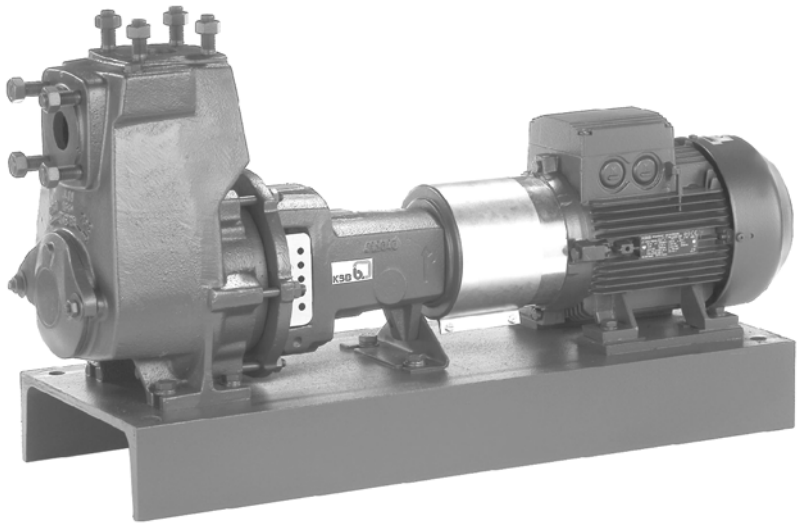
Type Series Booklet 50 + 60 Hz
2745.5/9-10 G2

Etaprime L

Self-priming Pumps

for Pure or Contaminated Fluids



Fields of Application

- Water supply
- Fire-fighting systems
- Sprinkling
- Irrigation
- Drainage
- Air-conditioning systems
- Drinking water
- Industrial water
- Cooling water
- Swimming pool water
- Seawater
- Fire-fighting water
- Brackish water
- Condensate
- Brine
- Oils
- Cleaning agents

Operating Data

	50 Hz	60 Hz
Q	up to 180 m^3/h (50 l/s)	up to 130 m^3/h (36 l/s)
H	up to 85 m	up to 105 m
p_2	up to 10 bar [1)]	up to 10 bar [1)]
H_{1geo}	up to 9 m	up to 9 m
t	-30 to +90 °C	-30 to +90 °C

1) see pressure limits, page 6

Design

Horizontal volute casing pumps, single-stage, with open multi-vane impeller, sizes 40-140 and above with bearing bracket, in back pull-out design.
Sizes 40-140 and above with replaceable shaft sleeve in the shaft seal area. Volute casing with integrally cast pump feet.
Pump connections to DIN/EN or ASME.

Bearings

Deep-groove ball bearings, grease-lubricated

Shaft seal

Single- or double acting mechanical seal to EN 12 756.

Designation

Etaprime G L 11 32 120

- Type series
- Casing material, e.g.
- Long-coupled design
- Mechanical seal code
- Discharge nozzle DN (code)
- Nominal impeller dia. (code)

Accessories

Drive

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

Winding 50 Hz:	up to 2.2 kW 220-240 V/380-420 V for 3 kW and above 380-420/660-725 V
Winding 60 Hz:	440-480 V
Design:	IM B 3
Enclosure:	IP 55
Thermal class:	F with temperature sensors: 3 PTC thermistors
Operating mode:	continuous operation S1

or

surface-cooled three-phase squirrel cage motor as described above, but West European brand to KSB's choice.

Coupling	Flexible coupling with/without spacer sleeve
Contact guard	Coupling guard as per EN 294.
Baseplate	Sectional steel for complete pump set (pump and motor), in torsion-resistant design

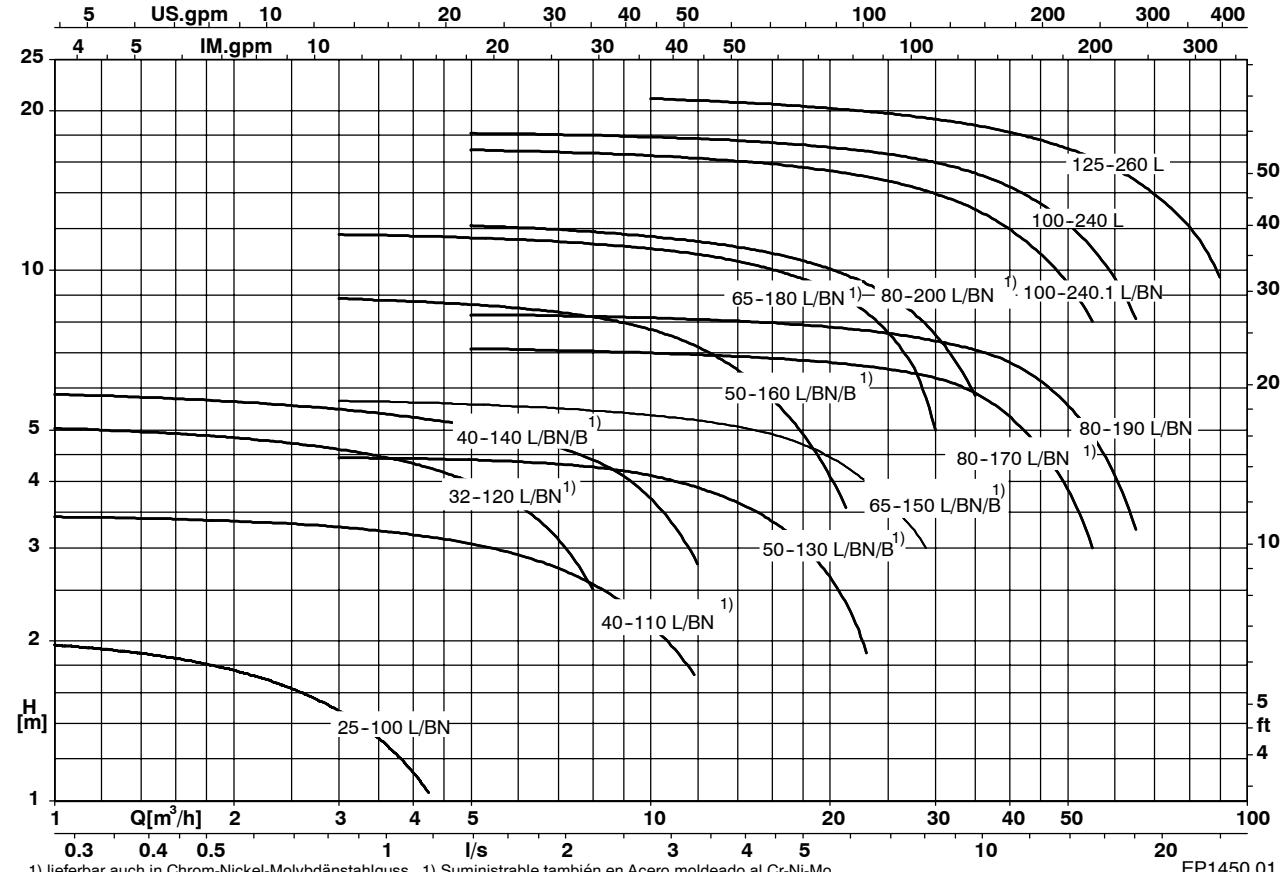
Certification

Certified quality management ISO 9001.

KSB

Etaprime L

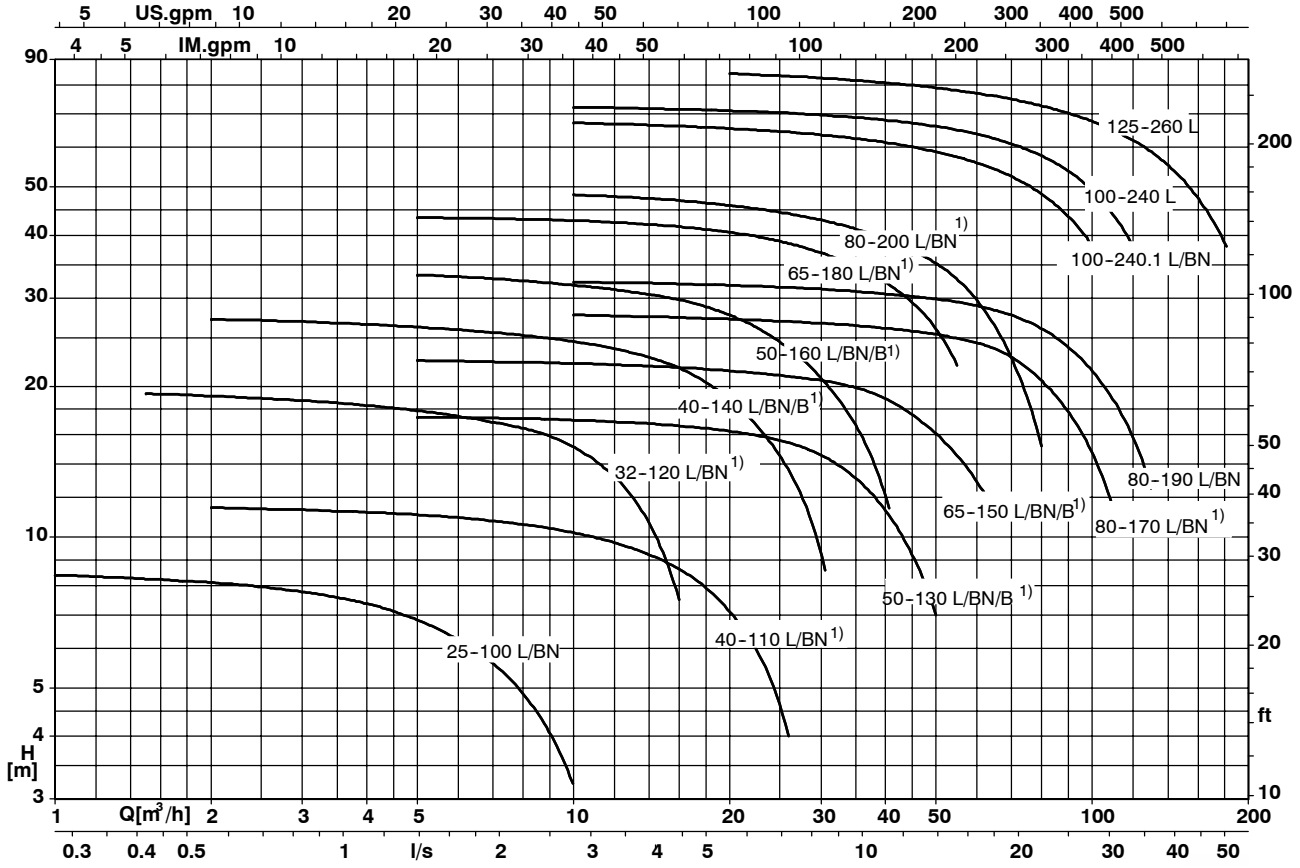
n = 1.450 1/min



1) lieferbar auch in Chrom-Nickel-Molybdänstahlguss
1) also available in cast ison CrNiMo steel
1) Également disponible en acier moulé au CrNiMo
1) Suministrable también en Acero moldeado al Cr-Ni-Mo
1) Ook leverbaar in chroom-nikkel-molybdeenstaal
1) Disponibile anche come fusione di acciaio al cromo-nichel-molibdeno

EP1450.01

n = 2.900 1/min



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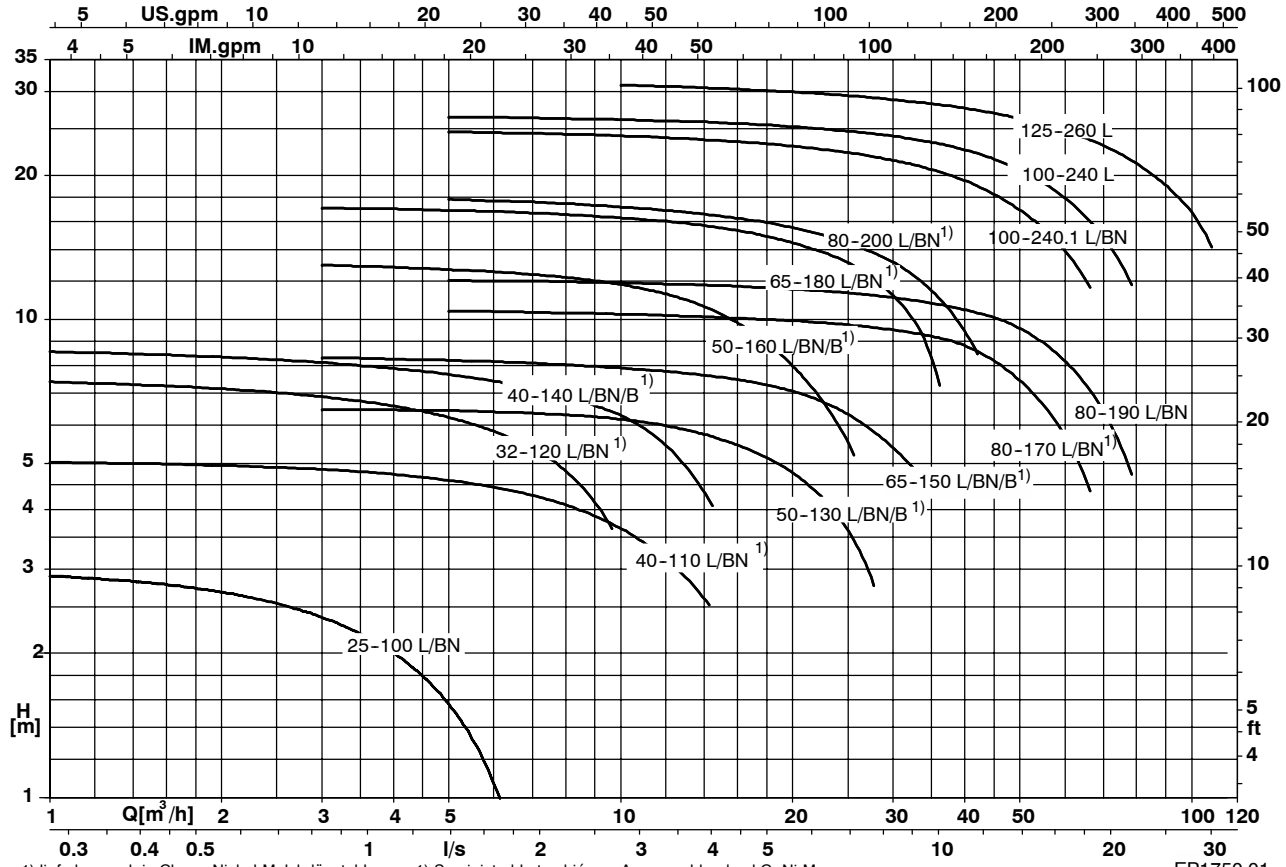
1) Disponibile anche come fusione di acciaio al cromo-nichel-molibdeno

EP2900.01

KSB

Etaprime L

n = 1.750 1/min



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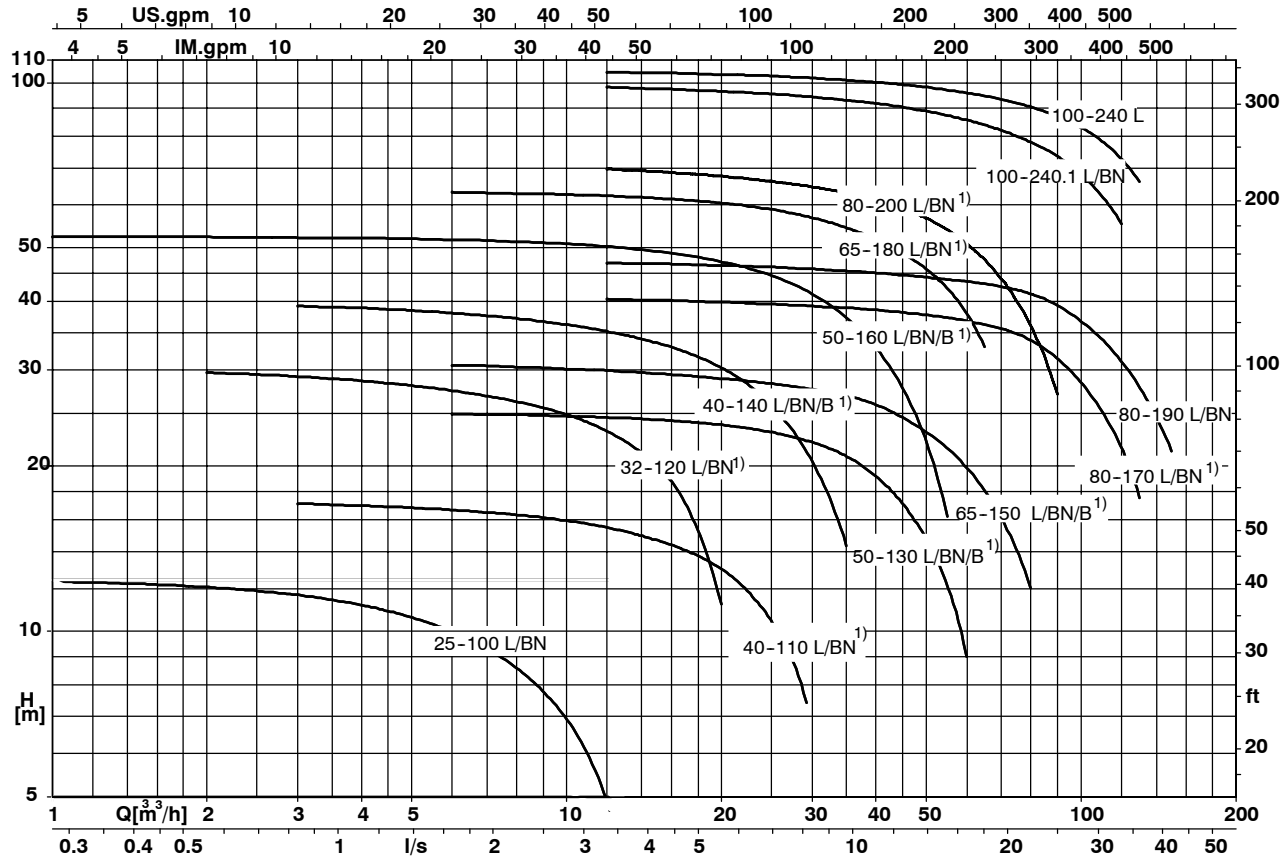
1) Suministrable también en Acero moldeado al Cr-Ni-Mo
1) Ook leverbaar in chroom-nikkel-molybdeenstaal
1) Disponibile anche come fusione di acciaio al cromo-nichel-molibdeno

EP1750.01

n = 3.500 1/min



1) lieferbar auch in Chrom-Nickel-Molybdänstahlguss
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1) Egalement disponible en acier moulé au CrNiMo
1) Suministrable también en Acero moldeado al Cr-Ni-Mo
1) Ook leverbaar in chroom-nikkel-molybdeenstaal
1) Disponibile anche come fusione di acciaio al cromo-nichel-molibdeno

EP3500.01

Product Advantages at a Glance

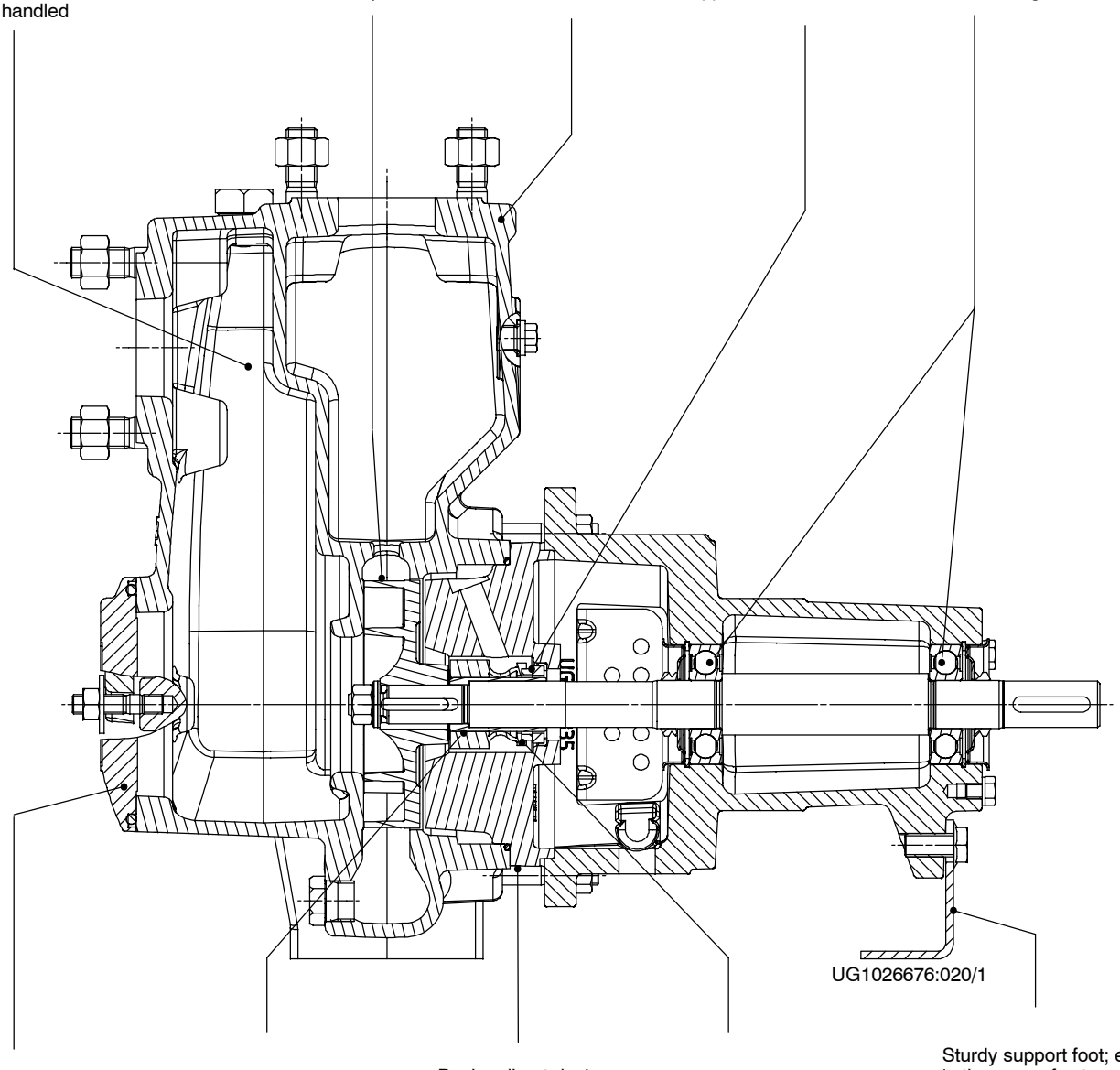
Self-priming after the pump casing has been filled with the fluid handled

Excellent suction behaviour, self-priming up to 9 m; no foot valve required

Pump unit is insensitive to the penetration of gas and air

Double-acting mechanical seal available for tough applications

High operating reliability due to sturdy deep-groove ball bearings



Inspection cover for easy cleaning

Shaft sleeve prevents wear on the shaft

Back pull-out design: the casing may remain in the pipeline when the pump is dismantled

Reliable, maintenance-free mechanical seal

Sturdy support foot; even in the case of external forces the shaft is only slightly displaced in the coupling area

Overview of Type Series

sizes and types available

Pump size	Shaft unit	ETAPRIME L GL JL 1040	ETAPRIME L CL 1.4408	ETAPRIME BN GBN JL 1040	ETAPRIME BN CBN 1.4408	ETAPRIME B GB JL 1040	
25 - 100	17	E / T	o	E / T	o	o	o
32 - 120		E / T	E / T	E / T	E / T	o	o
40 - 110		E / T	E / T	E / T	E / T	o	o
40 - 140	25	E / T / B	E / T / B	E / T / B	E / T / B	E	o
50 - 130		E / T / B	E / T / B	E / T / B	E / T / B	E	o
50 - 160		E / T / B	E / T / B	E / T / B	E / T / B	E	o
65 - 150		E / T / B	E / T / B	E / T / B	E / T / B	E	o
65 - 180	35	E / T / B	E / T / B	E / T / B	E / T / B	o	o
80 - 170		E / T / B	E / T / B	E / T / B	E / T / B	o	o
80 - 190		E / T / B	o	E / T / B	o	o	o
80 - 200		E / T / B	E / T / B	E / T / B	E / T / B	o	o
100 - 240.1		E / T / B	o	E / T / B	o	o	o
100 - 240		E / T / B	o	o	o	o	o
125 - 260		E / T / B	o	o	o	o	o

= available size
o = size not available
E = single-acting mechanical seal (standard design)
T = double-acting mechanical seal in TANDEM arrangement possible
B = double-acting mechanical seal in BACK-to-BACK arrangement possible

Materials

Designation	Etaprime GL		Etaprime CL	
Volute casing	Cast iron	JL 1040 [5]	Cast chrome nickel molybdenum steel	1.4408
Casing cover	Cast iron	JL 1040 [5]	Cast chrome nickel molybdenum steel	1.4408
Shaft	Tempering steel	C 45+N [4]	Chrome nickel molybdenum steel	1.4462 [4]
Impeller	Cast iron	JL 1040 [5]	Cast chrome nickel molybdenum steel	1.4408
Bearing bracket [2]	Cast iron	JL 1040 [5]	Cast iron	JL 1040 [5]
Bearing housing [3]	Cast iron	JL 1040 [5]	Cast chrome nickel molybdenum steel	1.4408
Shaft sleeve [1]	Chrome nickel molybdenum steel	1.4571	Chrome nickel molybdenum steel	1.4571

1) omitted on shaft unit 17
2) for shaft unit 25 and shaft unit 35
3) for shaft unit 17
4) for shaft unit 17 = Chrome nickel molybdenum steel 1.4571
5) GJL-250 to EN 1561

For shaft unit / pump size combinations see Overview of Type Series above

Flange Connections / Pump connections

Pump size	Shaft unit	Standard connection	Special connection
25 - 100 32 - 120 40 - 110	17	Pipe thread Rp to ISO 7/1	Pipe thread NPT to ASME B1.20.1
40 - 140 50 - 130 50 - 160 65 - 150	25	Flange to EN 1092-2, PN16, (JL 1040) to EN 1092-1, PN16, (1.4408)	Flange to ASME BE 16.1 Class 125 (to ZN 2606)
65 - 180 80 - 170 80 - 190 80 - 200 100 - 240.1 100 - 240 125 - 260	35		

Pressure Limits

Pump size	Discharge pressure p_2 [1] (bar)	Test pressure [2] (bar)	Pump size	Discharge pressure p_2 [1] (bar)	Test pressure [2] (bar)
25-100	10.0	15.0	65-180	10.0	15.0
32-120	10.0	15.0	80-170	10.0	15.0
40-110	10.0	15.0	80-190	10.0	15.0
40-140	10.0	15.0	80-200	10.0	15.0
50-130	10.0	15.0	100-240.1	10.0	15.0
50-160	10.0	15.0	100-240	10.0	15.0
65-150	10.0	15.0	125-260	10.0	15.0

1) The sum of inlet pressure and head at zero flow point must not exceed the values indicated.
2) The casing components are checked for leakage by means of internal pressure tests to AN 1897/75-03 with water.

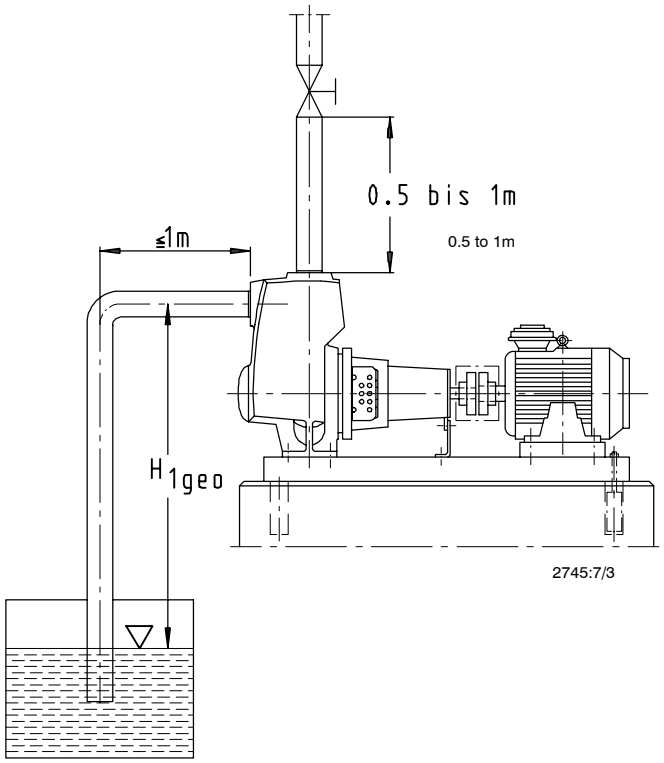
Priming Time

with a horizontal length of the suction line of 1 m and suction line D_N = pump D_N

ETAPRIME L	Suction time [sec] for speed n = **2,900/3,500** rpm at a static suction lift H_{1geo} of ... m				
	2 m	4 m	5 m	7 m	8 m
25-100	50	135	240	-	-
32-120	30	90	120	255	360
40-110	60	135	180	300	360
40-140	30	80	100	210	300
50-130	50	120	150	245	300
50-160	30	60	90	180	240
65-150	60	150	180	300	360
65-180	30	50	80	150	210
80-170	50	120	180	300	360
80-190	50	65	90	150	180
80-200	30	60	80	195	180
100-240.1	30	50	60	90	-
100-240	35	55	70	105	-
125-260	35	55	70	105	-

ETAPRIME L	Suction time [sec] for speed n = **1,450/1,750** rpm at a static suction lift H_{1geo} of ... m					
	1 m	2 m	4 m	5 m	7 m	8 m
25-100	120	-	-	-	-	-
32-120	150	200	-	-	-	-
40-110	140	-	-	-	-	-
40-140	120	240	-	-	-	-
50-130	200	360	-	-	-	-
50-160	180	320	-	-	-	-
65-150	180	360	-	-	-	-
65-180	160	180	360	-	-	-
80-170	150	240	420	-	-	-
80-190	120	160	300	-	-	-
80-200	80	120	240	300	-	-
100-240.1	100	140	280	400	-	-
100-240	160	200	450	-	-	-
125-260	80	120	160	180	380	560

The above data refers to water at 20 °C.

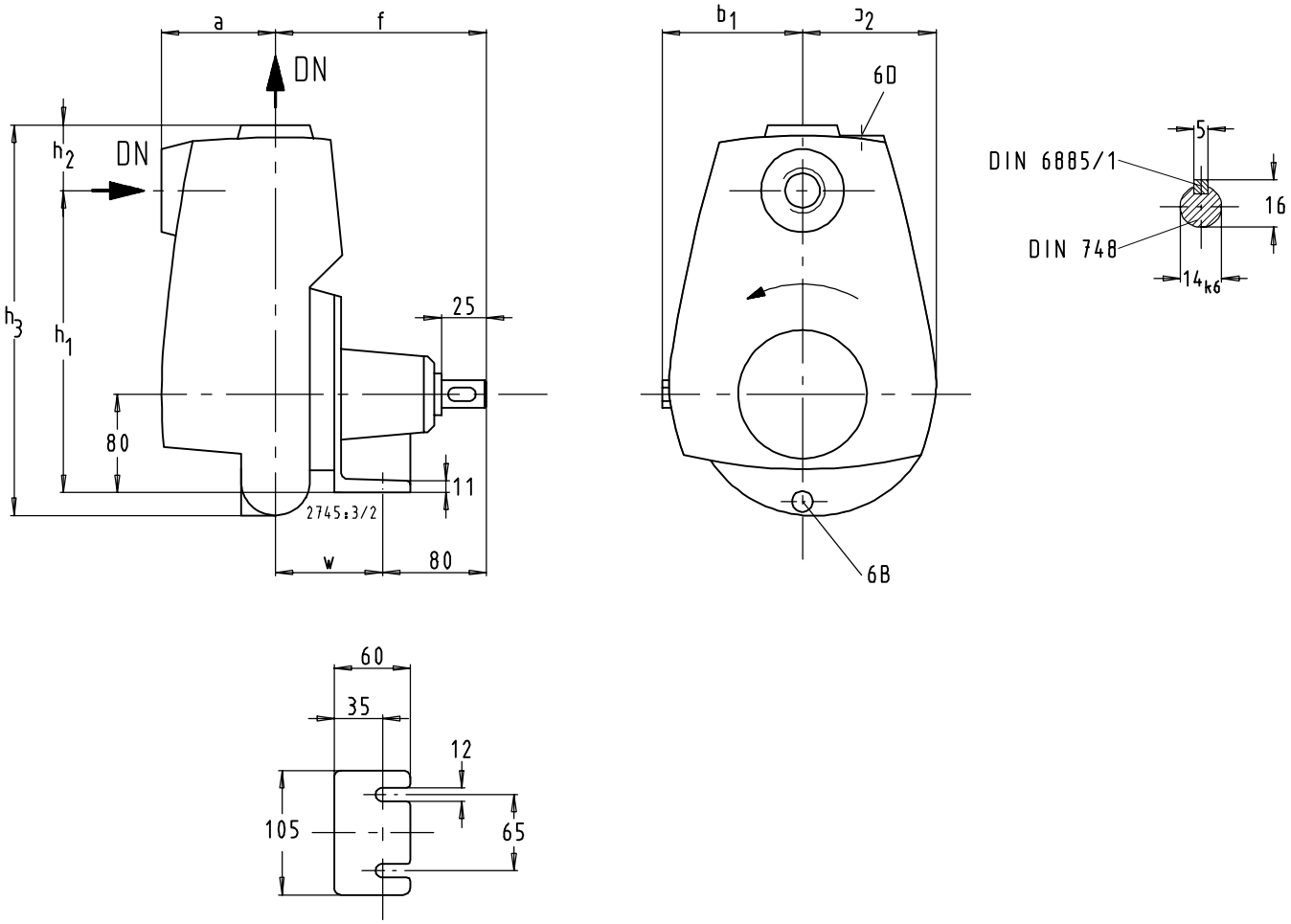


Caution When handling fluids wich liberate gas or tend to froth, **the pump will not be self-priming.** In such cases, a check valve should be installed in the suction line.

Fluid handled	Application limits	Materials: Casing/Impeller: Cast iron Cast iron/	Materials: Casing/Impeller: Cast CrNiMo steel Cast CrNiMo steel/	Shaft seal: Mechanical seal: AQ1VGG 2)	Shaft seal: Mechanical seal: U3U3VGG	Shaft seal: Mechanical seal: Q1Q1X4GG	Shaft seal: Mechanical seal: BQ1EGG 2)	Reference code: Mechanical seal	Comments
		G	C	8	9	10	11		
Water									
Ammonia water (salmiac)	t ≤ 40 °C; conc. ≤ 10%	X					X	GL 11	
Brackish water	t ≤ 25°C		X			X		CL10	
Condensate 2)	t ≤ 90°C	X					X	GL11	
Condensate, non-conditioned	t ≤ 90°C		X				X	CL11	
Cooling water 1) (no anti-freezes)	t ≤ 60°C	X				X		GL10	open circuit: CL10 required
Cooling water pH value ≥ 7.5 (with anti-freeze) 1)3)	t ≥ -30°C p ≤ 10 bar t ≤ 90°C	X					X	GL11	open circuit: CL11 required
Dam water 1)	t ≤ 60°C	X				X		GL10	if containing solid matter - contact KSB
Drinking water 1)	t ≤ 60°C	X					X	GL11	
Fire-fighting water 1)	t ≤ 60°C	X				X		GL10	
Fully desalinated water	t ≤ 90°C		X				X	CL11	Requirements for ultra-pure water cannot be met.
Fully desalinated water as boiler feed water 2)	t ≤ 90°C	X					X	GL11	
Partly desalinated water 2)	t ≤ 90°C	X					X	GL11	
Pure water 4)	t ≤ 60°C	X					X	GL11	
Seawater	t ≤ 25°C		X			X		CL10	
Slightly contaminated water 1)	t ≤ 60°C	X				X		GL10	
Surface water 1)	t ≤ 40°C	X		X				GL 8	Analysis of fluid handled required.
Swimming-pool water 1) (fresh water)	t ≤ 60°C	X				X		GL10	Also for requirements to DIN 19 643
Untreated water 1)	t ≤ 60°C	X				X		GL10	
Waste water (industrial)									Analysis of fluid handled required.
Refrigerants, cooling brines									
Cooling brine, inorganic, pH value > 7.5; inhibited	t ≥ -30°C t ≤ 25°C	X					X	GL11	
Water with anti-freeze, pH value ≥ 7.5 1) 3)	t ≥-30°C; t ≤ 90°C	X					X	GL11	
Oils/Emulsions									
Drilling/Grinding emulsion	t ≤ 60°C	X			X			GL 9	
Oil-water emulsion	t ≤ 60°C	X			X			GL 9	
Cleaning agents									
Bottle rinsing lyes	t ≤ 90°C	X				X		GL10	
Acids									
Acetic acid	t ≤ 60°C; conc.≤ 5% t ≤ 60°C; conc.≤ 10%		X				X	CL 11	

1) General criteria for results of water analysis: pH value ≥ 7;
chloride (Cl) content ≤150 mg/kg. Chlorine (Cl_2) ≤ 0.6 mg/kg
Ammonia (NH_3) ≤ 5mg/kg, free from hydrogen sulphide (H_2S); no limitation of Cl content required in this case.
2) Treatment to VdTÜV 1466; additional requirement: O_2 ≤ 0.02 mg/l
3) Antifreeze on ethylene glycol basis with inhibitors. Content: 20 % to 50 % (e.g. Antifrogen N)
4) No ultra-pure water! Conductivity at 25 °C: ≤ 800 µS/cm.

Etaprime L 25-100 - 40-110 (Shaft unit 17)



Etaprime L	6 B 1)	6 D 1)
25-100	R_c 1/8	R_c 3/4
32-120	R_c 1/8	R_c 3/4
40-110	R_c 1/8	R_c 3/4

1) R_c = ISO 7/1

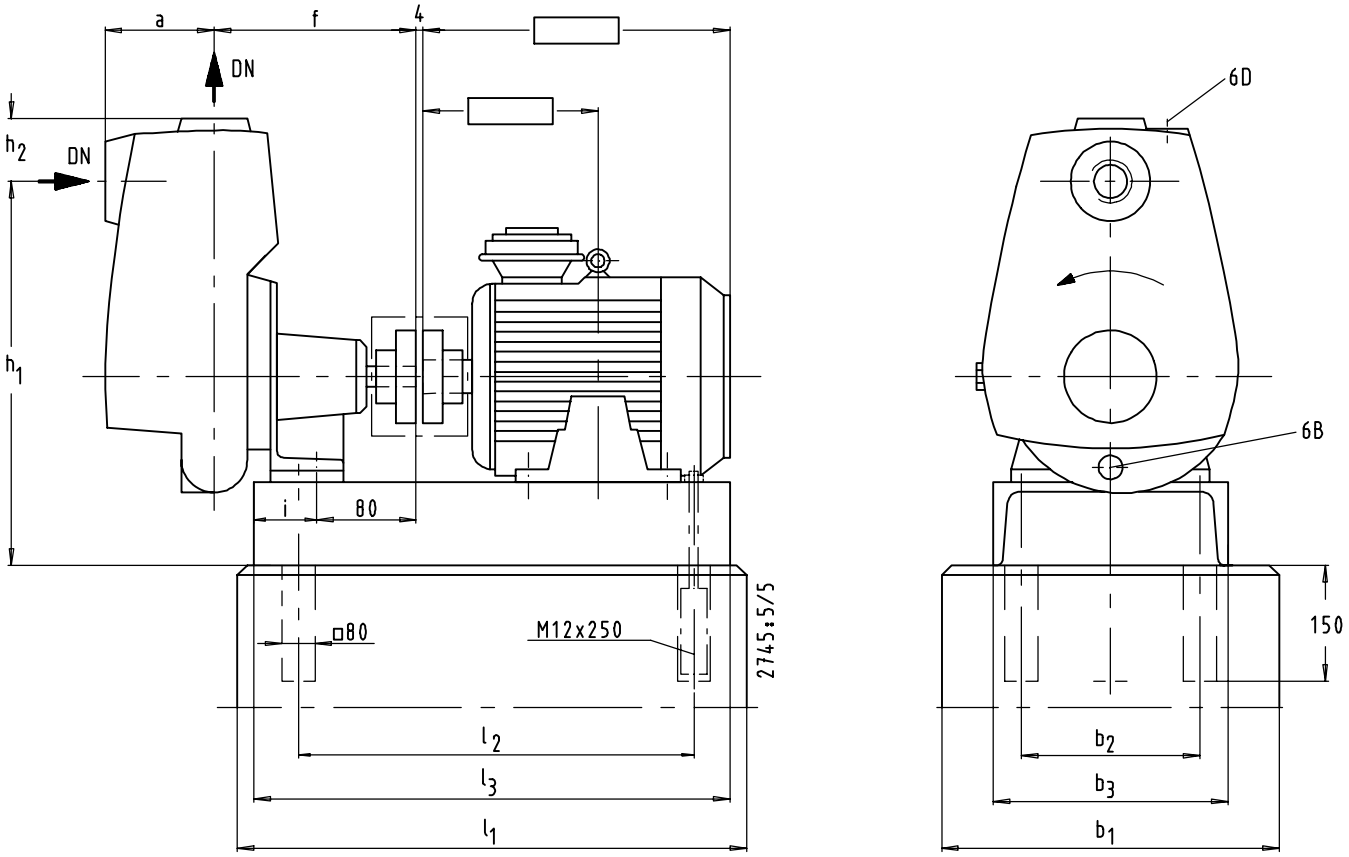
6 B	Förderflüssigkeit-Entleerung / Casing drain / Vidange du liquide véhiculé / Scarico del liquido convogliato / Vaciado del líquido de impulsión / aftap. pomphuis
6 D	Förderflüssigkeit-Auffüllen und Entlüften / Fluid handled-priming and venting / Remplissage et dégazage de liquide véhiculé / Riempimento e scarico del liquido convogliato / Llenado y desaireación del líquido de impulsión / vul en ontluchting

mm

Etaprime L	Connection Standard DN 2)	Connection Special DN 3)	a	b_1	b_2	f	h_1	h_2	h_3	w
25-100	Rp 1	NPT 1	70	104	95	169	220	38	265	89
32-120	Rp 1 1/4	NPT 1 1/4	95	118	95	165	229	46	286	85
40-110	Rp 1 1/2	NPT 1 1/2	105	118	110	171	235	55	312	91

2) Standard connection to ISO 7/1
3) Special connection to ASME B1.20.1

Etaprime L 25-100 - 40-110 (Shaft unit 17)

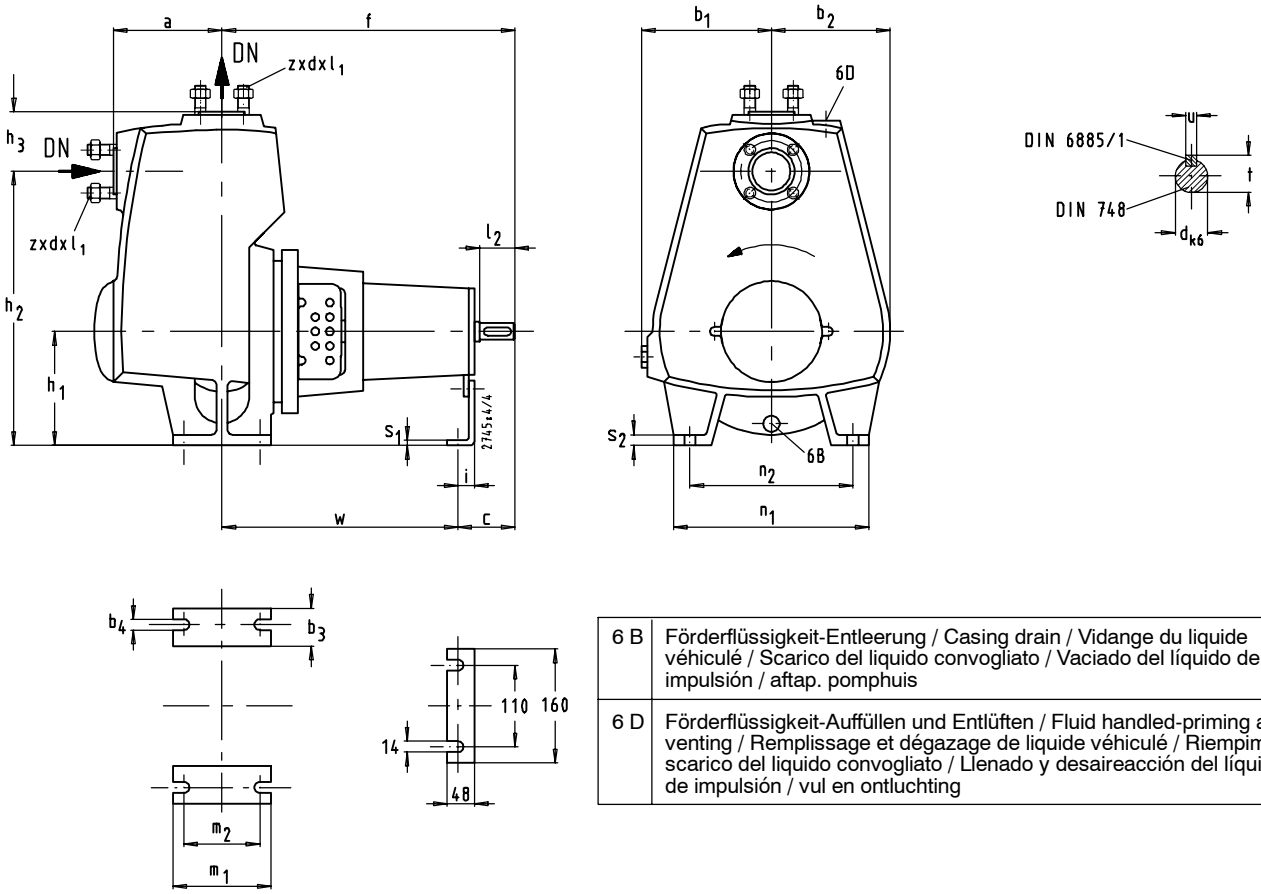


Tolerances of connecting dimensions as per EN 735 mm

Etaprime L	n = 1.450 1/min	n = 1.750 1/min	n = 2.900 1/min	n = 3.500 1/min	Motor kW	Motor IEC	Connection Standard DN 2)	Connection Special DN 3)	a	f	h_1	h_2	b_1	b_2	b_3	i	l_1	l_2	l_3
25-100	X	X			0.37	71	Rp 1	Rp 1	70	169	295	38	350	160	200	41,5	570	360	400
25-100	X	X			0.55	80	Rp 1	Rp 1	70	169	295	38	350	160	200	41,5	570	360	400
25-100			X		0.55	71	Rp 1	Rp 1	70	169	295	38	350	160	200	41,5	570	360	400
25-100				X	0.75	80	Rp 1	Rp 1	70	169	295	38	350	160	200	41,5	570	360	400
25-100				X	1.1	80	Rp 1	Rp 1	70	169	295	38	350	160	200	41,5	570	360	400
32-120	X	X			0.37	71	Rp 1 1/4	NPT 1 1/4	95	165	304	46	350	160	200	41,5	570	360	400
32-120	X	X			0.55	80	Rp 1 1/4	NPT 1 1/4	95	165	304	46	350	160	200	41,5	570	360	400
32-120			X		1.1	80	Rp 1 1/4	NPT 1 1/4	95	165	304	46	350	160	200	41,5	570	360	400
32-120				X	2.2	90 L	Rp 1 1/4	NPT 1 1/4	95	165	304	46	350	160	200	41,5	570	360	400
40-110	X	X			0.37	71	Rp 1 1/2	NPT 1 1/2	105	171	310	55	350	160	200	41,5	570	360	400
40-110	X	X			0.55	80	Rp 1 1/2	NPT 1 1/2	105	171	310	55	350	160	200	41,5	570	360	400
40-110			X		1.1	80	Rp 1 1/2	NPT 1 1/2	105	171	310	55	350	160	200	41,5	570	360	400
40-110				X	1.5	90 S	Rp 1 1/2	NPT 1 1/2	105	171	310	55	350	160	200	41,5	570	360	400

2) Standard connection to ISO 7/1
3) Special connection to ASME B1.20.1

Etaprime L 40-140 - 125-260 (Shaft units 25 and 35)



6 B	Förderflüssigkeit-Entleerung / Casing drain / Vidange du liquide véhiculé / Scarico del liquido convogliato / Vaciado del líquido de impulsión / aftap. pomphuis
6 D	Förderflüssigkeit-Auffüllen und Entlüften / Fluid handled-priming and venting / Remplissage et dégazage de liquide véhiculé / Riempimento e scarico del liquido convogliato / Llenado y desaireacción del líquido de impulsión / vul en ontluchting

Etaprime L	6 B [1]	6 D [1]
40-140	Rc 3/8	Rc 3/4
50-130	Rc 1/2	Rc 3/4
50-160	Rc 1/2	Rc 3/4
65-150	Rc 1/2	Rc 3/4
65-180	Rc 1/2	Rc 3/4
80-170	Rc 3/4	Rc 3/4
80-190	Rc 3/8	Rc 3/4
80-200	Rc 1/2	Rc 3/4
100-240.1	Rc 3/4	Rc 3/4
100-240	Rc 3/4	Rc 3/4
125-260	Rc 3/4	Rc 3/4

1) Rc = ISO 7/1

Flange dimensions mm

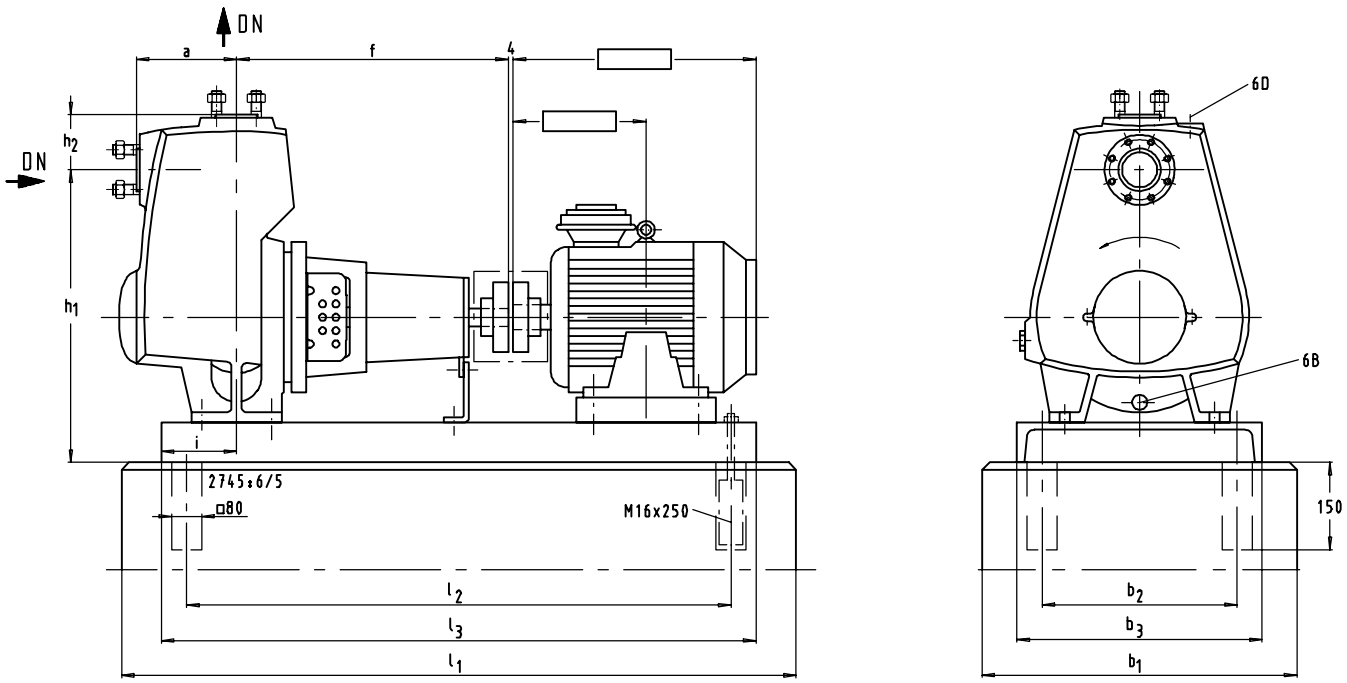
Flange connection	DN	Dia. of bolt circle	z	d	l_1
Standard EN 1092-1 EN 1092-2	40	110	4	M 16	40
	50	125			
	65	145			
	80	160	8		45
	100	180			
	125	210			
Special ASME BE 16.1 Class 125 (ZN 2606)	40	98,6	4	UNC 1/2-13	40
	50	120,7		UNC 5/8-11	
	65	139,7			
	80	152,4			
	100	190,5	8		45
	125	215,9		UNC 3/4-10	

mm

Etaprime L	DN	a	b_1	b_2	b_3	b_4	c	d_{K6}	f	h_1	h_2	h_3	i	l_2	m_1	m_2	n_1	n_2	s_1	s_2	t	u	w
40-140	40	115	115	128	40	16	100	24	370	112	284	73	23	50	100	70	200	160	4	13	27	8	270
50-130	50	130	138	128	50	16	100	24	370	132	317	78	23	50	100	70	240	190	4	17	27	8	270
50-160	50	130	145	126	50	16	100	24	370	132	327	75	23	50	100	70	240	190	4	17	27	8	270
65-150	65	140	155	149	50	16	100	24	370	160	370	85	25	50	125	95	260	212	6	20	27	8	270
65-180	65	140	158	138	50	16	130	32	490	160	376	89	23	80	125	95	260	212	4	18	35	10	360
80-170	80	156	173	168	55	18	130	32	490	160	380	104	23	80	140	106	290	240	4	18	35	10	360
80-190	80	170	188	181	65	20	130	32	490	180	420	107	24	80	160	120	345	280	6	22	35	10	360
80-200	80	154	172	152	58	20	130	32	490	160	378	107	24	80	140	100	270	220	4	22	35	10	360
100-240.1	100	182	203	178	60	20	130	32	478	200	457	127	24	80	140	100	320	260	6	18	35	10	348
100-240	100	182	203	178	60	20	130	32	478	200	457	127	24	80	140	100	320	260	6	18	35	10	348
125-260	125	204	227	197	70	20	130	32	478	200	486	142	24	80	140	100	340	270	6	18	35	10	348

Etaprime L 40-140 - 125-260 (Shaft units 25 and 35)

with normal coupling



KSB

Etaprime L

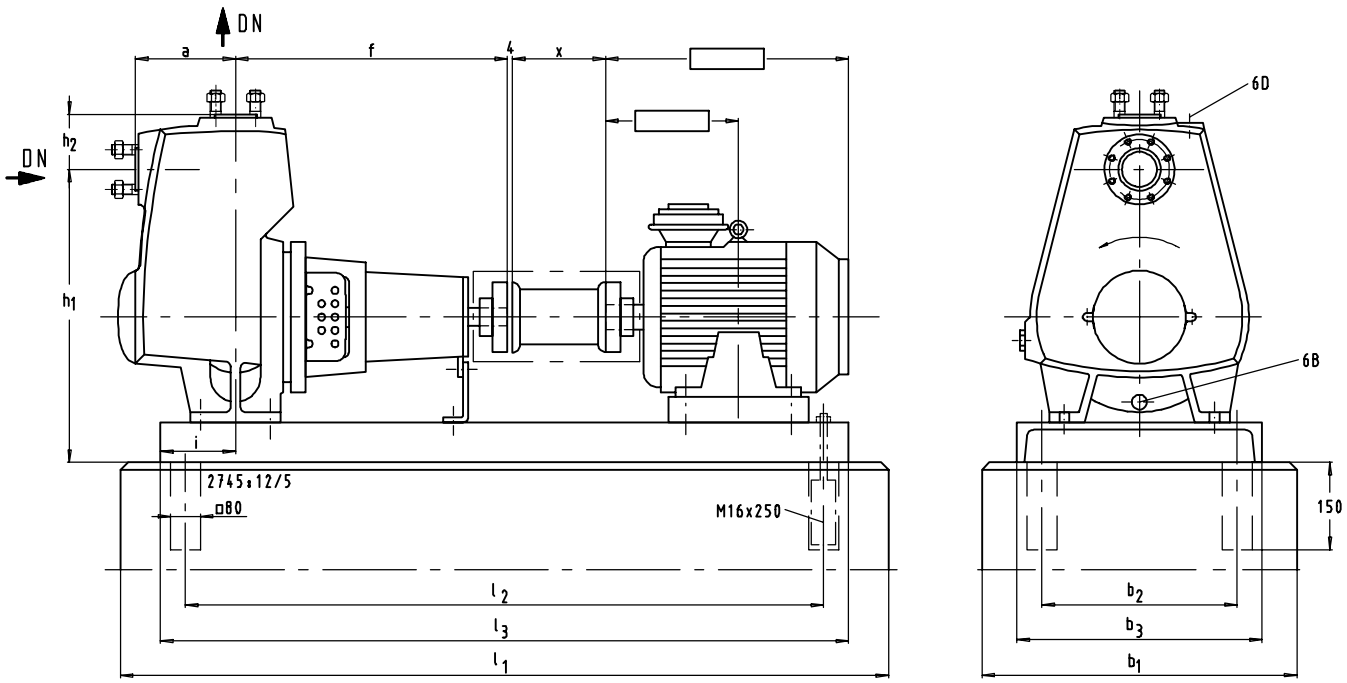
with normal coupling

Tolerances of connecting dimensions as per EN 735 mm

Etaprime L					Motor												
Pump size	n = 1.450 1/min	n = 1.750 1/min	n = 2.900 1/min	n = 3.500 1/min	Power [kW]	Size	DN	a	f	h_1	h_2	b_1	b_2	b_3	i	l_1	l_2	l_3 [mm]
40-140	X	X			1.5	90L	40	115	370	384	73	450	240	300	100	950	740	800
40-140			X		2.2	90L	40	115	370	384	73	450	240	300	100	950	740	800
40-140			X		3	100L	40	115	370	384	73	450	240	300	100	950	740	800
40-140				X	4	112M	40	115	370	384	73	450	240	300	100	1050	840	900
40-140				X	5.5	132S	40	115	370	404	73	450	240	300	100	1050	840	900
50-130	X	X			1.5	90L	50	130	370	417	78	450	240	300	100	950	740	800
50-130			X		2.2	90L	50	130	370	417	78	450	240	300	100	950	740	800
50-130			X		3	100L	50	130	370	417	78	450	240	300	100	950	740	800
50-130				X	4	112M	50	130	370	417	78	450	240	300	100	1050	840	900
50-160	X	X			1.5	90L	50	130	370	427	75	450	240	300	112	950	740	800
50-160			X		4	112M	50	130	370	427	75	450	240	300	112	1050	840	900
50-160			X	X	5.5	132S	50	130	370	427	75	450	240	300	112	1150	940	1000
50-160				X	7.5	132S	50	130	370	427	75	450	240	300	112	1150	940	1000
65-150	X	X			1.5	90L	65	140	370	470	85	450	240	300	112	950	740	800
65-150			X		4	112M	65	140	370	470	85	450	240	300	112	1050	840	900
65-150			X	X	5.5	132S	65	140	370	470	85	450	240	300	112	1150	940	1000
65-150				X	7.5	132S	65	140	370	470	85	450	240	300	112	1150	940	1000
65-180	X	X			2.2	100L	65	140	490	476	89	500	280	350	112	1270	1060	1120
65-180			X		5.5	132S	65	140	490	476	89	500	280	350	112	1270	1060	1120
65-180			X		7.5	132S	65	140	490	476	89	500	280	350	112	1270	1060	1120
65-180				X	11	160M	65	140	490	476	89	500	280	350	112	1270	1060	1120
80-170	X	X			2.2	100L	80	156	490	480	104	500	280	350	120	1270	1060	1120
80-170			X		7.5	132S	80	156	490	480	104	500	280	350	120	1270	1060	1120
80-170				X	11	160M	80	156	490	480	104	500	280	350	120	1270	1060	1120
80-170				X	15	160M	80	156	490	480	104	500	280	350	120	1270	1060	1120
80-190	X	X			2.2	100L	80	170	490	520	107	500	280	350	130	1270	1060	1120
80-190	X	X			3	100L	80	170	490	520	107	500	280	350	130	1270	1060	1120
80-190			X		11	160M	80	170	490	520	107	500	280	350	130	1400	1190	1250
80-190				X	15	160M	80	170	490	520	107	500	280	350	130	1400	1190	1250
80-190				X	18.5	160L	80	170	490	520	107	500	280	350	130	1400	1190	1250
80-200	X	X			2.2	100L	80	154	490	478	107	500	280	350	120	1270	1060	1120
80-200			X		11	160M	80	154	490	478	107	500	280	350	120	1400	1190	1250
80-200				X	15	160M	80	154	490	478	107	500	280	350	120	1400	1190	1250
80-200				X	18.5	160L	80	154	490	478	107	500	280	350	120	1400	1190	1250
100-240.1	X	X			2.2	100L	100	182	478	557	127	500	280	350	120	1270	1060	1120
100-240.1	X	X			3	100L	100	182	478	557	127	500	280	350	120	1270	1060	1120
100-240.1	X	X			4	112M	100	182	478	567	127	500	280	350	120	1270	1060	1120
100-240.1			X		15	160M	100	182	478	557	127	500	280	350	120	1270	1060	1120
100-240.1			X		18.5	160L	100	182	478	557	127	500	280	350	120	1400	1190	1250
100-240.1				X	22	180M	100	182	478	567	127	550	320	400	120	1400	1190	1250
100-240.1				X	30	200L	100	182	478	567	127	550	320	400	120	1400	1190	1250
100-240	X	X			3	100L	100	182	478	567	127	500	280	350	120	1270	1060	1120
100-240	X	X			4	112M	100	182	478	567	127	500	280	350	120	1270	1060	1120
100-240	X	X			5.5	132S	100	182	478	567	127	500	280	350	120	1270	1060	1120
100-240			X		22	180M	100	182	478	567	127	550	320	400	120	1400	1190	1250
100-240			X		30	200L	100	182	478	567	127	550	320	400	120	1400	1190	1250
100-240				X	37	200L	100	182	478	567	127	550	320	400	120	1400	1190	1250
125-260	X	X			5.5	132S	125	204	478	596	142	500	280	350	120	1270	1060	1120
125-260	X	X			7.5	132M	125	204	478	596	142	500	280	350	120	1270	1060	1120
125-260	X	X			11	160M	125	204	478	596	142	550	320	400	120	1400	1190	1250
125-260			X		30	200L	125	204	478	596	142	550	320	400	120	1400	1190	1250
125-260			X		37	200L	125	204	478	596	142	550	320	400	120	1400	1190	1250

Etaprime L 40-140 - 125-260 (Shaft units 25 and 35)

with spacer-type coupling



with spacer-type coupling

Tolerances of connecting dimensions as per EN 735 mm

Etaprime L					Motor														
Pump size	n = 1.450 1/min	n = 1.750 1/min	n = 2.900 1/min	n = 3.500 1/min	Power [kW]	Size	DN	a	f	h_1	h_2	b_1	b_2	b_3	i	l_1	l_2	l_3 [mm]	x
40-140	X	X			1.5	90L	40	115	370	384	73	450	240	300	100	1050	840	900	100
40-140			X		2.2	90L	40	115	370	384	73	450	240	300	100	1050	840	900	100
40-140			X		3	100L	40	115	370	384	73	450	240	300	100	1050	840	900	100
40-140				X	4	112M	40	115	370	384	73	450	240	300	100	1150	940	1000	100
40-140				X	5.5	132S	40	115	370	404	73	450	240	300	100	1150	940	1000	100
50-130	X	X			1.5	90L	50	130	370	417	78	450	240	300	100	1050	840	900	100
50-130			X		2.2	90L	50	130	370	417	78	450	240	300	100	1050	840	900	100
50-130			X		3	100L	50	130	370	417	78	450	240	300	100	1050	840	900	100
50-130				X	4	112M	50	130	370	417	78	450	240	300	100	1150	940	1000	100
50-160	X	X			1.5	90L	50	130	370	427	75	450	240	300	100	1050	840	900	100
50-160			X		4	112M	50	130	370	427	75	450	240	300	112	1050	840	1000	100
50-160			X	X	5.5	132S	50	130	370	427	75	500	280	350	112	1270	1060	1120	100
50-160				X	7.5	132S	50	130	370	427	75	500	280	350	112	1270	1060	1120	100
65-150	X	X			1.5	90L	65	140	370	470	85	450	240	300	100	1050	840	900	100
65-150			X		4	112M	65	140	370	470	85	450	240	300	112	1050	840	1000	100
65-150			X	X	5.5	132S	65	140	370	470	85	500	280	350	112	1270	1060	1120	100
65-150				X	7.5	132S	65	140	370	470	85	500	280	350	112	1120	1120	1120	100
65-180	X	X			2.2	100L	65	140	490	476	89	500	280	350	120	1400	1190	1250	140
65-180			X		5.5	132S	65	140	490	476	89	500	280	350	112	1400	1190	1250	140
65-180			X		7.5	132S	65	140	490	476	89	500	280	350	112	1400	1190	1250	140
65-180				X	11	160M	65	140	490	476	89	500	280	350	112	1400	1190	1250	140
80-170	X	X			2.2	100L	80	156	490	480	104	500	280	350	120	1400	1190	1250	140
80-170			X		7.5	132S	80	156	490	480	104	500	280	350	120	1400	1190	1250	140
80-170				X	11	160M	80	156	490	480	104	500	280	350	120	1400	1190	1250	140
80-170				X	15	160M	80	156	490	480	104	500	280	350	120	1400	1190	1250	140
80-190	X	X			2.2	100L	80	170	490	520	107	500	280	350	120	1400	1190	1250	140
80-190	X	X			3	100L	80	170	490	520	107	500	280	350	120	1400	1190	1250	140
80-190			X		11	160M	80	170	490	520	107	550	320	400	130	1570	1360	1420	140
80-190				X	15	160M	80	170	490	520	107	550	320	400	130	1570	1360	1420	140
80-190				X	18.5	160L	80	170	490	520	107	550	320	400	130	1570	1360	1420	140
80-200	X	X			2.2	100L	80	154	490	478	107	500	280	350	120	1400	1190	1250	140
80-200			X		11	160M	80	154	490	478	107	550	320	400	120	1570	1360	1420	140
80-200				X	15	160M	80	154	490	478	107	550	320	400	120	1570	1360	1420	140
80-200				X	18.5	160L	80	154	490	478	107	550	320	400	120	1570	1360	1420	140
100-240.1	X	X			2.2	100L	100	182	478	557	127	500	280	350	120	1400	1190	1250	140
100-240.1	X	X			3	100L	100	182	478	557	127	500	280	350	120	1400	1190	1250	140
100-240.1	X	X			4	112M	100	182	478	567	127	500	280	350	120	1400	1190	1250	140
100-240.1			X		15	160M	100	182	478	557	127	500	280	350	120	1400	1190	1250	140
100-240.1			X		18.5	160L	100	182	478	557	127	550	320	400	120	1570	1360	1420	140
100-240.1				X	22	180M	100	182	478	567	127	550	320	400	120	1570	1360	1420	140
100-240.1				X	30	200L	100	182	478	567	127	550	320	400	120	1570	1360	1420	140
100-240	X	X			3	100L	100	182	478	567	127	500	280	350	120	1400	1190	1250	140
100-240	X	X			4	112M	100	182	478	567	127	500	280	350	120	1400	1190	1250	140
100-240	X	X			5.5	132S	100	182	478	567	127	500	280	350	120	1400	1190	1250	140
100-240			X		22	180M	100	182	478	567	127	550	320	400	120	1570	1360	1420	140
100-240			X		30	200L	100	182	478	567	127	550	320	400	120	1570	1360	1420	140
100-240				X	37	200L	100	182	478	567	127	550	320	400	120	1570	1360	1420	140
125-260	X	X			5.5	132S	125	204	478	596	142	550	320	400	120	1570	1360	1420	140
125-260	X	X			7.5	132M	125	204	478	596	142	550	320	400	120	1570	1360	1420	140
125-260	X	X			11	160M	125	204	478	596	142	550	320	400	120	1570	1360	1420	140
125-260			X		30	200L	125	204	478	596	142	550	320	400	120	1570	1360	1420	140
125-260			X		37	200L	125	204	478	596	142	550	320	400	120	1570	1360	1420	140

Interchangeability of Etaprime L and Etaprime B/BN Components and Interchangeability of Pump Parts

Etaprime	Shaft unit	Description: Volute casing	Casing cover	Shaft	Impeller	Deep-groove ball bearing	Deep-groove ball bearing	Bearing housing	Mechanical seal	Shaft sleeve
		Part No. 102	161	210	230	321.01	321.02	350	433.01	523
25-100	17	O	X	1	O	1	2	1	1	X
32-120	17	O	X	1	O	1	2	1	1	X
40-110	17	O	X	1	O	1	2	1	1	X
40-140	25	O	O	2	O	3	3	X	2	1
50-130	25	O	O	2	O	3	3	X	2	1
50-160	25	O	O	2	O	3	3	X	2	1
65-150	25	O	O	2	O	3	3	X	2	1
65-180	35	O	O	3	O	4	4	X	3	2
80-170	35	O	O	3	O	4	4	X	3	2
80-190	35	O	O	3	O	4	4	X	3	2
80-200	35	O	O	3	O	4	4	X	3	2
100-240.1	35	1	O	3	O	4	4	X	3	2
100-240	35	1	O	3	O	4	4	X	3	2
125-260	35	O	O	3	O	4	4	X	3	2

1) not available as Etaprime B/BN

1 1	same number means same component
O	Components differ
X	Component not fitted
	Component interchangeable with Etaprime B/BN

Recommended Spare Parts Stock for 2 Years' Continuous Operation to DIN 24296

Part No.	Description	Number of Pumps (incl. stand-by pumps)						
		2	3	4	5	6 and 7	8 and 9	10 and more
		Quantity of spare parts						
210	Shaft	1	1	1	2	2	2	20 %
230	Impeller	1	1	1	2	2	2	20 %
321.01/.02	Deep-groove ball bearing (Set)	1	1	2	2	2	3	25 %
330	Bearing bracket	-	-	-	-	-	1	2 off
350 [1)]	Bearing housing	-	-	-	-	-	1	2 off
412.35/.65	O-ring (Set)	4	6	8	8	9	10	100 %
433.01	Mechanical seal	1	1	2	2	2	3	25 %
523 [2)]	Shaft sleeve	2	2	2	3	3	4	50 %

1) for shaft unit 17 [2)]
2) Assigning shaft unit to pump size: see interchangeability of pump parts

01.03.2005

2745.5/9-10

KSB

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