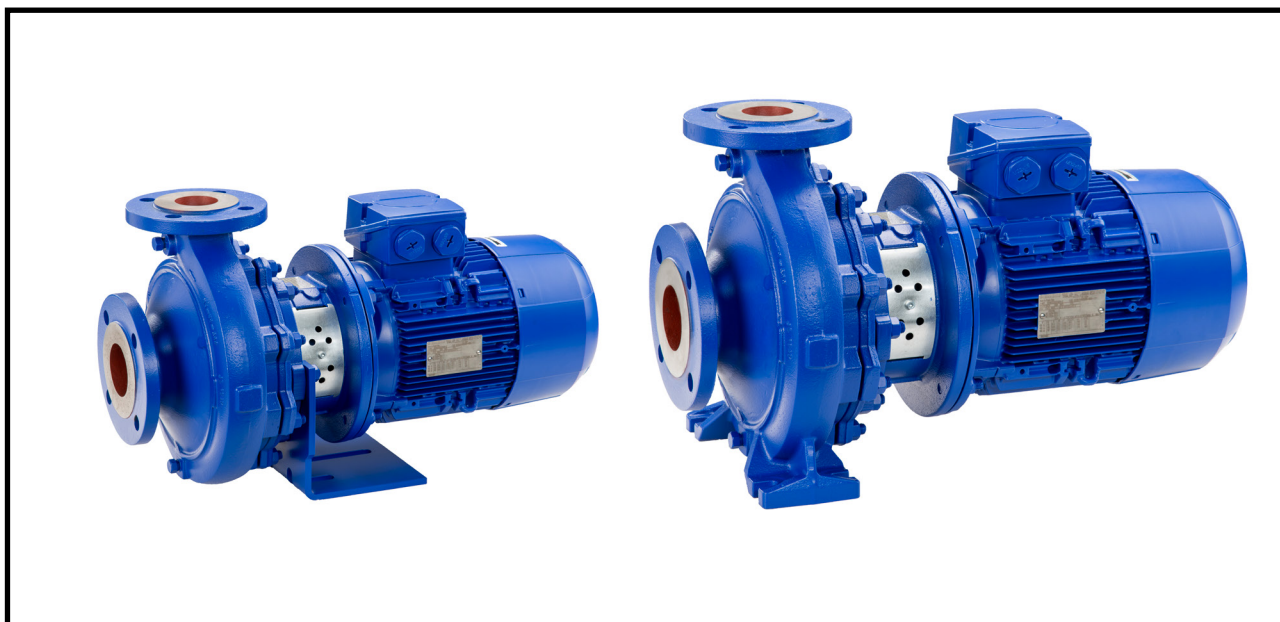


Etabloc

Close-Coupled Pump

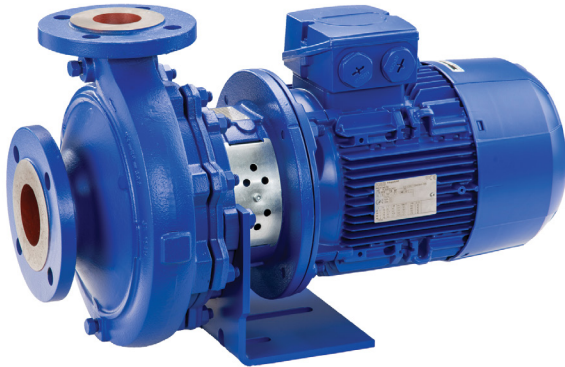
Performance Curves



Centrifugal Pumps with Shaft Seal

Close-coupled Pump

Etabloc



Main applications

Pump for handling clean or aggressive fluids not chemically and mechanically aggressive to the pump materials.

- Water supply systems
- Cooling circuits
- Swimming pools
- Fire-fighting systems
- General irrigation systems
- Drainage systems
- Heating systems
- Air-conditioning systems
- Spray irrigation systems

Fluids handled

- Seawater
- Brackish water
- Drinking water
- Hot water
- Service water
- Fire-fighting water
- Brine
- Cleaning agents
- Condensate
- Oils

Operating data

Operating properties

Characteristic	Value	
Flow rate	Q	Up to 612 m ³ /h (50 Hz) Up to 715 m ³ /h (60 Hz)
Head	H	Up to 102 m (50 Hz) Up to 144 m (60 Hz)
Operating temperature	t	-30 °C to +140 °C
Operating pressure	p	Up to 16 bar

Designation

Example: ETB 050-032-160 GBXA 10D2

Key to the designation

Code	Description	
ETB	Type series	
	ETB	Etabloc
050	Nominal suction nozzle diameter [mm]	
032	Nominal discharge nozzle diameter [mm]	
160	Nominal impeller diameter [mm]	
G	Casing material	
	G	= cast iron
	B	= bronze
	S	= nodular cast iron
	C	= stainless steel
B	Impeller material if different from casing material	
	G	= cast iron
	C	= stainless steel
	B	= bronze
X	Special design	
		= standard design
	F	= bottle rinser variant
	X	= special design
A	Casing cover	
	A	= conical cover
	C	= cylindrical cover
10	Seal code	
	10	= Q, Q ₁ , X ₄ , GG
D	Scope of supply	
	D	= pump with motor
2	Shaft unit	
	2	= WS_25
	3	= WS_35
	4	= WS_55

Design details

Design

- Volute casing pump
- Single-stage
- Ratings to EN 733
- Complies with the 2009/125/EC Directive

Pump casing

- Radially split volute casing
- Volute casing of some pumps with integrally cast pump feet
- Replaceable casing wear rings (optional for casing material C)

Impeller type

- Closed radial impeller with multiply curved vanes

Shaft seal

- Single mechanical seals to EN 12756
- Double mechanical seals to EN 12756
- Shaft equipped with replaceable shaft protecting sleeve in the shaft seal area

Drive

Table 1: General motor data

Characteristic	Description
Design	KSB surface-cooled IEC frame three-phase current squirrel-cage motor
Winding	50 Hz Up to 2.2 kW 220-240 V/ 380-420 V Up to 3 kW 380-420 V/ 660-725 V 60 Hz Up to 2.6 kW 440-480 V Up to 3.6 kW 440-480 V
Type of construction	Up to 4 kW IM V1 From 5.5 kW IM V15
Enclosure	IP55
Mode of operation	Continuous operation S1
Thermal class	F with temperature sensors: 3 thermistors
Explosion-proof version	
Design	KSB surface-cooled IEC frame three-phase current squirrel-cage motor
Winding	50 Hz Up to 1.85 kW 220-240 V/ 380-420 V Up to 2.5 kW 380-420 V/ 660-725 V
Type of construction	Up to 3.3 kW IM V1 From 4.6 kW IM V15
Enclosure	IP55 or IP54
Mode of operation	Continuous operation S1
Type of protection	EExe II
Temperature class	T3

Name plate

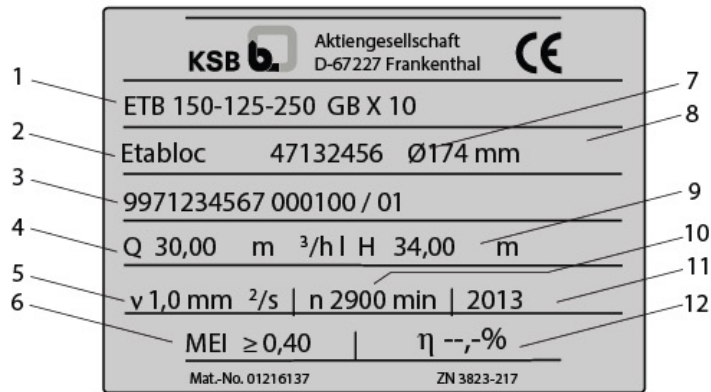


Fig. 1: Name plate (example)

1	Type series code, size and version	2	Type series
3	KSB order No., order item No. and consecutive No.	4	Flow rate
5	Kinematic viscosity of the fluid handled	6	Minimum efficiency index
7	Material number (if applicable)	8	Impeller diameter
9	Head	10	Speed
11	Year of construction	12	Efficiency (see data sheet)

Materials

Overview of available materials for Europe - A1=DefaultMaterial A2=Optional Material

Part No.	Description	Material variant								
		G	GB	GC	B	S	SB	SC	C	
102	Volute casing	Grey cast iron JL1040 / A 48 CL 35B	A1	A1	A1	-	-	-	-	-
		Bronze CC480K-GS / B30 C90700	-	-	-	A1	-	-	-	-
		Nodular cast iron JS1030 / A536 GR 60-40-18	-	-	-	-	A1	A1	A1	-
		Stainless steel 1.4408 / A743 Gr CF8 M	-	-	-	-	-	-	-	A1
161	Casing cover, conical	Grey cast iron JL1040 / A 48 CL 35B	A1	A1	A1	-	-	-	-	-
		Bronze CC480K-GS / B30 C90700	-	-	-	A1	-	-	-	-
		Nodular cast iron JS1030 / A536 GR 60-40-18	-	-	-	-	A1	A1	A1	-
		Stainless steel 1.4408 / A743 Gr CF8 M	-	-	-	-	-	-	-	A1
161	Casing cover, cylindrical	Grey cast iron JL1040 / A 48 CL 35B	A2	A2	A2	-	-	-	-	-
		Stainless steel 1.4408 / A743 Gr CF8 M	-	-	-	-	-	-	-	A2
		Bronze CC480K-GS / B30 C90700	-	-	-	A2	-	-	-	-
210	Shaft	Tempered steel C45+N	A1	A1	A1	-	A1	A1	A1	-
		Stainless steel 1.4571	A2	A2	A2	A1	A2	A2	A2	A1
230	Impeller	Grey cast iron JL1040 / A 48 CL 35B	A1	-	-	-	A1	-	-	-
		Bronze CC480K-GS / B30 C90700	-	A1	-	A1	-	A1	-	-
		Stainless steel 1.4408 / A743 Gr CF8 M	-	-	A1	-	-	-	A1	A1
341	Drive lantern	Grey cast iron JL1040 / A 48 CL 35B	A1	A1	A1	A1	A1	A1	A1	
400	Sealing elements	DPAF, asbestos-free	A1	A1	A1	A1	A1	A1	A1	
502.01	Casing wear ring, suction side	Grey cast iron JL1040 / CI	A1	A1	A1	-	A1	A1	A1	-
		Stainless steel (CrNiMo steel)	A2	-	A2	-	-	-	-	A2
		Bronze CC480K-GS	-	A2	-	A1	-	A2	-	-
502.02	Casing wear ring, discharge side	Grey cast iron JL1040 / CI	A1	A1	A1	-	A1	A1	A1	-
		Stainless steel (CrNiMo steel)	A2	-	A2	-	-	-	-	A2
		Bronze CC480K-GS	-	A2	-	A1	-	A2	-	-

Size	G	GB	GC	B	S	SB	SC	C
065-050-315	X	X	X	-	X	X	X	X
080-065-125	X	X	X	-	-	-	-	X
080-065-160	X	X	X	X	X	X	X	X
080-065-200	X	X	X	X	X	X	X	X
080-065-250	X	X	X	X	X	X	X	X
080-065-315	X	X	X	-	X	X	X	X
100-080-160	X	X	X	X	X	X	X	X
100-080-200	X	X	X	X	X	X	X	X
100-080-250	X	X	X	X	X	X	X	X
100-080-315	X	X	X	-	X	X	X	X
100-080-400	X	X	X	-	-	-	-	X
125-100-160	X	X	X	X	X	X	X	X
125-100-200	X	X	X	X	X	X	X	X
125-100-250	X	X	X	X	X	X	X	X
125-100-315	X	X	X	X	X	X	X	X
125-100-400	X	X	X	-	-	-	-	X
150-125-200	X	X	X	X	X	X	X	X
150-125-250	X	X	X	X	X	X	X	X
150-125-315	X	X	X	X	X	X	X	X
150-125-400	X	X	X	-	X	X	X	X
200-150-200	X	X	X	-	-	-	-	X
200-150-250	X	X	X	X	-	-	-	X
200-150-315	X	X	X	X	X	X	X	X
200-150-400	X	X	X	X	X	X	X	X

Technical data

Technical data

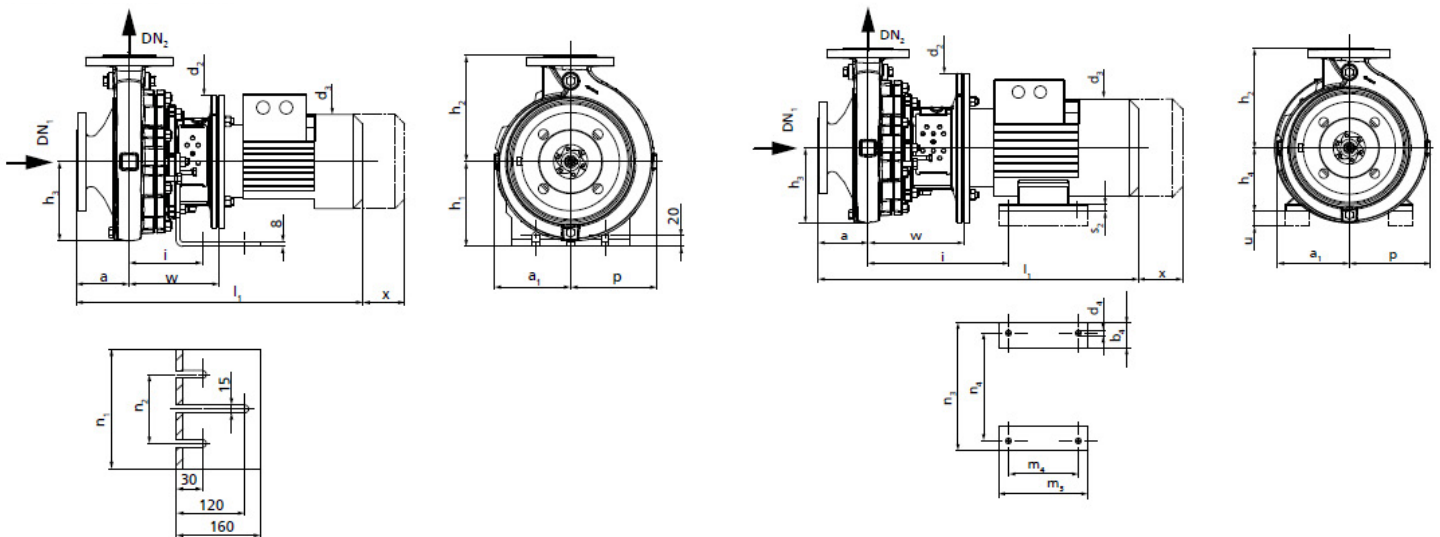
Sizes	Shaft unit	Impeller				Speed limit	
		Impeller outlet width	Impeller inlet diameter	Impeller diameter		Maximum [rpm]	Minimum [rpm]
				Maximum [mm]	Minimum [mm]		
[mm]	[mm]	[mm]	[mm]	[rpm]	[rpm]		
040-025-160	WS_25	6,0	45,2	169	130	3500	500
040-025-200	WS_25	6,0	45,2	209	160	3500	500
050-032-125.1	WS_25	6,6	52,4	139	104	4300	500
050-032-160.1	WS_25	5,7	52,7	170	136	4400	500
050-032-200.1	WS_25	5,6	54,0	204	170	3800	500
050-032-250.1	WS_25	5,5	58,3	254	200	3000	500
050-032-125	WS_25	9,8	63,4	139	104	4200	500
050-032-160	WS_25	8,5	60,6	174	136	3500	500
050-032-200	WS_25	7,0	62,9	209	170	3700	500
050-032-250	WS_25	7,5	62,6	261	209	3000	500
065-040-125	WS_25	14,0	73,9	139	104	4000	500
065-040-160	WS_25	13,0	70,0	174	128	4400	500
065-040-200	WS_25	9,4	69,4	209	165	3700	500
065-040-250	WS_25	8,4	74,1	260	200	3000	500
065-040-315	WS_35	7,5	75,3	326	260	2300	500
065-050-125	WS_25	19,9	87,9	142	112	4500	500
065-050-160	WS_25	16,9	86,9	174	128	4400	500
065-050-200	WS_25	13,8	83,1	219	170	3400	500
065-050-250	WS_25	10,5	84,0	260	215	3000	500
065-050-315	WS_35	10,0	87,0	323	265	2400	500
080-065-125	WS_25	25,8	99,0	141	109	4000	500
080-065-160	WS_25	21,0	92,0	174	132	3900	500
080-065-200	WS_25	17,0	99,7	219	175	3000	500
080-065-250	WS_35	15,1	101,0	260	215	3000	500
080-065-315	WS_35	13,7	108,2	320	260	2400	500
100-080-160	WS_25	31,6	124,0	174	138	3500	500
100-080-200	WS_35	24,5	115,0	219	180	3500	500
100-080-250	WS_35	19,0	115,0	269	215	2900	500
100-080-315	WS_35	18,7	115,6	334	269	1900	500
100-080-400	WS_55	15,0	130,0	398	330	1900	500
125-100-160	WS_35	37,6	135,0	185	162	3600	500

Sizes	Shaft unit	Impeller				Speed limit	
		Impeller outlet width	Impeller inlet diameter	Impeller diameter		Maximum	Minimum
				Maximum	Minimum		
[mm]	[mm]	[mm]	[mm]	[rpm]	[rpm]		
125-100-200	WS_35	32,5	142,0	219	179	3300	500
125-100-250	WS_35	27,0	145,0	269	210	2500	500
125-100-315	WS_35	23,0	142,0	334	270	1800	500
125-100-400	WS_55	18,0	142,8	401	329	1900	500
150-125-200	WS_35	40,7	159,0	224	182	2600	500
150-125-250	WS_35	37,0	162,4	269	218	2000	500
150-125-315	WS_55	30,9	162,0	334	270	2300	500
150-125-400	WS_55	25,9	162,4	419	330	1800	500
200-150-200	WS_35	59,5	180,0	224	188	2300	500
200-150-250	WS_35	48,8	191,0	269	220	1800	500
200-150-315	WS_55	39,7	191,5	334	264	2100	500
200-150-400	WS_55	33,0	191,4	419	330	1800	500

Etabloc Pump Dimensions and Weights

For Pump Dimensions Refer To The 'Etabloc Type Series Booklet'.

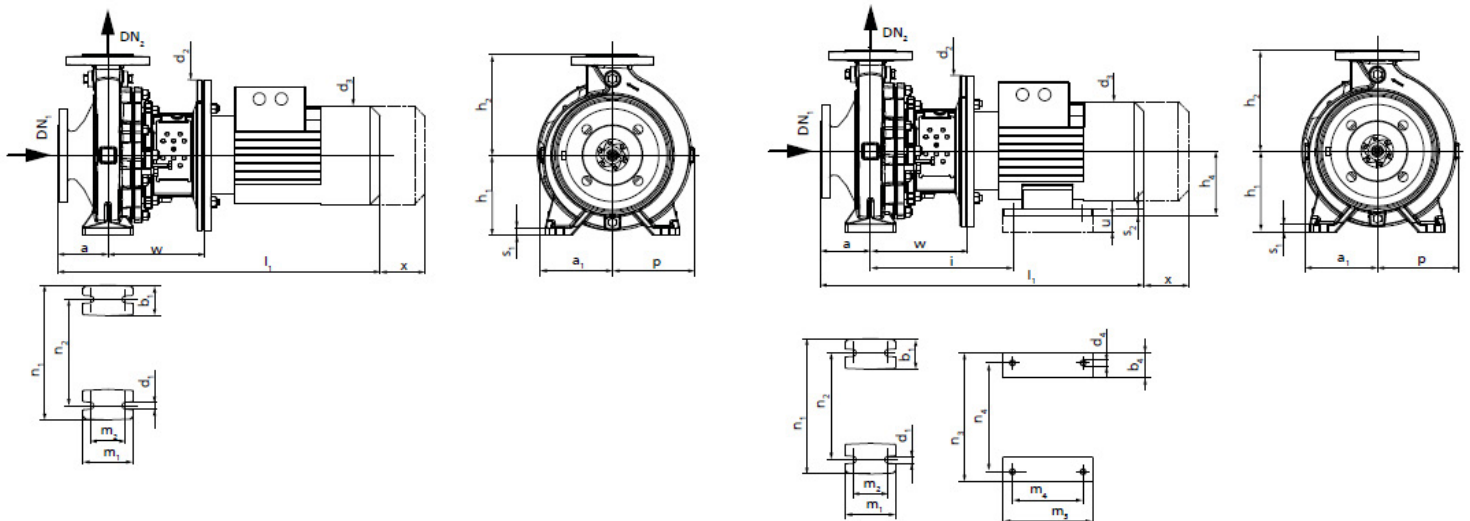
Dimensions



Pump set with support foot (up to motor size 112)

Pump set with motor foot (motor sizes 132 to 180)

Etabloc B/ C/ S/ SB/ SC; ≤ 22 kW

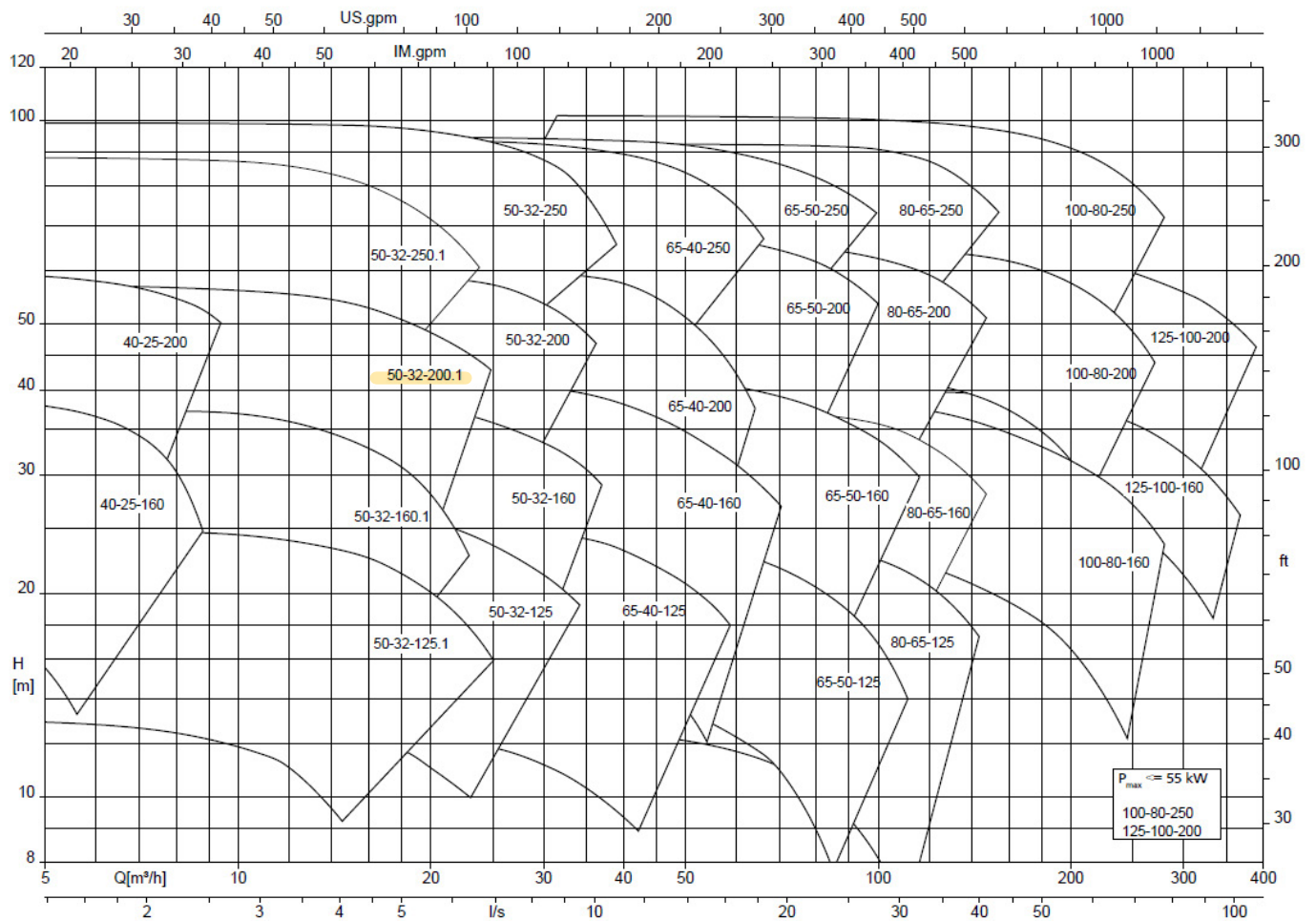


Pump set with volute casing foot (up to motor size 112)

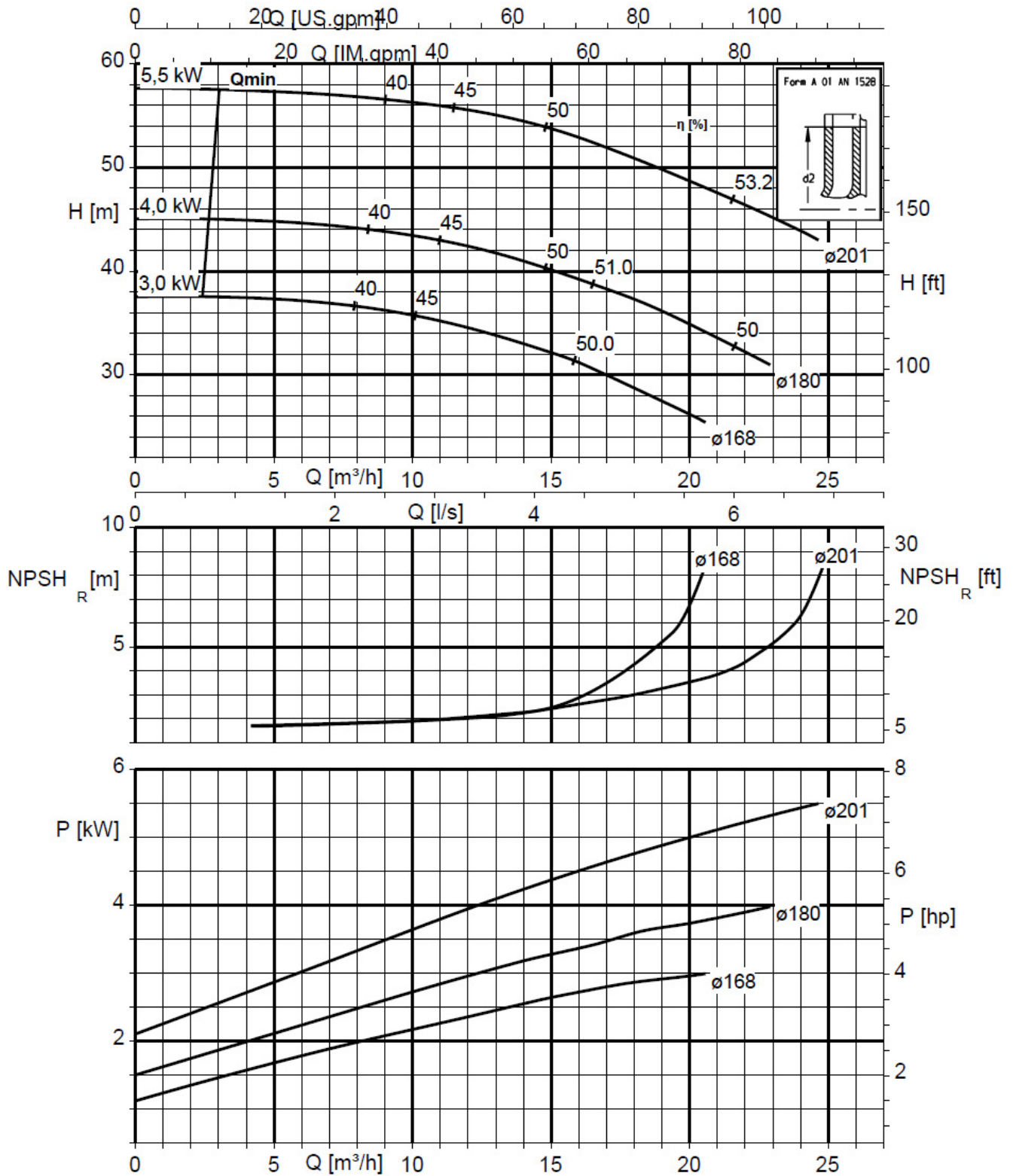
Pump set with volute casing foot and motor foot (motor sizes 132 to 180)

Selection charts

Etabloc, n = 2900 rpm



Etabloc 050-032-200.1, n = 2900 rpm



EC Declaration of Conformity

Manufacturer: **KSB Aktiengesellschaft
Johann-Klein-Straße 9
67227 Frankenthal (Germany)**

The manufacturer herewith declares that **the product:**

**Etabloc, Etabloc SYT, Etaline, Etaline SYT, Etaline Z,
Etachrom NC, Etachrom BC, Etanorm, Etanorm SYT,
Etanorm GPV/CPV, Etaprime L, Etaprime B/BN, Vitachrom**

KSB order number:

- is in conformity with the provisions of the following Directives as amended from time to time:
 - Pump (set): Machinery Directive 2006/42/EC

The manufacturer also declares that

- the following harmonised international standards have been applied:
 - ISO 12100
 - EN 809

Person authorised to compile the technical file:

Name
Function
Address (company)
Address (Street, No.)
Address (post or ZIP code, city) (country)

The EC Declaration of Conformity was issued in/on:

Place, date

.....*
Name
Function
Company
Address

* A signed, legally binding declaration of conformity is supplied with the product.



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