LHR SERIES

Vertical Multi-stage Centrifugal Pumps 50 Hz







INTRODUCTION

The Lubi **LHR** pumps are non-self priming, vertical, multistage, high head centrifugal pumps.

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

These pumps are available from 1.10 to 2.20 kW for single phase as well as three phase power supply.

The pumps have radial suction port in the base and radial discharge port in the Motor Adaptor.

Impellers, Guide Vanes, Bowl Casing & Pump Jackets are Stainless Steel AISI 304. Pump Shaft is Stainless Steel AISI 316.

The pump is fitted with a maintenance-free, mechanical shaft seal.

APPLICATIONS

These pumps are widely used in high head duty conditions. The typical applications are as follow:

- Reverse osmosis systems
- Pressure boosting in domestic, civil and industrial water supply systems
- Washing and cleaning
- Hydro-pneumatic systems
- Sprinkler systems

FEATURES AND BENEFITS

- □ State-of-the art compact design
- Quiet running
- Robust construction
- High performance hydraulics
- Easy to install
 Reliable operation
- Supplied with oval flanges
- Easy serviceability.

OPERATING CONDITIONS

Flow range: 0.5 to 4 m³/hHead range: Up to 197 metresAmbient temperature: Max. +50°CLiquid temperature range:0°C to +90°C

MOTOR

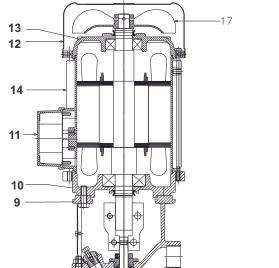
Motor type	: TEFC 2-pole motor					
Ratings	: 1 phase - 1.10 to 2.20 kW					
Rated speed	3 phase - 1.10 to 2.20 kW : 2900 rpm					
Enclosure class	: IP 55					
Insulation class	:F					
Nominal voltage	: 1 phase 230 V					
(Tolerance ±10%) Supply frequency	3 phase 415 V : 50 Hz					
Duty / Rating	: S0 HZ : S1 / Continuous					
	Clockwise as seen from the motor rear end					

PUMPED LIQUIDS

LHR pumps are designed for non explosive liquids which are clean and thin without any solid particles. For aggressive liquid please ensure that material of construction is suitable for liquid to be pumped.

If liquids with a viscosity higher than that of water, are to be pumped the power consumption of the pump will increase with increase in viscosity. This will require a larger motor for the pump. Head, discharge and pump efficiency will reduce with increase in viscosity.

When pumping liquids with a density higher than that of water, the power consumption of the pump will increase at a ratio corresponding to increase in density.



SECTIONAL DRAWING & MATERIALS

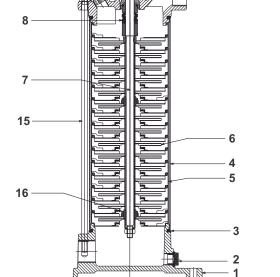
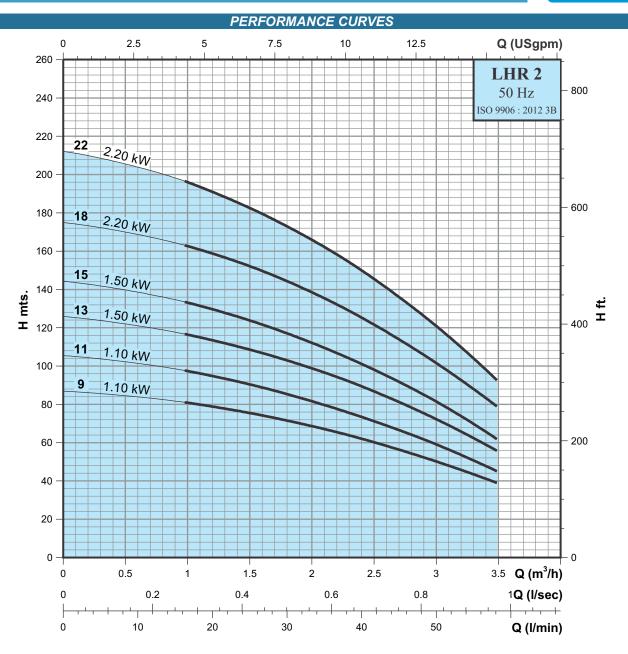


FIG.1 SECTIONAL DRAWING OF LHR PUMP

POS.	COMPONENT	MATERIAL				
1	Base	Cast iron				
2	Drain Plug	Stainless steel				
3	Rubber ring	NBR				
4	Jacket body	AISI 304				
5	Chamber	AISI 304				
6	Impeller	AISI 304				
7	Pump Shaft	AISI 316				
8	Shaft seal	Sic/Carbon/AISI 316				
9	Pump head	Cast iron				
10	Motor Adaptor	Cast iron				
11	Terminal box	Polyamide				
12	Fan cover	Steel				
13	Endshield	Cast iron				
14	Stator body	Aluminum				
15	Pump fitting stud	Stainless steel				
16	Bearing assembly	Ceramic/Tungsten Carbide				
17	Motor fan	Polypropylene				







- Tolerances in accordance with ISO 9906 : 2012 3B.
 The motors used for the measurement of the measurem
- 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 ρ = 1,0 kg/dm³ and kinematic viscosity v = max 1 mm²/s (1 cSt).
 The QH curves apply to a rated motor speed of 2900 min⁻¹.

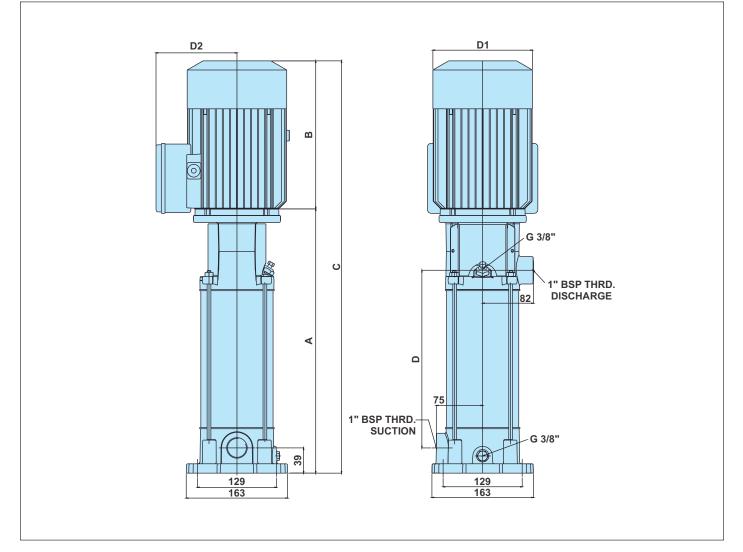
PERFORMANCE DATA

PUMP TYPE		MOTOR POWER		Q m³/h	1.0	1.6	2.3	3.0	3.5
SINGLE PHASE	THREE PHASE	kW	HP	Q I/min	16.7	26.7	38.3	50.0	58.3
LHR 2-9	LHRT 2-9	1.10	1.50	H	81	74	64	51	39
LHR 2-11	LHRT 2-11	1.10	1.50		98	89	76	60	45
LHR 2-13	LHRT 2-13	1.50	2.00		117	107	96	74	56
LHR 2-15	LHRT 2-15	1.50	2.00		134	122	105	83	62
LHR 2-18	LHRT 2-18	2.20	3.00		163	150	130	104	79
LHR 2-22	LHRT 2-22	2.20	3.00		197	180	155	123	93

LHR



DIMENSIONS & WEIGHT



PUMP TYPE		MO POV	TOR VER	FRAME	DIMENSIONS [mm]							GROSS VOLUME
SINGLE PHASE	THREE PHASE	kW	HP		Α	В	С	D	D1	D2	[kg]	[m³]
LHR 2-9	LHRT 2-9	1.10	1.50	80	372	264	636	260	160	113	33.5	0.08
LHR 2-11	LHRT 2-11	1.10	1.50	80	408	264	672	296	160	113	34.0	0.08
LHR 2-13	LHRT 2-13	1.50	2.00	90	459	278	737	332	165	130	35.2	0.09
LHR 2-15	LHRT 2-15	1.50	2.00	90	495	278	773	368	165	130	35.7	0.09
LHR 2-18	LHRT 2-18	2.20	3.00	90	549	278	827	422	165	130	38.4	0.09
LHR 2-22	LHRT 2-22	2.20	3.00	90	621	278	899	494	165	130	39.3	0.09

Note: All dimensions in mm unless otherwise noted.

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Product Improvement is a continuous process at 'LUBI'. The data given in this publication is therefore subject to revision.
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