

NT 3153 HT 3~ 455

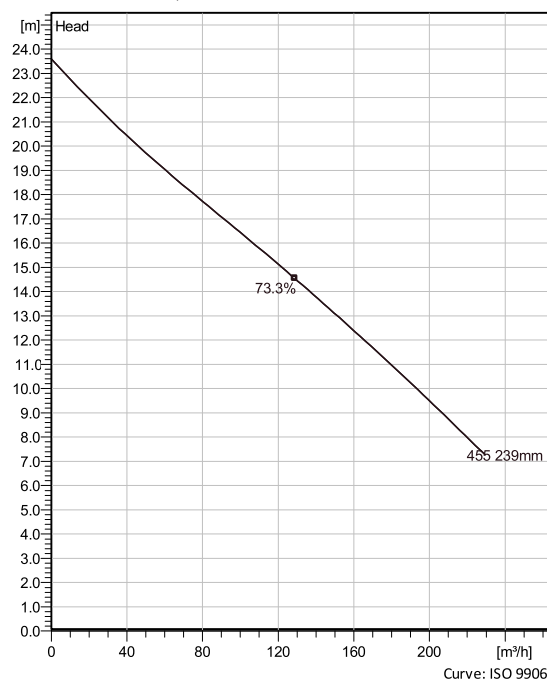
Patented self cleaning semi-open channel impeller, ideal for pumping in most waste water applications. Possible to be upgraded with Guide-pin® for even better clogging resistance. Modular based design with high adaptation grade.



Technical specification



Curves according to: Water, pure ,4 °C,999.9 kg/m³,1.5692 mm²/s



Configuration

Motor number N3153.800 21-15-4AS-D IE3 8.5KW	Installation type T - Vertical Permanent, Dry
Impeller diameter 239 mm	Discharge diameter 100 mm

Pump information

Impeller diameter 239 mm
Discharge diameter 100 mm
Inlet diameter 150 mm
Maximum operating speed 1500 rpm
Number of blades 2
Max. fluid temperature 40 °C

Materials

Impeller Grey cast iron

Project
Block

Created by Bjorn Mosselmans
Created on 3/8/2021 Last update 3/8/2021

NT 3153 HT 3~ 455

Technical specification



Motor - General

Motor number N3153.800 21-15-4AS-D IE3 8.5KW	Phases 3~	Rated speed 1500 rpm	Rated power 8.5 kW
ATEX approved No	Number of poles 4	Rated current 14 A	Stator variant 1
Frequency 50 Hz	Rated voltage 400 V	Insulation class H	Type of Duty S1
Version code 800			

Motor - Technical

Power factor - 1/1 Load 0.98	Motor efficiency - 1/1 Load 92.2 %	Total moment of inertia 0.077 kg m ²	Starts per hour max. 30
Power factor - 3/4 Load 0.96	Motor efficiency - 3/4 Load 92.0 %	Starting current, direct starting 107 A	
Power factor - 1/2 Load 0.96	Motor efficiency - 1/2 Load 91.4 %	Starting current, star-delta 35.7 A	

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NT 3153 HT 3~ 455

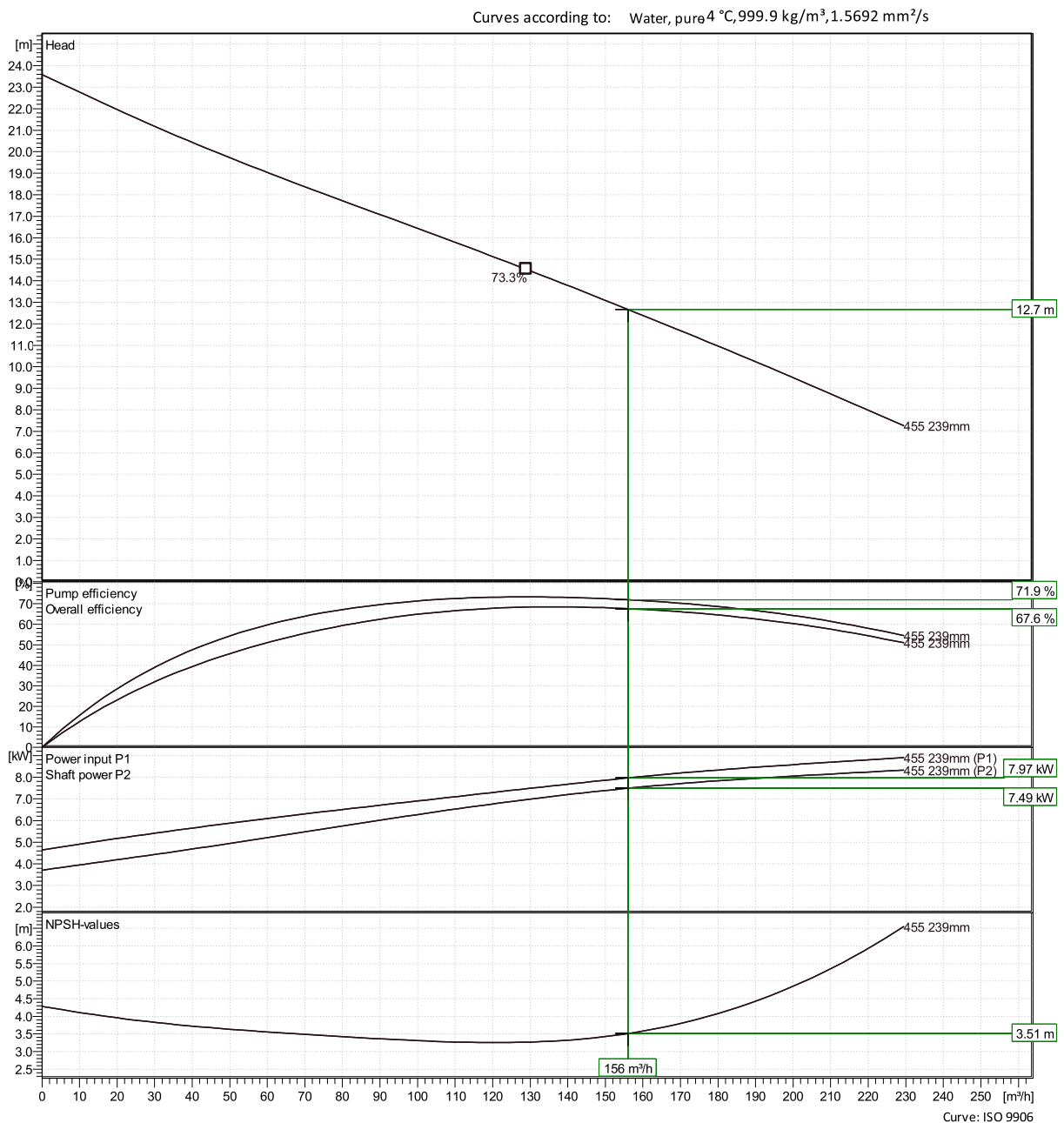
Performance curve



Duty point

Flow
156 m³/h

Head
12.7 m

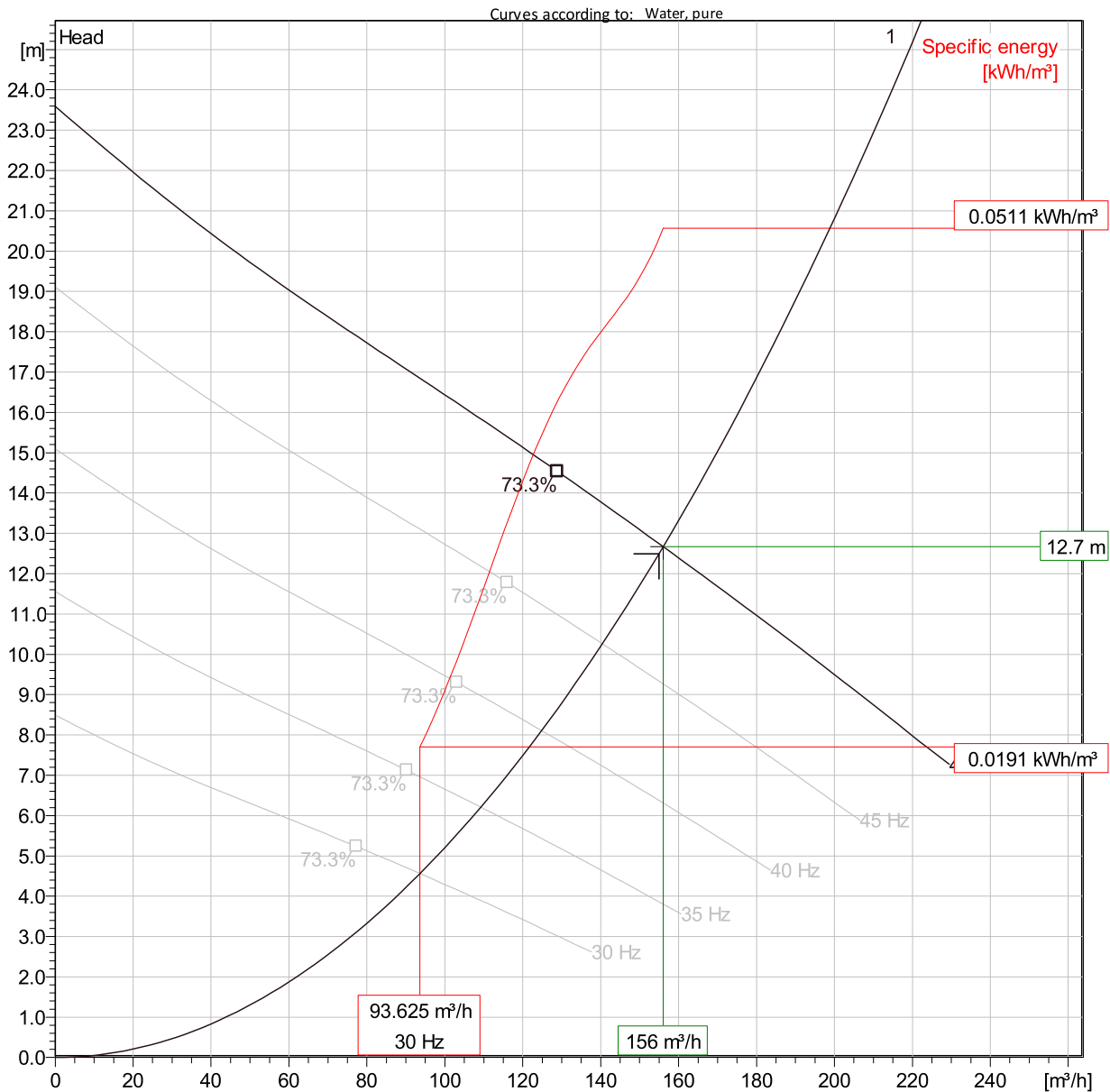


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NT 3153 HT 3~ 455

VFD Analysis



Operating characteristics

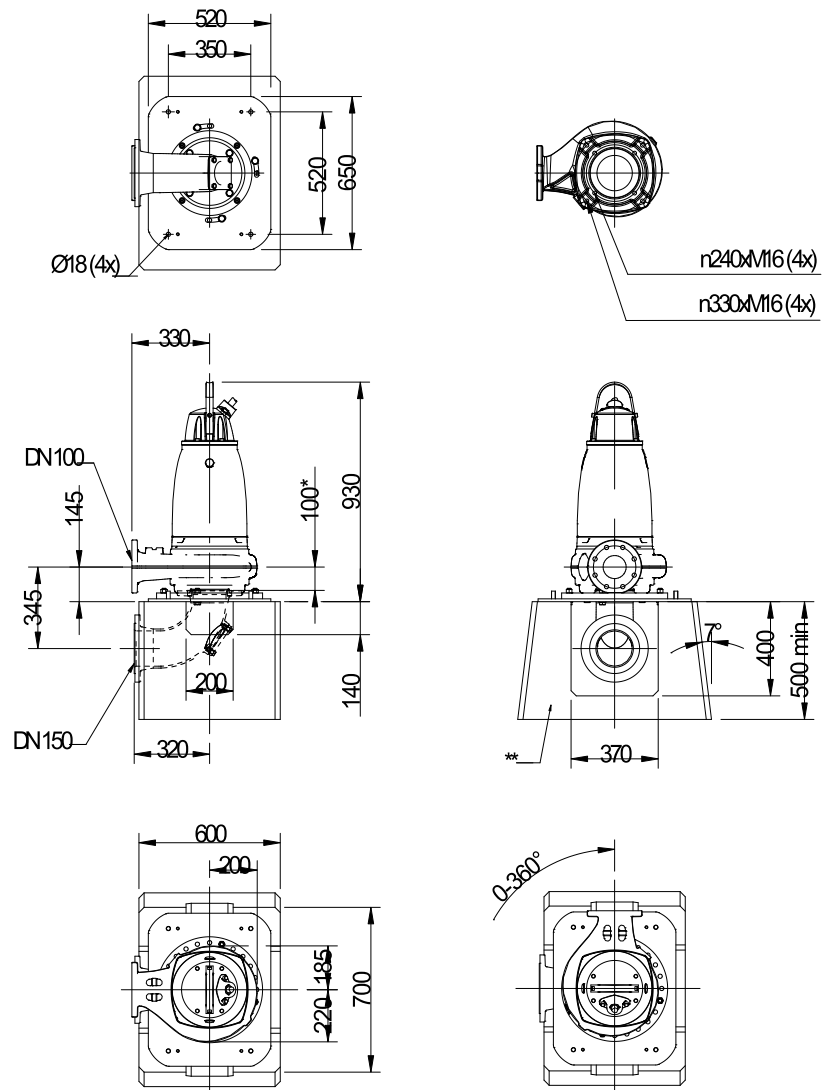
Pumps / Systems	Frequency	Flow	Head	Shaft power	Flow	Head	Shaft power	Hydr.eff.	Specific Energy	NPSHre
1	50 Hz	156 m³/h	12.7 m	7.49 kW	156 m³/h	12.7 m	7.49 kW	71.9 %	0.0511 kWh/m³	3.51 m
1	45 Hz	140 m³/h	10.3 m	5.46 kW	140 m³/h	10.3 m	5.46 kW	71.9 %	0.0448 kWh/m³	2.97 m
1	40 Hz	125 m³/h	8.11 m	3.84 kW	125 m³/h	8.11 m	3.84 kW	71.9 %	0.0383 kWh/m³	2.46 m
1	35 Hz	109 m³/h	6.21 m	2.57 kW	109 m³/h	6.21 m	2.57 kW	71.9 %	0.0284 kWh/m³	1.98 m
1	30 Hz	93.6 m³/h	4.56 m	1.62 kW	93.6 m³/h	4.56 m	1.62 kW	71.9 %	0.0191 kWh/m³	1.55 m

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NT 3153 HT 3~ 455

Dimensional drawing



**Dimension to inlet elbow flange.
***Concrete plinth not supplied by Xylem.

Weight (kg)		
Pump	Stand unit	Inlet elbow
200	36	35



NT, FT 3153 HT

Discharge outlet	Scale	Date
Pump inlet DN 100	1:20	191209
Pump inlet DN 150	Drawing number	Revision
Suction inlet DN 150	7787000	7

Project
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Created on 3/8/2021 Last update 3/8/2021

NT 3102 MT 3~ Adaptive 463

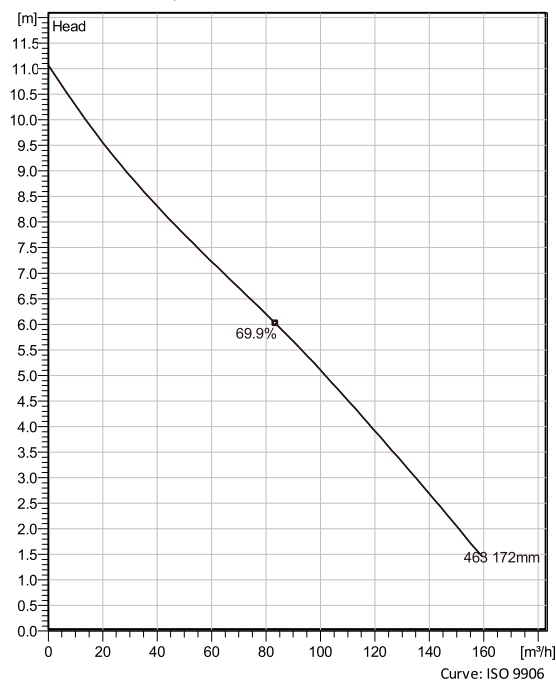
Patented self cleaning semi-open channel impeller, ideal for pumping in most waste water applications. Possible to be upgraded with Guide-pin® for even better clogging resistance. Modular based design with high adaptation grade.



Technical specification



Curves according to: Water, pure ,4 °C,999.9 kg/m³,1.5692 mm²/s



Configuration

Motor number N3102.160 18-11-4AL-D 2.4KW	Installation type T - Vertical Permanent, Dry
Impeller diameter 172 mm	Discharge diameter 100 mm

Pump information

Impeller diameter 172 mm
Discharge diameter 100 mm
Inlet diameter 100 mm
Maximum operating speed 1460 rpm
Number of blades 2

Max. fluid temperature
40 °C

Materials

Impeller Grey cast iron
Stator housing material Grey cast iron

Project
Block

Created by Bjorn Mosselmans
Created on 3/8/2021 **Last update** 3/8/2021

NT 3102 MT 3~ Adaptive 463

Technical specification



Motor - General

Motor number N3102.160 18-11-4AL-D 2.4KW	Phases 3~	Rated speed 1460 rpm	Rated power 2.4 kW
ATEX approved No	Number of poles 4	Rated current 5.8 A	Stator variant 61
Frequency 50 Hz	Rated voltage 400 V	Insulation class H	Type of Duty S1
Version code 160			

Motor - Technical

Power factor - 1/1 Load 0.70	Motor efficiency - 1/1 Load 85.7 %	Total moment of inertia 0.0258 kg m ²	Starts per hour max. 30
Power factor - 3/4 Load 0.61	Motor efficiency - 3/4 Load 85.0 %	Starting current, direct starting 41 A	
Power factor - 1/2 Load 0.48	Motor efficiency - 1/2 Load 82.3 %	Starting current, star-delta 13.7 A	

Project
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NT 3102 MT 3~ Adaptive 463

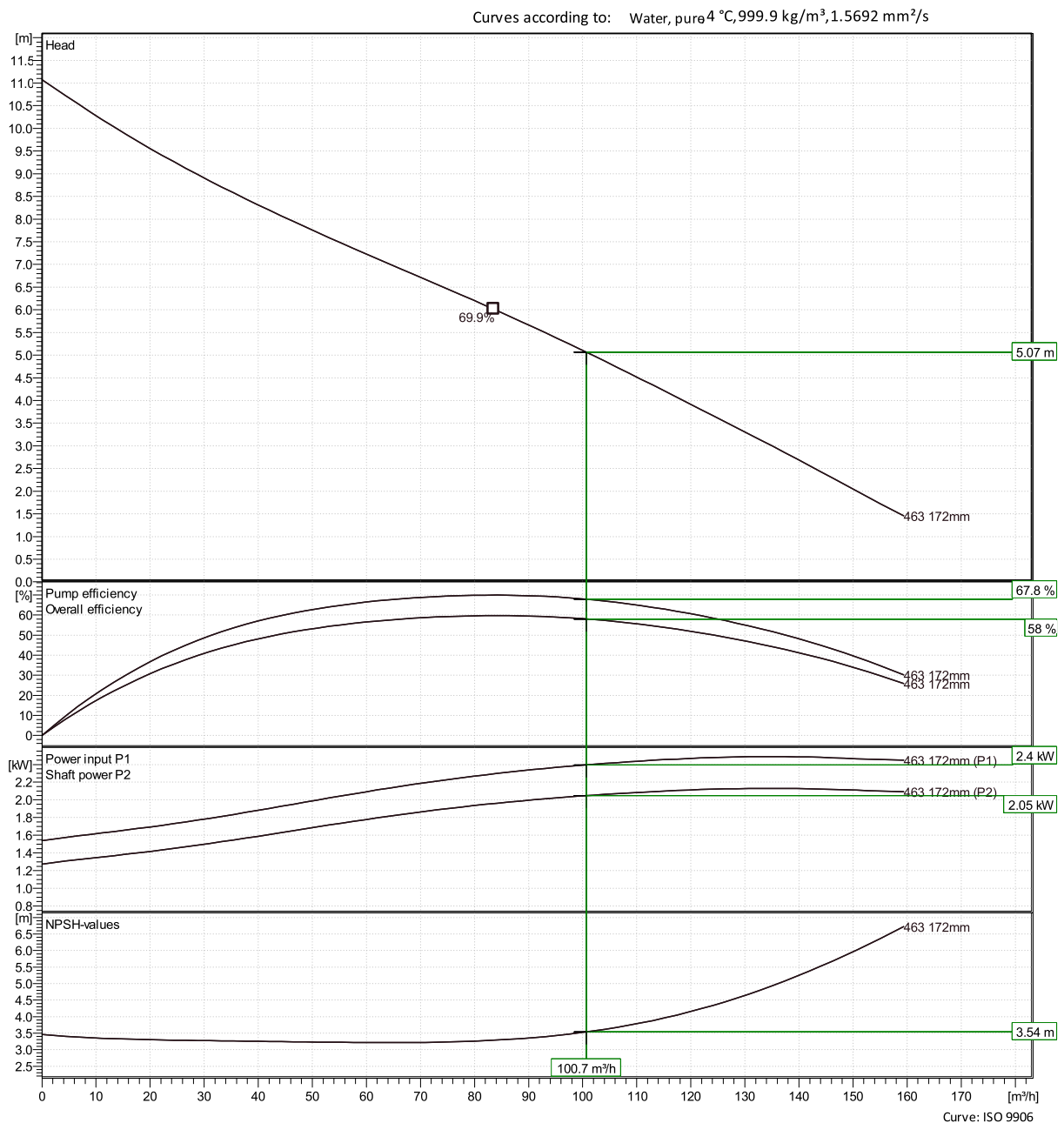
Performance curve



Duty point

Flow
101 m³/h

Head
5.07 m



Project
Block

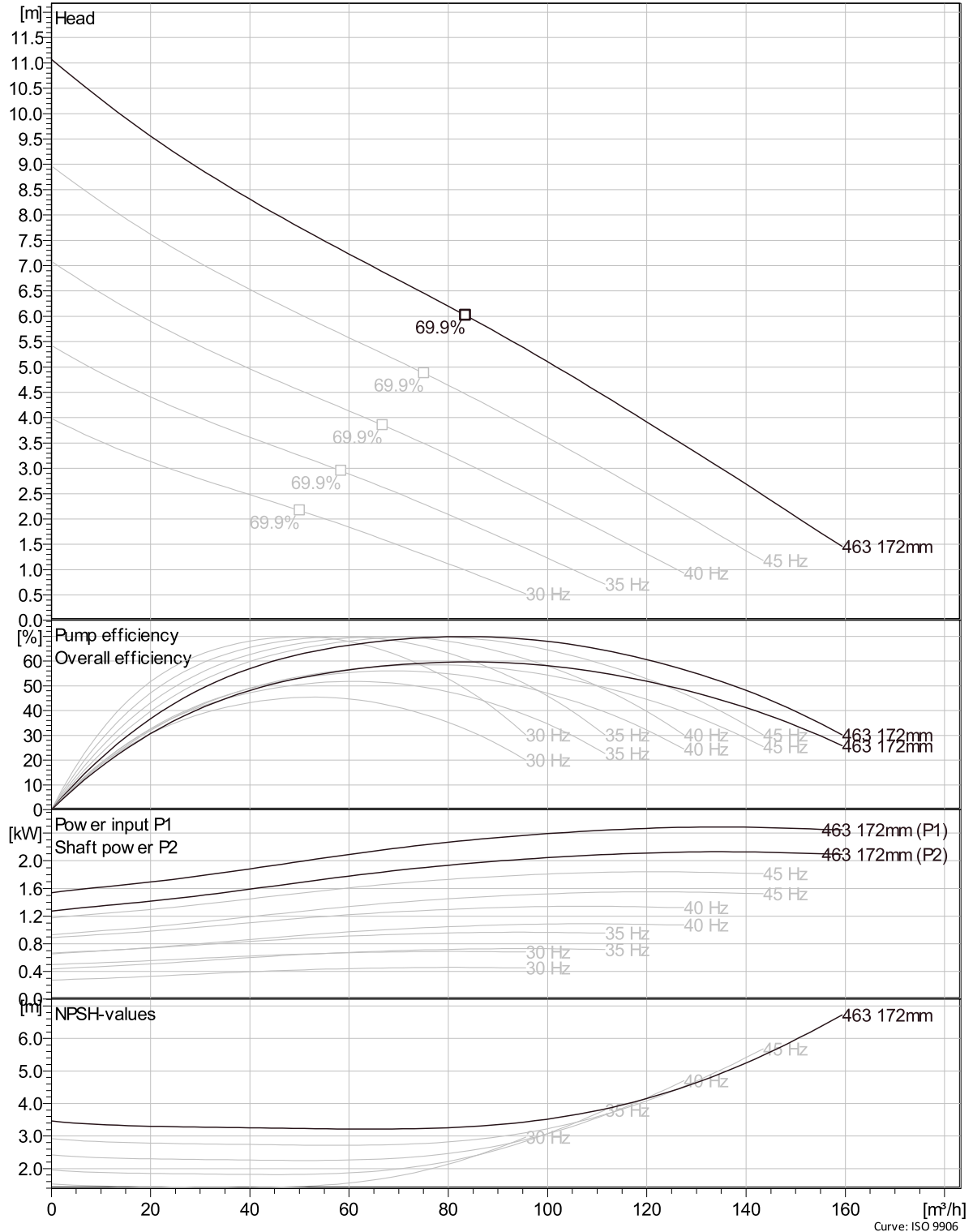
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NT 3102 MT 3~ Adaptive 463

VFD Curve



Curves according to: Water, pure, 4 °C, 999.9 kg/m³, 1.5692 mm²/s



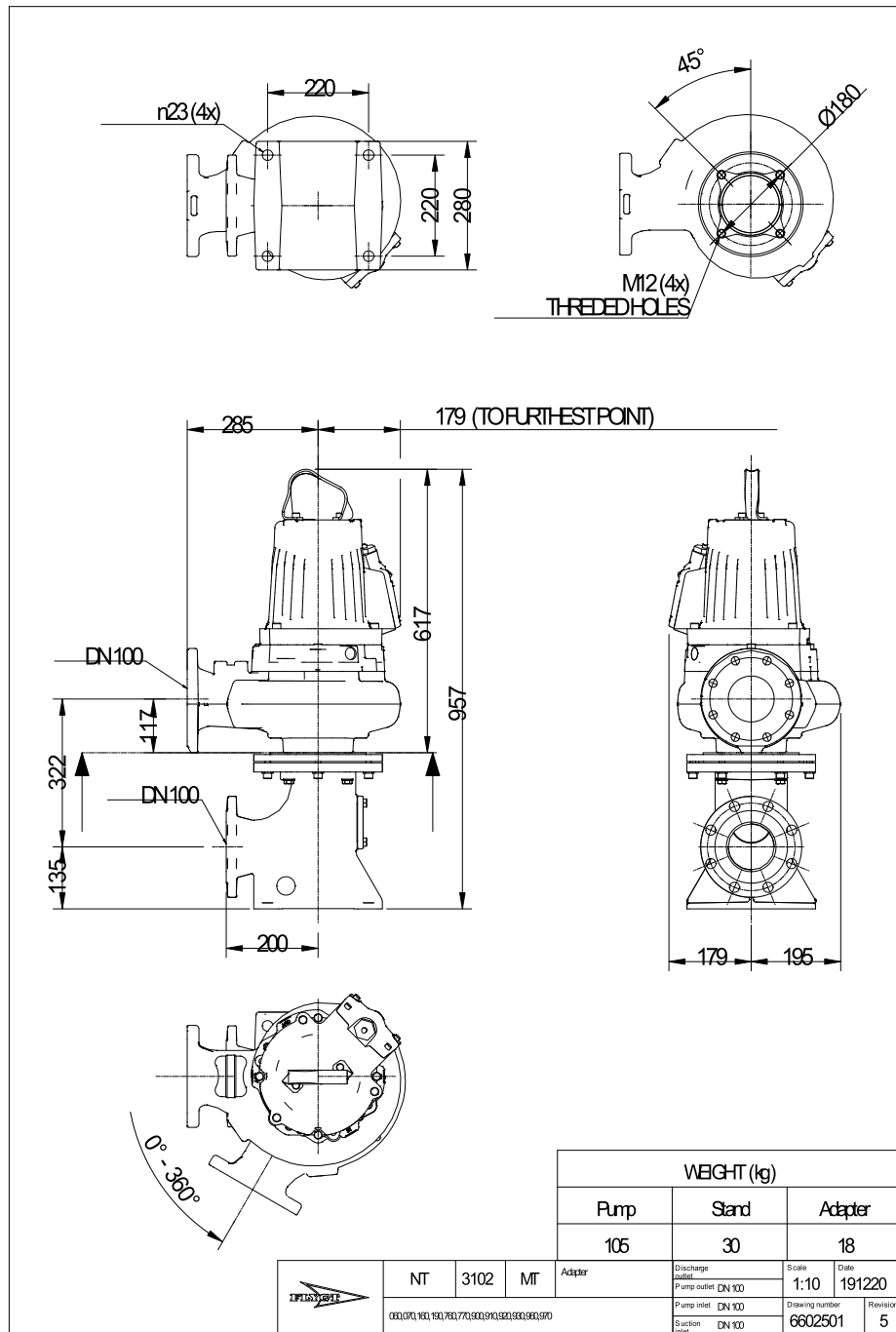
Curve: ISO 9906

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NT 3102 MT 3~ Adaptive 463

Dimensional drawing



Project
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NT 3153 HT 3~ 451

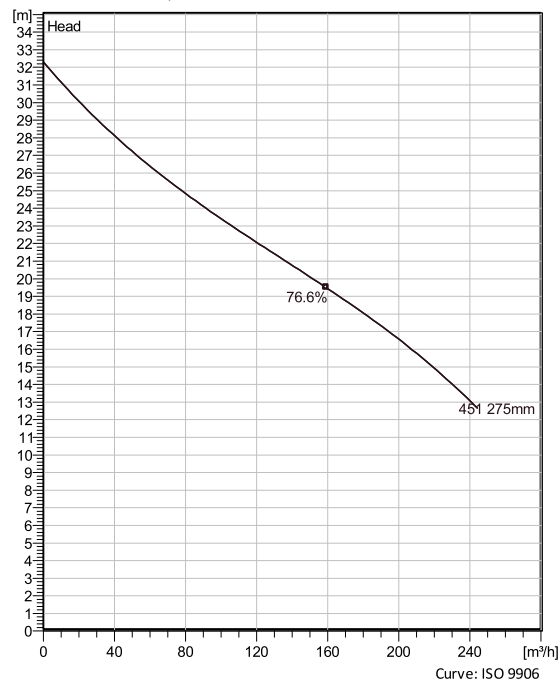
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Technical specification



Curves according to: Water, pure ,4 °C,999.9 kg/m³,1.5692 mm²/s



Configuration

Motor number N3153.182 21-18-4AA-D 13.5KW	Installation type T - Vertical Permanent, Dry
Impeller diameter 275 mm	Discharge diameter 100 mm

Pump information

Impeller diameter 275 mm
Discharge diameter 100 mm
Inlet diameter 150 mm
Maximum operating speed 1455 rpm
Number of blades 2

Max. fluid temperature
40 °C

Materials

Impeller Grey cast iron

Project
Block

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NT 3153 HT 3~ 451

Technical specification



Motor - General

Motor number N3153.182 21-18-4AA-D 13.5KW	Phases 3~	Rated speed 1455 rpm	Rated power 13.5 kW
ATEX approved No	Number of poles 4	Rated current 27 A	Stator variant 1
Frequency 50 Hz	Rated voltage 400 V	Insulation class H	Type of Duty S1
Version code 182			

Motor - Technical

Power factor - 1/1 Load 0.82	Motor efficiency - 1/1 Load 86.5 %	Total moment of inertia 0.097 kg m ²	Starts per hour max. 30
Power factor - 3/4 Load 0.77	Motor efficiency - 3/4 Load 88.2 %	Starting current, direct starting 145 A	
Power factor - 1/2 Load 0.66	Motor efficiency - 1/2 Load 88.6 %	Starting current, star-delta 48.3 A	

Project
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NT 3153 HT 3~ 451

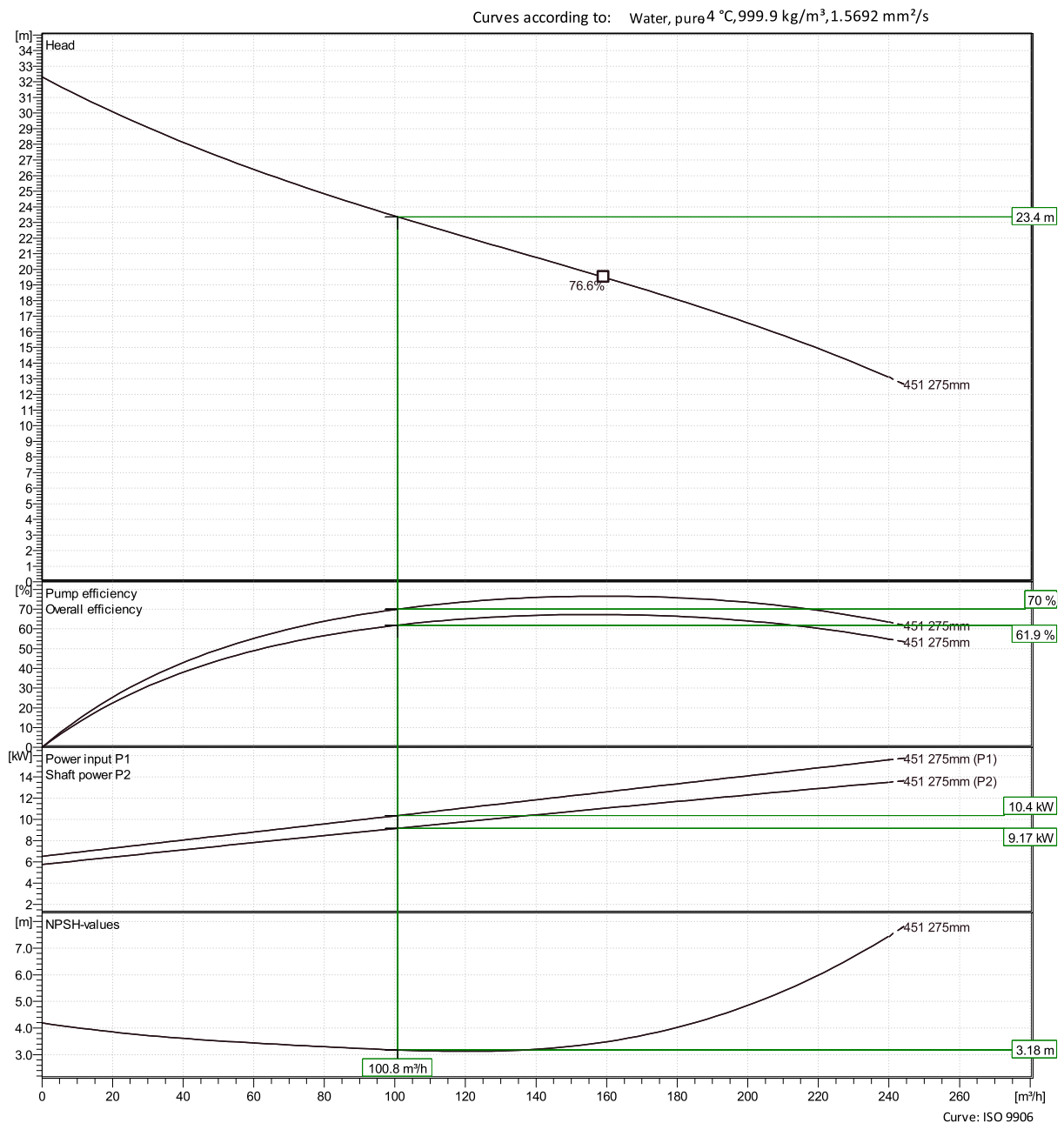
Performance curve



Duty point

Flow
101 m³/h

Head
23.4 m

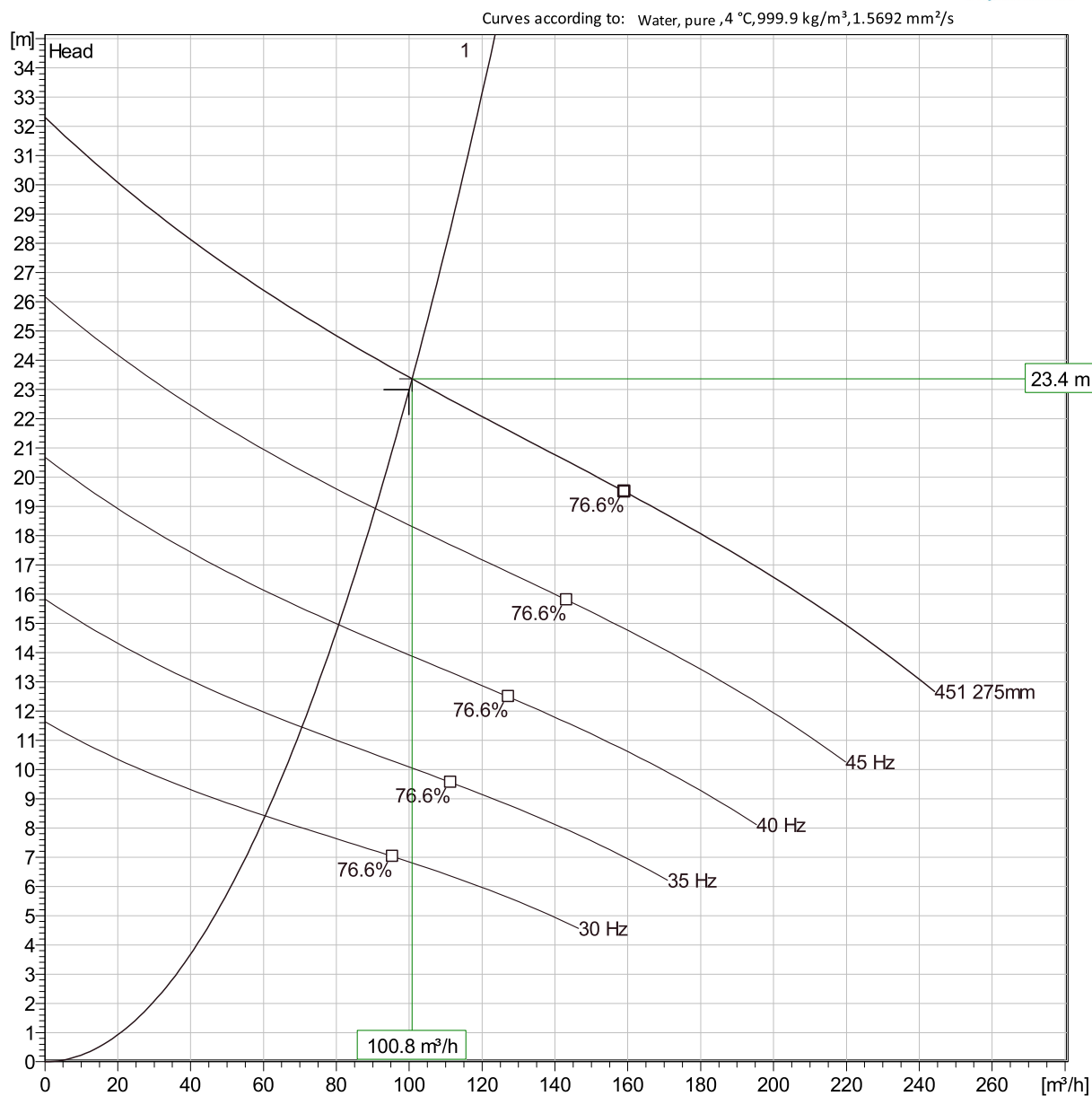


Project
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NT 3153 HT 3~ 451

Duty Analysis



Operating characteristics

Pumps / Systems	Flow	Head	Shaft power	Flow	Head	Shaft power	Hydr.eff.	Specific Energy	NPSHre
1	101 m³/h	23.4 m	9.17 kW	101 m³/h	23.4 m	9.17 kW	70 %	0.103 kWh/m	3.18 m

Project
Block

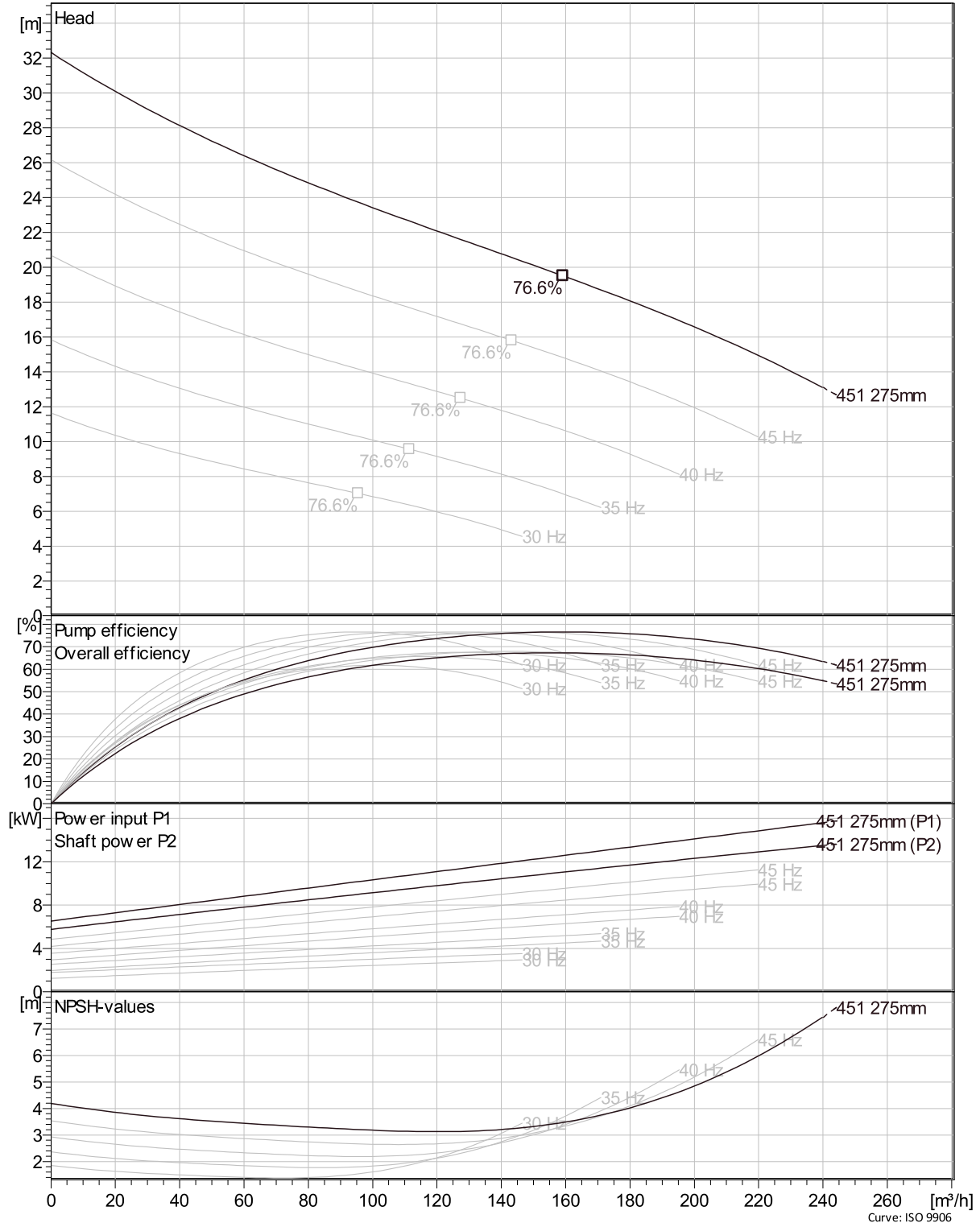
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NT 3153 HT 3~ 451

VFD Curve



Curves according to: Water, pure, 4 °C, 999.9 kg/m³, 1.5692 mm²/s



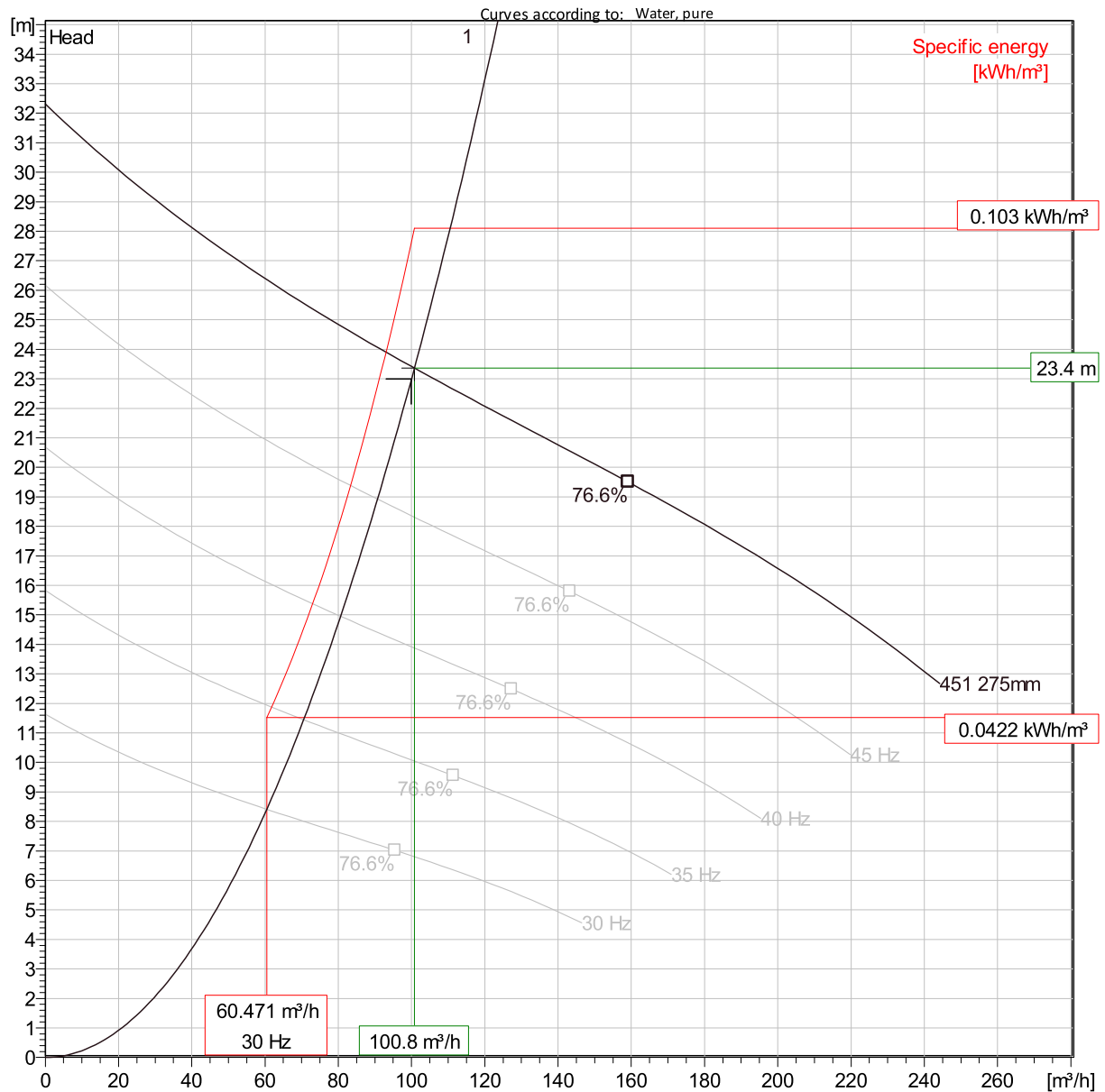
Curve: ISO 9906

Project
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NT 3153 HT 3~ 451

VFD Analysis



Operating characteristics

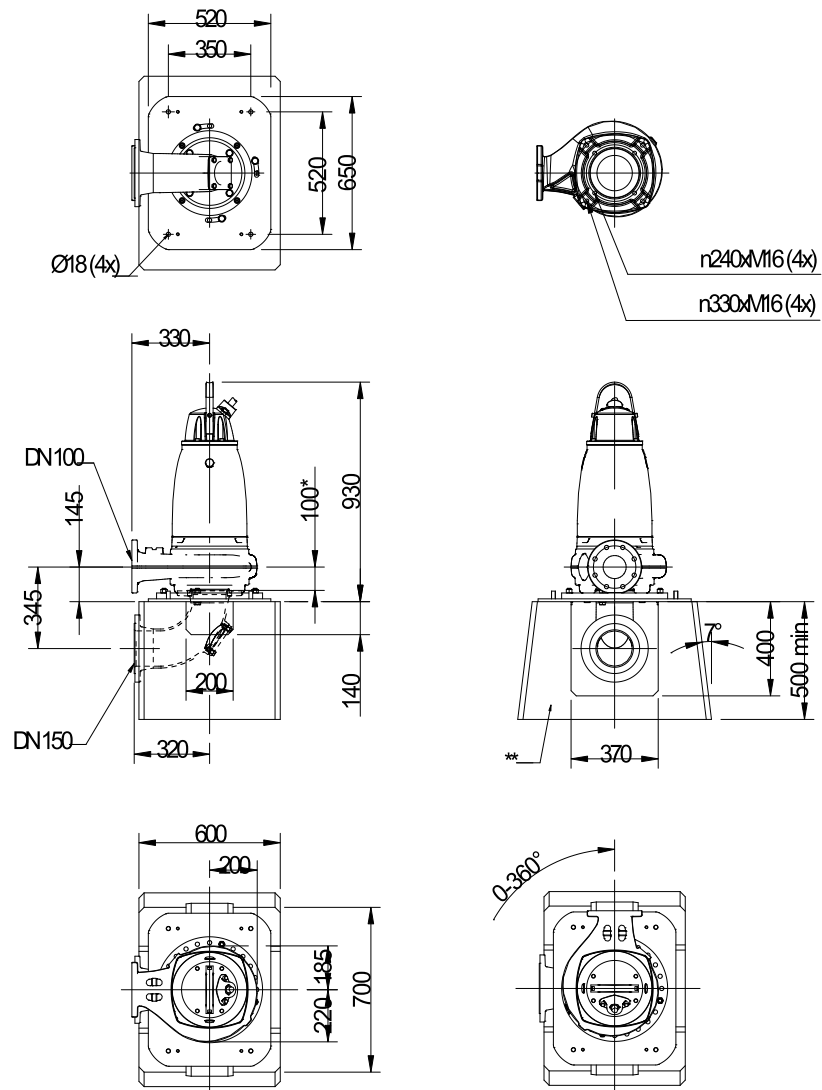
Pumps / Systems	Frequency	Flow	Head	Shaft power	Flow	Head	Shaft power	Hydr.eff.	Specific Energy	NPSHre
1	50 Hz	101 m³/h	23.4 m	9.17 kW	101 m³/h	23.4 m	9.17 kW	70 %	0.103 kWh/m³	3.18 m
1	45 Hz	90.7 m³/h	18.9 m	6.69 kW	90.7 m³/h	18.9 m	6.69 kW	70 %	0.0832 kWh/r	2.68 m
1	40 Hz	80.6 m³/h	15 m	4.7 kW	80.6 m³/h	15 m	4.7 kW	70 %	0.0668 kWh/r	2.22 m
1	35 Hz	70.5 m³/h	11.4 m	3.15 kW	70.5 m³/h	11.4 m	3.15 kW	70 %	0.0532 kWh/r	1.79 m
1	30 Hz	60.5 m³/h	8.41 m	1.98 kW	60.5 m³/h	8.41 m	1.98 kW	70 %	0.0422 kWh/r	1.4 m

Project
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Created on 3/8/2021 Last update 3/8/2021

NT 3153 HT 3~ 451

Dimensional drawing



**Dimension to inlet elbow flange.
***Concrete plinth not supplied by Xylem.

Weight (kg)		
Pump	Stand unit	Inlet elbow
200	36	35



NT, FT 3153 HT

Discharge outlet	Scale	Date
Pump inlet DN 100	1:20	191209
Pump inlet DN 150	Drawing number	Revision
Suction inlet DN 150	7787000	7

Project
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