Reliable Partner on Intelligent Fluid Solutions

PRODUCT SELECTION REPORT

Model:LVR20-12
Name:Stainless Steel Vertical Multistage Pump



LEO GROUP PUMP CO.,LTD.

2025.6.25

Project Name:	Koslan		
Personal Name:	Koslan	**Company Name:**	
Company Address:			
Website:	www.leopump.com	**Product Model:**	LVR20-12
Company Name:			LEO GROUP PUMP CO., LTD.

Product Recommendations

Flow(m^3/h):	20	**Head(m):**	144	**Power(kW):**	15

Based on provided information and product parameters, LEO PUMP recommends model:
LVR20-12

Introduction

Application
Suitable for transferring liquids of low viscosity, non-inflammable andnon-explosive, not containing solid particles or fibers;
Water supply & drainage for high-rise buildings, filtration and transfer at waterworks, pressure boosting in main pipe;
Washing and cleaning systems, boiler feeding, cooling water circulation.water treatment systems, auxiliary system, support equipment; Ultra-filtration systems, reverse-osmosis systems, distillation systems.separators, swimming pools;
Agricultural irrigation: sprinkler irrigation, drip-feed irrigation;
Food & beverage industry;
Fire-fighting system.

Operating Conditions
Low viscosity, non-inflammable and non-explosive liquids not containingsolid particles or fibers. The liquids must not chemically attack the pumpmaterials. When pumping liquids with a density or viscosity is higher thanthat of water, a motor with a higher output power rating shall be used.
Liquid temperature: - 20°C~+ 120°C;
Flow ranges:0.7- 240 m3/h;
Liquid pH value: 4 - 10;
Max.ambient temperature: +40C;
Max. operating pressure: 33 bar;
Altitude: up to 1000m.

Motor
IE 2 motor (IE 3 motor optional);
Totally enclosed & fan-cooled;
Protection class:IP55;
Standard voltage: 50Hz 1x220V/3x380V
Minimum Inlet Pressure-NPSH
Calculation of the inlet pressure"H"is recommended in these situations;

The liquid temperature is high;
The flow is significantly higher than the rated flow;
Water is drawn from depths;
Water is drawn through long pipes;
Inlet conditions are poor.
Minimum Inlet Pressure
The following table shows the maximum permissible inlet pressure.However, the current inet pressure + the pressure against a closed valvemust always be lower than the Max. permissible operating pressure.If the maximum permissible operating pressure is exceeded, the bearingin the motor may be damaged and the life of the shaft seal reduced..

Product Parameters

Nameplate

Pump flow rate(m^3/h):	20	Total manometric head H(m):	144
Pump efficiency(%):	72.9	Speed(rpm):	2900

Technical

Motor power(kW):	15	Pump power input(kW):	10.76
Curve tolerance:	ISO 9906 AnnexA	Maximum lift(m):	178
Maximum use flow(m^3/h):	28.5	Impeller diameter(mm):	104.5

Material

Impeller:	AISI304	Diffuser:	AISI304
Pump shaft:	AISI316	Motor base:	HT200
Pump cover:	AISI304	Coupling:	Powder metallurgy
Pump barrel:	AISI304	Flange:	ZG35
Guard plate:	AISI304	Water injection plug:	AISI304
Filling plug:	AISI304	Base :	HT200
Mechanical seal:			Graphite/Carbide/FKM/AISI304

Working conditions

Max. ambient temperature(°C):	40	Max. liquid temperature(°C):	120
Max. Operating Pressure(Mpa):	25bar		

Pumped medium:
Clean, thin, non-corrosive, non-flammable, non-explosive, Not easy vaporization, Liquid without solid particles and fibers. The liquid can not react with the pump material.

Installation

Inlet&Outlet Diameter:	DN50	Connection standard:	Flange connection

Motor

Motor phase:	Three phase	Protection class:	IP55
Motor poles:	2	Insulation class:	F
Motor power(kW) :	15	Frequency(Hz):	50
Rated voltage(V):	380	Rated current(A):	27.9
Efficiency class:	IE2	Power factor:	0.89
Drive end bearing:	7309	Non-drive end bearing:	6208
Efficiency(%):	91.9	Starting current(A):	287

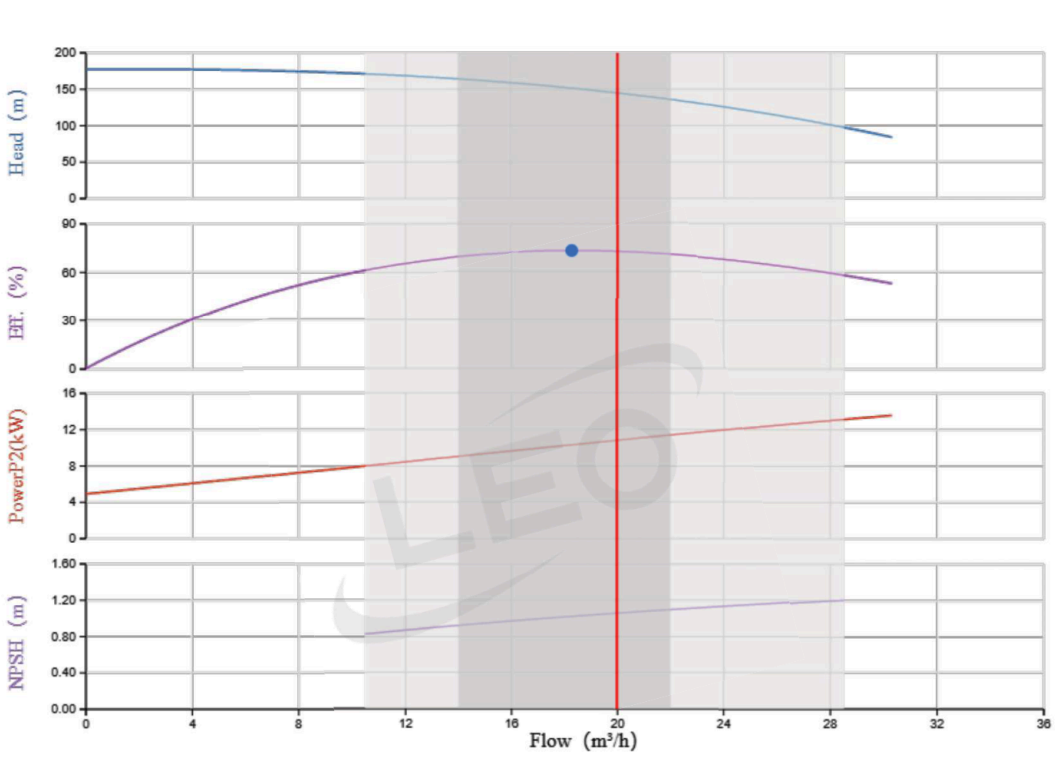
Weight/Packaging

Gross weight(kg):	221.2	Package size(mm):	1531*401*520

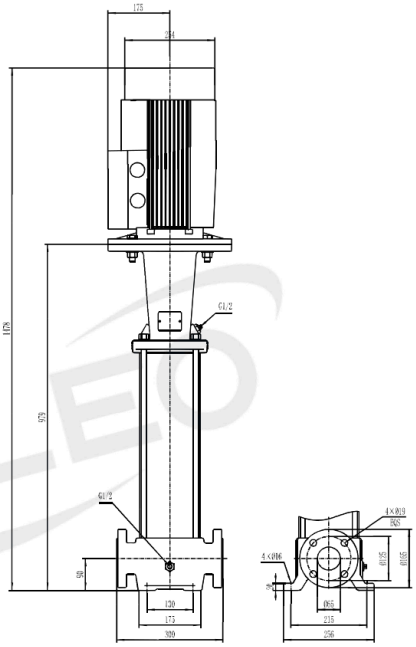
Area Range Parameters

Max Q(m^3/h):	28.5	Allowable Minimum (m^3/h):	10.5
Allowable Maximum (m^3/h):	28.5	Min Value Optimal area (m^3/h):	14.0
Max Value Optimal area (m^3/h):	22.0		

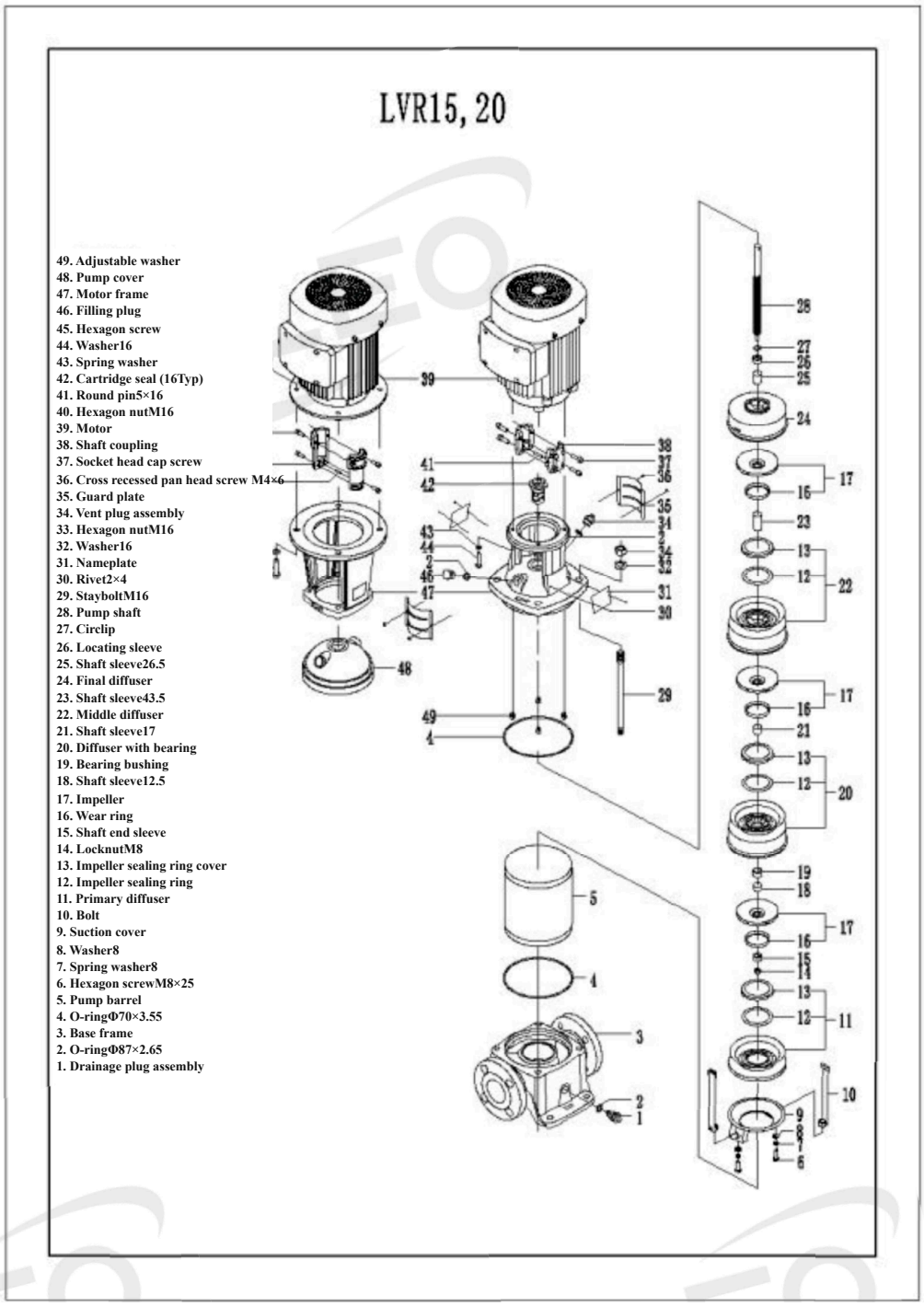
Performance Curve



Shape & Size



Exploded View



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