



End-Suction Centrifugal Monoblock Pumps
50 Hz



Pumps • Motors
ISO 9001 Company



Pumping Solution

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End-suction centrifugal monoblock pumps

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Introduction

The Lubi **LBI** series are non-self priming, horizontal, single-stage, centrifugal, end-suction pumps.

Pumps are available from 2.2 to 3.7 kW in single-phase and from 1.5 to 11 kW in three-phase power supply.

Motor and pump are close coupled in a convenient and compact design for quick installation in limited space.

The pump is fitted with a maintenance-free, mechanical shaft seal and single piece pump-motor shaft.

The pumps have axial suction port and radial discharge port.

Applications

For suitable liquids which are thin, clean, non-explosive, non-aggressive, not containing solid particles or fibers.

For water supply systems and irrigation.

For heating, cooling, air-conditioning and circulation plants.

For civil, industrial and fire fighting applications.

As pressure boosting pump for central water systems with low pressure (follow local specifications if increasing network pressure).

Features and benefits

Following are the main features and benefits offered by the LBI pumps.

- Compact design
- Easy and simple installation
- User-friendly operation
- Low noise level
- Reliable and robust construction
- Reliable water supply
- Built-in motor protection, dry running protection
- Back pull-out design which simplifies inspection and maintenance
- CE marked.

Operating conditions

- Flow range : Up to 156 m³/h
- Head range : Up to 55 metres
- Ambient temperature : Max. +50°C
- Liquid temperature range: 0°C to +90°C
- Total suction lift : Up to 8 metres

Pumped liquids

These pumps are designed for liquids which are potable water, rain water or other than thin, clean, non-aggressive, non-explosive, not containing solid particles or fibres.

Sand content

Maximum sand content: 50 g/m³

A higher sand content will reduce the pump life considerably due to wear.

Pump location

The pumps have been designed to operate in a non-aggressive and non-explosive atmosphere.

The relative humidity should not exceed 95%.

Curve conditions

The conditions below apply to the curves shown the following pages.

Tolerances in accordance with ISO 9906, Annex A.

The motors used for the measurement are standard motors.

Test results with clean cold water, without gas content. Measurements have been made with airless water at a temperature of 20°C.

Head and power values valid for liquids with density = 1.0 kg/dm³ & kinematic viscosity = max 1 mm²/s (1 cSt).

The QH curves apply to a rated motor speed of 2900 min⁻¹.

A safety margin of + 0.5 m is recommended for the NPSH value.

Motor

The pump is fitted with a Totally Enclosed Fan Cooled, 2-pole induction motors which performance comply with IS:325.

Ratings : 1 phase - 2.2 to 3.7 kW
3 phase - 1.5 to 11 kW

Rated speed : 2900 rpm

Enclosure class : IP 55

Insulation class : F

Standard voltages : 1 phase, 230 V
(Tolerance +5% / -15%) 3 phase, 400 V

Supply frequency : 50 Hz

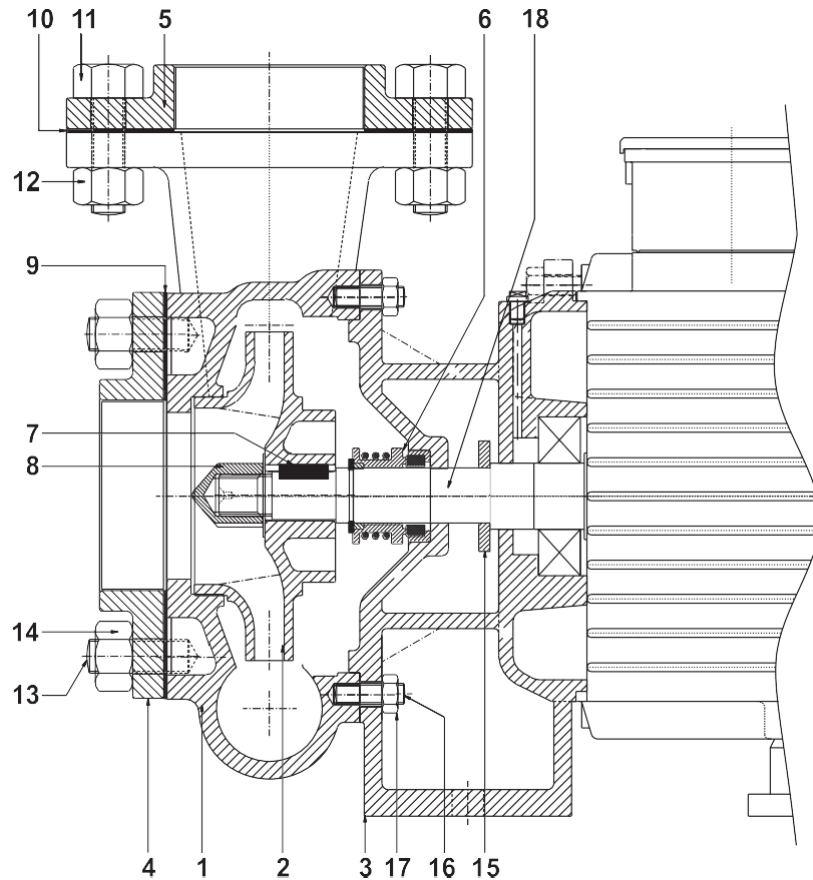
Duty / Rating : S1 / Continuous

Direction of rotation : Clockwise as seen from the motor rear end.

Single-phase motors have built-in thermal overload protection.

Three-phase motors must be connected to a motor starter according to local regulations.

Sectional drawing



Materials

Pos.	Component	Material
1	Volute	Cast iron
2	Impeller	Cast iron
3	Adaptor	Cast iron
4	Suction flange	Cast iron
5	Delivery flange	Cast iron
6	Mechanical shaft seal	Carbon/Ceramic/NBR
7	Key	Carbon steel
8	Impeller nut	Brass
9	Flange rubber packing (suction)	Rubber
10	Flange rubber packing (delivery)	Rubber
11	Hex bolt	Carbon steel
12	Hex nut	Carbon steel
13	Stud	Carbon steel
14	Hex nut	Carbon steel
15	Water thrower	Rubber
16	Stud	Carbon steel
17	Hex nut	Carbon steel
18	Shaft	Carbon steel*

Note: For Bronze impeller please add a subscript "B" to pump type.

For example: LBI 101 for Cast iron impeller and

LBI 101B for Bronze impeller.

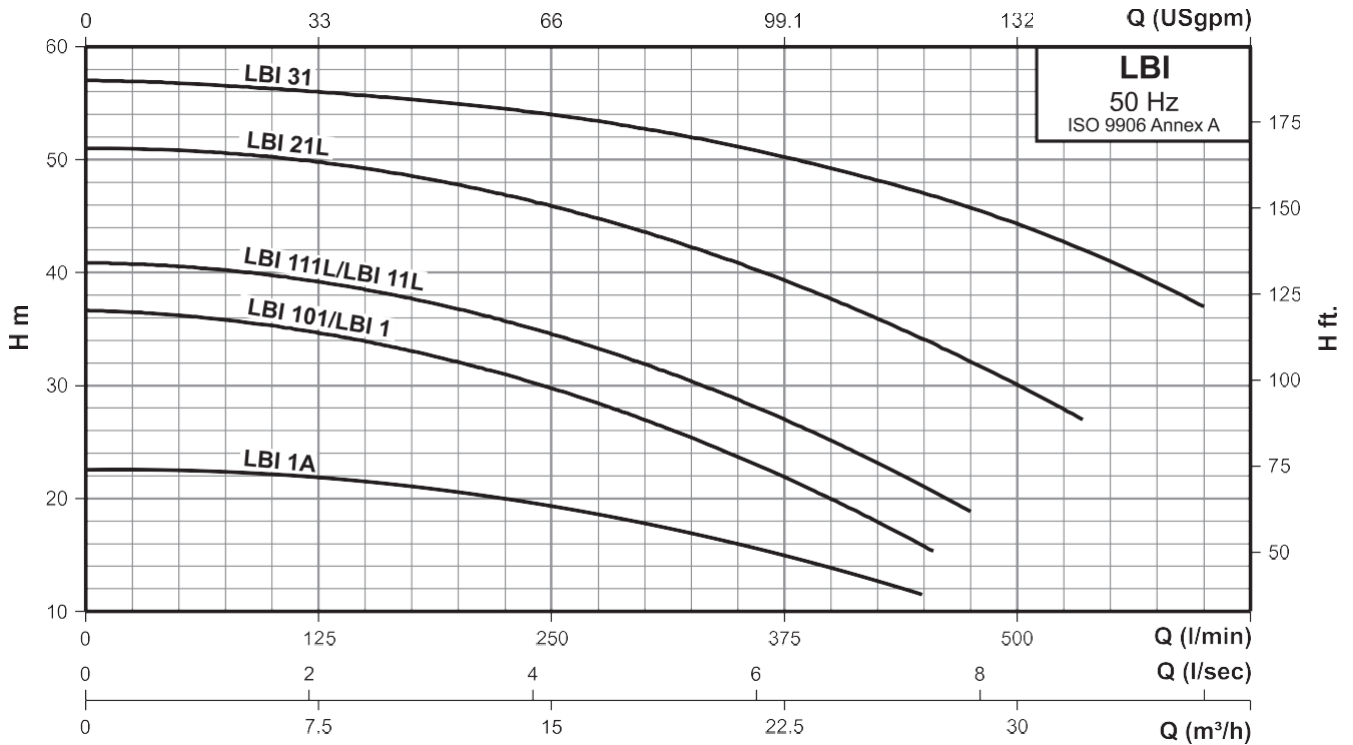
* Stainless steel AISI 410 shaft is available on request.

Performance curves/Technical data



LBI 1A, 101, 1,
111L, 11L, 21L, 31

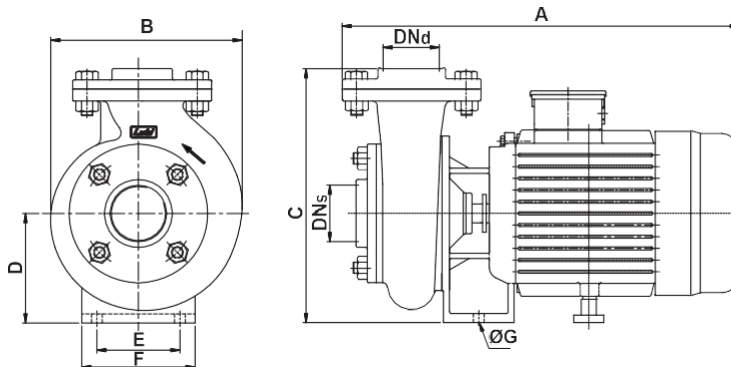
End-suction centrifugal monoblock pumps



Performance data at n = 2900 rpm

Model		Power		Q m³/h	15	21	24	27	33	36
Single-phase	Three-phase	[kW]	[HP]							
				Q l/min	250	350	400	450	550	600
				H mts.	19	16	14	-	-	-
LBI 101	LBI 1	2.20	3.00		30	24	20	16	-	-
LBI 111L	LBI 11L	3.70	5.00		35	29	25	21	-	-
	LBI 21L	5.50	7.50		46	41	38	34	26	-
	LBI 31	7.50	10.0		54	51	49	47	41	37

Dimensional sketches



Dimensions & weights

Model		Power		DNs	DNd	Dimensions [mm]							Gross weight [kg]	Gross volume [m³]
Single-phase	Three-phase	[kW]	[HP]			A	B	C	D	E	F	ØG		
	LBI 1A	1.50	2.00	2"	2"	430	250	197	116	160	195	10	62.0	0.140
LBI 101	-	2.20	3.00	2"	1½"	495	228	328	145	110	150	14	85.0	0.162
	LBI 1	2.20	3.00	2"	1½"	460	228	318	135	110	150	14	77.0	0.162
LBI 111L	-	3.70	5.00	2"	1½"	495	228	328	145	110	150	14	90.0	0.162
	LBI 11L	3.70	5.00	2"	1½"	460	228	318	135	110	150	14	82.0	0.162
	LBI 21L	5.50	7.50	2"	1½"	516	289	375	160	145	190	14	97.0	0.162
	LBI 31	7.50	10.0	2"	1½"	548	289	375	160	146	200	14	125.0	0.209

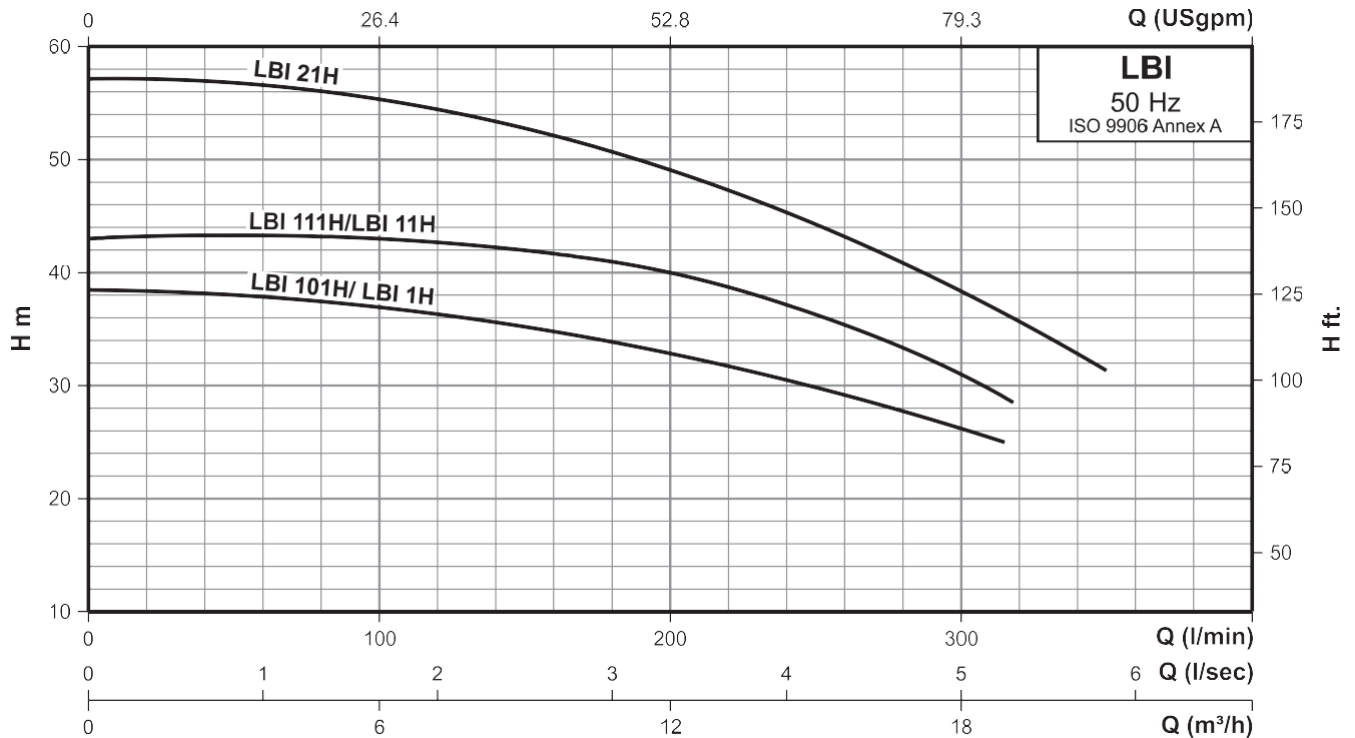
Note: All dimensions in mm unless otherwise noted.

Performance curves/Technical data



LBI 101H, 1H,
111H, 11H, 21H

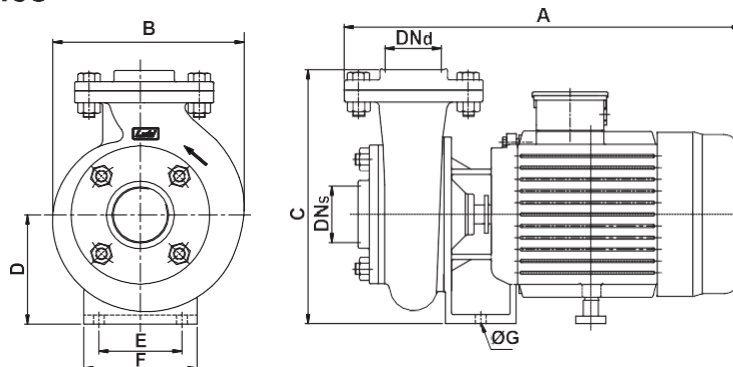
End-suction centrifugal monoblock pumps



Performance data at n = 2900 rpm

Model		Power		Q m³/h	6	9	12	15	18	21
Single-phase	Three-phase	[kW]	[HP]	Q l/min	100	150	200	250	300	350
LBI 101H	LBI 1H	2.20	3.00	H mts.	37	35	33	30	26	-
LBI 111H	LBI 11H	3.70	5.00		43	42	40	37	31	-
-	LBI 21H	5.50	7.50		55	53	49	44	38	31

Dimensional sketches



Dimensions & weights

Model		Power		DN _s	DN _d	Dimensions [mm]							Gross weight [kg]	Gross volume [m³]
Single-phase	Three-phase	[kW]	[HP]			A	B	C	D	E	F	ØG		
LBI 101H	-	2.20	3.00	2"	1½"	499	245	343	145	145	190	14	86.0	0.162
-	LBI 1H	2.20	3.00	2"	1½"	464	245	343	145	145	190	14	78.0	0.162
LBI 111H	-	3.70	5.00	2"	1½"	499	245	343	145	145	190	14	91.0	0.162
-	LBI 11H	3.70	5.00	2"	1½"	464	245	343	145	145	190	14	83.0	0.162
-	LBI 21H	5.50	7.50	2"	1½"	548	289	375	160	146	200	14	97.0	0.162

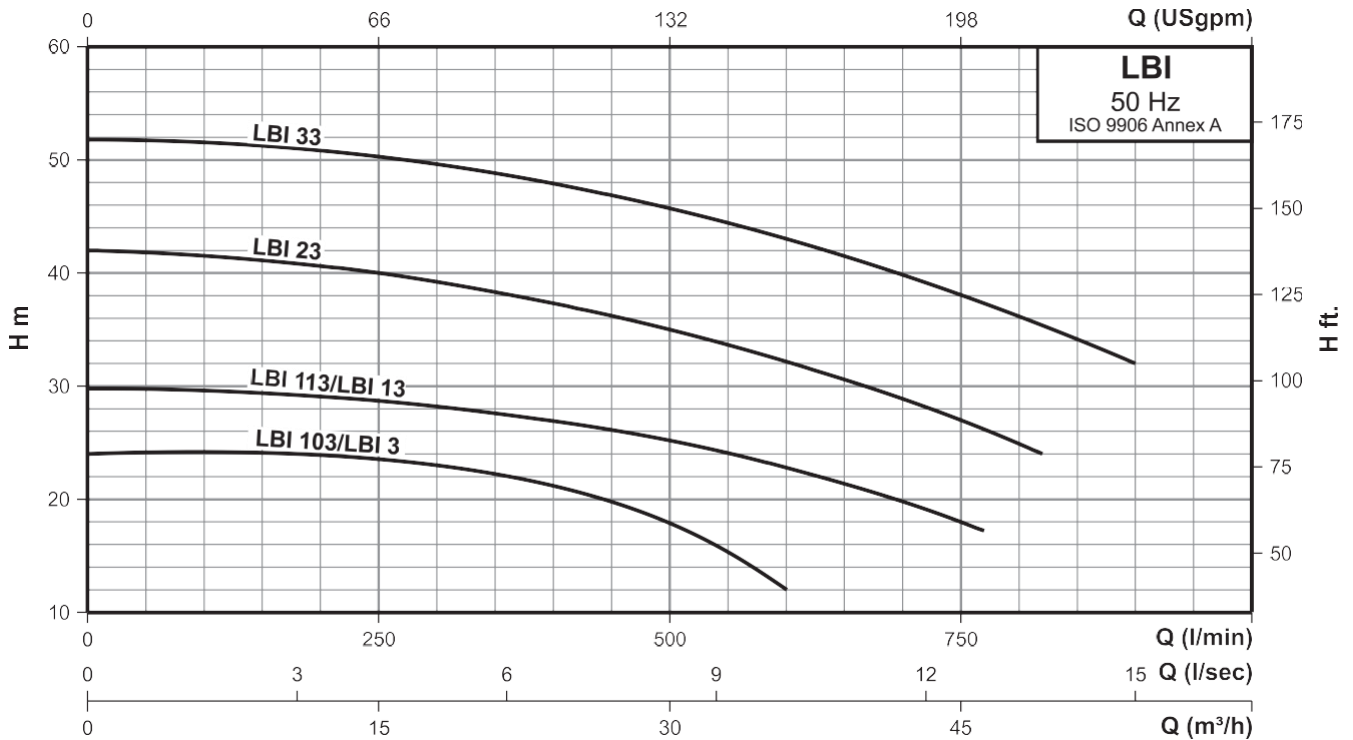
Note: All dimensions in mm unless otherwise noted.

Performance curves/Technical data



LBI 103, 3, 113,
13, 23, 33

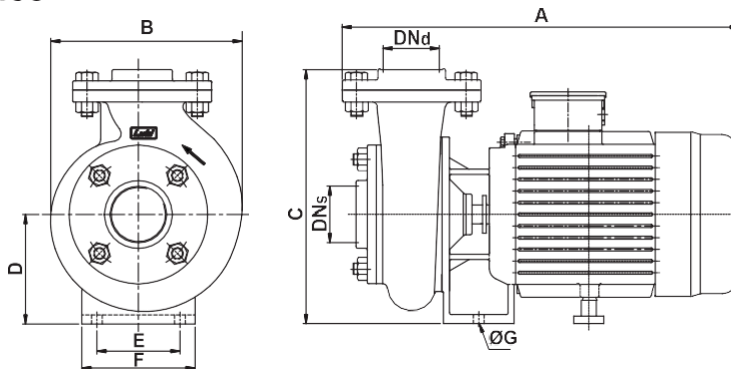
End-suction centrifugal monoblock pumps



Performance data at n = 2900 rpm

Model		Power		Q m³/h	15	27	36	42	48	54
Single-phase	Three-phase	[kW]	[HP]							
LBI 103	LBI 3	2.20	3.00	H mts.	250	450	600	700	800	900
LBI 113	LBI 13	3.70	5.00		23.5	19.8	12	-	-	-
-	LBI 23	5.50	7.50		29	25	23	20	-	-
-	LBI 33	7.50	10.0		40	35	32	29	25	-
-	-	-	-		50	47	43	40	36	32

Dimensional sketches



Dimensions & weights

Model		Power		DNₛ	DNd	Dimensions [mm]							Gross weight [kg]	Gross volume [m³]
Single-phase	Three-phase	[kW]	[HP]			A	B	C	D	E	F	ØG		
LBI 103	-	2.20	3.00	2½"	2"	504	234	326	145	110	150	14	87.0	0.162
-	LBI 3	2.20	3.00	2½"	2"	469	234	316	135	110	150	14	79.0	0.162
LBI 113	-	3.70	5.00	2½"	2"	504	234	326	145	110	150	14	92.0	0.162
-	LBI 13	3.70	5.00	2½"	2"	469	234	316	135	110	150	14	84.0	0.162
-	LBI 23	5.50	7.50	2½"	2"	509	278	375	145	145	190	14	97.0	0.162
-	LBI 33	7.50	10.0	2½"	2"	551	278	390	160	146	200	14	125.0	0.209

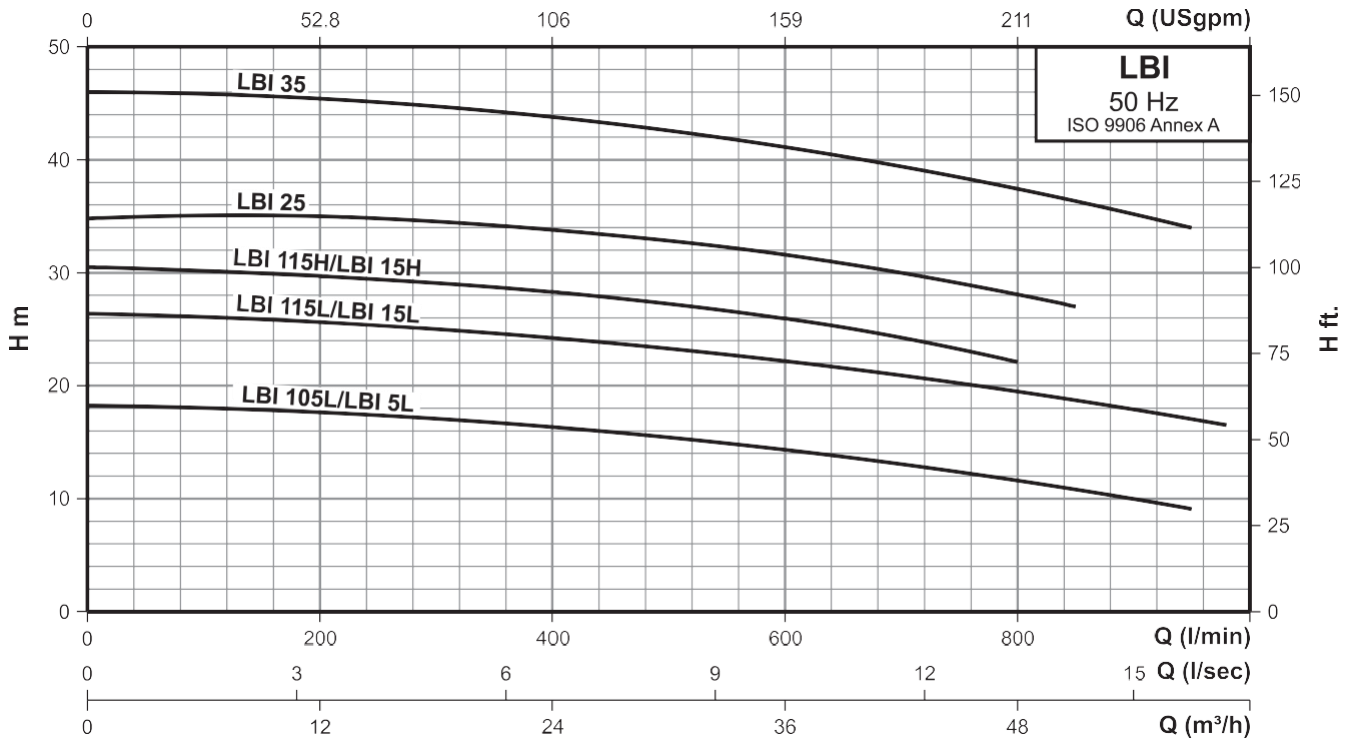
Note: All dimensions in mm unless otherwise noted.

Performance curves/Technical data



LBI 105L, 5L, 115L,
15L, 115H, 15H, 25, 35

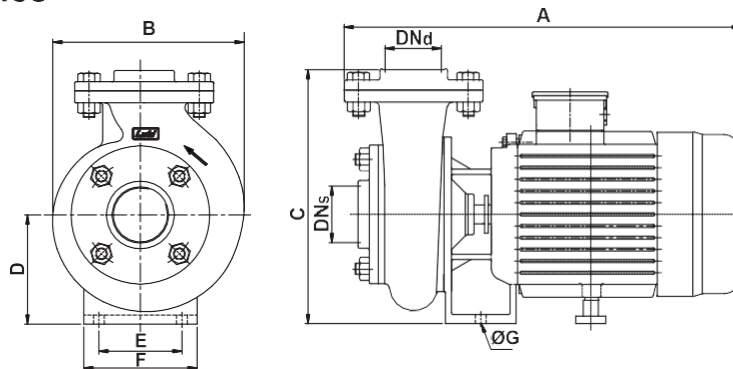
End-suction centrifugal monoblock pumps



Performance data at n = 2900 rpm

Model		Power		Q m³/h	12	24	36	42	48	54
Single-phase	Three-phase	[kW]	[HP]	Q l/min	200	400	600	700	800	900
LBI 105L	LBI 5L	2.20	3.00	H mts.	18	16	14	13	12	10
LBI 115L	LBI 15L	3.70	5.00		26	24	22	21	20	18
LBI 115H	LBI 15H	3.70	5.00		30	29	26	25	22	-
-	LBI 25	5.50	7.50		35	34	32	30	28	-
-	LBI 35	7.50	10.0		45	44	41	39	38	35

Dimensional sketches



Dimensions & weights

Model		Power		DNs	DNd	Dimensions [mm]							Gross weight [kg]	Gross volume [m³]
Single-phase	Three-phase	[kW]	[HP]			A	B	C	D	E	F	ØG		
LBI 105L	-	2.20	3.00	3"	2½"	527	254	340	145	110	150	14	90.0	0.162
-	LBI 5L	2.20	3.00	3"	2½"	492	254	330	135	110	150	14	85.0	0.162
LBI 115L	-	3.70	5.00	3"	2½"	527	254	340	145	110	150	14	95.0	0.162
-	LBI 15L	3.70	5.00	3"	2½"	492	254	330	135	110	150	14	90.0	0.162
LBI 115H	-	3.70	5.00	3"	2½"	513	239	330	145	110	150	14	95.0	0.162
-	LBI 15H	3.70	5.00	3"	2½"	478	239	320	135	110	150	14	90.0	0.162
-	LBI 25	5.50	7.50	3"	2½"	514	269	387	160	121	175	14	97.0	0.162
-	LBI 35	7.50	10.0	3"	2½"	556	269	387	160	146	200	14	125.0	0.209

Note: All dimensions in mm unless otherwise noted.

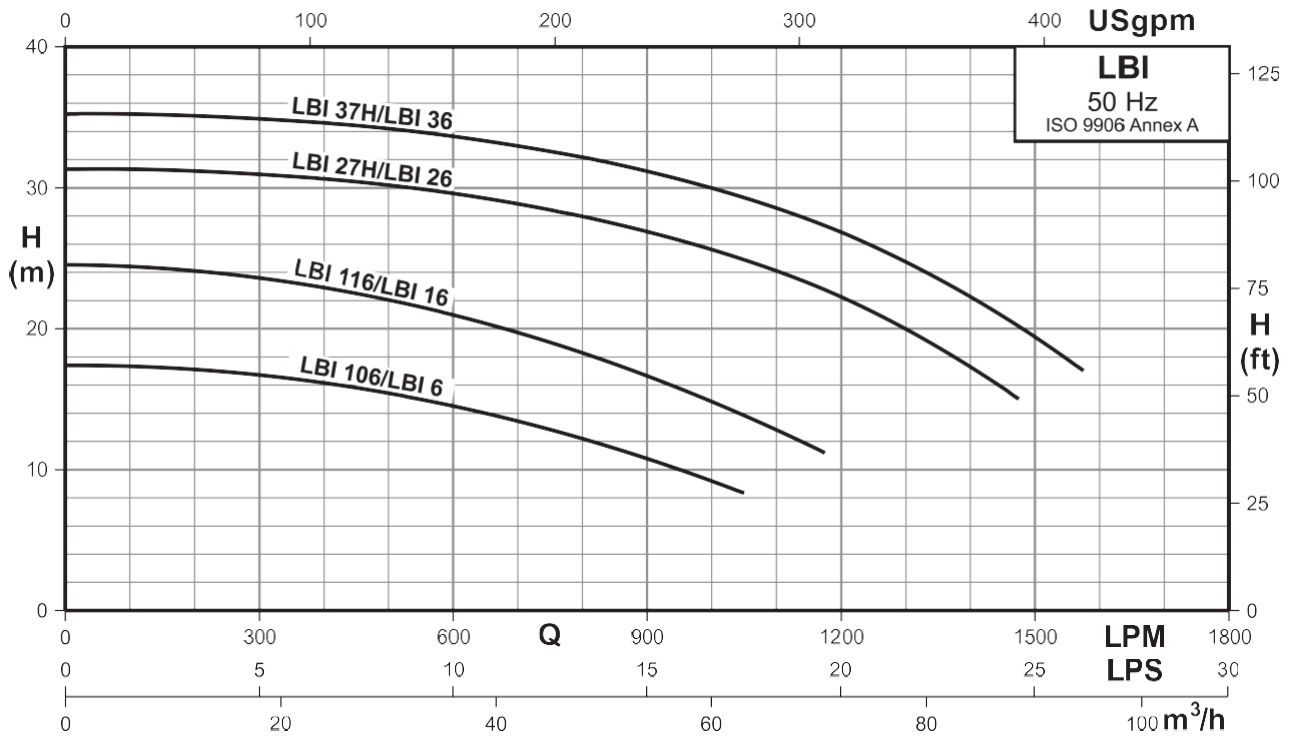


Performance curves/Technical data



LBI 106, 6, 116, 16,
27H, 26, 37H, 36

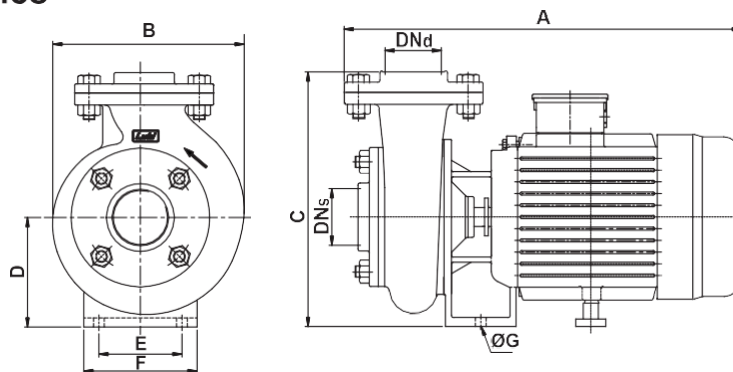
End-suction centrifugal monoblock pumps



Performance data at n = 2900 rpm

Model		Power		Q m³/h	15	30	45	60	75	90
Single-phase	Three-phase	[kW]	[HP]	Q l/min	250	500	750	1000	1250	1500
LBI 106	LBI 6	2.20	3.00	H mts.	17	15.5	13	9	-	-
LBI 116	LBI 16	3.70	5.00		24	22	19	15	-	-
-	LBI 27H/LBI 26	5.50	7.50		31	30	28.5	25.5	21	-
-	LBI 37H/LBI 36	7.50	10.0		35	34	32.5	30	26	19

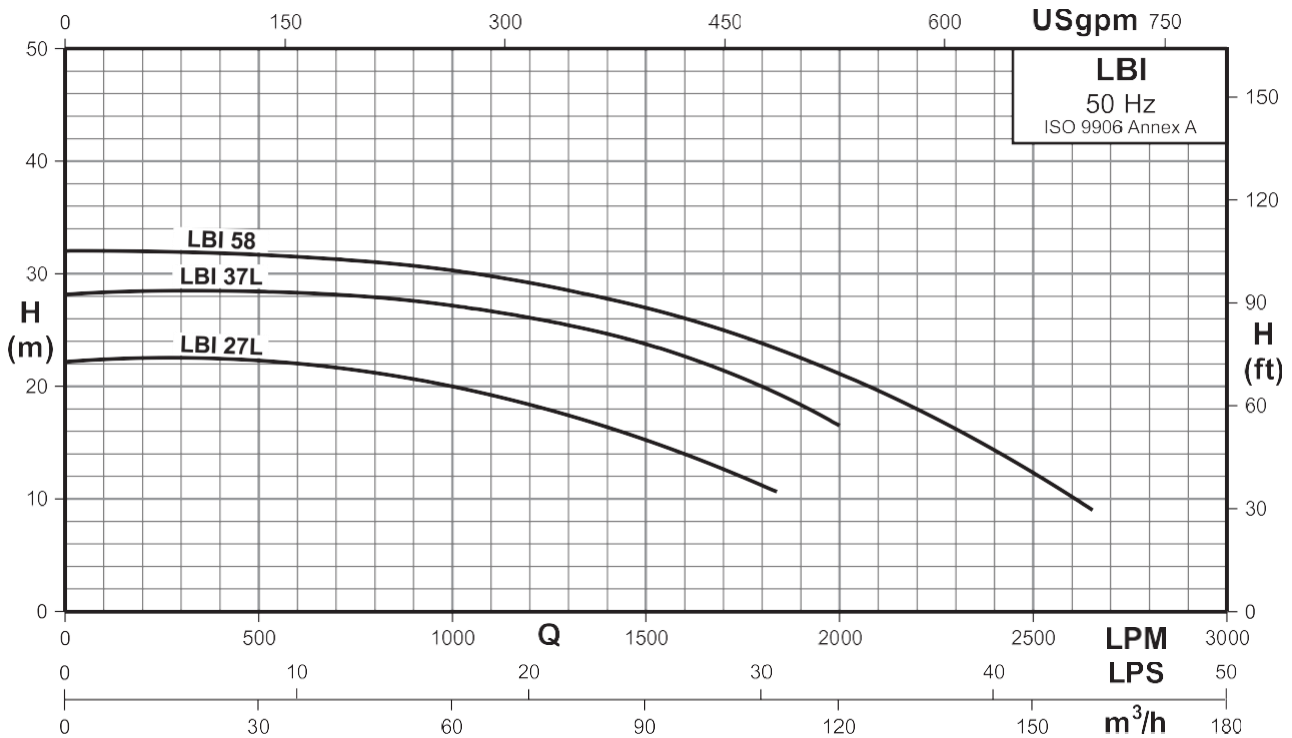
Dimensional sketches



Dimensions & weights

Model		Power		DNs	DNd	Dimensions [mm]							Gross weight [kg]	Gross volume [m³]
Single-phase	Three-phase	[kW]	[HP]			A	B	C	D	E	F	ØG		
LBI 106	-	2.20	3.00	3"	3"	527	254	340	145	110	150	14	91.0	0.162
-	LBI 6	2.20	3.00	3"	3"	492	254	330	135	110	150	14	86.0	0.162
LBI 116	-	3.70	5.00	3"	3"	527	254	340	145	110	150	14	96.0	0.162
-	LBI 16	3.70	5.00	3"	3"	492	254	330	135	110	150	14	91.0	0.162
-	LBI 27H	5.50	7.50	4"	3"	526	278	391	160	121	175	14	100.0	0.162
-	LBI 26	5.50	7.50	3"	3"	526	278	391	160	121	175	14	100.0	0.162
-	LBI 37H	7.50	10.0	4"	3"	568	278	391	160	146	200	14	128.0	0.209
-	LBI 36	7.50	10.0	3"	3"	568	278	391	160	146	200	14	128.0	0.209

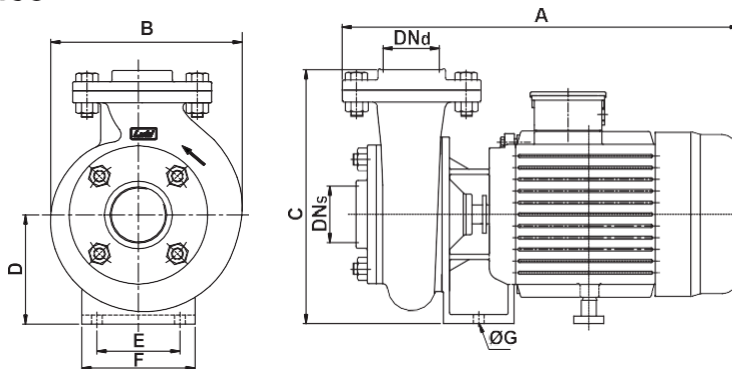
Note: All dimensions in mm unless otherwise noted.



Performance data at n = 2900 rpm

Model	Power		Q m³/h	15	30	60	90	120	150
	[kW]	[HP]		Q l/min	250	500	1000	1500	2000
Three-phase			H mts.						
LBI 27L	5.50	7.50		22.5	22.3	20.0	15.2	-	-
LBI 37L	7.50	10.0		28.3	28.3	27.2	23.9	16.5	-
LBI 58	11.0	15.0		32	31.5	29.6	26.8	21.3	12.5

Dimensional sketches



Dimensions & weights

Model	Power		DNs	DNd	Dimensions [mm]							Gross weight [kg]	Gross volume [m³]
	[kW]	[HP]			A	B	C	D	E	F	ØG		
Three-phase													
LBI 27L	5.50	7.50	4"	3"	526	278	391	160	121	175	14	100.0	0.162
LBI 37L	7.50	10.0	4"	3"	568	278	391	160	146	200	14	128.0	0.209
LBI 58	11.0	15.0	4"	4"	631	330	425	175	146	200	14	150.0	0.250

Note: All dimensions in mm unless otherwise noted.

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