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Technical data

Offshore K12.450 - 1

With motor

NU 911-2/100-o

Project name Borr Drilling Jack-up Fleet

Project ID Pump 'A'

Installation location

Date 2023-10-24

Operating data specification

Pumped fluid	Sea water
Operating temperature t A	40 °C
pH at t A	7
Density at t A	1,03 kg/dm ³
Kin. viscosity at t A	1 mm ² /s
Rated frequency	60
Rated flow	500 m ³ /h
Rated head	69 m
Geodetic head	0 m
Max. inlet pressure	
Installation type	Vertical installation

Duty point data

Volume flow		500,00 m ³ /h
Head		69 m
Shaft power P ₂	P ₂	119,4 kW
Pump efficiency		81,06%
Power input P ₁	P ₁	133,7 kW
Required pump NPSH		0 m
Speed		3534 1/min

Pump

Make	WILO
Pump type	Offshore K12.450
Frame size	12" (Ø275 - Ø300)
Sense of rotation	Clockwise from the drive end
Max. operating pressure	9,9 bar
Stages	1
Impeller type	
Shut off head	98,3 m
Max. shaft power	131 kW
Weight of unit	439,1 kg
(without detachable Accessories)	

Discharge port

Pressure rating	PN 16
Rated diameter	DN 200
Standard	EN 1092-2

Impeller Ø

Max.	228 mm
Min.	183 mm
designed	228 mm

Flow

	Referring to:	Speed in operating point
Nominal		554 m ³ /h
Max-		657 m ³ /h
Min-		0 m ³ /h

Motor

	Referring to:	Rated speed
Manufacturer / Type		NU 911-2/100-o
Specific design		NU (glycol filling)
Rated power		138 kW
Electric voltage		460 ~3 V
Power input with rated power		153,8 kW
Current input with rated power		245 A
Number of poles		2
Rated speed		3524 1/min
Load		125 / 100 / 75 / 50 / 25 %
cos phi		0,83/0,8/0,73/0,62/0,45
cos phi with starting		0,32
Efficiency		89,9/89,6/88,3/83/72,1
Operation type (VDE 0530)		S1 immersed
Max. fluid temperature		40°C
Min. flow velocity		0,1 m/s
Starting curr. d-o-l/ YD		1900 A / 633,3 A
Starting torque		615 Nm
Inertia moment		0,119 kg m ²
Starts per hour max.		10
Degree of protection		IP 68
Weight of motor		373 kg
Motor connection cable		6X 1X25 + 1X25 S07BB
Application limits for operation with frequency inverter:		
- Max. voltage rise: 500 V/µs		
- Max. overvoltage (phase - phase): 1000 V		

Pump materials - Material design

	C
Suction piece	1.4408
Stage- /guide casing	1.4408
Impeller	1.4408
Stationary wear ring	1.4470
Pump shaft	1.4462
clamp sleeve	1.4462
Shaft sleeve	1.4462
Bearing sleeve	EPDM
Connecting screws	A4
Nuts	A4

Motor materials

According to IEC 60034-1

Pump curves in accordance with ISO 9906: 2012 2B

Subject to change

Software version
Data version

Spaix, Version 4.3.13 - 2021/02/23 (Build 180)
06.07.2023

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