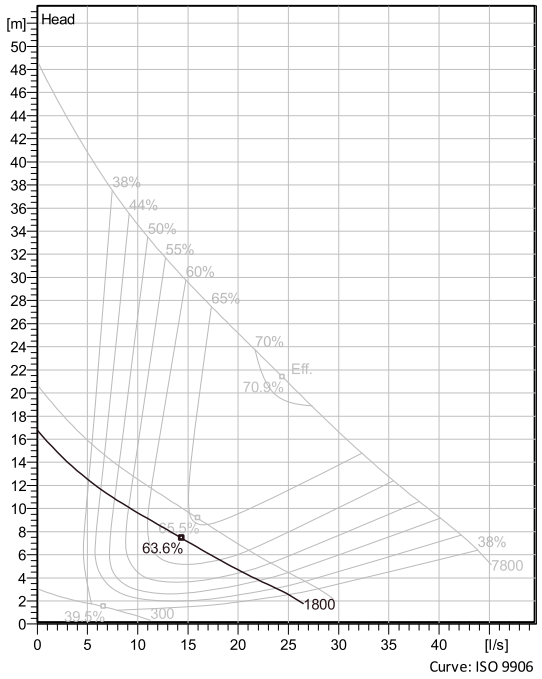
Concertor N80-1800

The most intelligent wastewater pump on the market. Suitable for customers operating traditional on/off pump stations who want to benefit from re-settable pump performance, clog detection and pump cleaning, soft start, constant power and motor protection.

Technical specification



Curves according to: Water, pure [100%],4 °C,999.9 kg/m³,1.569 mm²/s



Curve: ISO 9906

Nominal (mean) data shown. Under- and over-performance from this data should be expected due to standard manufacturing tolerances.
Please consult your local Flygt representative for performance guarantees.

Configuration

Motor number
N6020.182 18-08-1AZ-W 2.2KW

Installation type
P - Semi permanent, Wet

Impeller diameter
170 mm

Discharge diameter
80 mm

Pump information

Impeller diameter
170 mm

Discharge diameter
80 mm

Inlet diameter
110 mm

Maximum operating speed
800-2094.6 rpm

Number of blades
2

Max. fluid temperature
40 °C

Materials

Impeller
Hard-Iron

Project	Xylect-20235357	**Created by**	Ajda Miklavcic		
Block	0	**Created on**	11/21/2024	**Last update**	11/21/2024

Concertor N80-1800

Technical specification

Motor - General

Motor number N6020.182 18-08-1AZ-W 2.2KW	**Phases** 3~	**Rated speed** 800-2095 rpm	**Rated power** 2.2 kW
Approval No	**Insulation class** H	**Rated current** 3.9 A	**Type of Duty** S1
Frequency 50 Hz	**Rated voltage** 400 V	**Motor efficiency class** IE4 according to IEC/TS 60034-30-2 Ed. 1	

Motor - Technical

Power factor - 1/1 Load 0.95	**Motor efficiency - 1/1 Load** 90.0 %	**Nominal speed - 1/1 Load** 2300 rpm
Power factor - 3/4 Load 0.95	**Motor efficiency - 3/4 Load** 91.0 %	**Nominal speed - 3/4 Load** 2070 rpm
Power factor - 1/2 Load 0.95	**Motor efficiency - 1/2 Load** 91.0 %	**Nominal speed - 1/2 Load** 1840 rpm

Starting current
3.9 A

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Monitoring and Control equipment

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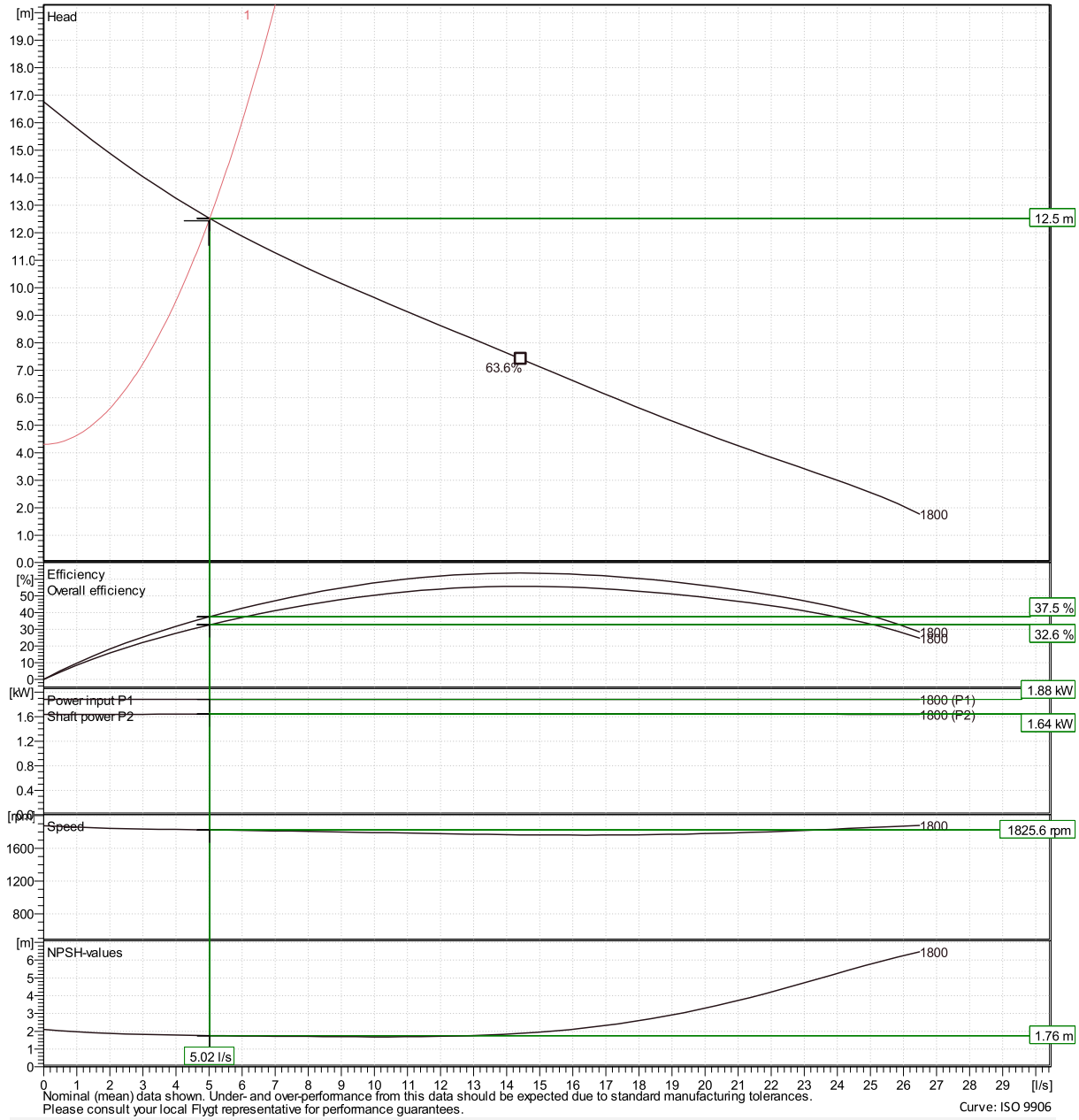
Concertor N80-1800

Performance curve

Duty point

Flow	Head
5.02 l/s	12.5 m

Curves according to: Water, pure [100%],4 °C,999.9 kg/m³,1.569 mm²/s



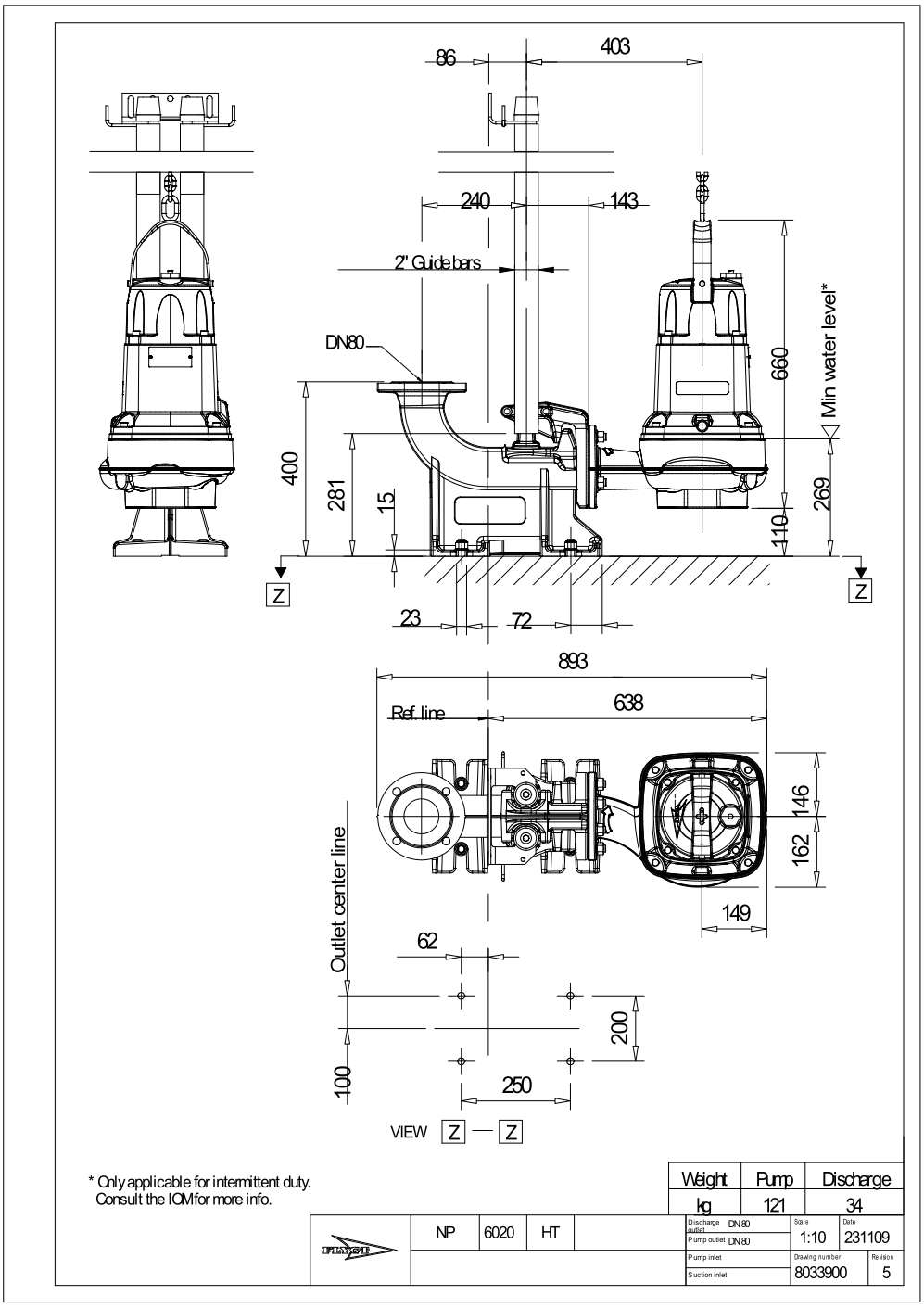
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Curve: ISO 9906

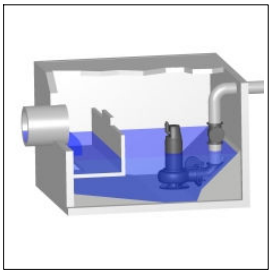
Project	Xylect-20235357	**Created by**	Ajda Miklavcic	**Last update**	11/21/2024
Block	0	**Created on**	11/21/2024		

Concertor N80-1800

Dimensional drawing



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Block	0	**Created on**	11/21/2024 **Last update** 11/21/2024



Friction loss calculation

Pumped fluid
Water, pure

Static head
4.3

Layout
Wet well installation

Flow
5 l/s

Number of pumps
1

Calculation model
Colebrook-White

Viscosity
1.569 mm²/s

Nature of system
Single head pump

Type	Ø (mm)	? or L	Qty.	v (m/s)	k (mm)	ΔH (m)
Ø = Diameter v = Velocity k = Pipe roughness ΔH = Head loss						
Common discharge side pipe - Metal / Stainless steel PN 16 / DN 80 (84x2,0 mm) / Used piping / Old Pipes						
Pipe length	80	3.5 m	1	0.9947	0.1	0.05435
Discharge Connection	80	0.3	1	0.9947		0.01513
Elbows	80	1.2	4	0.9947		0.06052
Inlet	80	1	1	0.9947		0.05043
Non-return valves	80	0.9	1	0.9947		0.04539
Outlet	80	1	1	0.9947		0.05043
T-piece	80	0.4	1	0.9947		0.02017
Total friction head						**0.2964**
Common discharge side pipe - Plastic / PE100 (HDPE) PE 4710 SDR 11 (PN 16) / DN 80 (90x8,2 mm) / Used piping / Old Pipes						
Pipe length	73.6	362 m	1	1.175	0.04	7.733
Elbows	73.6	0.6	2	1.175		0.04224
Outlet	73.6	1	1	1.175		0.0704
Total friction head						**7.846**
Friction loss head						8.142 m
Total static head						4.3 m
Total head						**12.44 m**