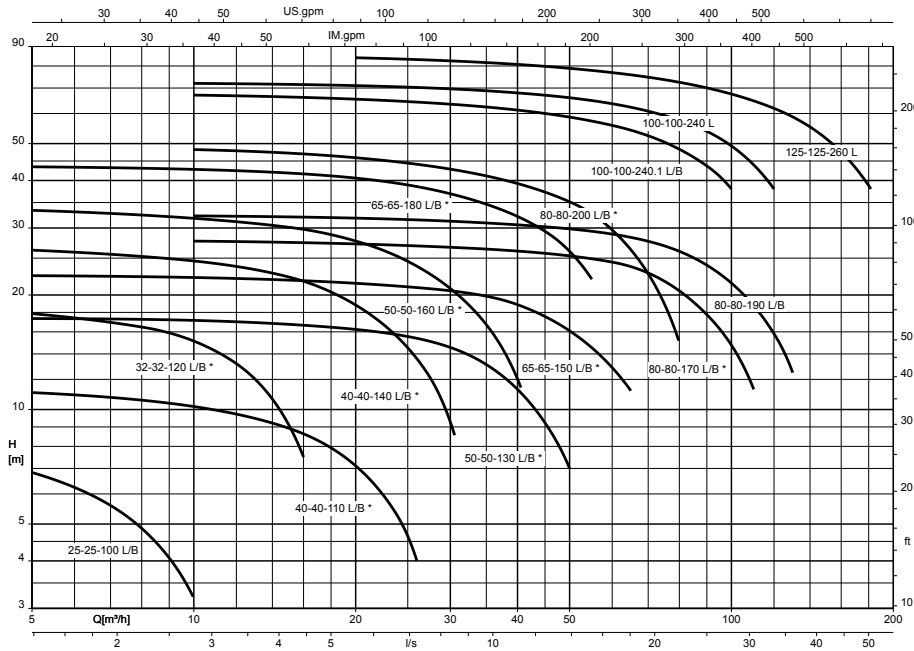
¹¹⁾ The sum of inlet pressure and shut-off head must not exceed the values indicated.

¹²⁾ The casing components are checked for leakage by means of internal pressure tests to ZN 1650 with water.

Part No.	Description	Material variants		
		G	GC	C
412	O-ring	EPDM 80 peroxide ¹³⁾	A1	A1
523	Shaft sleeve (not for shaft unit 17)	Stainless steel 1.4571	A1	A1

Selection charts

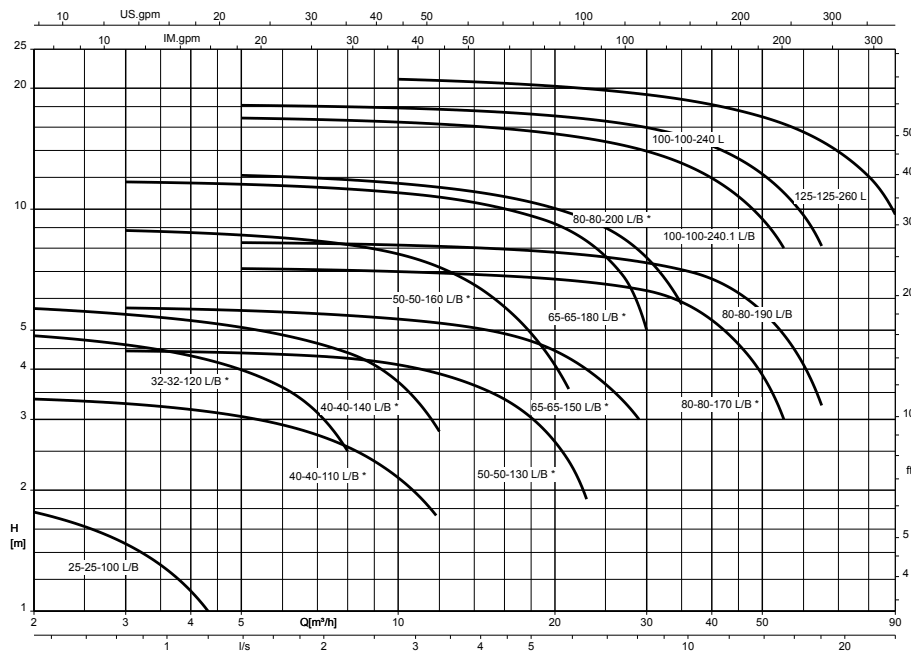
Etaprime L/B, n = 2900 rpm



* Also available in stainless steel material variant

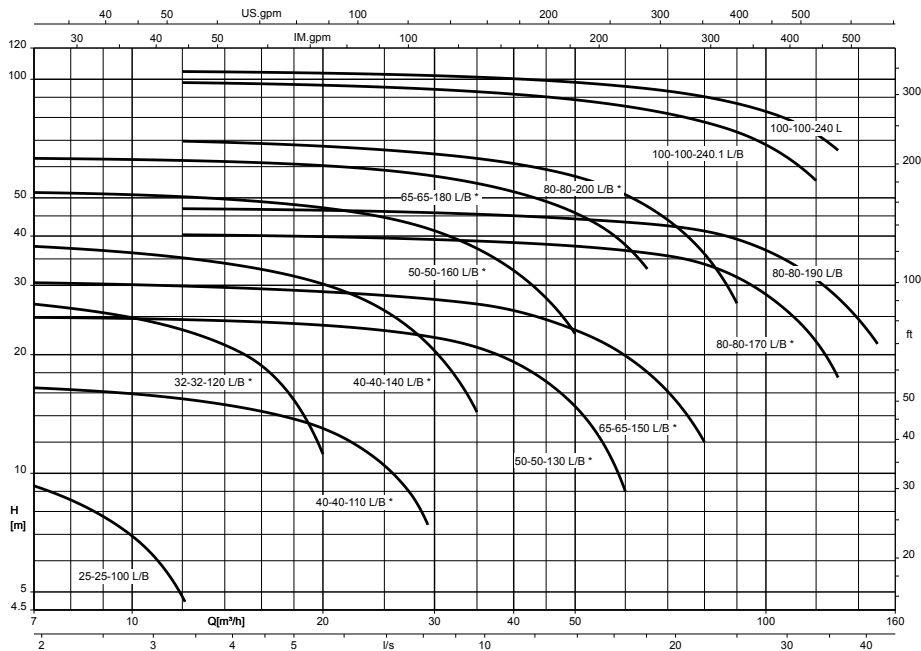
13) FKM 80 on request

Etaprime L/B, n = 1450 rpm



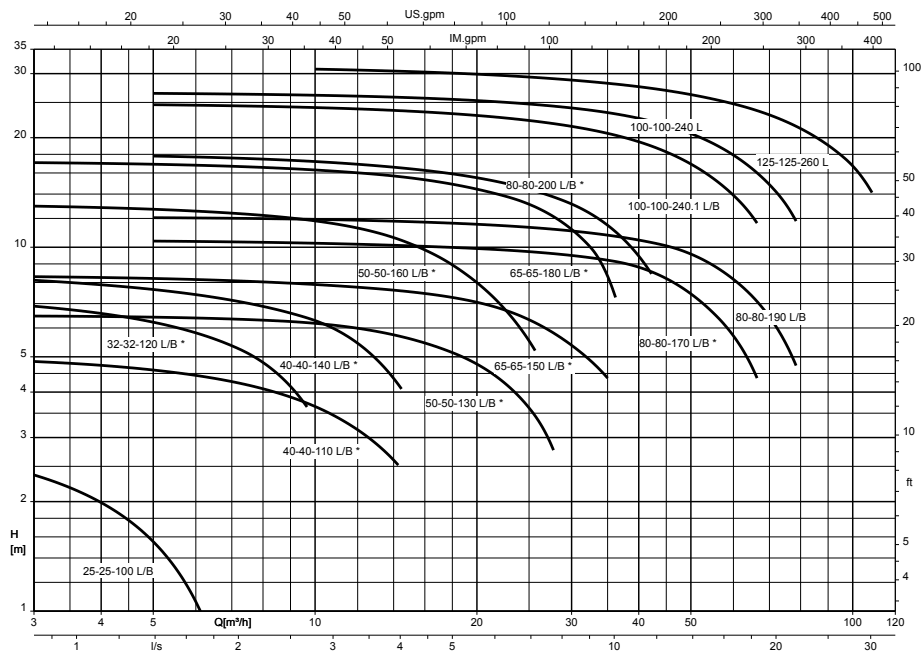
* Also available in stainless steel material variant

Etaprime L/B, n = 3500 rpm



* Also available in stainless steel material variant

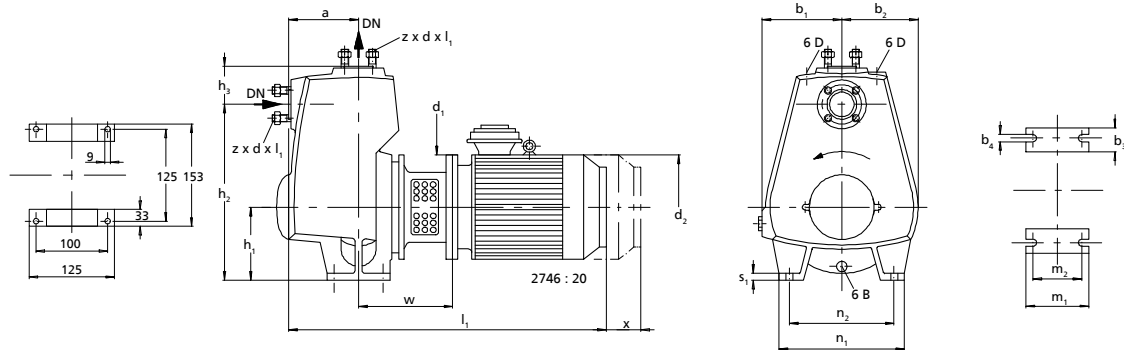
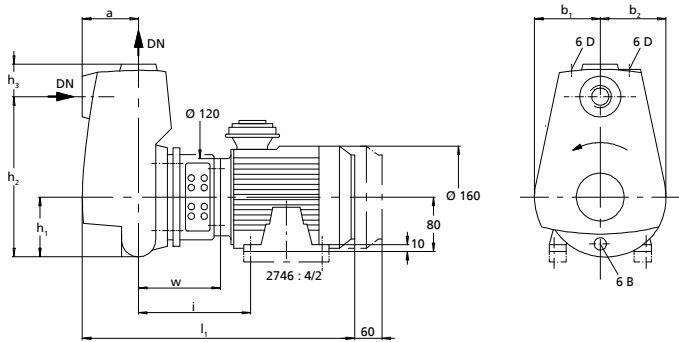
Etaprime L/B, n = 1750 rpm



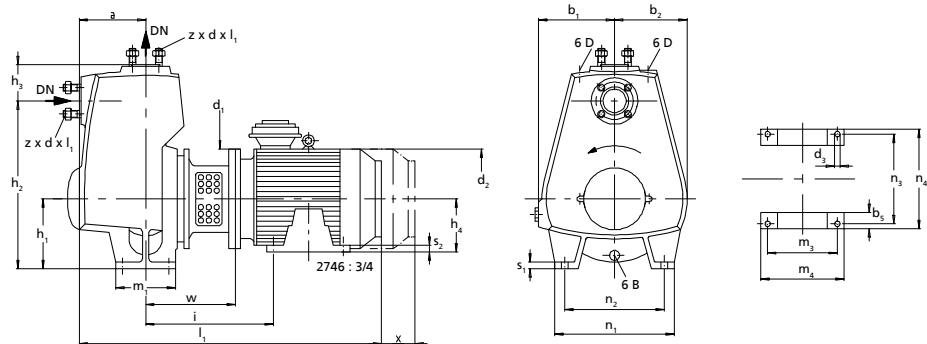
* Also available in stainless steel material variant

Dimensions and connections

Sizes 025-025-100 to 100-100-240.1



Dimensions of sizes 025-100 to 040-110, with motor foot



Dimensions of sizes 040-140 to 100-240.1, with motor foot (for 5.5 kW and above)

6B		Fluid drain		6D		Fluid priming and venting	
Connections				Size			
Size	6B ¹⁴⁾		6D ¹⁴⁾	Size	6B		6D ¹⁴⁾
025-025-100	G 1/8		G 3/8	050-050-160	G 3/8		G 3/8
032-032-120	G 1/8		G 3/8	065-065-150	G 3/8		G 3/8
040-040-110	G 1/8		G 3/8	065-065-180	G 3/8		G 3/8
040-040-140	G 3/8		G 3/8	080-080-170	G 1/2		G 1/2
050-050-130	G 3/8		G 3/8	080-080-190	G 1/2		G 1/2

14) G = ISO 228/1

Size	6B ¹⁴⁾	6D ¹⁴⁾
080-080-200	G 1/2	G 1/2

Size	6B	6D ¹⁴⁾
100-100-240.1	G 1/2	G 1/2

Flange dimensions (025-100 to 040-110)

Size	Connection	
	Standard	Optional
	DN ¹⁵⁾	DN ¹⁶⁾
025-025-100	Rp 1	NPT 1
032-032-120	Rp 1 1/4	NPT 1 1/4
040-040-110	Rp 1 1/2	NPT 1 1/2

Flange dimensions (040-140 to 100-240.1) [mm]

Flanged connection	DN	Bolt circle diameter	z	d	l ₁
Standard: <ul style="list-style-type: none"> Drilled to EN 1092-1 (material variant C) Drilled to EN 1092-2 (material variant G / GC) 	40	110	4	M16	40
	50	125	4	M16	40
	65	145	4	M16	40
	80	160	8	M16	45
	100	180	8	M16	45
Optional: <ul style="list-style-type: none"> Drilled to ASME B16.1 (material variant G / GC) Drilled to ASME B16.5 (material variant C) 	NPS 1 1/2	98,6	4	UNC 1/2-13	40
	NPS 2	120,7	4	UNC 5/8-11	40
	NPS 2 1/2	139,7	4	UNC 5/8-11	40
	NPS 3	152,4	4	UNC 5/8-11	40
	NPS 4	190,5	8	UNC 5/8-11	45

Dimensions [mm]

Size	n				P _N [kW]	DN	Pump																											
	1450	1750	2900	3500			a	b ₁	b ₂	b ₃	b ₄	b ₅	d ₁	d ₂	d ₃	h ₁	h ₂	h ₃	h ₄	i ₁₇₎	l ₁₇₎	m ₁	m ₂	m ₃	m ₄	n ₁	n ₂	n ₃	n ₄	s ₁	s ₂	w ₁₇₎	x	
	[rpm]						(approx.)																											
025-025-100 ¹⁸⁾	X	X	-	-	0,55	25	70	104	95	-	-	-	-	-	87	227	38	-	152	441	-	-	-	-	-	-	-	-	-	-	-	-	102	-
025-025-100 ¹⁸⁾	-	-	X	X	1,10	25	70	104	95	-	-	-	-	-	87	227	38	-	152	473	-	-	-	-	-	-	-	-	-	-	-	-	102	-

- 14) G = ISO 228/1
 15) Standard connection to ISO 7/1
 16) Optional connection to ASME B1.20.1
 17) Dimensions for versions with a single mechanical seal
 18) On this size, the motor feet must be shimmed (30 mm).

Size	n				P _N [kW]	DN	Pump																											
	1450	1750	2900	3500			a	b ₁	b ₂	b ₃	b ₄	b ₅	d ₁	d ₂	d ₃	h ₁	h ₂	h ₃	h ₄	i ¹⁷⁾	l ₁ ¹⁷⁾	m ₁	m ₂	m ₃	m ₄	n ₁	n ₂	n ₃	n ₄	s ₁	s ₂	w ¹⁷⁾	x	
	[rpm]						(appr ox.)	(appr ox.)																										
032-032-120 ¹⁸⁾	X	X	-	-	0,55	32	95	118	95	-	-	-	-	-	90	239	46	-	149	463	-	-	-	-	-	-	-	-	-	-	-	-	99	-
032-032-120 ¹⁸⁾	-	-	X	-	1,10	32	95	118	95	-	-	-	-	-	90	239	46	-	149	495	-	-	-	-	-	-	-	-	-	-	-	-	99	-
040-040-110 ¹⁸⁾	X	X	-	-	0,55	40	105	118	110	-	-	-	-	-	101	256	55	-	154	478	-	-	-	-	-	-	-	-	-	-	-	-	104	-
040-040-110 ¹⁸⁾	-	-	X	X	1,10	40	105	118	110	-	-	-	-	-	101	256	55	-	154	510	-	-	-	-	-	-	-	-	-	-	-	-	104	-
040-040-140	X	-	-	-	0,55	40	115	128	115	57	16	-	200	162	-	112	284	73	-	-	550	100	70	-	-	220	160	-	-	13	-	166	100	
040-040-140	-	X	-	-	1,50	40	115	128	115	57	16	-	200	190	-	112	284	73	-	-	635	100	70	-	-	220	160	-	-	13	-	166	100	
040-040-140	-	-	X	-	2,20	40	115	128	115	57	16	-	200	190	-	112	284	73	-	-	635	100	70	-	-	220	160	-	-	13	-	166	100	
040-040-140	-	-	X	-	3,00	40	115	128	115	57	16	-	250	213	-	112	284	73	-	-	685	100	70	-	-	220	160	-	-	13	-	180	100	
040-040-140	-	-	-	X	4,00	40	115	128	115	57	16	-	250	235	-	112	284	73	-	-	667	100	70	-	-	220	160	-	-	13	-	180	100	
040-040-140 ¹⁹⁾	-	-	-	X	5,50	40	115	128	115	57	16	55	300	274	12	112	284	73	132	292	731	100	70	140	220	220	160	216	270	13	12	203	100	
050-050-130	X	-	-	-	0,55	50	130	138	128	55	16	-	200	162	-	132	317	78	-	-	565	100	70	-	-	250	190	-	-	17	-	166	100	
050-050-130	-	X	-	-	1,50	50	130	138	128	55	16	-	200	190	-	132	317	78	-	-	650	100	70	-	-	250	190	-	-	17	-	166	100	
050-050-130	-	-	X	-	2,20	50	130	138	128	55	16	-	200	190	-	132	317	78	-	-	650	100	70	-	-	250	190	-	-	17	-	166	100	
050-050-130	-	-	X	-	3,00	50	130	138	128	55	16	-	250	213	-	132	317	78	-	-	700	100	70	-	-	250	190	-	-	17	-	180	100	
050-050-130	-	-	-	X	4,00	50	130	138	128	55	16	-	250	235	-	132	317	78	-	-	682	100	70	-	-	250	190	-	-	17	-	180	100	
050-050-130 ²⁰⁾	-	-	-	X	5,50	50	130	138	128	55	16	55	300	274	12	132	317	78	132	292	746	100	70	140	220	250	190	216	270	17	12	203	100	
050-050-160	X	-	-	-	0,55	50	130	145	126	55	16	-	200	162	-	132	327	75	-	-	565	100	70	-	-	250	190	-	-	17	-	166	100	
050-050-160	-	X	-	-	1,50	50	130	145	126	55	16	-	200	190	-	132	327	75	-	-	650	100	70	-	-	250	190	-	-	17	-	166	100	
050-050-160	-	-	X	-	4,00	50	130	145	126	55	16	-	250	235	-	132	327	75	-	-	682	100	70	-	-	250	190	-	-	17	-	180	100	
050-050-160 ²⁰⁾	-	-	X	X	5,50	50	130	145	126	55	16	55	300	274	12	132	327	75	132	292	746	100	70	140	220	250	190	216	270	17	12	203	100	
050-050-160 ²⁰⁾	-	-	-	X	7,50	50	130	145	126	55	16	55	300	274	12	132	327	75	132	292	790	100	70	140	220	250	190	216	270	17	12	203	100	
065-065-150	X	-	-	-	0,55	65	140	155	149	55	16	-	200	162	-	160	370	85	-	-	575	125	95	-	-	270	212	-	-	20	-	166	100	
065-065-150	-	X	-	-	1,50	65	140	155	149	55	16	-	200	190	-	160	370	85	-	-	660	125	95	-	-	270	212	-	-	20	-	166	100	
065-065-150	-	-	X	-	4,00	65	140	155	149	55	16	-	250	235	-	160	370	85	-	-	692	125	95	-	-	270	212	-	-	20	-	180	100	
065-065-150 ¹⁹⁾²⁰⁾	-	-	X	X	5,50	65	140	155	149	55	16	55	300	274	12	160	370	85	132	292	756	125	95	140	220	270	212	216	270	20	12	203	100	
065-065-150 ¹⁹⁾²⁰⁾	-	-	-	X	7,50	65	140	155	149	55	16	55	300	274	12	160	370	85	132	292	800	125	95	140	220	270	212	216	270	20	12	203	100	
065-065-180	X	X	-	-	2,20	65	140	158	138	55	16	-	250	213	-	160	376	89	-	-	740	125	95	-	-	270	212	-	-	18	-	210	140	

17) Dimensions for versions with a single mechanical seal

19) On this size, the motor feet (h₁>h₄) or pump feet (h₁<h₄) must be shimmed.20) h₁ ≥ h₄

Size	n				P _N [kW]	DN	Pump																										
	1450	1750	2900	3500			a	b ₁	b ₂	b ₃	b ₄	b ₅	d ₁	d ₂ (appr ox.)	d ₃	h ₁	h ₂	h ₃	h ₄	i ₁₇	l ₁₇ (appr ox.)	m ₁	m ₂	m ₃	m ₄	n ₁	n ₂	n ₃	n ₄	s ₁	s ₂	w ₁₇	x
	[rpm]																																
065-065-180 ¹⁹⁾²⁰⁾	-	-	X	-	5,50	65	140	158	138	55	16	55	300	274	12	160	376	89	132	322	786	125	95	140	220	270	212	216	270	18	12	233	140
065-065-180 ¹⁹⁾²⁰⁾	-	-	X	-	7,50	65	140	158	138	55	16	55	300	274	12	160	376	89	132	322	830	125	95	140	220	270	212	216	270	18	12	233	140
065-065-180 ²⁰⁾	-	-	-	X	11,00	65	140	158	138	55	16	70	350	325	15	160	376	89	160	374	952	125	95	210	310	270	212	254	323	18	15	266	140
080-080-170	X	X	-	-	2,20	80	156	173	168	65	18	-	250	213	-	160	380	104	-	-	756	140	106	-	-	310	240	-	-	18	-	210	140
080-080-170 ¹⁹⁾²⁰⁾	-	-	X	-	7,50	80	156	173	168	65	18	55	300	274	12	160	380	104	132	322	846	140	106	140	220	310	240	216	270	18	12	233	140
080-080-170 ²⁰⁾	-	-	-	X	15,00	80	156	173	168	65	18	70	350	325	15	160	380	104	160	374	968	140	106	210	310	310	240	254	323	18	15	266	140
080-080-190	X	X	-	-	2,20	80	170	188	181	65	20	-	250	213	-	180	420	107	-	-	770	160	120	-	-	345	280	-	-	22	-	210	140
080-080-190 ¹⁹⁾²⁰⁾	-	-	-	X	11,00	80	170	188	181	65	20	70	350	325	15	180	420	107	160	374	982	160	120	210	310	345	280	254	323	22	15	266	140
080-080-190 ¹⁹⁾²⁰⁾	-	-	-	X	18,50	80	170	188	181	65	20	70	350	325	15	180	420	107	160	374	1018	160	120	254	314	345	280	254	323	22	15	266	140
080-080-200	X	X	-	-	2,20	80	154	172	152	65	20	-	250	213	-	160	378	107	-	-	754	140	100	-	-	285	220	-	-	22	-	210	140
080-080-200 ²⁰⁾	-	-	X	-	11,00	80	154	172	152	65	20	70	350	325	15	160	378	107	160	374	966	140	100	210	310	285	220	254	323	22	15	266	140
080-080-200 ²⁰⁾	-	-	-	X	15,00	80	154	172	152	65	20	70	350	325	15	160	378	107	160	374	966	140	100	210	310	285	220	254	323	22	15	266	140
100-100-240.1	X	-	-	-	2,20	100	182	203	178	68	20	-	250	213	-	200	457	127	-	-	771	140	100	-	-	330	260	-	-	18	-	199	140
100-100-240.1	X	X	-	-	3,00	100	182	203	178	68	20	-	250	213	-	200	457	127	-	-	771	140	100	-	-	330	260	-	-	18	-	199	140
100-100-240.1	-	X	-	-	4,00	100	182	203	178	68	20	-	250	235	-	200	457	127	-	-	753	140	100	-	-	330	260	-	-	18	-	199	140
100-100-240.1 ¹⁹⁾²⁰⁾	-	-	X	-	18,50	100	182	203	178	68	20	70	350	325	15	200	457	127	160	363	1019	140	100	254	314	330	260	254	323	18	15	255	140
100-100-240.1 ²⁰⁾	-	-	-	X	30,00	100	182	203	178	68	20	85	400	422	19	200	457	127	200	388	1106	140	100	305	388	330	260	318	404	18	19	255	140

17) Dimensions for versions with a single mechanical seal

Flange connections

Threaded connections, shaft unit 17

Size	Shaft unit	Material variant			
		G/GC/C			
		Connection pipe thread to			
		ISO 7-1 PN10		ASME B1.20.1 PN10	
025-025-100	17	Rp 1	X	NPT 1	o
032-032-120		Rp 1 1/4	X	NPT 1 1/4	o
040-040-110		Rp 1 1/2	X	NPT 1 1/2	o

Flange connections²¹⁾ shaft unit 25, 35

Size	Shaft unit	Nominal diameter to		Material variant			
				G/GC		C	
				Flange dimensions to			
		EN 1092-2		EN 1092-1			
				Drilled to			
		EN 1092	ASME	EN 1092-2 PN16	ASME B16.1 CL125	EN 1092-1 PN16	ASME B16.5 CL150
040-040-110	25	DN 40	NPS 1 1/2	X	o	X	o
050-050-130		DN 50	NPS 2	X	o	X	o
050-050-160		DN 50	NPS 2	X	o	X	o
065-065-150		DN 65	NPS 2 1/2	X	o	X	o
065-065-180	35	DN 65	NPS 2 1/2	X	o	X	o
080-080-170		DN 80	NPS 3	X	o	X	o
080-080-190		DN 80	NPS 3	X	o	-	-
080-080-200		DN 80	NPS 3	X	o	X	o
100-100-240.1		DN 100	NPS 4	X	o	-	-

Symbols key

Symbol	Description
X	Standard
o	Option

²¹⁾ Type RF (Raised Face)

Interchangeability of Etaprime B and Etaprime L pump components

Components featuring the same number in a column are interchangeable.

Interchangeability of Etaprime B and Etaprime L pump components and interchangeability of components among each other

Size	Shaft unit	Description					
		Volute casing	Casing cover	Shaft	Impeller	Mechanical seal	Shaft sleeve
		Part No.					
		102	161	210	230	433	523
025-025-100	17	○*	✗	1	○*	1*	✗
032-032-120		○*	✗	1	○*	1*	✗
040-040-110		○*	✗	1	○*	1*	✗
040-040-140	25	○*	○*	2	○*	2*	1*
050-050-130		○*	○*	2	○*	2*	1*
050-050-160		○*	1*	2	○*	2*	1*
065-065-150		○*	1*	2	○*	2*	1*
065-065-180	35	○*	○*	3	○*	3*	2*
080-080-170		○*	○*	3	○*	3*	2*
080-080-190		○*	○*	3	○*	3*	2*
080-080-200		○*	○*	3	○*	3*	2*
100-100-240.1		○*	○*	3	○*	3*	2*

Symbols key

Symbol	Description
*	Component interchangeable with Etaprime L
○	Components differ
✗	Component not fitted

- Pump

Drive

- Surface-cooled IEC frame three-phase squirrel-cage motor

Contact guard

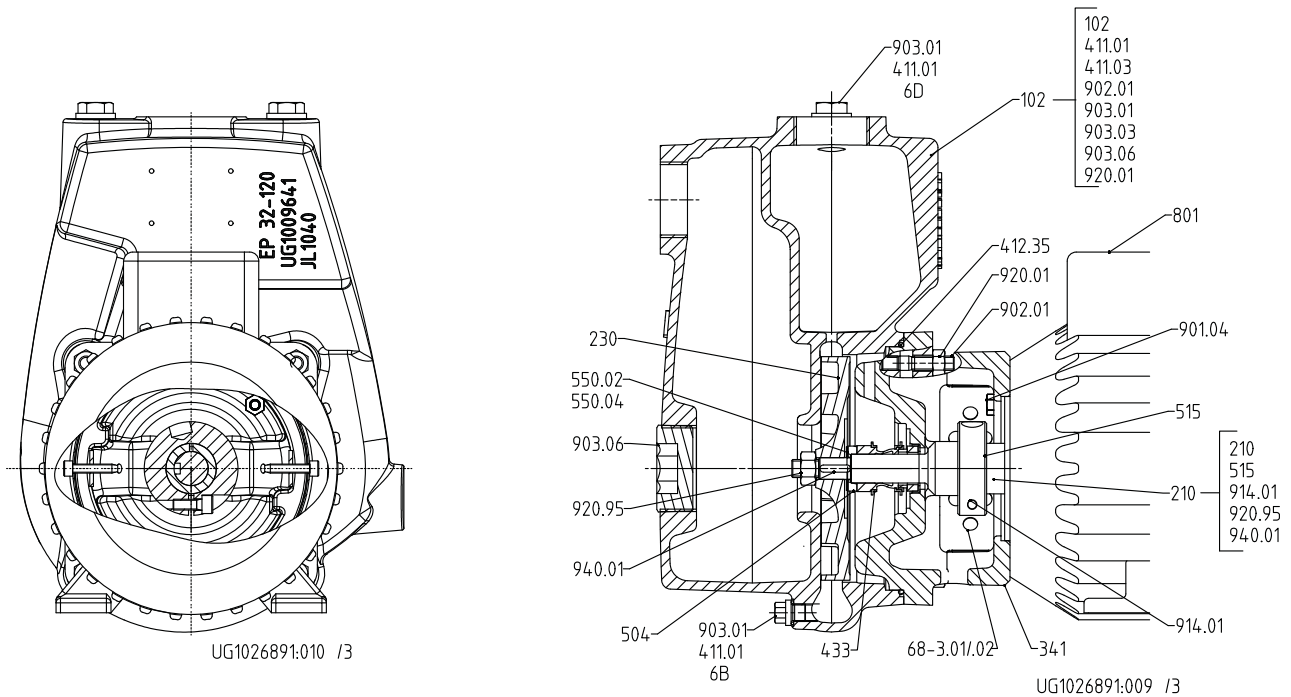
- Cover plates on drive lantern to EN 294

Scope of supply

Depending on the model, the following items are included in the scope of supply:

Sectional drawing and list of components

Etaprime B and C with threaded connection (SU 17)

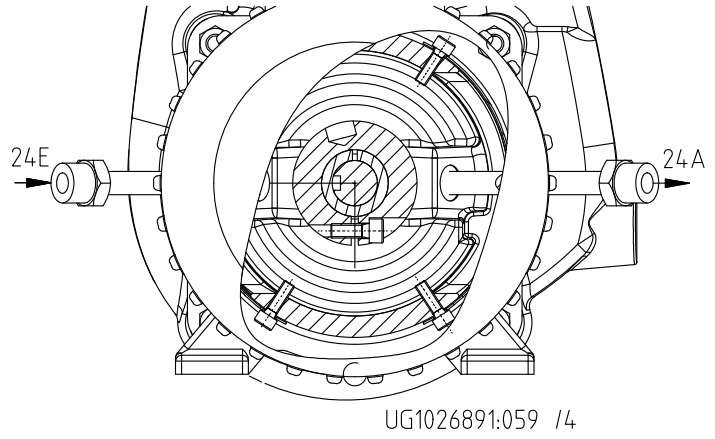
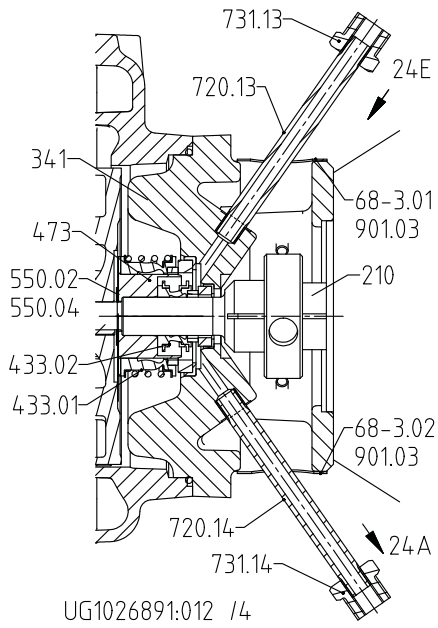


Model with single mechanical seal

[Supplied in packaging units only

List of components

Part No.	Description	Part No.	Description
102	Volute casing	801	Flanged motor
210	Shaft	901.04	Hexagon head bolt
230	Impeller	902.01	Stud
341	Drive lantern	903.01/03/06	Screw plug
411.01/03	Joint ring	914.01	Hexagon socket head cap screw
412.35	O-ring	920.01/95	Nut
433	Mechanical seal	940.01	Key
504	Spacer ring		
515	Locking ring	Auxiliary connections	
550.02/04	Disc	6 B	Fluid drain
68-3.01/02	Cover plate	6 D	Fluid priming and venting

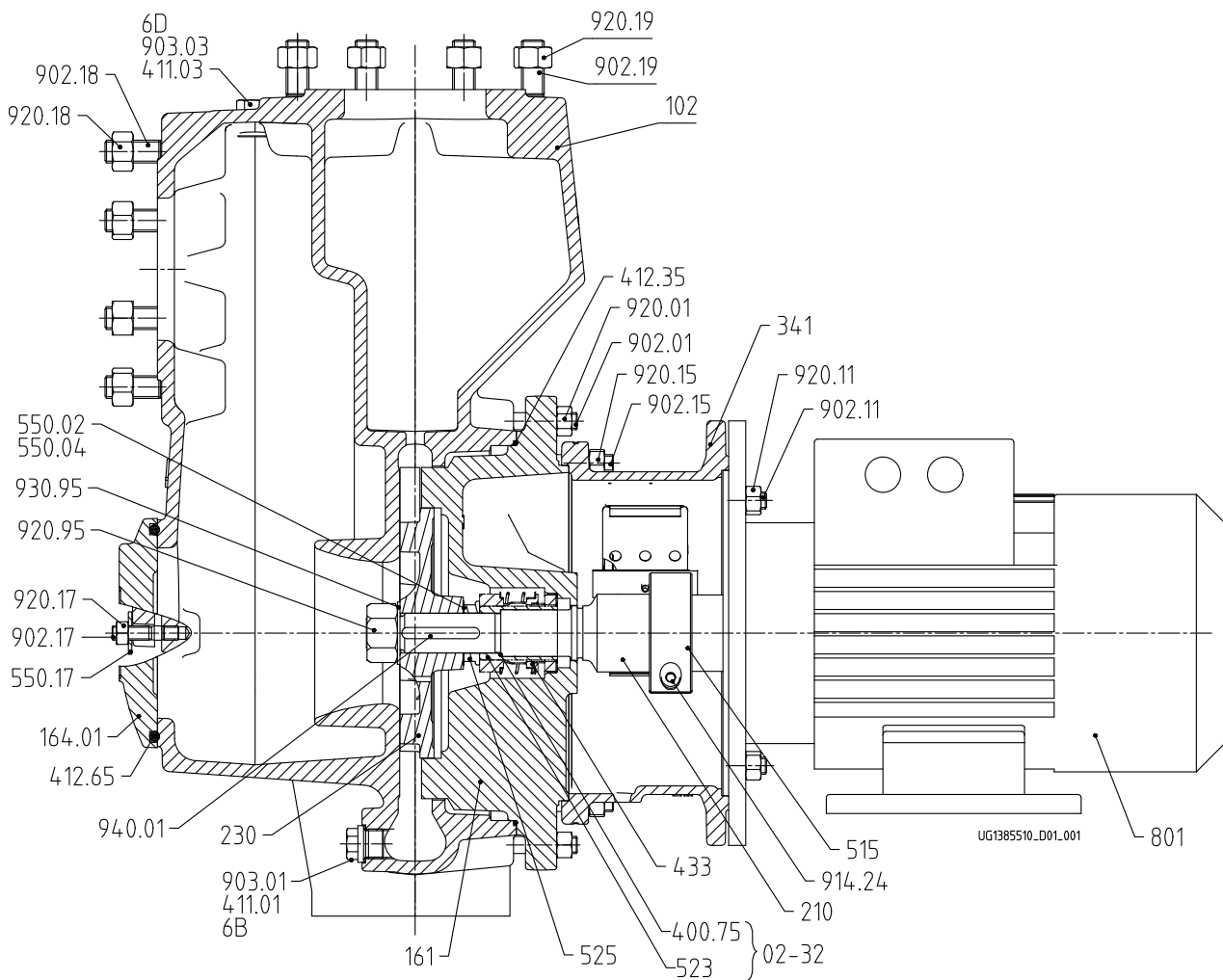


Variant with double mechanical seal in tandem arrangement

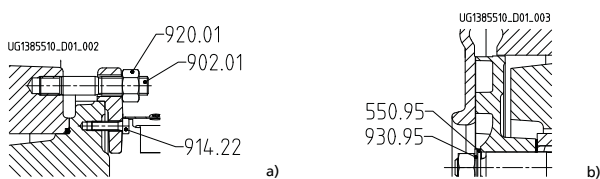
List of components

Part No.	Description	Part No.	Description
210	Shaft	720.13/.14	Fitting
341	Drive lantern	731.13/.14	Reducing nipple
433.01	Mechanical seal (inboard)	901.03	Hexagon head bolt
433.02	Mechanical seal (outboard)		
473	Primary ring carrier	Auxiliary connections	
550.02/.04	Disc	24 A	Quench liquid outlet
68-3.01/.02	Cover plate	24 E	Quench liquid inlet

Etaprime G and C with flanged connection (SU 25 and SU 35)



Model with single mechanical seal



[Supplied in packaging units only

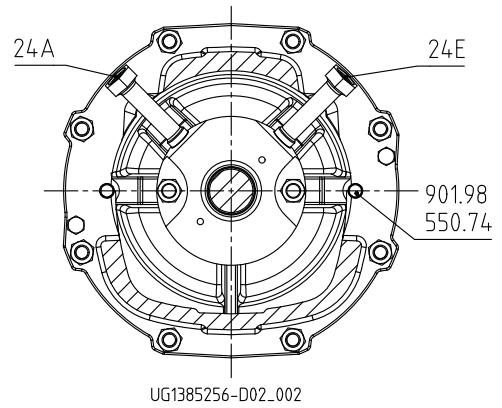
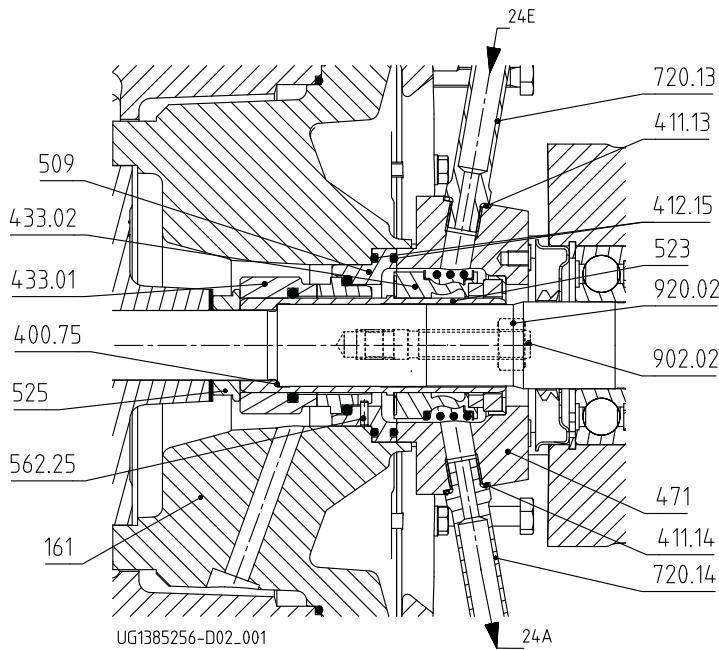
a) Clamped casing cover, b) impeller fastening elements for shaft unit 25

List of components

Part No.	Description	Part No.	Description
102	Volute casing	550.95 ²²⁾	Disc
161	Casing cover	68-3.01/02	Cover plate
164.01	Inspection cover	801	Flanged motor
210	Shaft	902.01/.11/.15/.17/.18/.19	Stud
230	Impeller	903.01/.03	Screw plug
341	Drive lantern	914.22/.24	Hexagon socket head cap screw
400.75	Gasket	920.01/.05/.11/.15/.17/.18/.19/.95	Nut
411.01/.03	Joint ring	930.95	Safety device

22) For shaft unit 25 only; shaft unit see data sheet.

Part No.	Description	Part No.	Description
412.35/.65	O-ring	940.01	Key
433	Mechanical seal		
515	Locking ring	Auxiliary connections	
523	Shaft sleeve	6 B	Fluid drain
525 ²³⁾	Spacer sleeve	6 D	Fluid priming and venting
550.02/.04/.17	Disc		

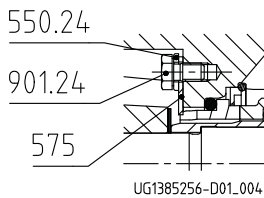
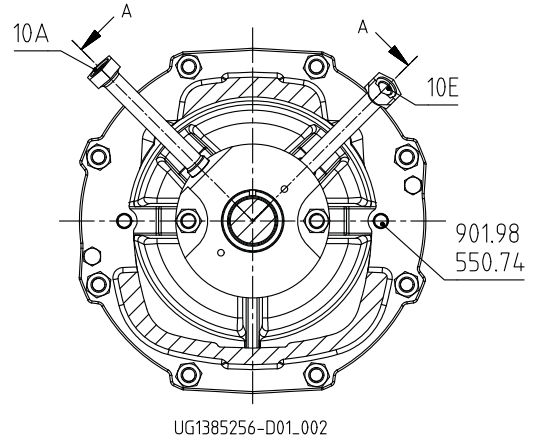
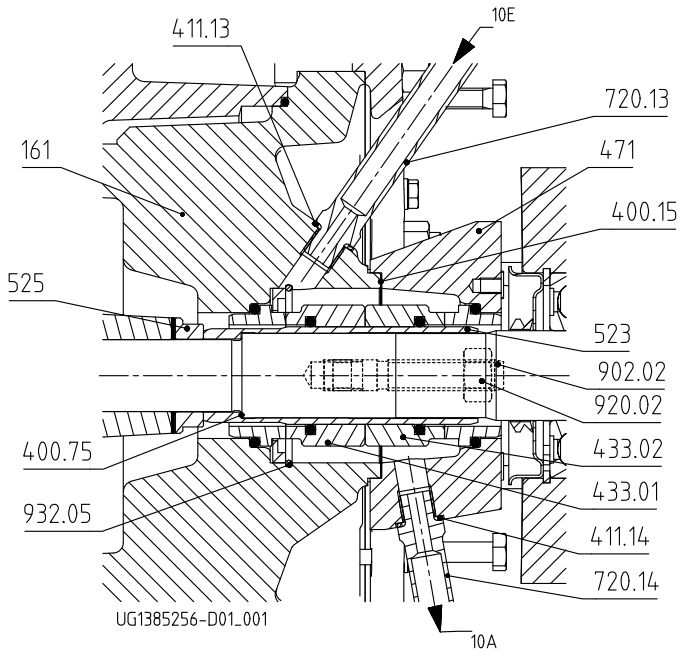


Variant with double mechanical seal in tandem arrangement

Part No.	Description	Part No.	Description
161	Casing cover	525 ²⁴⁾	Spacer sleeve
400.75	Gasket	562.25	Parallel pin
411.13/.14	Joint ring	720.13/.14	Fitting
412.15	O-ring	902.02	Stud
433.01	Mechanical seal (inboard)	920.02	Nut
433.02	Mechanical seal (outboard)		
471	Seal cover	Auxiliary connections	
509	Intermediate ring	24 A	Quench liquid outlet
523	Shaft sleeve	24 E	Quench liquid inlet

²³⁾ For shaft unit 35 only; shaft unit see data sheet.

²⁴⁾ For shaft unit 35 only; shaft unit see data sheet.



Variant with double mechanical seal in back-to-back arrangement

Part No.	Description	Part No.	Description
161	Casing cover	720.13/.14	Fitting
400.15 ²⁵⁾ /.75	Gasket	901.24	Hexagon head bolt
411.13/.14	Joint ring	902.02	Stud
433.01	Mechanical seal (inboard)	920.02	Nut
433.02	Mechanical seal (outboard)	932.05	Circlip
471	Seal cover		
523	Shaft sleeve	Auxiliary connections	
525 ²⁶⁾	Spacer sleeve	10 A	Barrier fluid outlet
550.24	Disc	10 E	Barrier fluid inlet
575	Lug		

25) Only for shaft unit 25 joint ring 411.15

26) For shaft unit 35 only; shaft unit see data sheet.

Detailed designation

Designation example

Position																															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
E	T	P	B	0	8	0	-	0	8	0	-	2	0	0		G	C	X	I	1	0	D	3	0	1	8	5	2			B
See name plate and data sheet																							See data sheet								

Designation key

Position	Code	Description
1-4	Pump type	
	ETPB	Etaprime bloc
5-16	Size	
	080	Nominal suction nozzle diameter [mm]
	080	Nominal discharge nozzle diameter [mm]
	200	Nominal impeller diameter [mm]
17	Pump casing material	
	G	Cast iron
	C	Stainless steel
18	Impeller material if different from casing material	
	G	Cast iron
	C	Stainless steel
19	Special design	
	.27)	Standard
	X	Special design
20	Seal options	
	I	Single mechanical seal
	D	Double mechanical seal in back-to-back arrangement
	T	Double mechanical seal in tandem arrangement
21-22	Seal code	
	01	Q1Q1VGG
	08	AQ1VGG ²⁸⁾
	09	U3U3VGG
	10	Q1Q1X4GG
	11	BQ1EGG
23	Scope of supply	
	D	Pump with motor
24	Shaft unit	
	1	Shaft unit 17
	2	Shaft unit 25
	3	Shaft unit 35
25-28	Motor rating	
	0011	1.1 kW
	0075	7.5 kW
	0185	18.5 kW
29	Number of poles	
	2	2 poles
	4	4 poles
30-31	Explosion protection	
	.27)	Without explosion-proof motor
	ex	Explosion-proof motor
32	Product generation	
	B	Product generation Global Etaprime

²⁷⁾ Blank

²⁸⁾ BQVGG for shaft unit 17



KSB ITUR Spain, S.A.

Camino de Urteta, s/n • 20800 ZARAUTZ (Gipuzkoa) SPAIN

Tel. +34 943 899 899 • Fax +34 943 130 710

www.ksb.com