

In-line pumps

LNES

Single-impeller centrifugal pump with in-line suction and delivery flanges.
LNES: Rigid-coupled pump with a bracket, an adaptor and a rigid coupling keyed to the standard motor shaft extension.

Application Areas

- Water supply
- Heating, ventilation and refrigeration
- Cooling and Refrigeration
- Industry in general
- Heat recovery, auxiliary equipment

Identification Code

Example:	LNES 40-200/40/P25V CS4
LNES	series name
40	in-line port DN 40
200	nominal impeller diameter
40	motor power kW x 10 (4 X 10= 40)
P2	motor type (P), 2=2 poles, 4 = 4 poles
5	frequency 5=50 Hz
V	voltage V=3x380-415/660-690 V
C	Casing material: C Cast iron
S	Impeller material: S Fabricated st. steel
4	Mech seal material (see type of seal)

Related Products and Options

- LNES E: e-LNE Smart series based on LNES in-line pump
- LNE SH: LNES pump with integrated HYDROVAR® HVL, variable speed pump driver
- LNTS: In-line twin head pumps



Ref: F063

Specification

Flow:	max 410 m³/h
Head:	max 263 m
Range:	0,55 ÷ 37 kW (0,75 ÷ 50 Hp)
Operating pressure:	16 bar
Ambient temperature:	0°C ÷ 40°C
Liquid temperature:	-25°C ÷ +120°C

Motor

Power supply:	3 ~230/400V to 3kW, over 400/690V
Insulation class:	F (155 °C)
Enclosure class:	IP55

Three-phase version (EC Regulation # 640/2009) with IE3 motor efficiency level for power greater than 0.75 kW included. The level of efficiency only refers to the motor and not to the electric pump.

Materials

Pump body:	Cast iron
Impeller:	Stainless steel or cast iron
Elastomers:	EPDM
Mechanical seal:	Silicon carbide-carbon

Customer	Date 3/10/2020
Contact	Project
Phone number	Project no.
Email	

LNES 100-200/220* (With epdm seal for 140°C)

*Pastaba: tikslus modelio kodas bus patikslintas užsakymo atveju

Operating data

Pumpe type	Single head pump	Fluid	Water, pure
No. of pumps / Reserve	1 / 0	Operating temperature t A	°C 4
Nominal flow	m³/h 0	pH-value at t A	7
Nominal head	m 0	Density at t A	kg/dm³ 1
Static head	m 0	Kin. viscosity at t A	mm²/s 1.569
Inlet pressure	bar 0	Vapor pressure at t A	bar 1
Environmental temperature	°C 20	Solids	0
Available system NPSH	m 0	Altitude	m 0

Pump data

Make	Lowara	Nominal	m³/h ()
Speed	1/min 2900	Flow Max-	m³/h 241.8
Number of stages	1	Min-	m³/h 47.6
Max. casing pressure	bar	Nominal	m
Max. working pressure	bar 4.5	Head at Qmax	m 20.1
Head H(Q=0)	m 46	at Qmin	m 46.1
Weight	kg	Shaft power	kW ()
Max.	mm 208	Max. shaft power	kW 21.9
Impeller R designed	mm 181	Efficiency	%
Min.	mm 181	NPSH 3%	m
Suction nozzle	DN 100 PN 16 EN1092-2 (NSC-LNE)	Discharge nozzle	DN 100 PN 16 EN1092-2 (NSC-LNE)

Pump Materials

Volute Casing	Cast iron
Casing Cover	Cast iron
Impeller	Cast iron / ASTM Class 30
Stub shaft	Stainless steel / AISI 431
Wear Ring	Stainless steel / AISI 304
Impeller Nut	Stainless steel
Impeller washer	Stainless steel
Impeller key	Stainless steel / AISI 316Ti
PLUG	Stainless steel / AISI 316Ti

Shaft Seal

Unbalanced mechanical seal	
eRMG12 - Ø<=38 (-25 / +140 °C)	Burgmann
1. Rotating ring	Carbon graphite antimony impregnated
2. Stationary ring	SiC, silicon carbide, sintered press. less
3. Secondary seal	Ethylene propylene rubber (EPDM)
4. Springs	CrNiMo - Steel
5. Others	CrNiMo - Steel
Gaskets of the pump	Ethylene propylene rubber (EPDM)
Code	A/ESIC-Q7EGG/Y 10

Motor data

Manufacturer	Lowara	Electric voltage	400 V
Specific design	IE3 Three phase surface motor		
Type	PLM180R.../3220 E3		
Rated power	22 kW	Electric current	40.4 A
Speed	2955 1/min	Degree of protection	IP 55
Frame size	180R	Weight	121 kg
Shaft diameter	0 mm	Colour	RAL 5010
Insulation class	F		

Coupling

Manufacturer	
Series	
Type	
Frame size	
Spacer length	
Weight	
Coupling protection	

Base plate

Description
Weight

Remarks:

Customer	Date	3/10/2020
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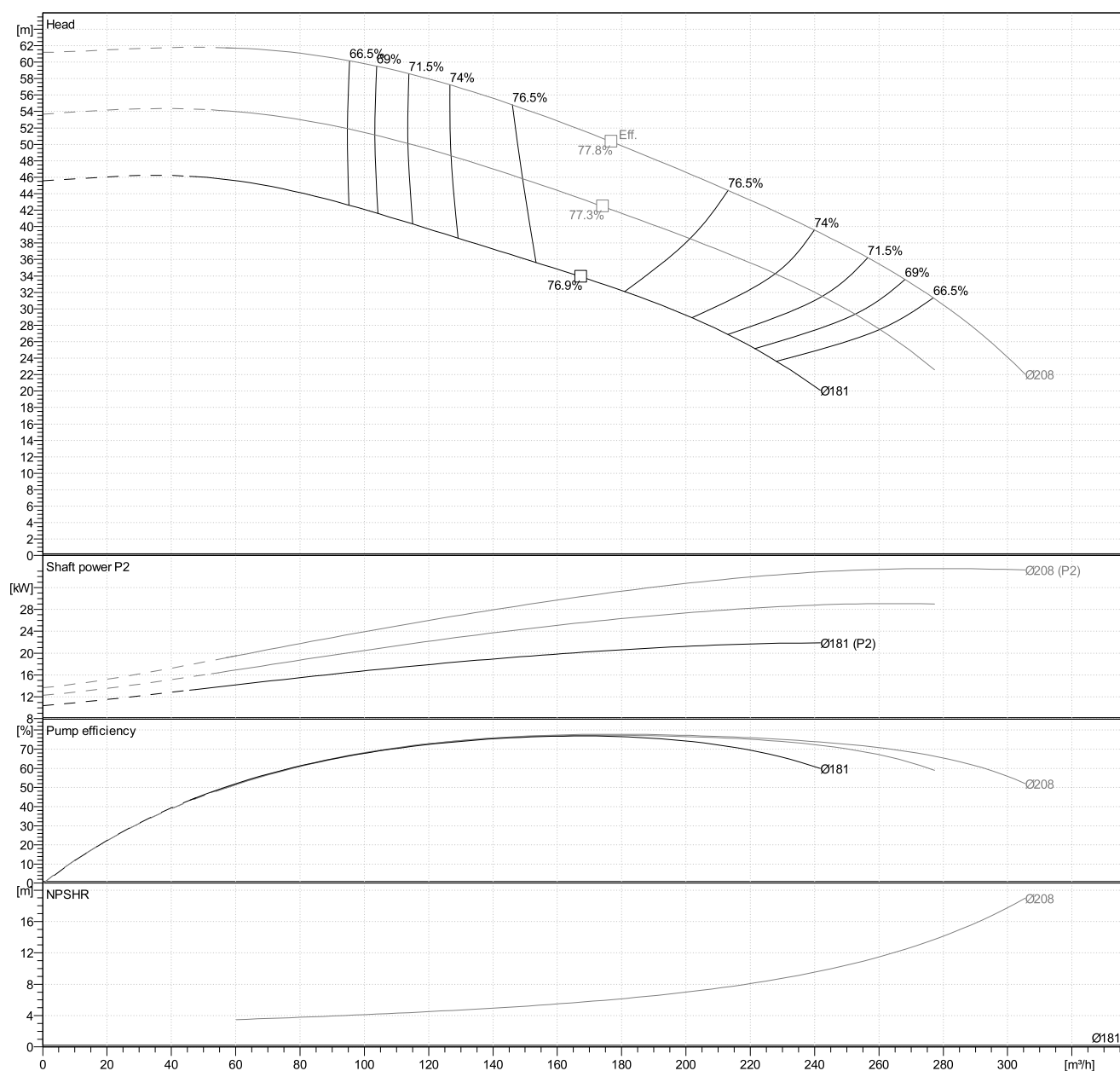
Hydraulic data

Operating Data Specification		Hydraulic data (duty point)	Impeller design	
Flow	0 m ³ /h	Flow	Impeller R	181 mm
Head	0 m	Head	Frequency	50 Hz
Static head	0 m	MEI >=0,4	Speed	2900 1/min

Power datas referred to:

Water, pure [100%] ; 4°C; 1kg/dm³; 1.57mm²/s

Performance according to ISO 9906:2012 – Grade 3B



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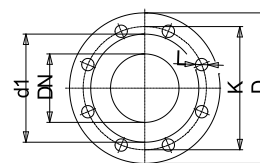
Dimensions mm/m³

AD	240		
b1	201		
Bmax	410		
DND	100		
DNS	100		
e	175		
f	240		
H	550		
h1	300		
h2	250		
L	909		
p	313		
x	152		
Total weight		196 kg	

Connections mm

Suction nozzle	Discharge nozzle
DN 100	DN 100
PN 16	PN 16
EN1092-2 (NSC-LNE)	EN1092-2 (NSC-LNE)

C	24	C	24
D	230	D	230
df	157	df	157
DN	100	DN	100
K	180	K	180
L	8 x 19	L	8 x 19



Value C, D may vary from Standard

Drawing

