

NP 3085 SH 3~ Adaptive 256

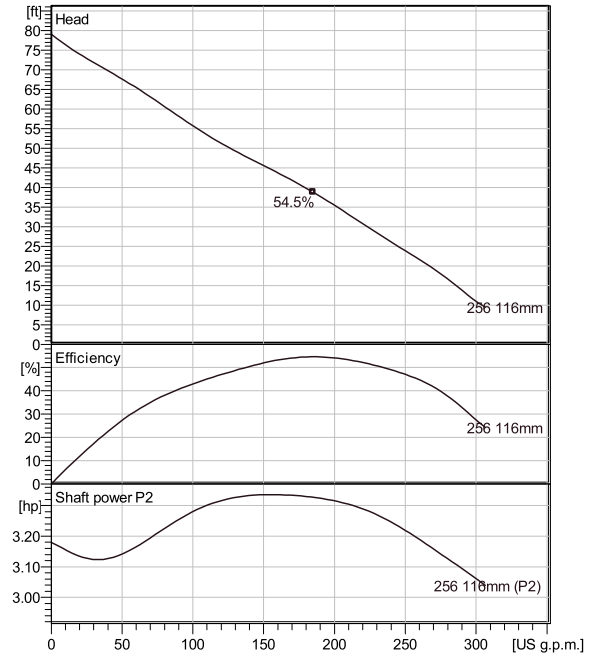
Patented self cleaning semi-open channel impeller, ideal for pumping in waste water applications. Modular based design with high adaptation grade.



Technical specification



Curves according to: Water, pure Water, pure [100%], 39.2 °F, 62.42 lb/ft³, 1.6891E-5 ft²/s



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 N3085.060 15-09-2AL-W 4hp	Installation type P - Semi permanent, Wet
Impeller diameter 116 mm	Discharge diameter 3 inch

Pump information

Impeller diameter 116 mm
Discharge diameter 3 inch
Inlet diameter 80 mm
Maximum operating speed 3415 rpm
Number of blades 2
Max. fluid temperature 40 °C

Material

Impeller Hard-Iron™
Stator housing material Grey cast iron

Project	Xylect-21731871	Created by	Andrew Voth
Block		Created on	1/22/2024
		Last update	1/22/2024

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Technical specification



Motor - General

Motor number N3085.060 15-09-2AL-W 4hp	Phases 3~	Rated speed 3415 rpm	Rated power 4 hp
ATEX approved No	Number of poles 2	Rated current 11 A	Stator variant 27
Frequency 60 Hz	Rated voltage 208 V	Insulation class H	Type of Duty S1
Version code 060			

Motor - Technical

Power factor - 1/1 Load 0.93	Motor efficiency - 1/1 Load 80.5 %	Total moment of inertia 0.152 lb ft ²	Starts per hour max. 30
Power factor - 3/4 Load 0.91	Motor efficiency - 3/4 Load 82.5 %	Starting current, direct starting 65 A	
Power factor - 1/2 Load 0.86	Motor efficiency - 1/2 Load 82.3 %	Starting current, star-delta 21.7 A	

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Performance curve

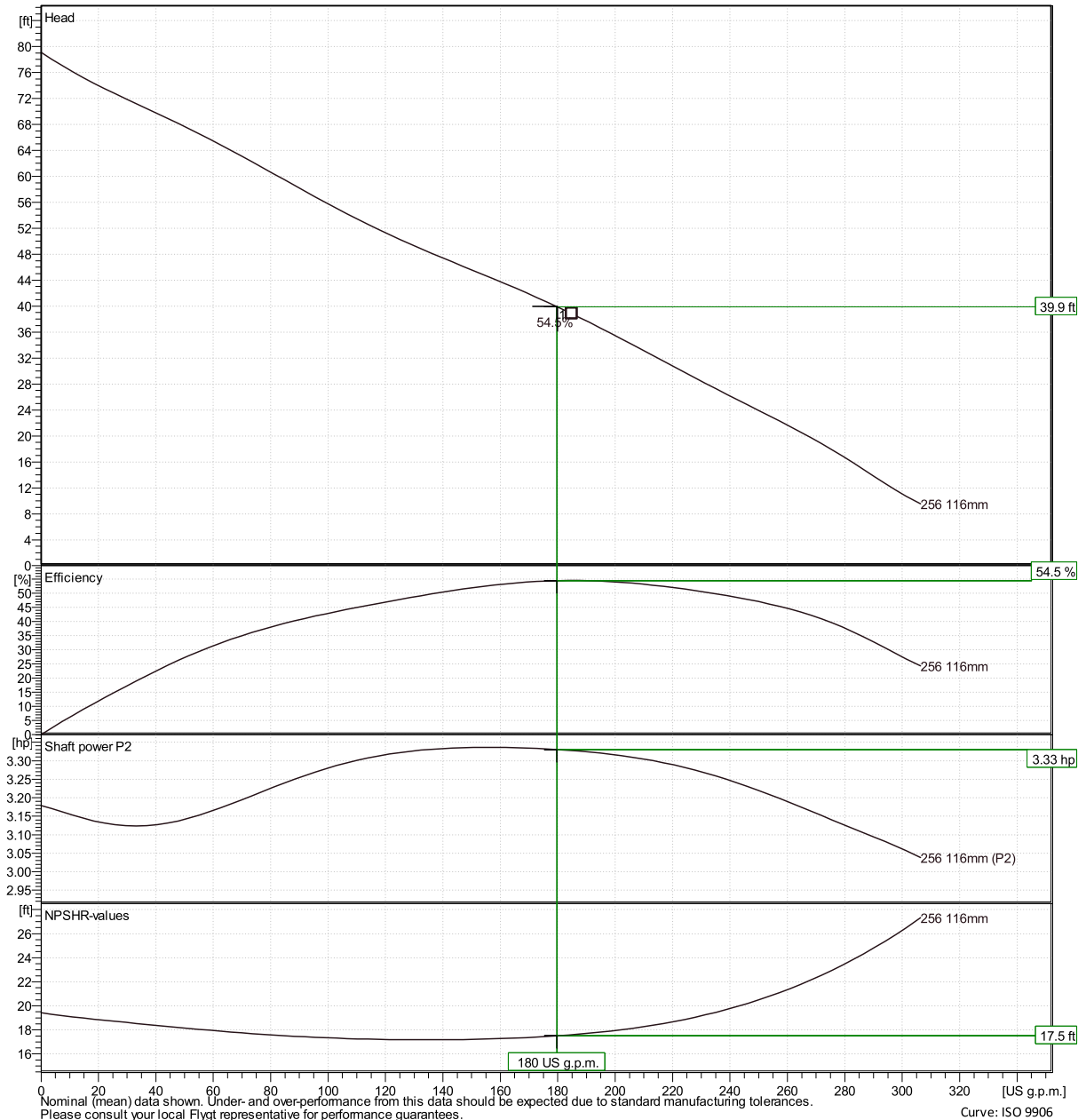


Duty point

Flow
180 US g.p.m.

Head
39.9 ft

Curves according to: Water, pure [100%], 39.2 °F, 62.42 lb/ft³, 1.6891E-5 ft²/s



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Andrew Voth

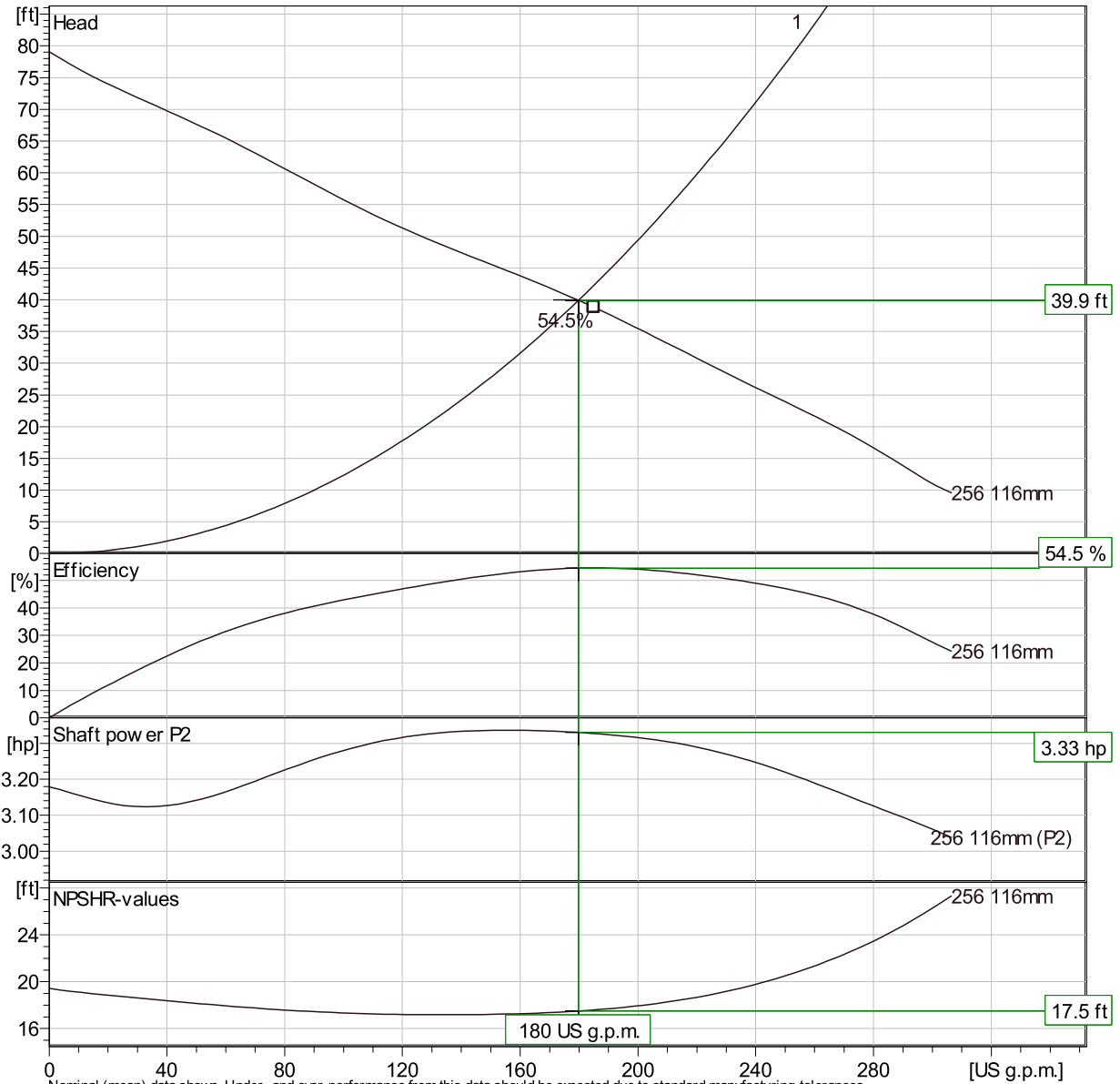
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Duty Analysis



Curves according to: Water, pure [100%]; 39.2°F; 62.42lb/ft³; 1.6891E-5ft²/s



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Operating characteristics

Pumps / Systems	Flow US g.p.m.	Head ft	Shaft power hp	Flow US g.p.m.	Head ft	Shaft power hp	Hydr. eff.	Spec. Energy kWh/US MG	NPSHre ft
1	180	39.9	3.33	180	39.9	3.33	54.5 %	281	17.5

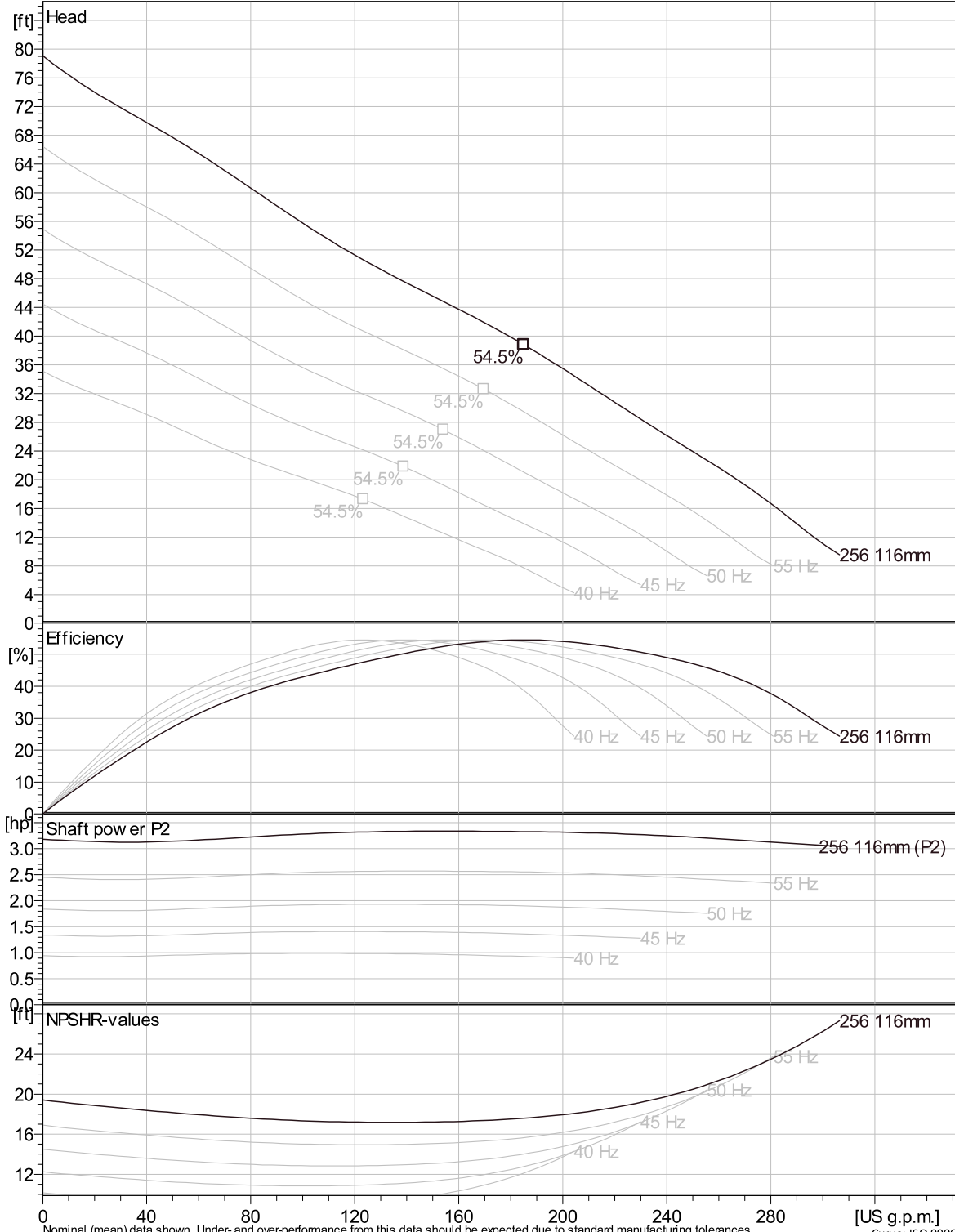
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VFD Curve



Curves according to: Water, pure, 39.2 °F, 62.42 lb/ft³, 1.6891E-5 ft²/s



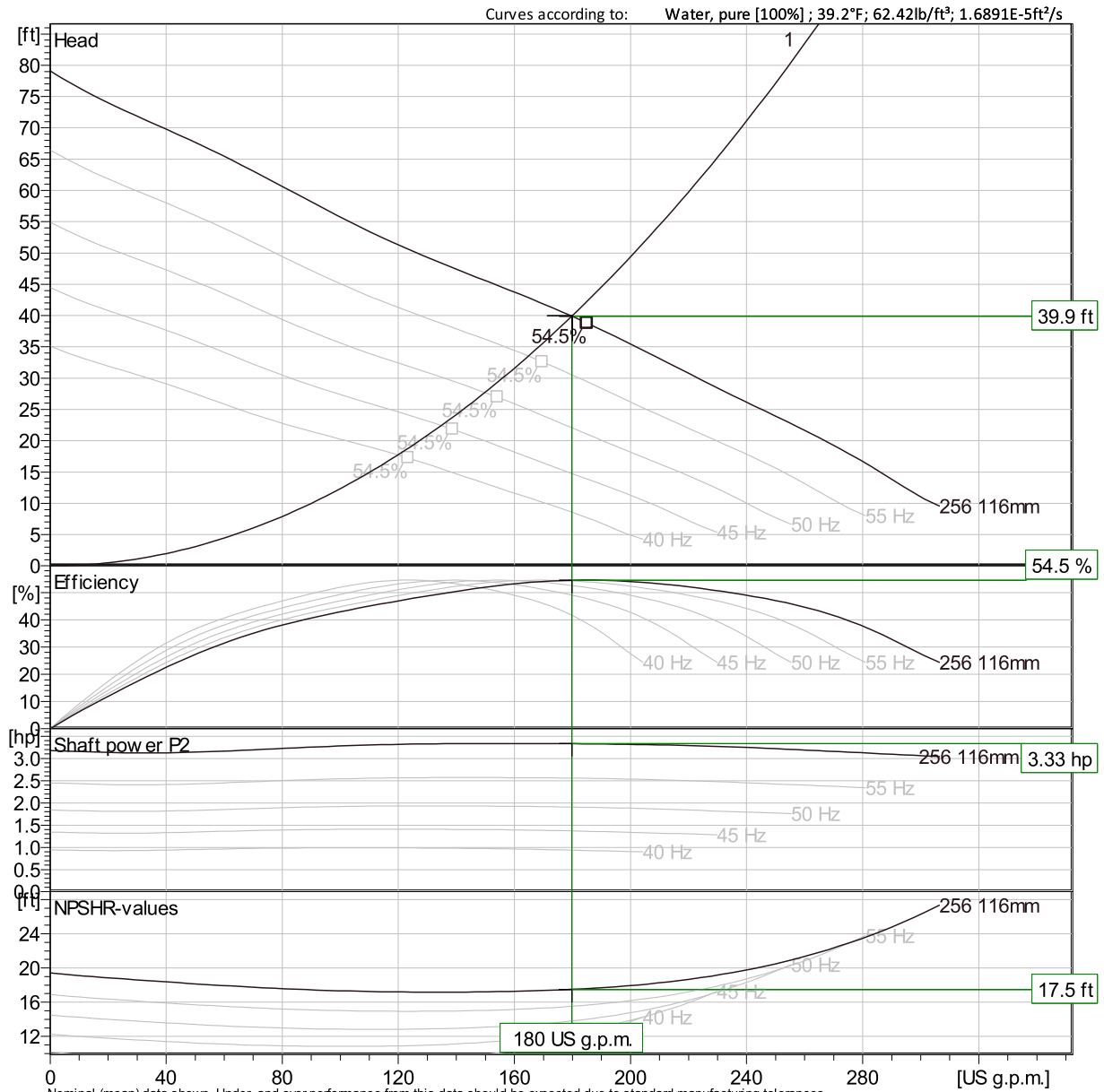
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VFD Analysis



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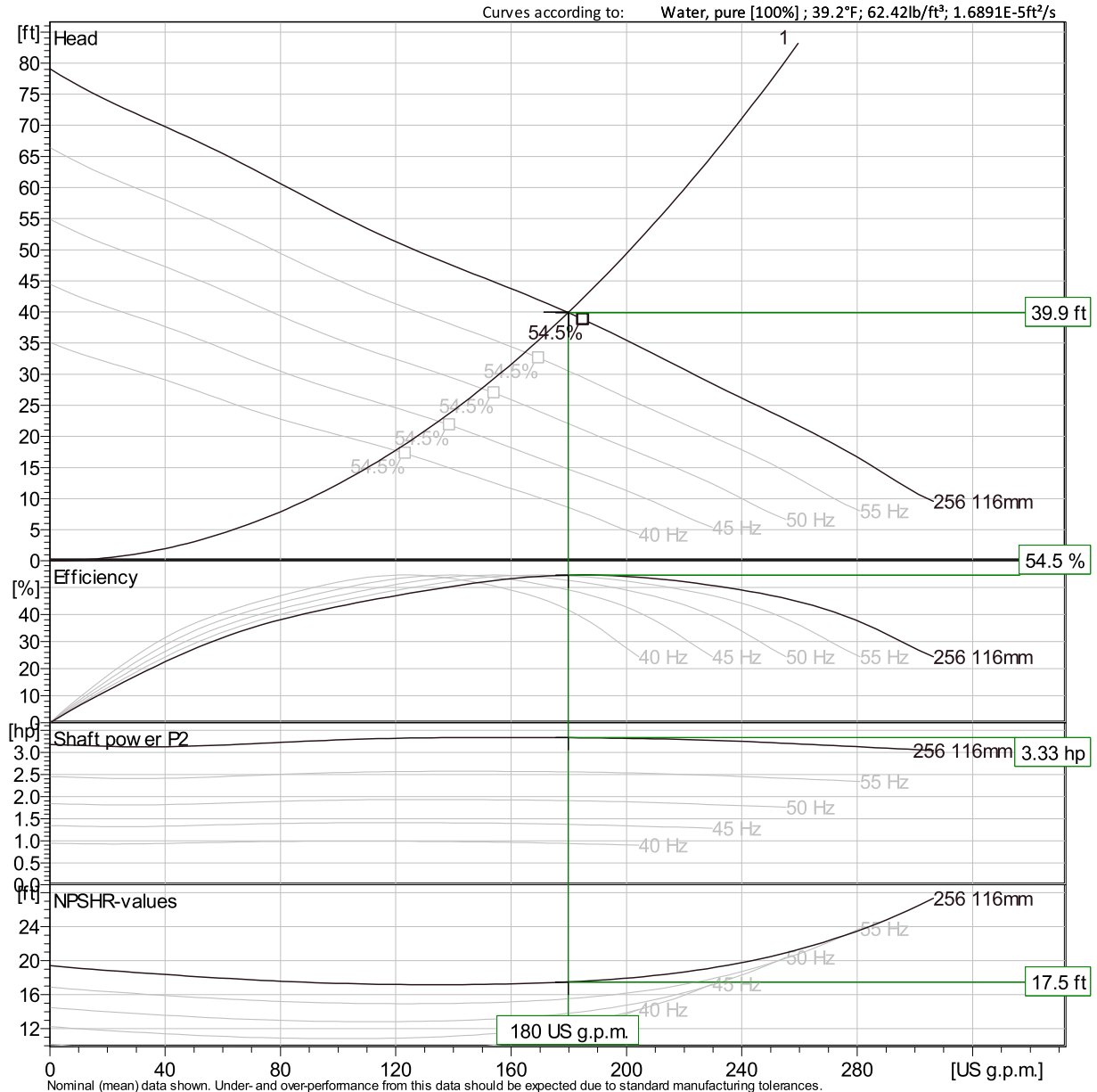
Operating Characteristics

Pumps / Systems	Frequency	Flow	Head	Shaft power	Flow	Head	Shaft power	Hydr. eff.	Specific energy	NPSHre
		US g.p.m.	ft	hp	US g.p.m.	ft	hp			
1	60 Hz	180	39.9	3.33	180	39.9	3.33	54.5 %	281	17.5
1	55 Hz	165	33.5	2.57	165	33.5	2.57	54.5 %	234	15.2
1	50 Hz	150	27.7	1.93	150	27.7	1.93	54.5 %	195	13.1
1	45 Hz	135	22.4	1.4	135	22.4	1.4	54.5 %	162	11

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VFD Analysis



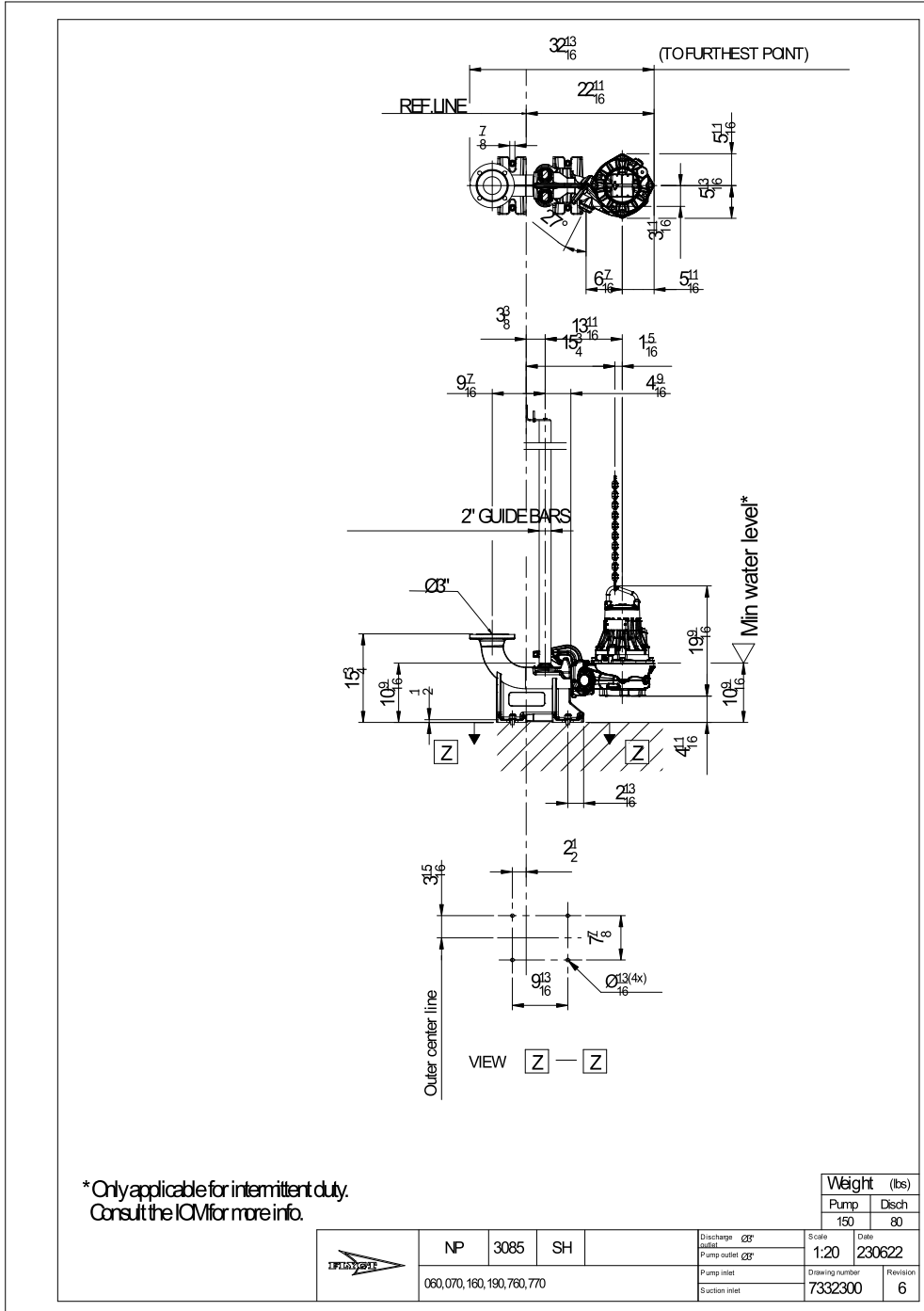
Operating Characteristics

Pumps / Systems	Frequency	Flow US g.p.m.	Head ft	Shaft power hp	Flow US g.p.m.	Head ft	Shaft power hp	Hydr. eff.	Specific energy kWh/US MG	NPSHr ft
1	40 Hz	120	17.7	0.987	120	17.7	0.987	54.5 %	135	9.15

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Dimensional drawing



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