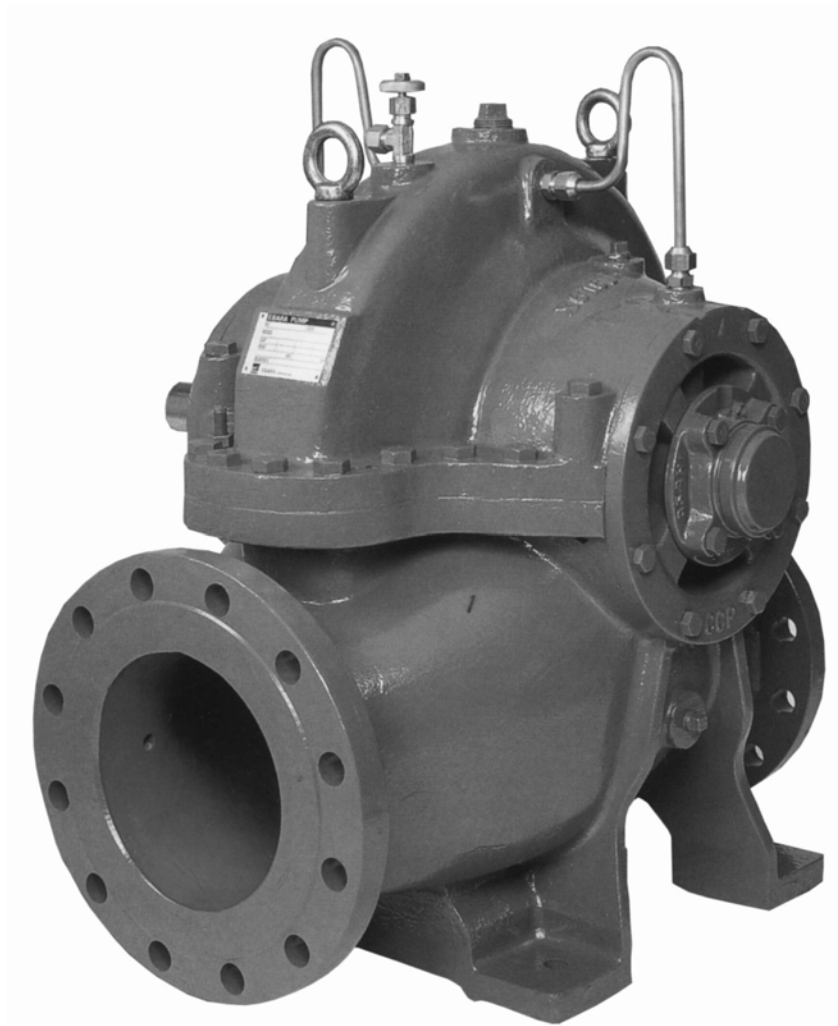




# CNA

50Hz

## Horizontal Split Casing Pump



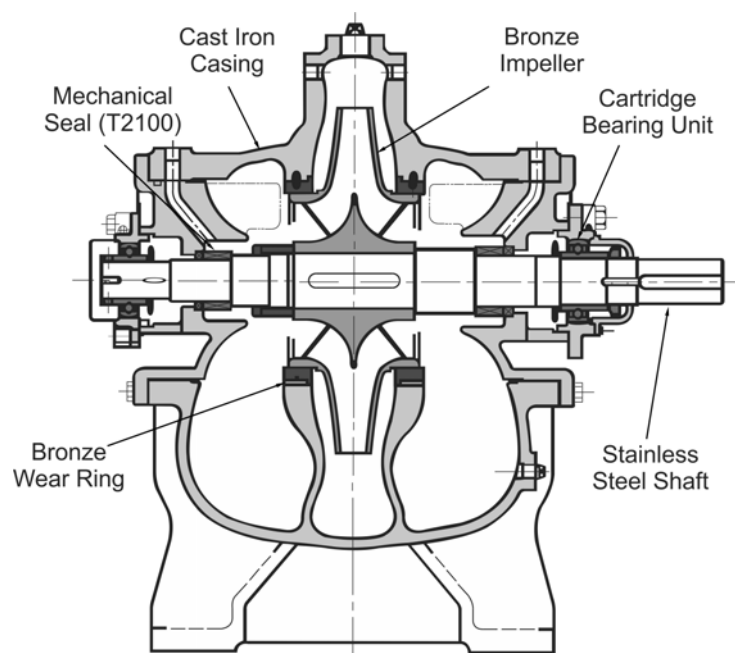
## CONTENTS

50 Hz

V13

	Page
<b>-SPECIFICATIONS</b>	
Features & Applications	100
Performance Chart	101
Pump Specifications	102
Allowable Pressure and Materials	103
Mechanical Seal	104
Impeller	105
Bearing and Shaft	106
Recommended Spare Parts	107
Inspection and Test	108
Sectional View	109
<b>-PERFORMANCE CURVES</b>	
Performance Curve – 125 x 100 CNGA	200
Performance Curve – 125 x 100 CNHA	201
Performance Curve – 125 x 80 CNJA	202
Performance Curve – 150 x 150 CNFA	203
Performance Curve – 150 x 125 CNGA	204
Performance Curve – 150 x 125 CNHA	205
Performance Curve – 150 x 100 CNJA	206
Performance Curve – 200 x 200 CNEA	207
Performance Curve – 200 x 150 CNFA	208
Performance Curve – 200 x 150 CNGA	209
Performance Curve – 200 x 150 CNHA	210
Performance Curve – 200 x 100 CNJA	211
Performance Curve – 250 x 200 CNEA	212
Performance Curve – 250 x 200 CNFA	213
Performance Curve – 250 x 150 CNGA	214
Performance Curve – 250 x 150 CNHA	215
Performance Curve – 250 x 150 CNJA	216
Performance Curve – 300 x 250 CNEA	217
Performance Curve – 300 x 200 CNFA	218
Performance Curve – 300 x 200 CNGA	219
Performance Curve – 300 x 200 CNHA	220
Performance Curve – 300 x 150 CNJA	221
Performance Curve – 300 x 250 CNFA	222
Performance Curve – 300 x 250 CNGA	223
Performance Curve – 300 x 250 CNHA	224
Performance Curve – 300 x 200 CNJA	225
Performance Curve – 350 x 300 CNFA	226
Performance Curve – 350 x 250 CNGA	227
Performance Curve – 350 x 250 CNHA	228
Performance Curve – 400 x 350 CNEA	229
Performance Curve – 400 x 350 CNFA	230
<b>-DIMENSIONS</b>	
Dimensions – Bare Shaft Pump	400
Dimensions – (With Typical 4 Pole Motors)	401-406

E.&O.E. All care has been taken to ensure the accuracy of the information and is correct to the best of our knowledge and is given without guarantee. Specifications subject to change without notice.



#### ■ Features

- Compact and robust design.
- Axially split casing allows the easy removal of the top casing for inspection and service.
- A wide range of performance with head up to 120 m.
- Anti-corrosion materials used on the rotating parts.
- High quality sealed and cartridge type bearing unit provide high durability.
- High allowable working pressure can ensure stable running.
- Mechanical seal for easy maintenance.

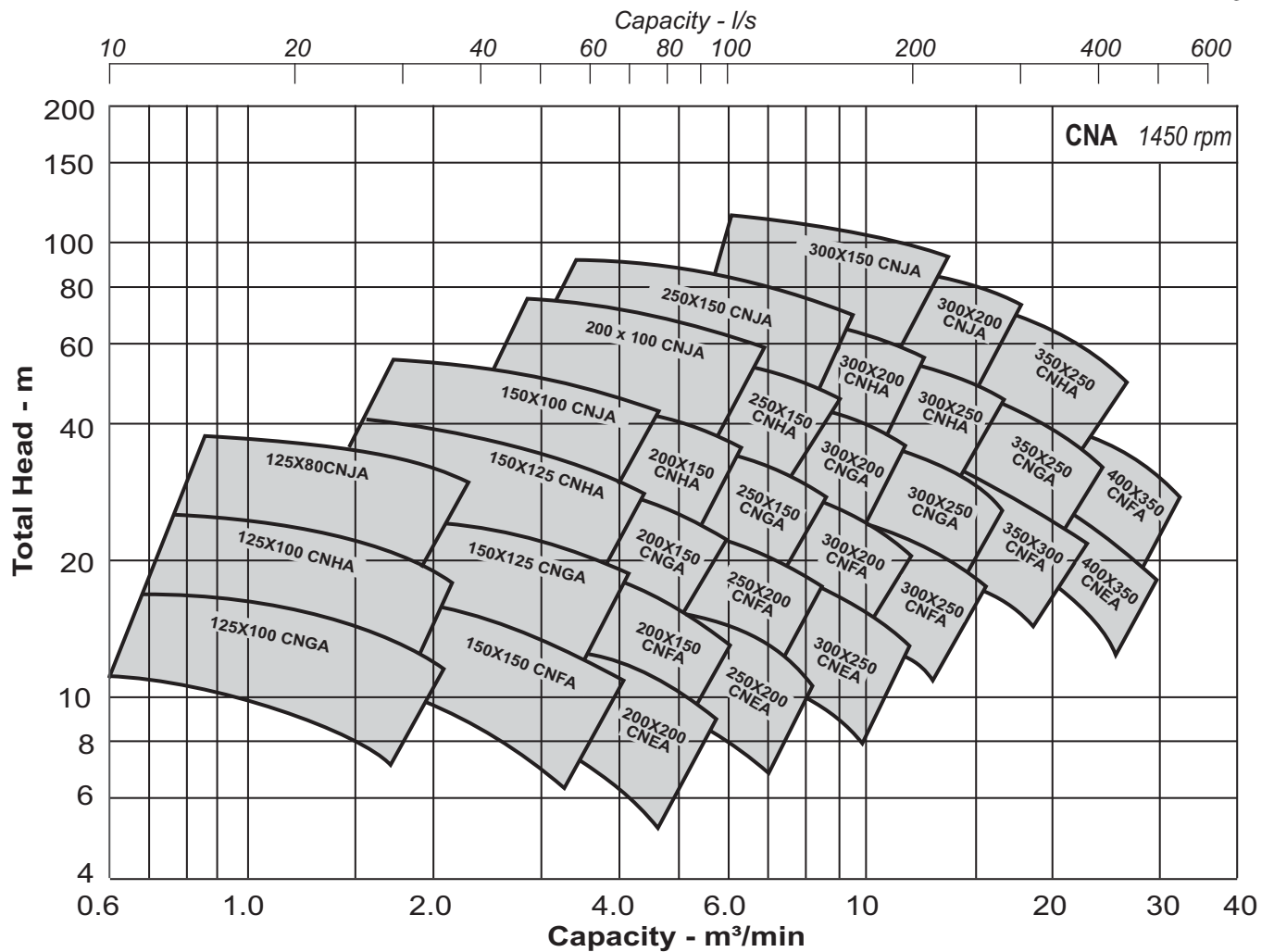
#### ■ Applications

- Water supply
- Hot and cold water circulation
- For cooling tower
- Irrigation
- Industrial use
- Drainage
- Air-conditioning

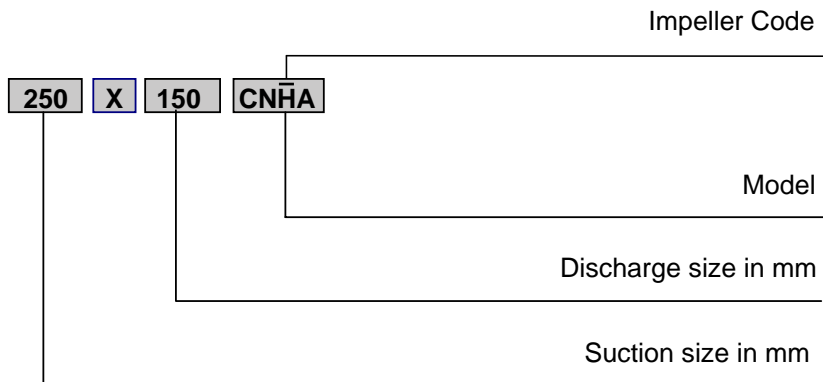
PERFORMANCE CHART 4 -POLE

50 Hz

V13



Model Code

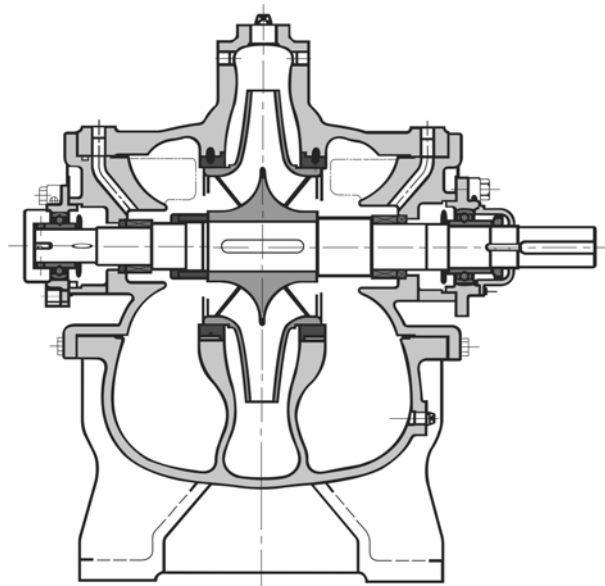


**PUMP SPECIFICATIONS**

50 Hz

V13

Description		
Model		CNA.
Liquid Handled	Type of liquid	Clean water, Industrial Water, River Water
	Temperature	Below 80°C (176°F)
Max. Working Pressure		16 bar (16.3 kgf/cm <sup>2</sup> )
Operating Speed		Standard 1450 rpm (Max 1800 rpm)
Construction	Shaft seal	Mechanical Seal - T2100 (Carbon, Ceramic, Nitrile)
	Bearing	Ball Bearing - Cartridge type
	Lubrication	Grease
Material	Casing	Cast Iron - FC250
	Impeller	Bronze - BC6
	Casing wear ring	Bronze- BC6
	Shaft	SUS 316
Flange	Suction	JIS 16 KRF
	Discharge	JIS 16 KRF
		<b>Accessories</b>
Standard		Air vent piping, flushing water piping, Lift bolts.
Optional		Slip on companion flanges to suit schedule 40 pipe



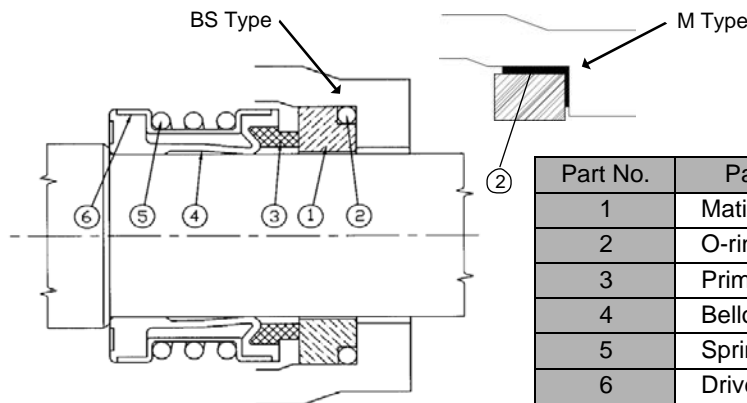
Model	Allowable Pressure for Casing									Material		
	Hydro Test Press	Max. Working Pressure						Max. Suction Pressure		Casing	Impeller	Shaft
		Standard		Option 1		Option 2					Standard	Standard
		kg	kg	psi	kg	psi	kg	psi	kg		psi	
125x100 CNGA	24	16	230	17.6	250	20	285	10	143	Cast Iron	Bronze	Stainless Steel
125x100 CNHA				17.8	255							
125x80 CNJA												
150x150 CNFA	24	16	230	17.6	250	20	285	10	143	Cast Iron	Bronze	Stainless Steel
150x125 CNGA				18.2	260							
150x125 CNHA				17.6	250							
150x100 CNJA												
200x200 CNEA	24	16	230	-	-	20	285	10	143	Cast Iron	Bronze	Stainless Steel
200x150 CNFA												
200x150 CNGA												
200x150 CNHA												
200x100 CNJA				18.0	257							
250x200 CNEA	24	16	230	-	-	20	285	10	143	Cast Iron	Bronze	Stainless Steel
250x200 CNFA												
250x150 CNGA				17.6	250							
250x150 CNHA				19.6	280							
250x150 CNJA												
300x250 CNEA	24	16	230	-	-	20	285	10	143	Cast Iron	Bronze	Stainless Steel
300x200 CNFA												
300x200 CNGA												
300x200 CNHA				18.2	260							
300x150 CNJA												
300x250 CNFA				-	-							
300x250 CNGA												
300x250 CNHA				17.0	243							
300x200 CNJA				-	-							
350x300 CNFA	24	16	230	-	-	20	285	10	143	Cast Iron	Bronze	Stainless Steel
350x250 CNGA												
350x250 CNHA												
400x350 CNEA	24	16	230	-	-	20	285	10	143	Cast Iron	Bronze	Stainless Steel
400x350 CNFA												

**TECHNICAL DATA - MECHANICAL SEAL**

50 Hz

V13

Model	Mechanical Seal				Side Cover O-Ring Size	
	Driver (CP) Side		Opposite (CCP) Side			
	Type	Size	Type	Size		
125 x 100 CNGA	T2100/BR1C1/M	45	T2100/BR1C1/M	35	150	
125 x 100 CNHA						
125 x 80 CNJA						
150 x 150 CNFA	T2100/BR1C1/M	45	T2100/BR1C1/M	35	180	
150 x 125 CNGA		55		45		
150 x 125 CNHA		45		35		
150 x 100 CNJA		55		45		
200 x 200 CNEA	T2100/BR1C1/M	45	T2100/BR1C1/M	35	195	
200 x 150 CNFA						
200 x 150 CNGA						
200 x 150 CNHA		55		45		205
200 x 100 CNJA		65		55	230	
250 x 200 CNEA	T2100/BR1C1/M	45	T2100/BR1C1/M	35	195	
250 x 200 CNFA		55		45		205
250 x 150 CNGA		65		55		230
250 x 150 CNHA		75		65		260
250 x 150 CNJA	T2100/BR1C1/BS	75				
300 x 250 CNEA	T2100/BR1C1/M	55	T2100/BR1C1/M	45	205	
300 x 200 CNFA		65		55		230
300 x 200 CNGA		75		65		260
300 x 200 CNHA	T2100/BR1C1/BS	85	T2100/BR1C1/BS	75	275	
300 x 150 CNJA						
300 x 250 CNFA	T2100/BR1C1/M	65	T2100/BR1C1/M	55	230	
300 x 250 CNGA	75	65		260		
300 x 250 CNHA	T2100/BR1C1/BS	85		75		275
300 x 200 CNJA						
350 x 300 CNFA	T2100/BR1C1/BS	75	T2100/BR1C1/M	65	260	
350 x 250 CNGA		85	T2100/BR1C1/BS	75	290	
350 x 250 CNHA						
400 x 350 CNEA	T2100/BR1C1/BS	85	T2100/BR1C1/M	65	275	
400 x 350 CNFA			T2100/BR1C1/BS	75	290	



Part No.	Part Name	Material	Qty/unit
1	Mating Ring	Ceramic	1
2	O-ring / Seat	Nitrile	1
3	Primary Ring	Carbon	1
4	Bellows	Nitrile	1
5	Spring	316 Stainless Steel	1
6	Drive Band	316 Stainless Steel	1

TECHNICAL DATA - IMPELLER

50 Hz

V13

Model	Impeller Data							Weight Approx. (kg)
	Impeller Dia.		Casing Ring		Total Eye Area (cm <sup>2</sup> )	❖ (kg m <sup>2</sup> )	No. of Vanes	
	Max (mm)	Min (mm)	Dia. (mm)	Clearance (mm)				
125 x 80 CNJA	327	264	144 / 140	0.280 – 0.403	179.3	1.3	5	14
125 x 100 CNGA	218	178	136 / 132	0.260 – 0.383	154	0.4		10
125 x 100 CNHA	265	210			166.8	0.7		12
150 x 150 CNFA	227	194	152 / 148	0.280 – 0.403	226.9	0.5	5	14
150 x 125 CNGA	274	227	162 / 158	0.310 – 0.433	244.4	0.8		16.5
150 x 125 CNHA	333	274	172 / 168		283.4	1.4		20
150 x 100 CNJA	397	327			264.4	2.3		24
200 x 200 CNEA	218	183	168	0.310 – 0.437	263.4	0.6	5	9.7
200 x 150 CNFA	254	218			284.2	0.8		13.3
200 x 150 CNGA	307	254	188	0.340 – 0.482	306.8	1		15.4
200 x 150 CNHA	373	307			331.4	2.9		20.2
200 x 100 CNJA	461	373	200		356.6	3.6		32
250 x 200 CNEA	244	205	188	0.340 – 0.482	349.4	0.7	5	12.2
250 x 200 CNFA	285	244	200		357.6	1.3		16.8
250 x 150 CNGA	344	285			386	1.9		21.1
250 x 150 CNHA	418	344	212	0.380 – 0.522	417.2	3.3		24.4
250 x 150 CNJA	517	418	224		448.8	6.2		40
300 x 250 CNEA	274	230	200	0.340 – 0.482	417.6	1.3	5	17.2
300 x 200 CNFA	320	274	212	0.380 – 0.522	449.8	2.4		23.3
300 x 200 CNGA	386	320	224		485.6	4.2		29
300 x 200 CNHA	469	386	236	0.420 – 0.562	524.8	5.4		36.6
300 x 150 CNJA	580	469	250		565.4	8.2		65
300 x 250 CNFA	308	258	224	0.380 – 0.522	526	2.4		23.8
300 x 250 CNGA	359	308	236	0.420 – 0.562	567	3.9		31.9
300 x 250 CNHA	433	359	250		611.2	5.6		36
300 x 200 CNJA	526	433	264	0.480 – 0.641	720.6	7.7		52.5
350 x 300 CNFA	345	290	250	0.420 – 0.562	664	4.1		5
350 x 250 CNGA	403	345	267	0.300 – 0.518	715.2	7.6	41	
350 x 250 CNHA	486	437	280	0.480 – 0.641	772.1	13.3	49.8	
400 x 350 CNEA	325	285	264	0.480 – 0.641	812	5.4	5	51
400 x 350 CNFA	388	325	280		836.3	7.6		50

- ❖ Including GD<sup>2</sup> of coupling.
- ❖ Do not apply above GD<sup>2</sup> when making water hammer analysis.



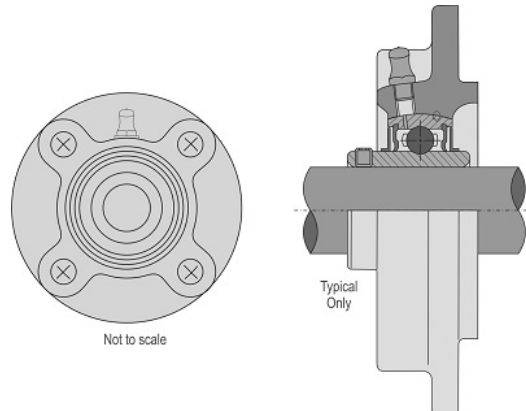
TECHNICAL DATA - BEARING AND SHAFT

50 Hz

V13

Model	Bearing		Grease Replenishment		Shaft Data			
	Driver (CP) Side	Opposite (CCP) Side	CP SIDE	CCP SIDE	Approx. Wt. (kg)	Max. HP per 1000rpm (HP)	Shaft Dia. Coupling (mm)	Shaft Dia. Impeller (mm)
			(gr)	(gr)				
125 x 100 CNGA	CUCFC 208C	UCFC 206E	3.9	2.2	6.4	11	28	42
125 x 100 CNHA					6.4			
125 x 80 CNJA					6.4			
150 x 150 CNFA	CUCFC 208C	UCFC 206E	3.9	2.2	7.6	27	38	50
150 x 125 CNGA	CUCFC 210C	UCFC 208E	5.4	3.9	11.6	55	48	60
150 x 125 CNHA	CUCFC 208C	UCFC 206E	3.9	2.2	7.6	27	38	50
150 x 100 CNJA	CUCFC 210C	UCFC 208E	5.4	3.9	11.6	55	48	60
200 x 200 CNEA	CUCFC 208C	UCFC 206E	3.9	2.2	7.6	27	38	50
200 x 150 CNFA								
200 x 150 CNGA								
200 x 150 CNHA	CUCFC 210C	UCFC 208E	5.4	3.9	12	58	48	60
200 x 100 CNJA	CUCFC 212C	UCFC 210E	10	5.4	18.3	83	55	70
250 x 200 CNEA	CUCFC 208C	UCFC 206E	3.9	2.2	8.1	27	38	50
250 x 200 CNFA	CUCFC 210C	UCFC 208E	5.4	3.9	12	55	48	60
250 x 150 CNGA								
250 x 150 CNHA								
250 x 150 CNJA	CUCFC 212C	UCFC 210E	10	5.4	18.8	83	55	70
250 x 150 CNJA	CUCFC 214C	UCFC 212E	13.6	10	27.3	136	65	80
300 x 250 CNEA	CUCFC 210C	UCFC 208E	5.4	3.9	12.9	55	48	60
300 x 200 CNFA	CUCFC 212C	UCFC 210E	10	5.4	18.8	83	55	70
300 x 200 CNGA					19.1			
300 x 200 CNHA								
300 x 200 CNJA	CUCFC 214C	UCFC212E	13.6	10	27.3	136	65	80
300 x 150 CNJA	CUCFC 216C	UCFC 214CE	19.2	13.6	38	209	75	90
300 x 250 CNFA	CUCFC 212C	UCFC210E	10	5.4	20.1	83	55	70
300 x 250 CNGA	CUCFC 214C	UCFC212E	13.6	10	27.9	136	65	80
300 x 250 CNHA								
300 x 200 CNJA								
300 x 200 CNJA	CUCFC 216C	UCFC 214CE	19.2	13.6	38	209	75	90
350 x 300 CNFA	CUCFC 214C	UCFC 212E	13.6	10	30.6	136	65	80
350 x 250 CNGA	CUCFC 214C	UCFC 212E	13.6	10	30.6	136	65	80
350 x 250 CNHA	CUCFC 216C	UCFC 214CE	19.2	13.6	40.2	209	75	90
400 x 350 CNEA	CUCFC 214C	UCFC 212E	13.6	10	45	136	65	80
400 x 350 CNFA	CUCFC 216C	UCFC 214CE	19.2	13.6	48	209	75	90

Replenishment: Continuous operation 4300 hours.



Typical Only

Part No.	Part Name	Standard Material	Qty / Unit	❖ Expected Life	
				Year	Hours
051-1, 051-2	Bearing Unit	-	1 Set	3	25,000
107 or 107-1 & 107-2	Casing wear rings	Bronze	1 Set	2	16,000
111-1, 111-2	Mechanical Seals	-	1 Set	1	8,000
117-01	Gasket (Casing)	Press Board	1	When the Casing is disassembled	

❖ Expected life of spare parts may be considered as shown in the above table.

**PAINT SPECIFICATIONS**

Part Name	Material (JIS Code)	Standard	
		Inner Surface	Outer Surface
Casing	Cast Iron (FC)	1 coat of Zinc chromate primer	Under coat - 1 coat of Zinc chromate primer
Side cover	Cast Iron (FC)		Finish coat - 1 coat of Phthalic resin enamel
Common base	Cast Iron (FC)	Under coat - 1 coat of Zinc chromate primer	
	Steel	Finish coat - 1 coat of Phthalic resin enamel	

## INSPECTION AND TEST

50 Hz

V13

Item Check	Standard	Option
Material Inspection	<b>EI</b> Material chemical composition and mechanical Properties are checked periodically according to JIS.	<b>CR/ES</b> Material certificat is to be submitted
Hydrostatic test *3	<b>EN</b> Hydrostatic test is to be performed on casing using fresh water at normal temperature. Iron	<b>EN</b> Hydrostatic test record is to be submitted
Balancing test *3	<b>EN</b> Impeller is to be subject to balancing test	<b>EN</b>
Assembly dimensional inspection *3	<b>EN</b> Dimensions of the followings are to be subject to inspection * Position of foundation bolt hole * Position of suction & discharge flange * Relative positions of suction and discharge flange and foundation bolt hole.	<b>CR</b> Outline dimensional inspection record is to be submitted.
Performance test General performance *1	<b>ES</b> Capacity, total head, pump power input, and speed of rotation are to be measured and pump efficiency to be calculated. Measurement point are to be 5 points within the range from shutoff point 125% rated capacity. Judgement is to be based on JIS Testing Code B8301 9.1 (1)	<b>CR</b> Judgement is to be based on following standards. * JIS Testing Code B8301 9.1 (2) * ISO 2548 Part 1 Class C (as requested by customer)
Bearing Vibration	<b>EN</b> Vibration is to be measured on bearing housing at rated capacity. Judgement is to be based on JIS Testing Code B8301 9.4.1	<b>CR</b> Measured record is to be submitted
Performance test Bearing Temperature	<b>EN</b> Temperature is to be measured at saturated point of the temperature increase. Judgement is to be based on JIS Testing Code B8301 9.4.2	<b>CR</b> Measurement record is to be submitted.
NPSH	<b>NA</b>	<b>CR</b> Measurement record is to be performed for Req'd NPSH at above or below rated capacity
	<b>EN</b> Internal Ebara Standard	<b>CR</b> Noise level is to be measured at rated capacity. *2
Shipping Inspection	<b>ES</b> Shipping Inspection is to be performed based on EBARA shipping inspection check sheet.	<b>ES</b>

**NOTE :**

**CR** : Ebara Inspector Witness Point (Record shall be submitted)

**EI** : Ebara Inspector Witness Point (Record shall be not submitted)

**EN** : Ebara Inspector Witness Point (Not Recorded but stamp/markings/OK inspection label)

**ES** : Ebara Inspector Witness Point (Record shall be kept)

**NA** : Not Applied.

\*1 Performance test based on JIS B8301 " Testing Methods for Centrifugal Pumps, Mixed Flow Pumps and Axial Flow Pump" and JIS B8302 "Measurement Methods of Pump Discharge".

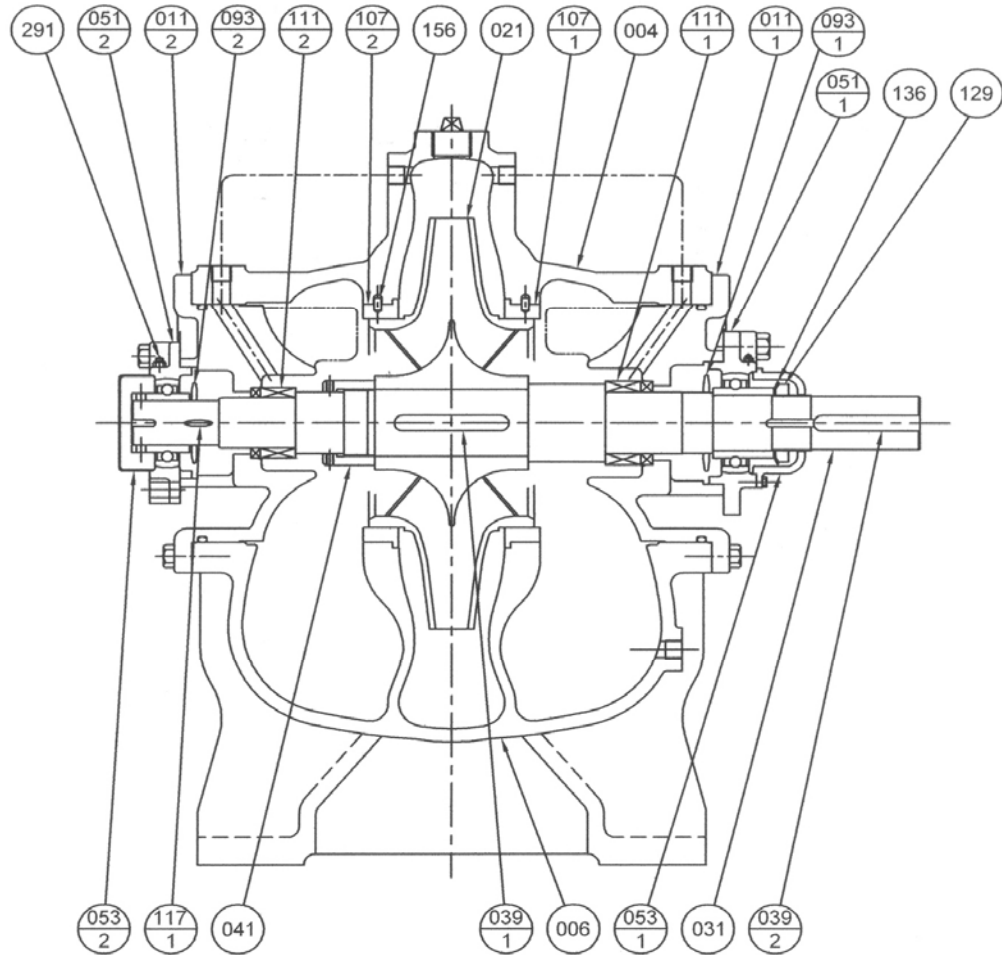
\*2 Measured Value on pump noise is considered as reference value because its include background noise effect of motor, discharge valve, etc.

\*3 Judgement is based on Ebara Standard.

SECTIONAL VIEW

50 Hz

V13



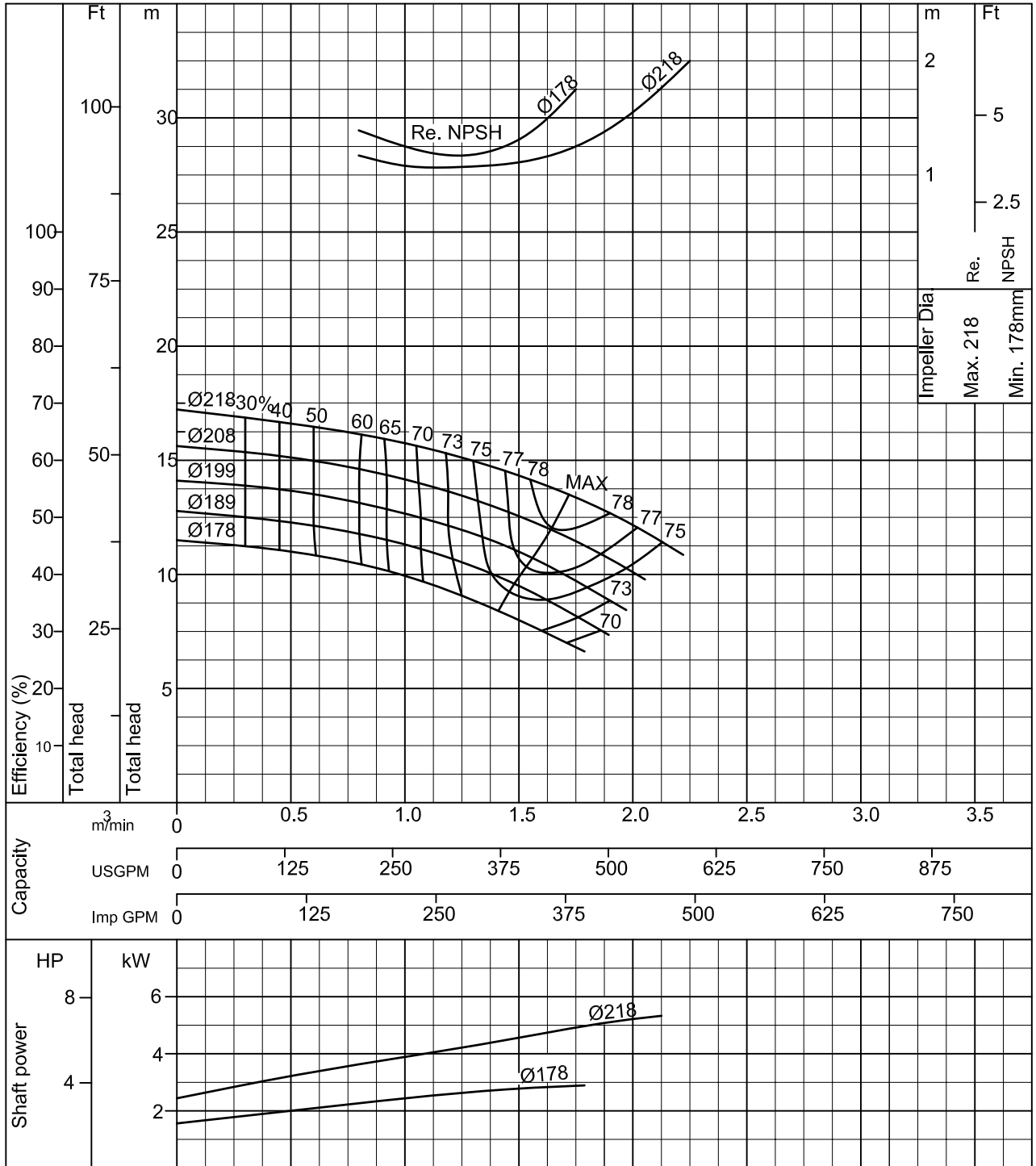
No.	Part Name	Material	Qty	No.	Part Name	Material	Qty
051-2	Bearing unit	FC200	1	291	Grease nipple	C3604BD-F	2
051-1	Bearing unit			156	Lock pin	SUS304	
041	Impeller nut	BC6		136	Bearing washer	SS400	1
039-2	Coupling key	S50C		129	Bearing nut		
039-1	Impeller key	316 Stainless		117-1	Gasket (casing)	V#6500	
031	Shaft	Steel		111-2	Mechanical seal	-	2
021	Impeller	BC6		111-1	Mechanical seal	-	
011-2	Side cover	FC250		107	Casing Wear ring	BC6	1
011-1	Side cover			093-2	Deflector (CCP side)	Rubber	
006	Casing lower half			093-1	Deflector (CP side)		
004	Casing upper half		053-2	Bearing cover	FC200		
			053-1	Bearing cover			

PERFORMANCE CURVE

50 Hz

V13

125 x 100 CNGA	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt

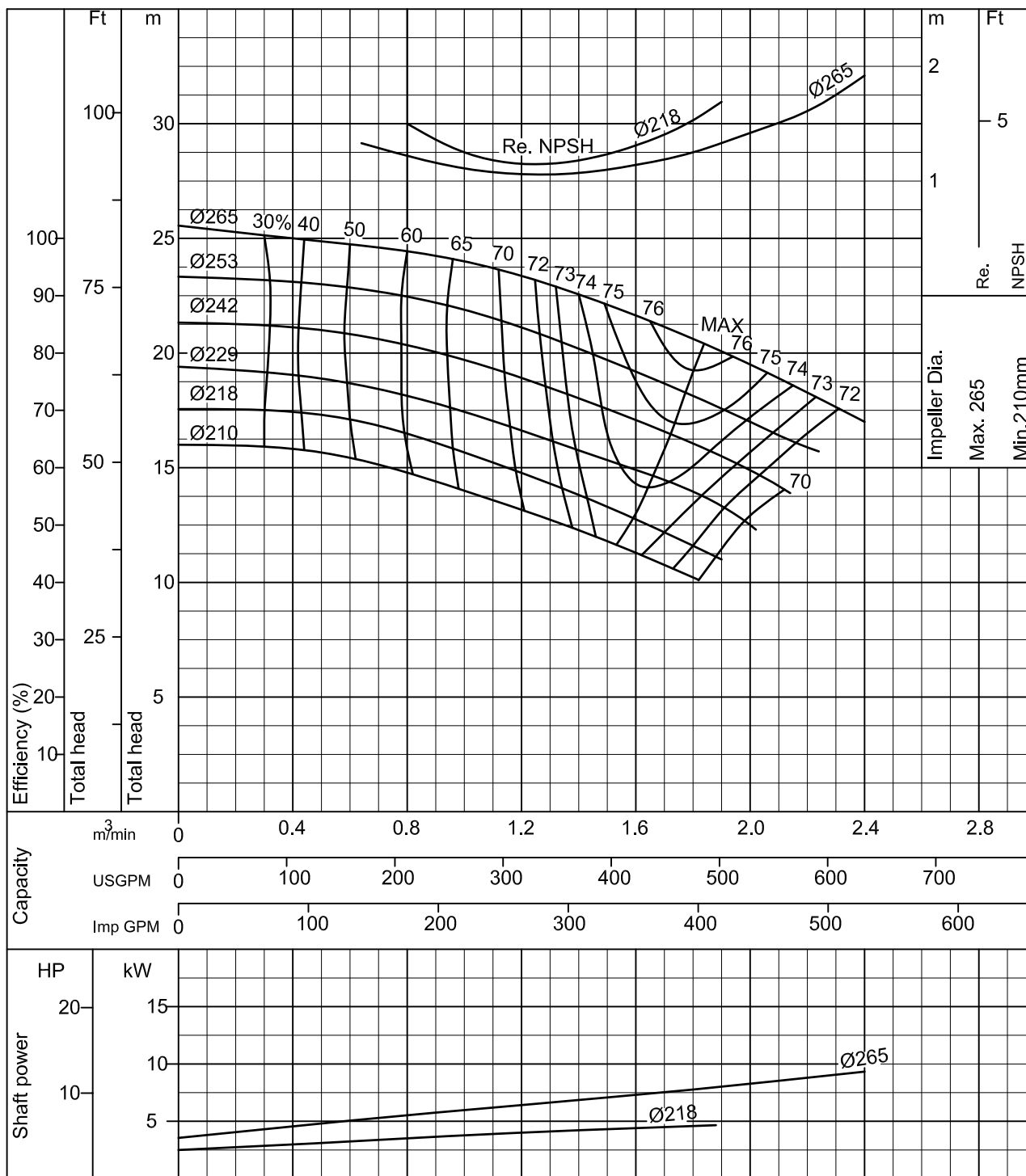


PERFORMANCE CURVE

50 Hz

V13

125 x 100 CNHA	According to JIS testing code B8301, B8302
50Hz (Approx speed 1450min <sup>-1</sup> )	
S.G.= 1.0 Vis.= 1.0 cSt	

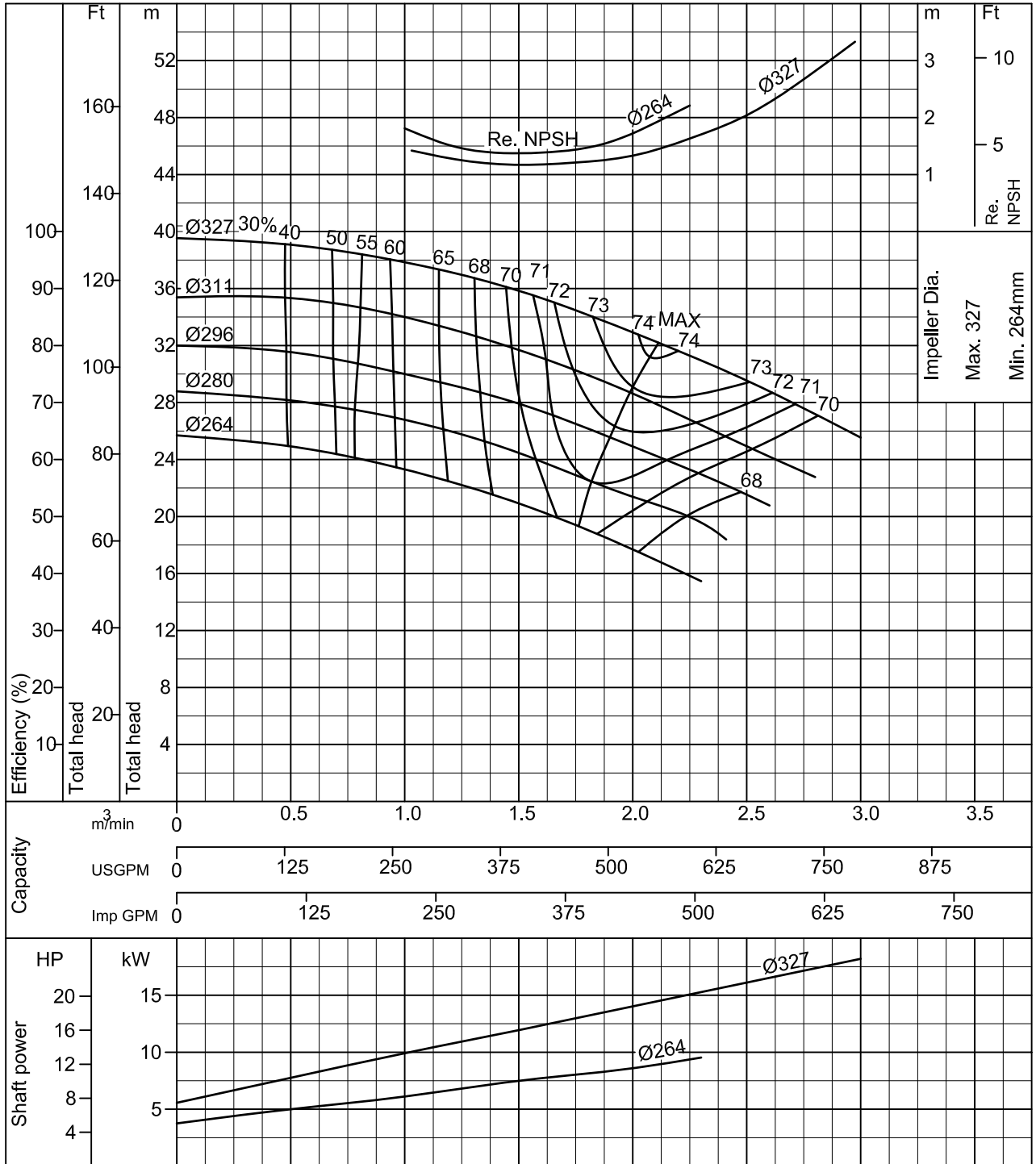


PERFORMANCE CURVE

50 Hz

V13

125 x 80 CNJA	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt

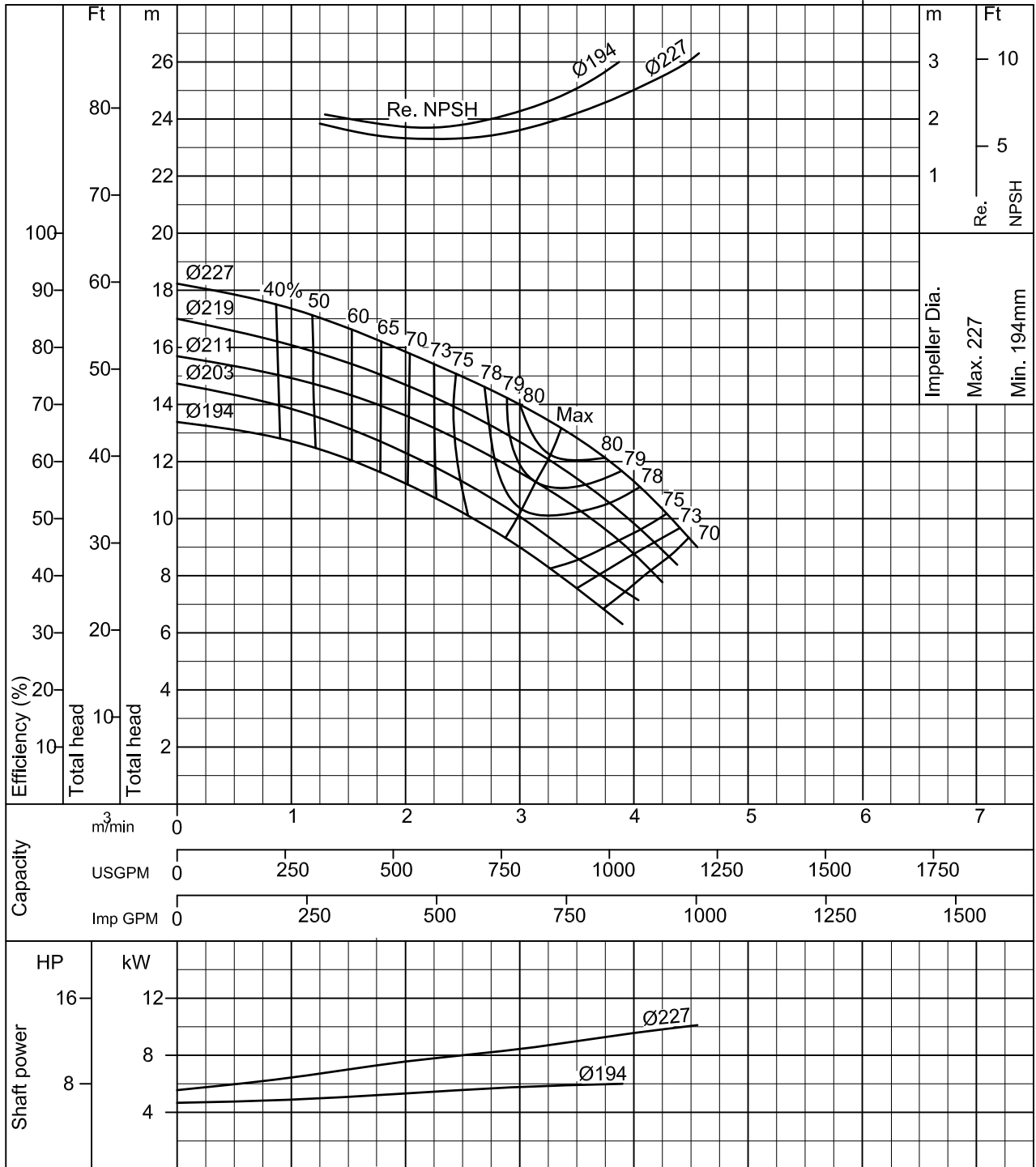


PERFORMANCE CURVE

50 Hz

V13

<h2 style="margin: 0;">150 x 150 CNFA</h2>	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> ) S.G.= 1.0 Vis.= 1.0 cSt	



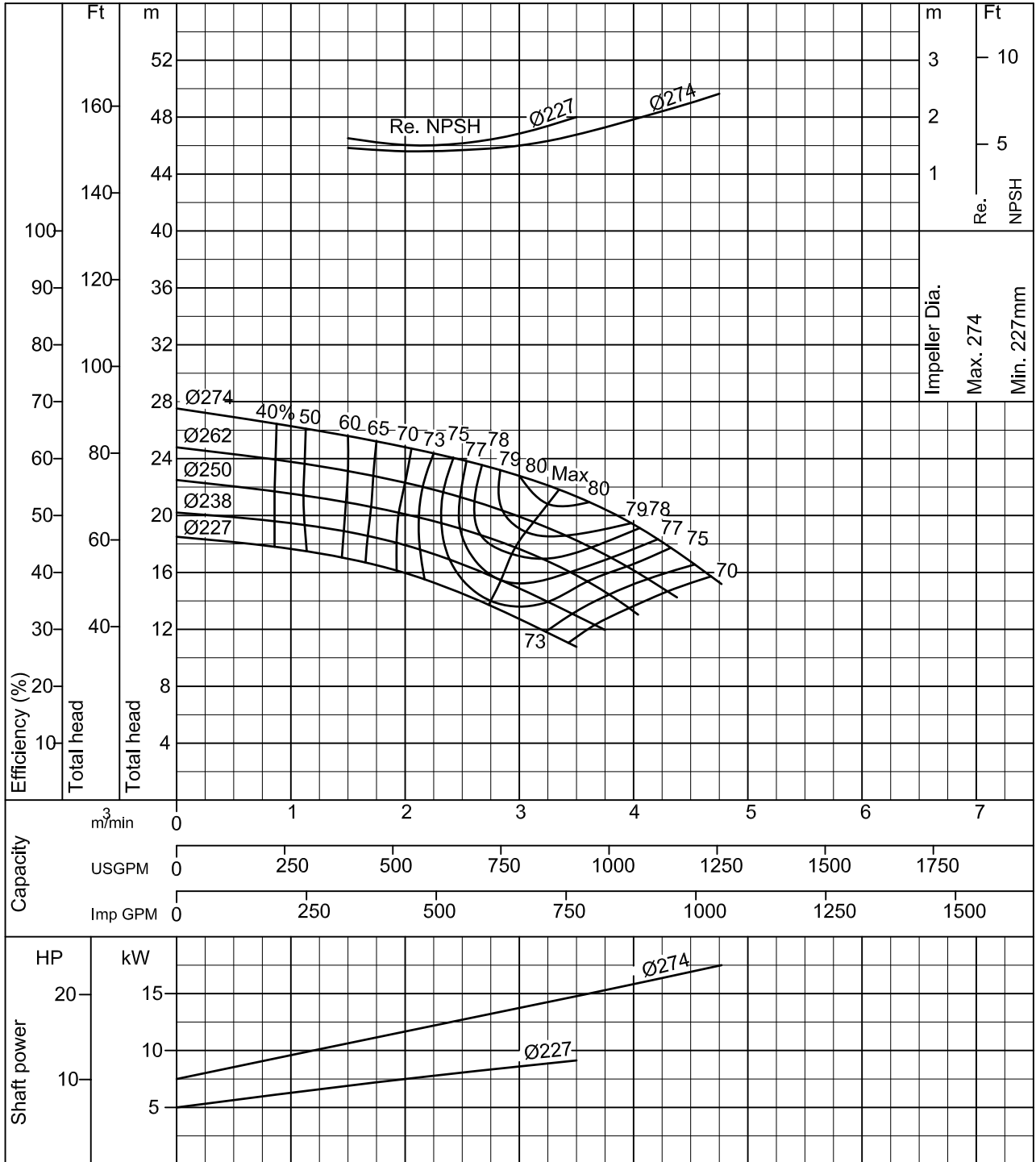


PERFORMANCE CURVE

50 Hz

V13

150 x 125 CNGA	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt

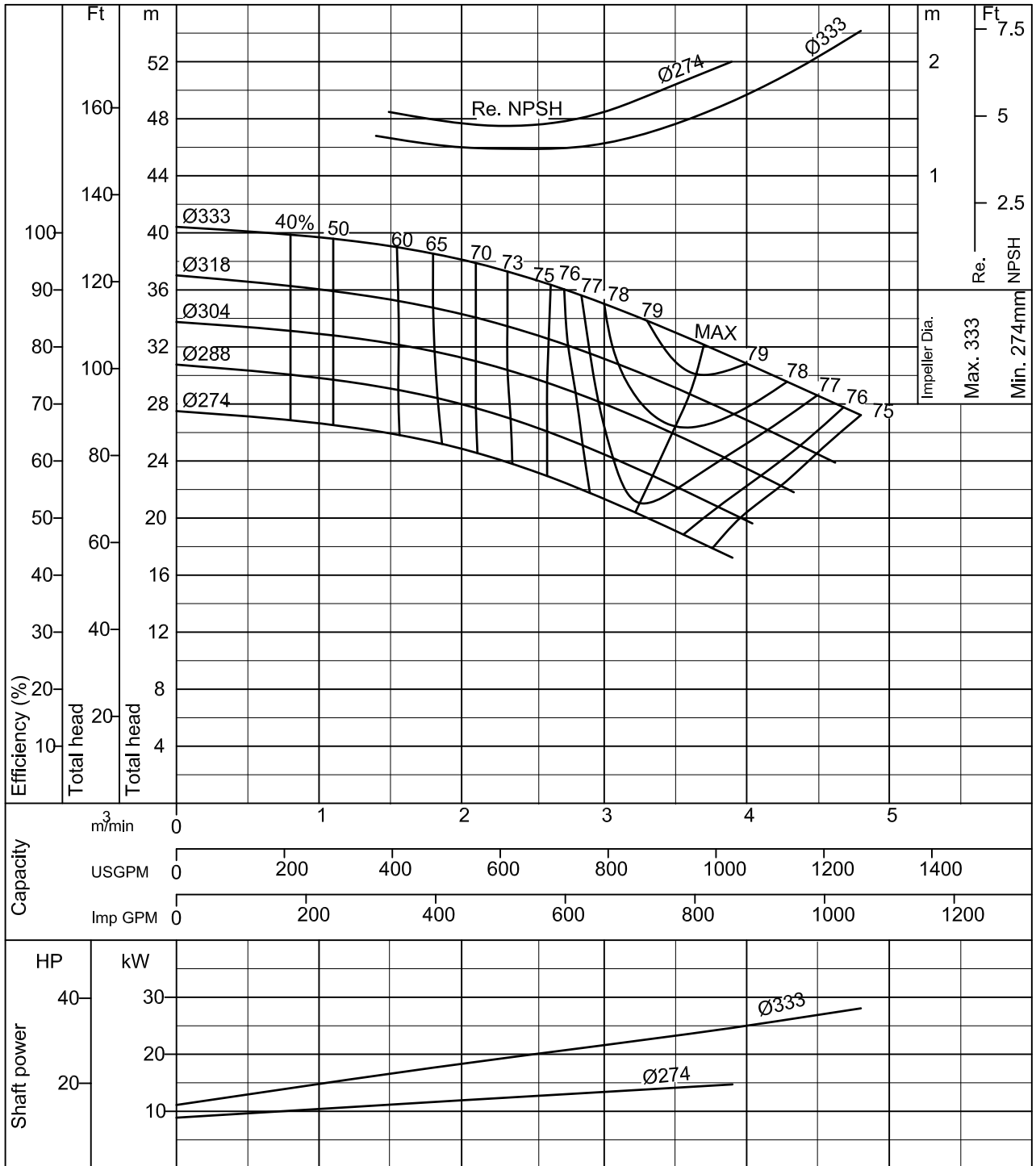


PERFORMANCE CURVE

50 Hz

V13

<p><b>150 x 125 CNHA</b></p>	<p>According to JIS testing code B8301, B8302</p>
<p>50Hz (Approx. speed 1450min<sup>-1</sup>)</p>	<p>S.G.= 1.0 Vis.= 1.0 cSt</p>

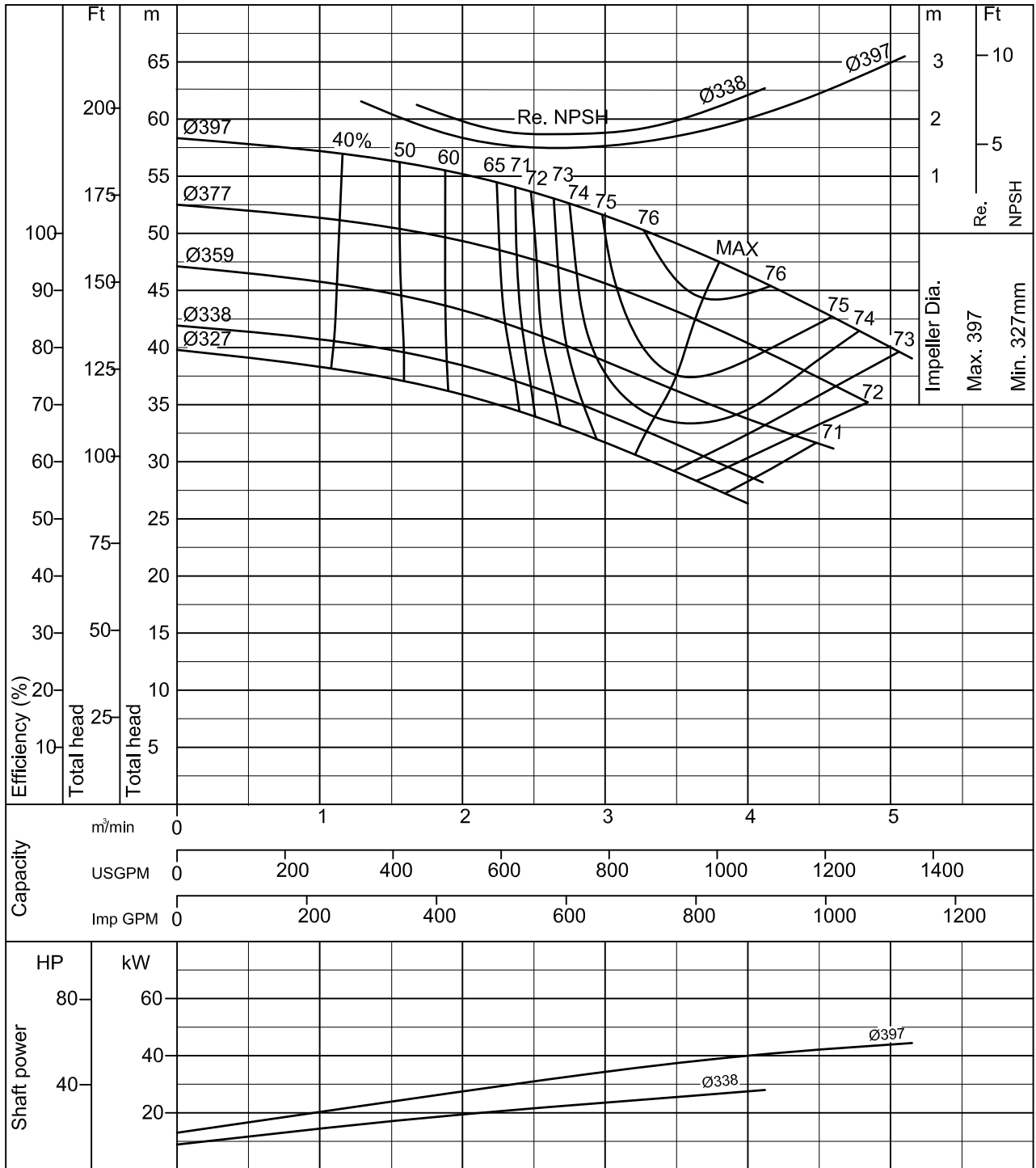


PERFORMANCE CURVE

50 Hz

V13

150 x 100 CNJA	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt



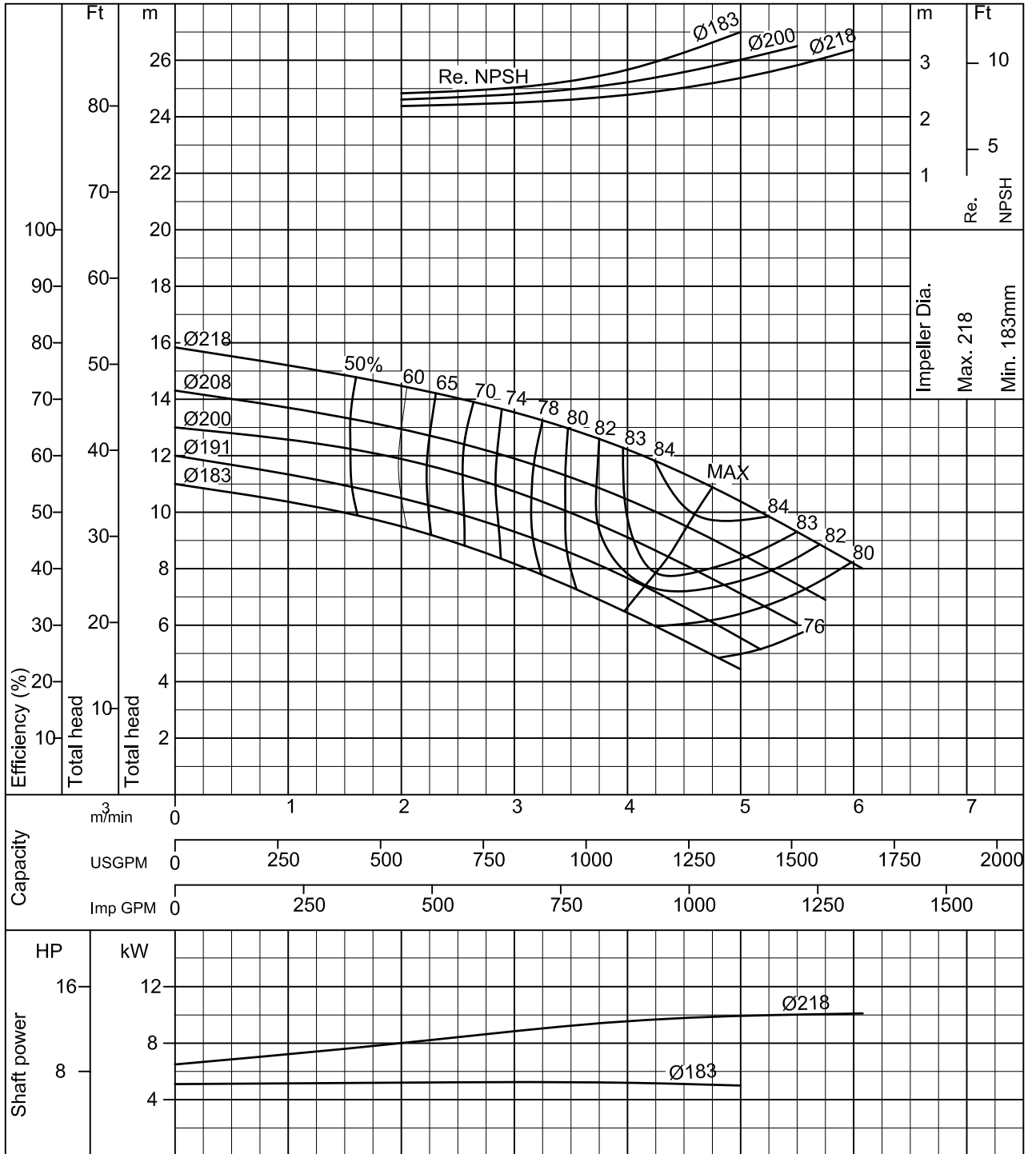
PERFORMANCE CURVE

50 Hz

V13

200 x 200 CNEA According to JIS testing code B8301, B8302

50Hz (Approx. speed 1450min<sup>-1</sup>) S.G.= 1.0 Vis.= 1.0 cSt



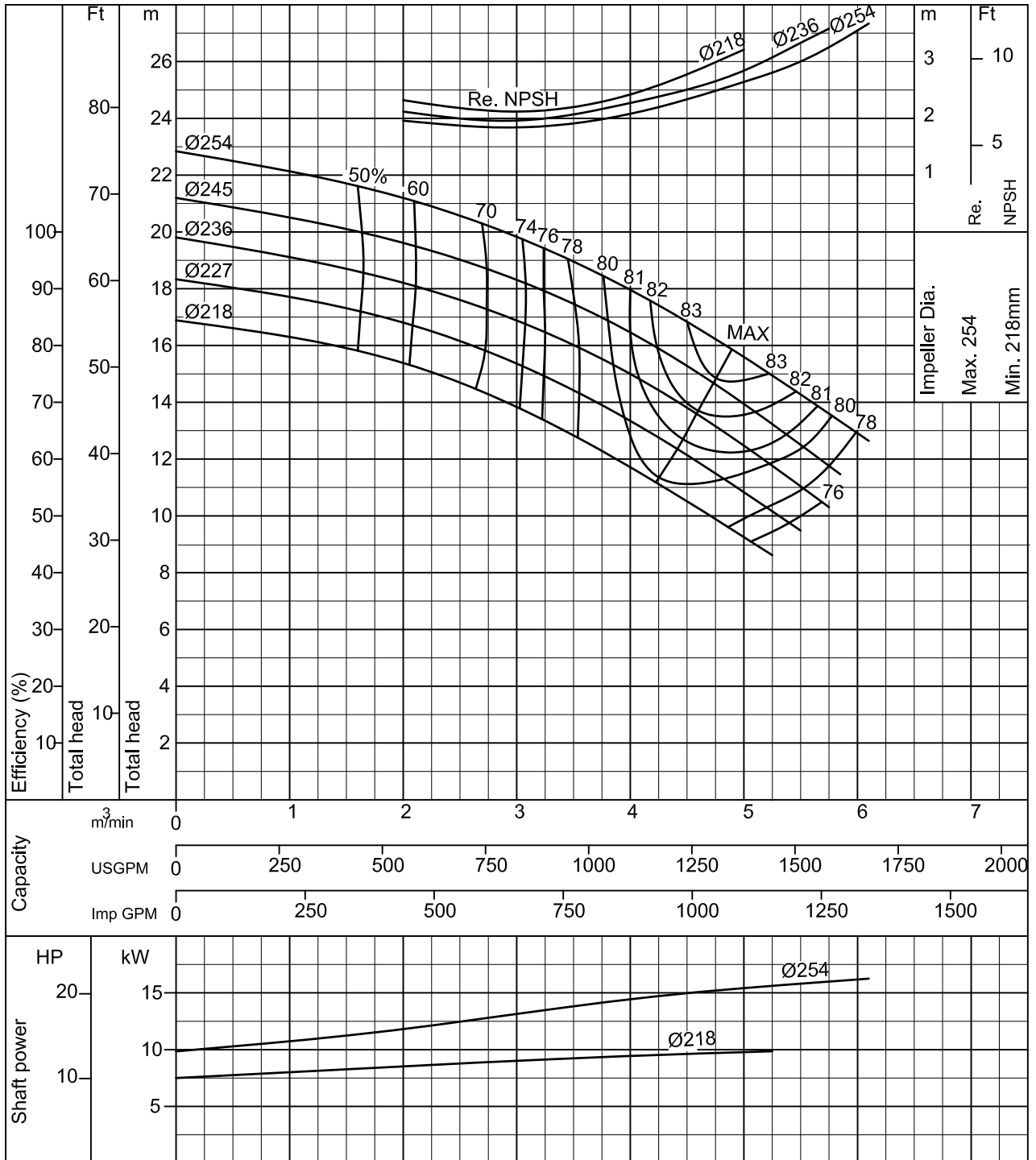
PERFORMANCE CURVE

50 Hz

V13

200 x 150 CNFA According to JIS testing code B8301, B8302

50Hz (Approx. speed 1450min<sup>-1</sup>) S.G.= 1.0 Vis.= 1.0 cSt

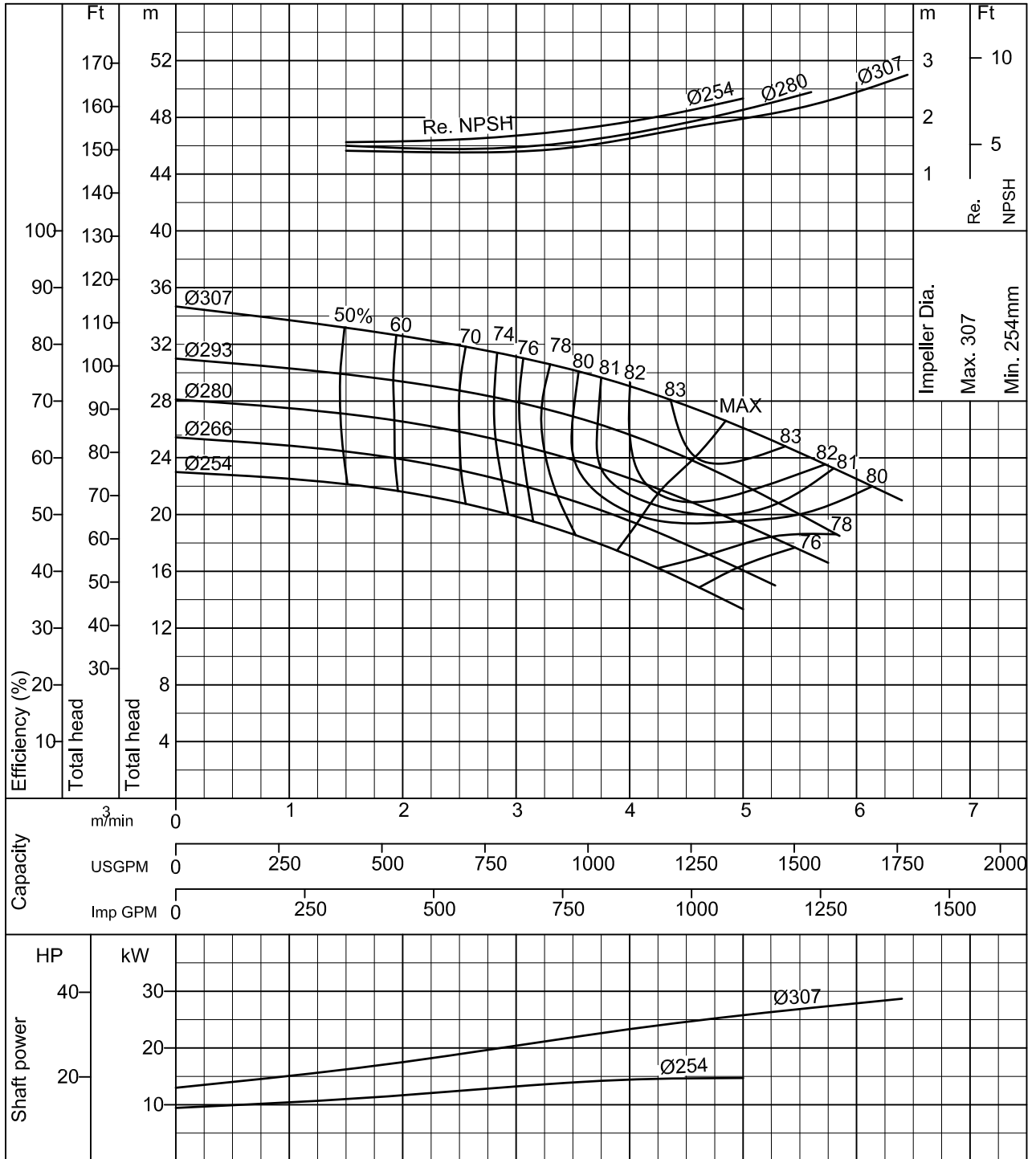


PERFORMANCE CURVE

50 Hz

V13

200 x 150 CNGA	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt

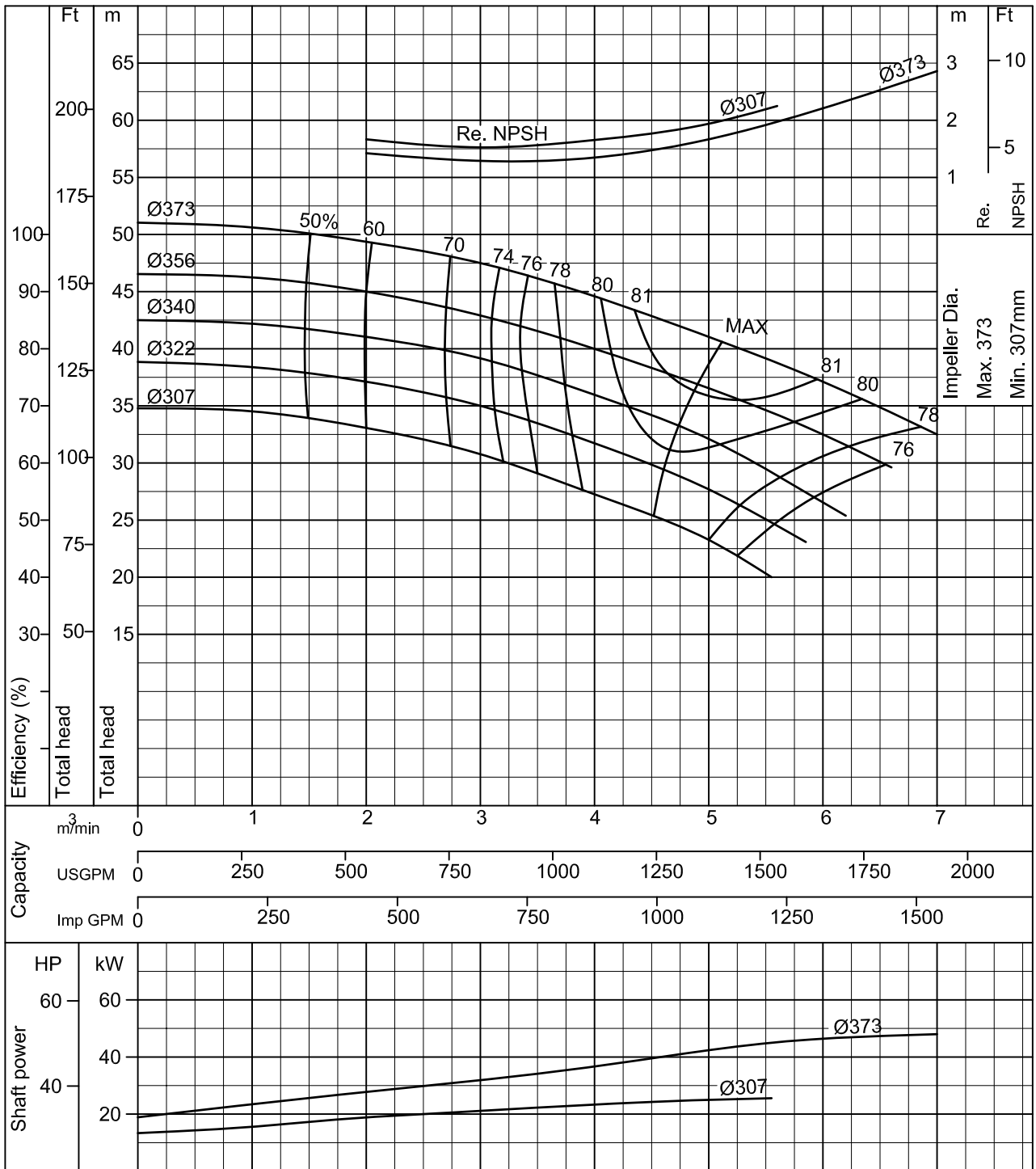


PERFORMANCE CURVE

50 Hz

V13

200 x 150 CNHA	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt

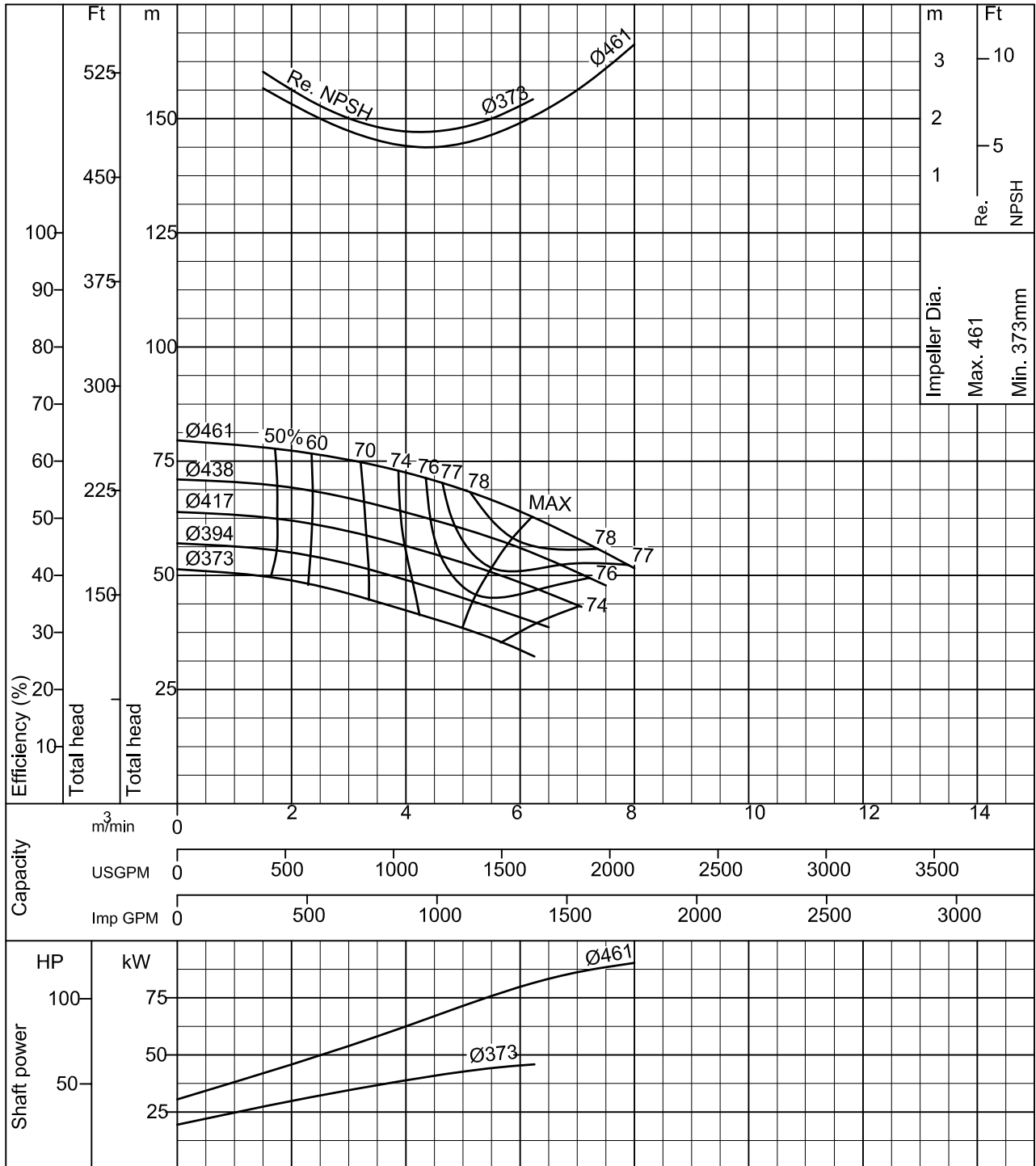


PERFORMANCE CURVE

50 Hz

V13

200 x 100 CNJA	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt



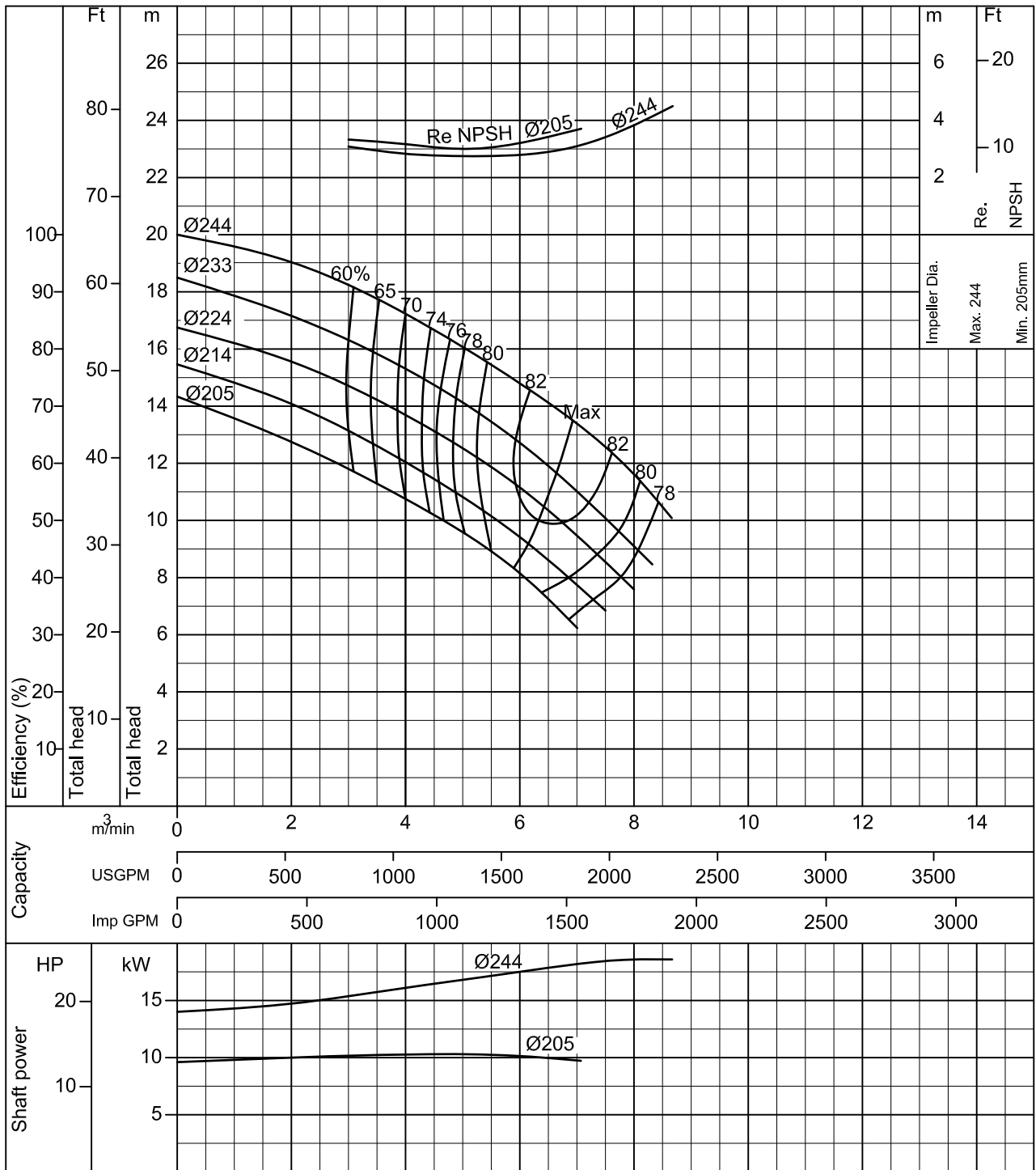


PERFORMANCE CURVE

50 Hz

V13

250 x 200 CNEA	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt

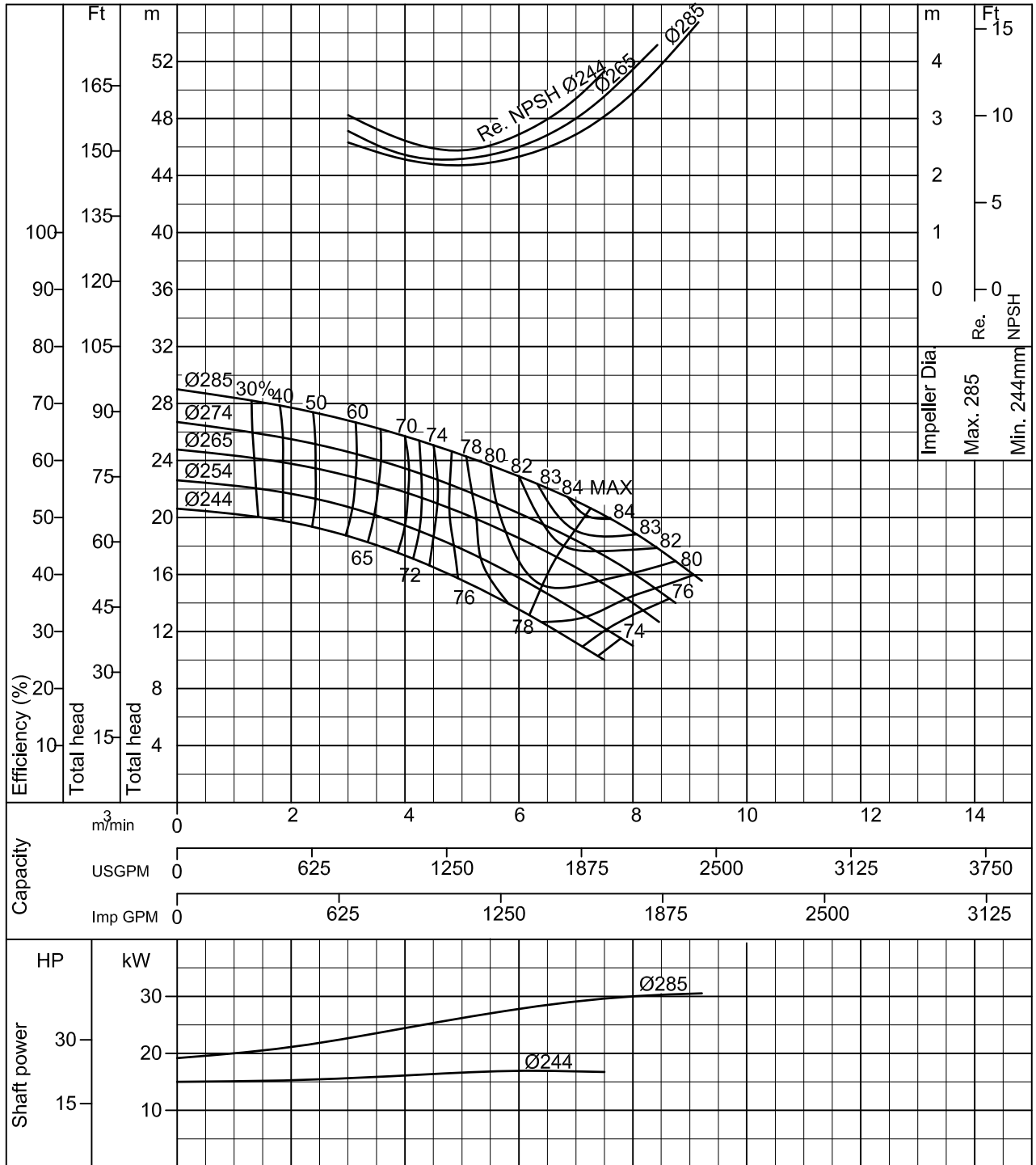


PERFORMANCE CURVE

50 Hz

V13

<h2>250 x 200 CNFA</h2>	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt

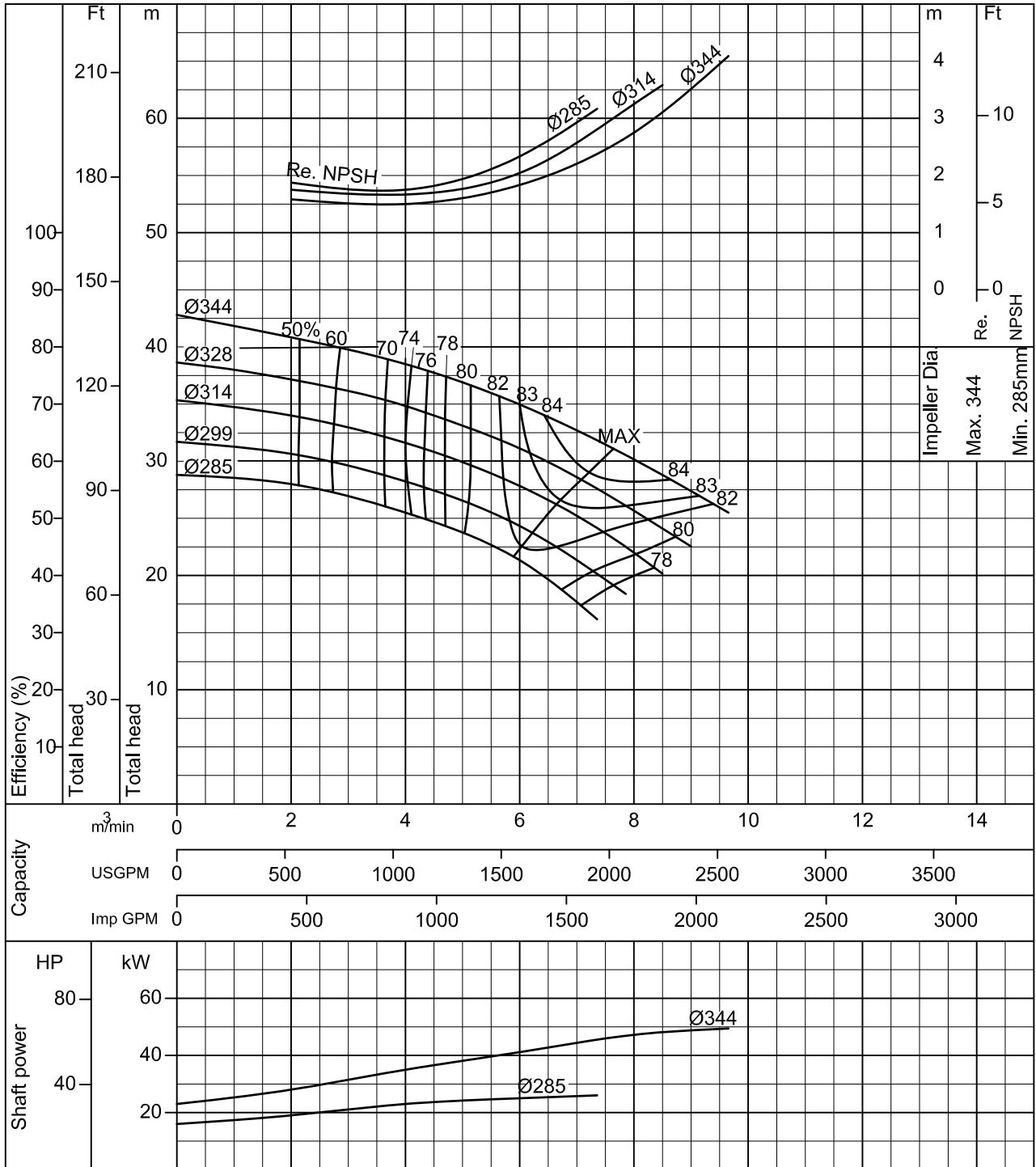


PERFORMANCE CURVE

50 Hz

V13

<h2 style="margin: 0;">250 x 150 CNGA</h2>	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt

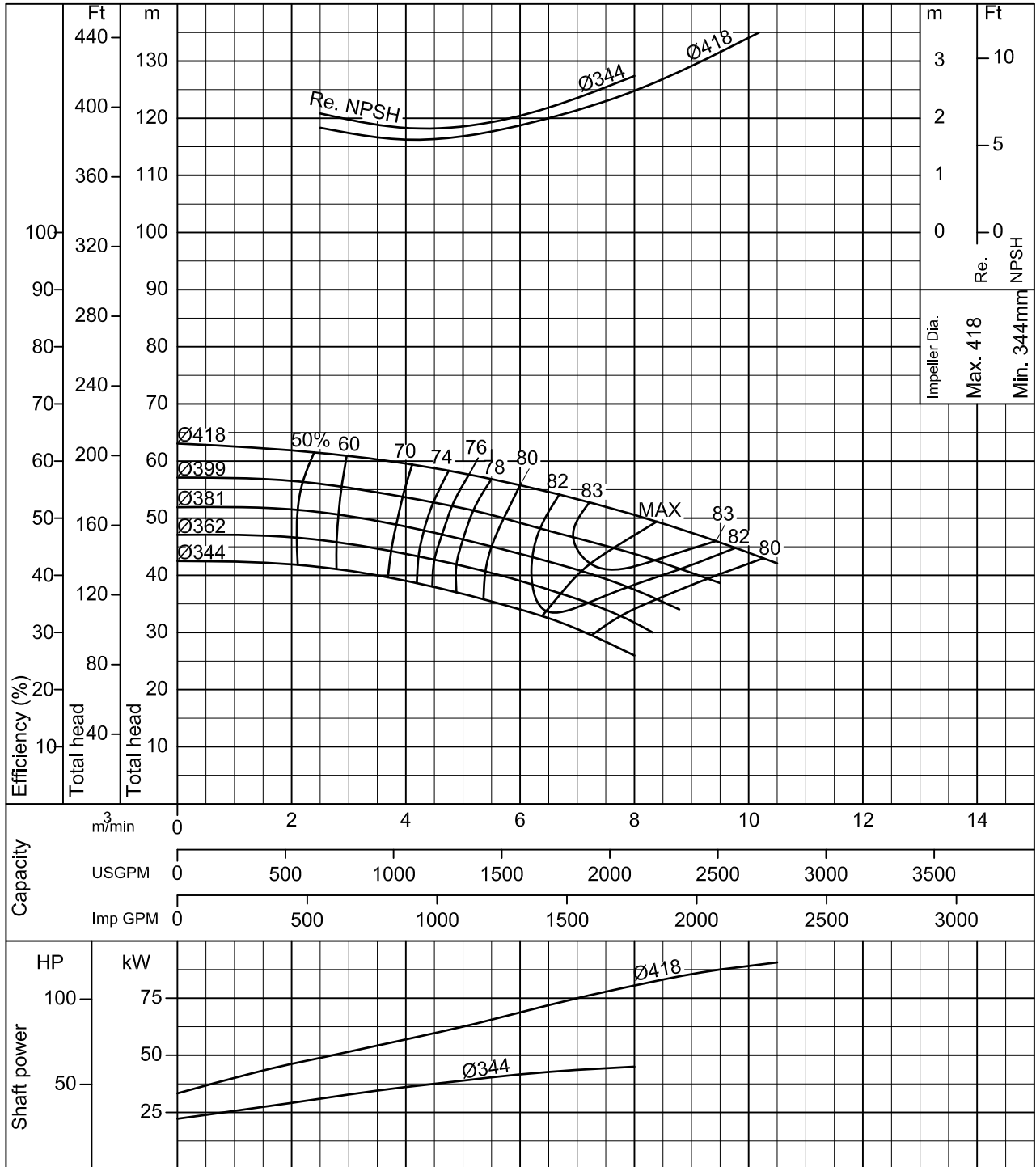


PERFORMANCE CURVE

50 Hz

V13

<h2 style="margin: 0;">250 x 150 CNHA</h2>	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt

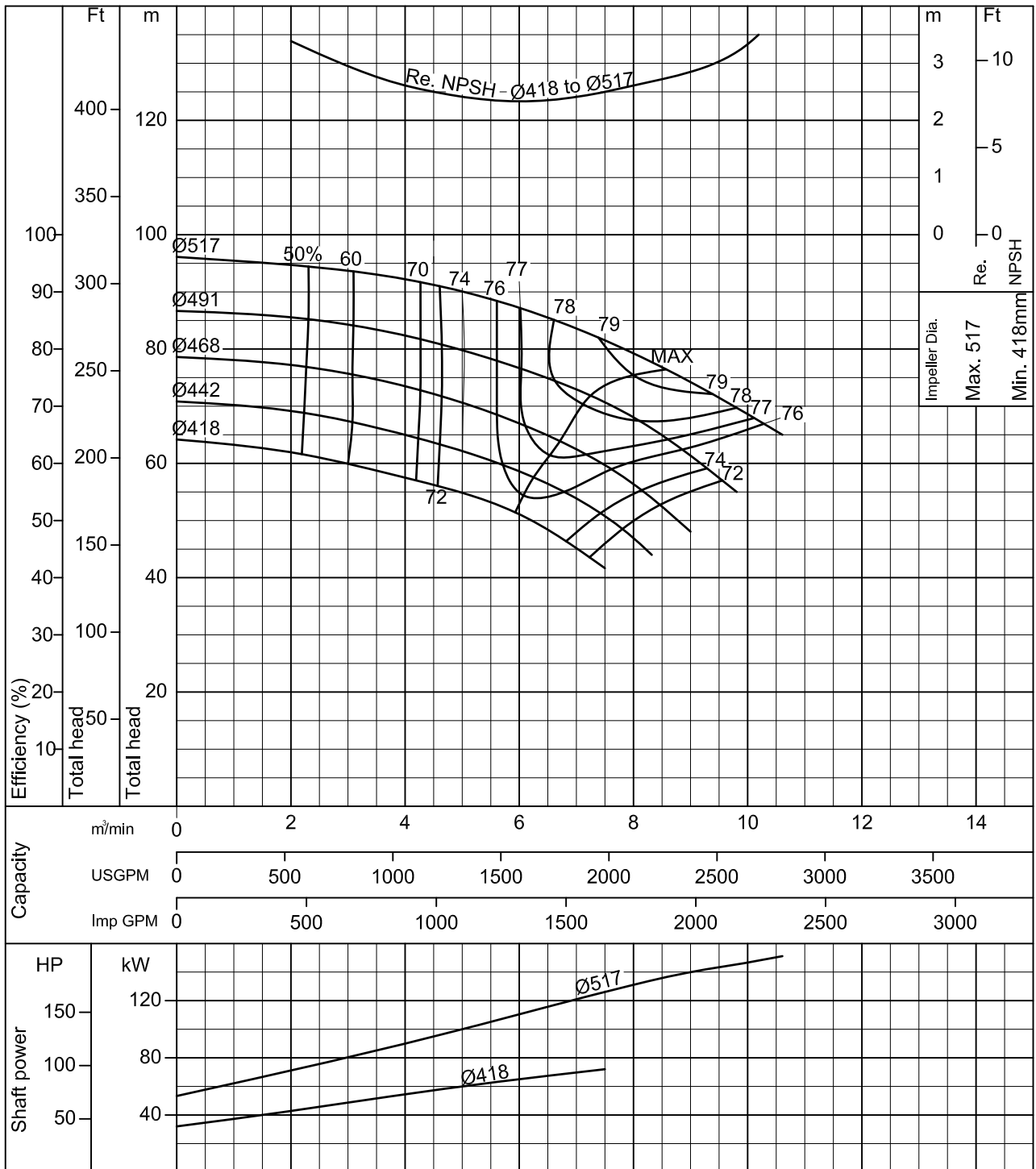


PERFORMANCE CURVE

50 Hz

V13

250 x 150 CNJA	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt

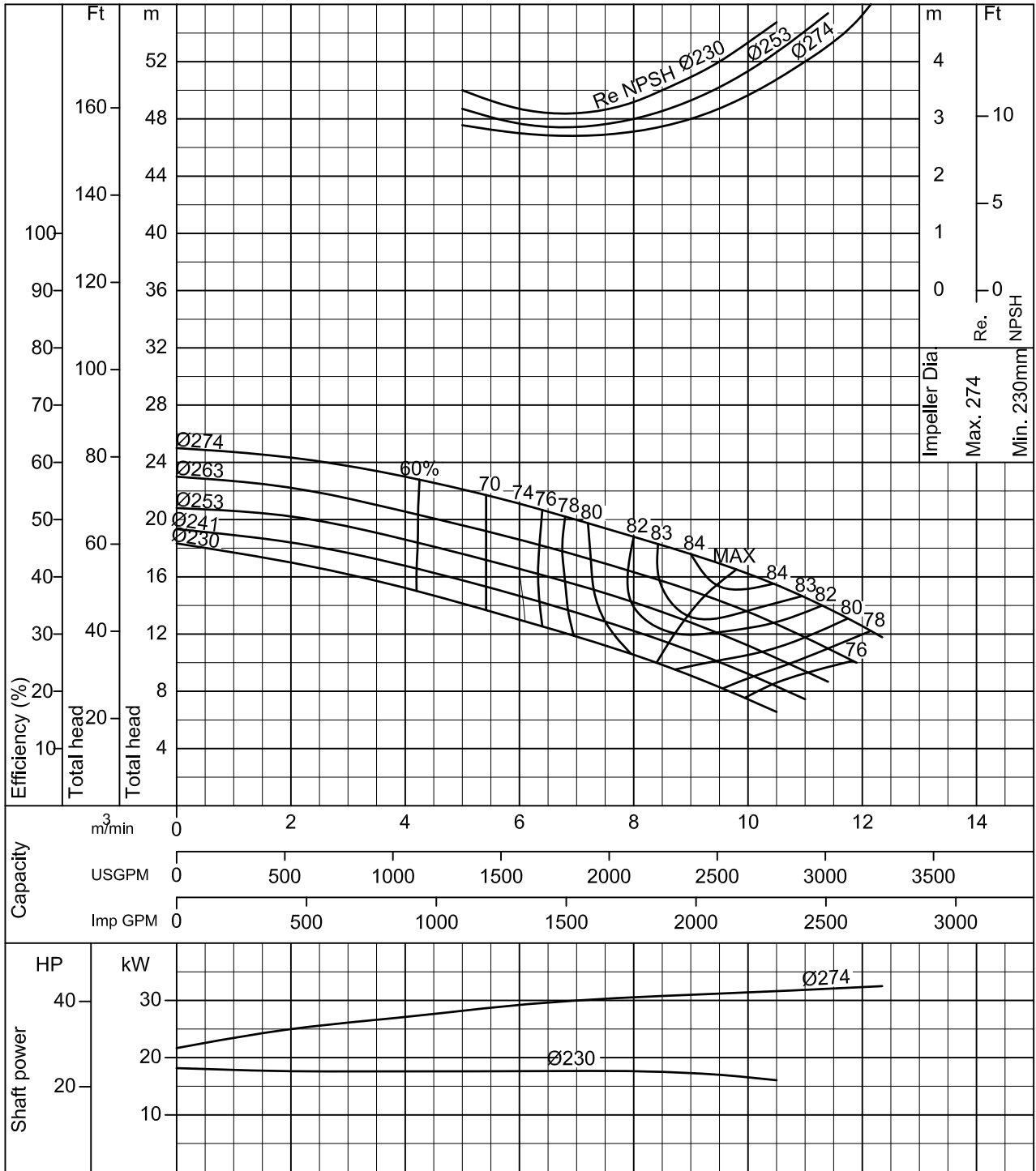


PERFORMANCE CURVE

50 Hz

V13

300 x 250 CNEA	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt

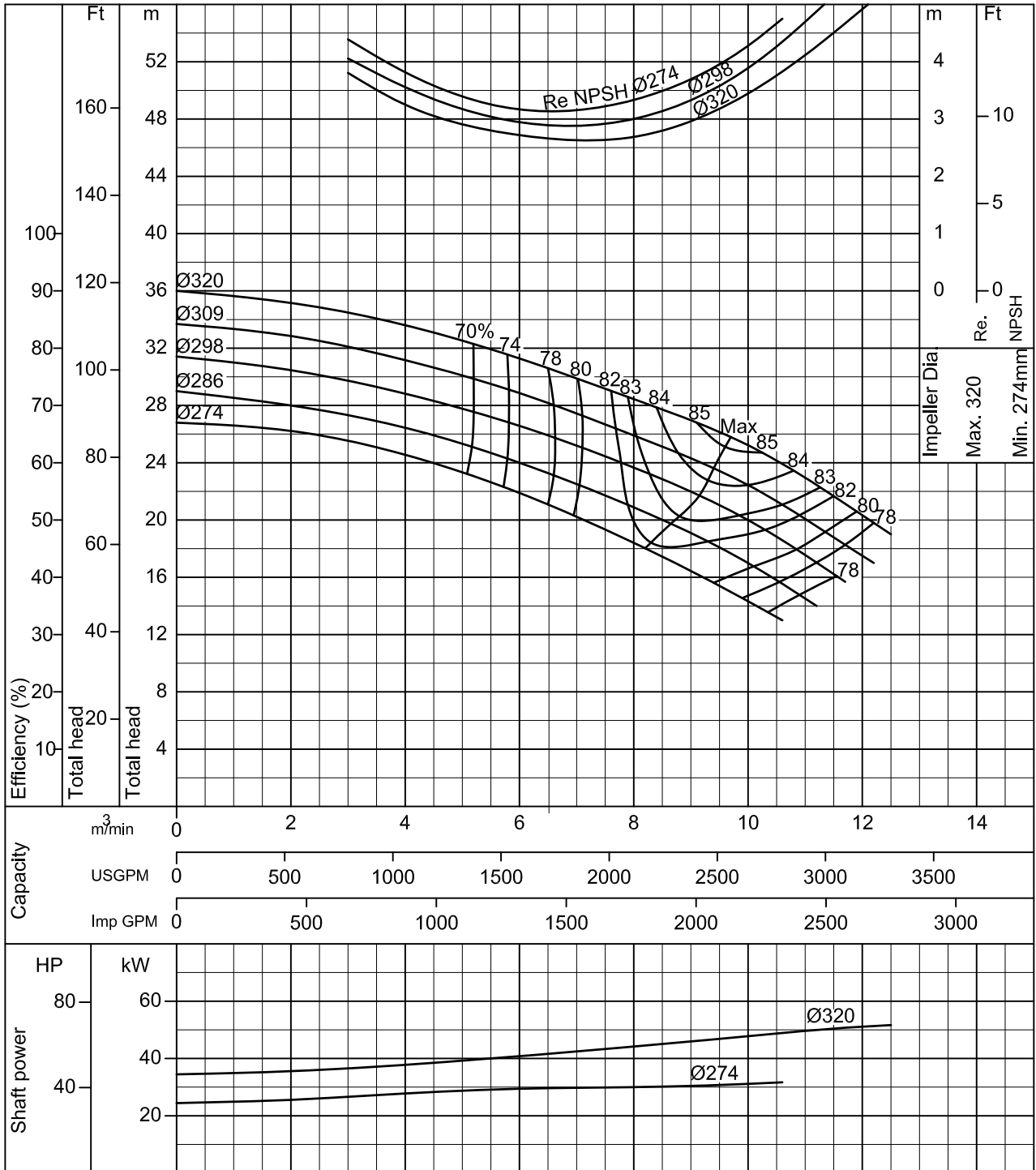


PERFORMANCE CURVE

50 Hz

V13

<h2 style="margin: 0;">300 x 200 CNFA</h2>	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt

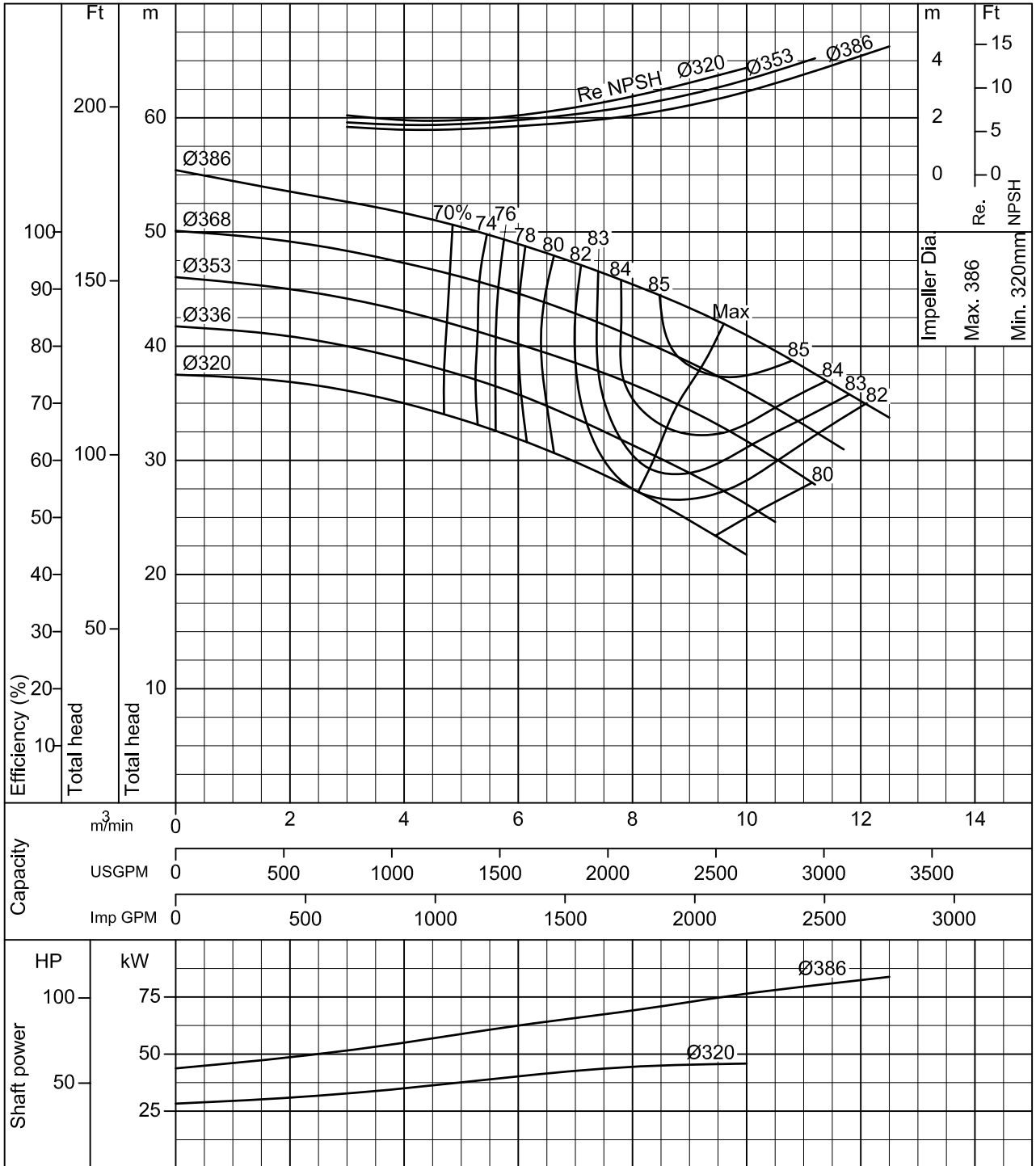


PERFORMANCE CURVE

50 Hz

V13

<h2 style="margin: 0;">300 x 200 CNGA</h2>	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt



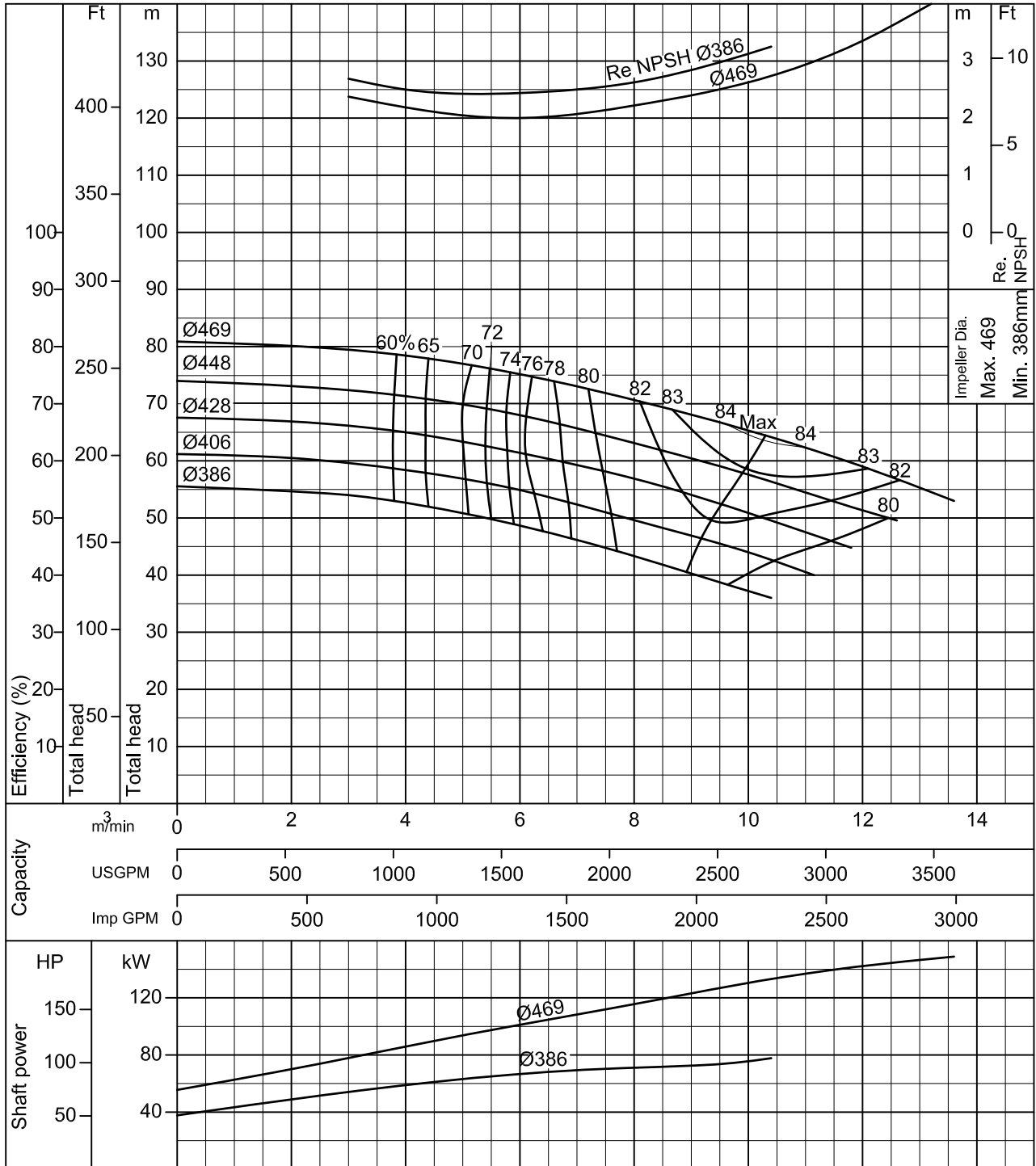


PERFORMANCE CURVE

50 Hz

V13

<p>300 x 200 CNHA</p>	<p>According to JIS testing code B8301, B8302</p>
<p>50Hz (Approx. speed 1450min<sup>-1</sup>)</p>	<p>S.G.= 1.0 Vis.= 1.0 cSt</p>

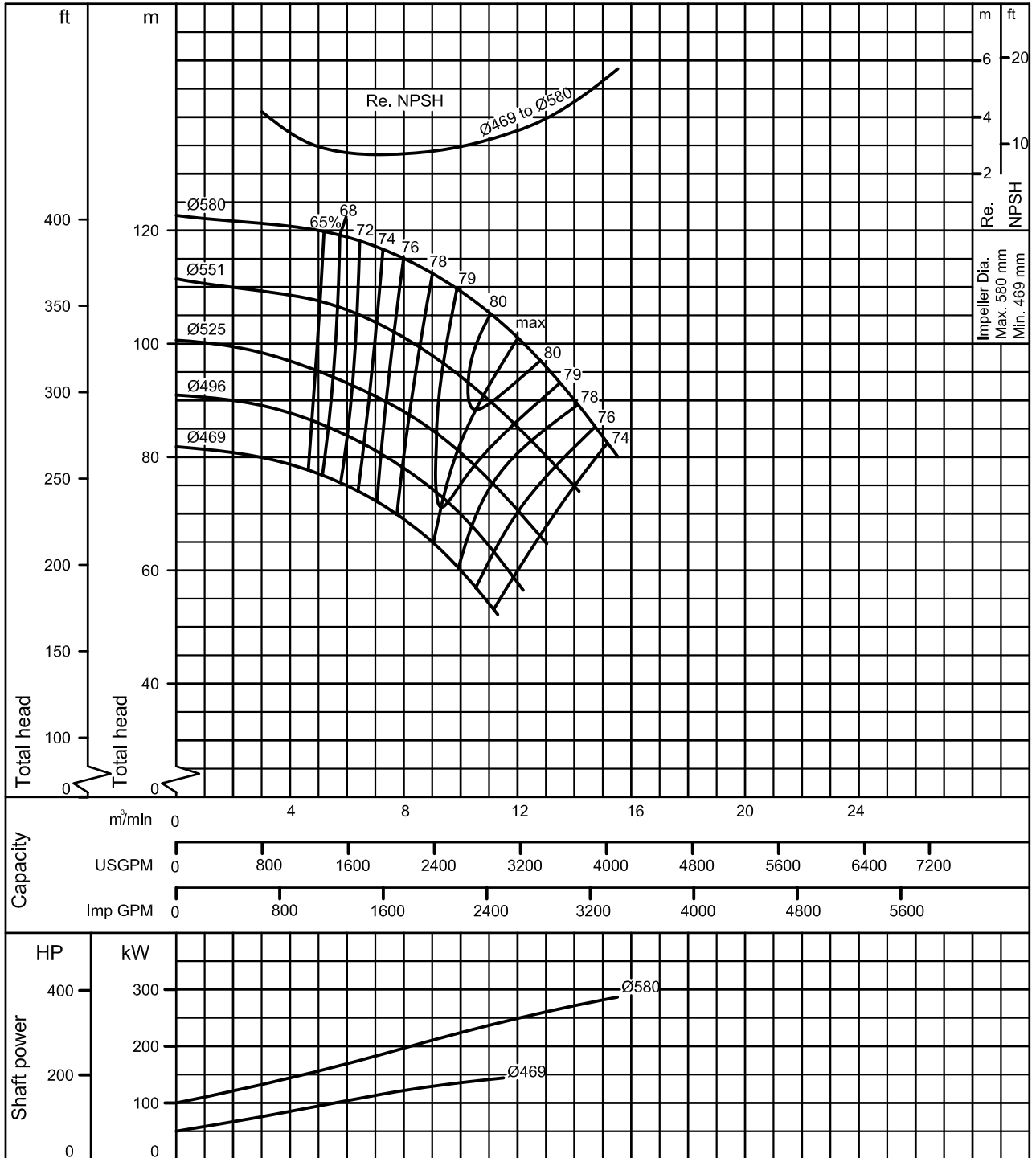


PERFORMANCE CURVE

50 Hz

V13

300 x 150 CNJA	According to ISO testing code 2548 Class C
50Hz (Approx. speed 1450 min <sup>-1</sup> ) S.G.= 1.0 Vis.= 1.0 cSt	

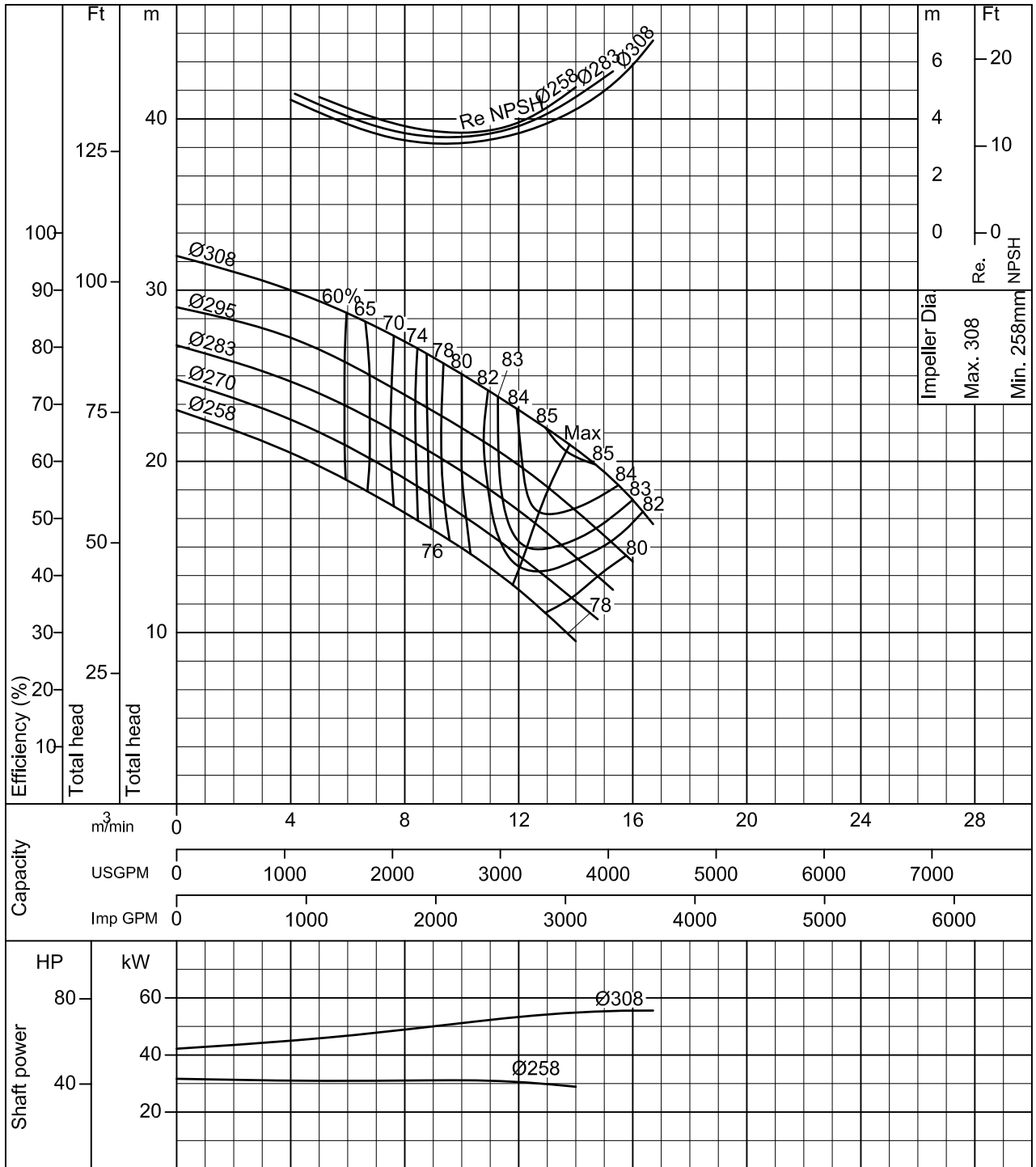


PERFORMANCE CURVE

50 Hz

V13

300 x 250 CNFA	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt

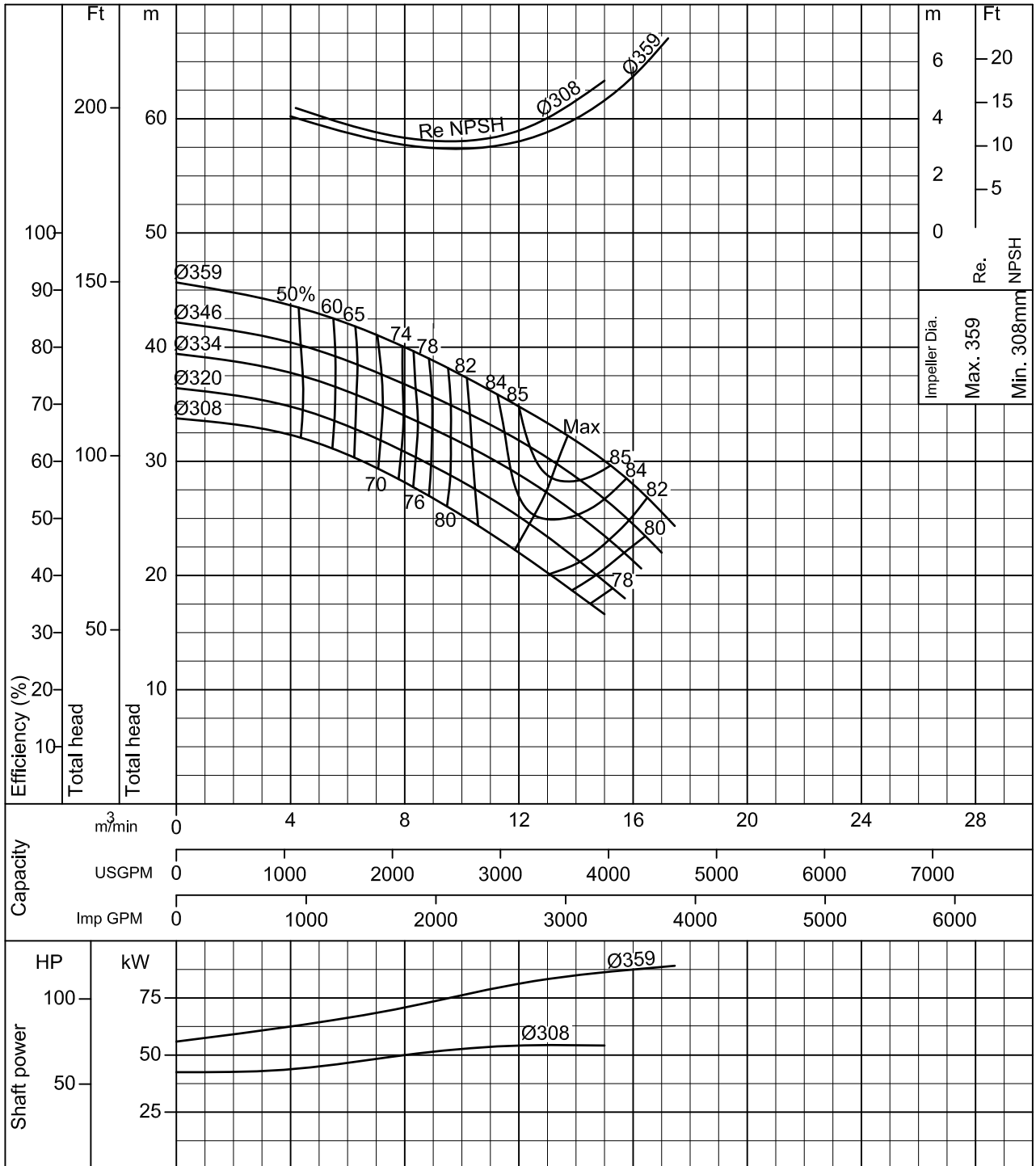


PERFORMANCE CURVE

50 Hz

V13

<h2 style="margin: 0;">300 x 250 CNGA</h2>	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt

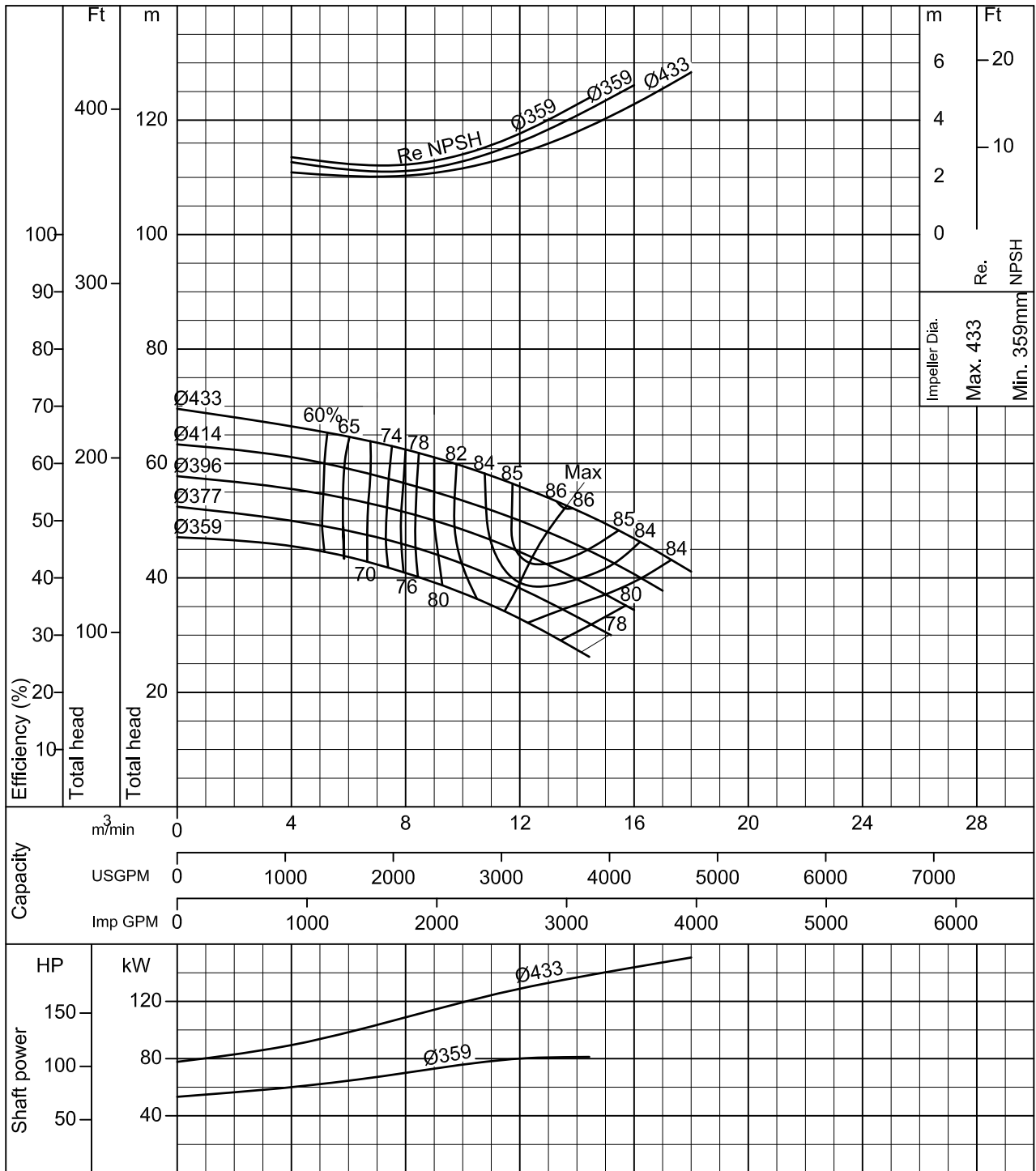


PERFORMANCE CURVE

50 Hz

V13

300 x 250 CNHA	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt

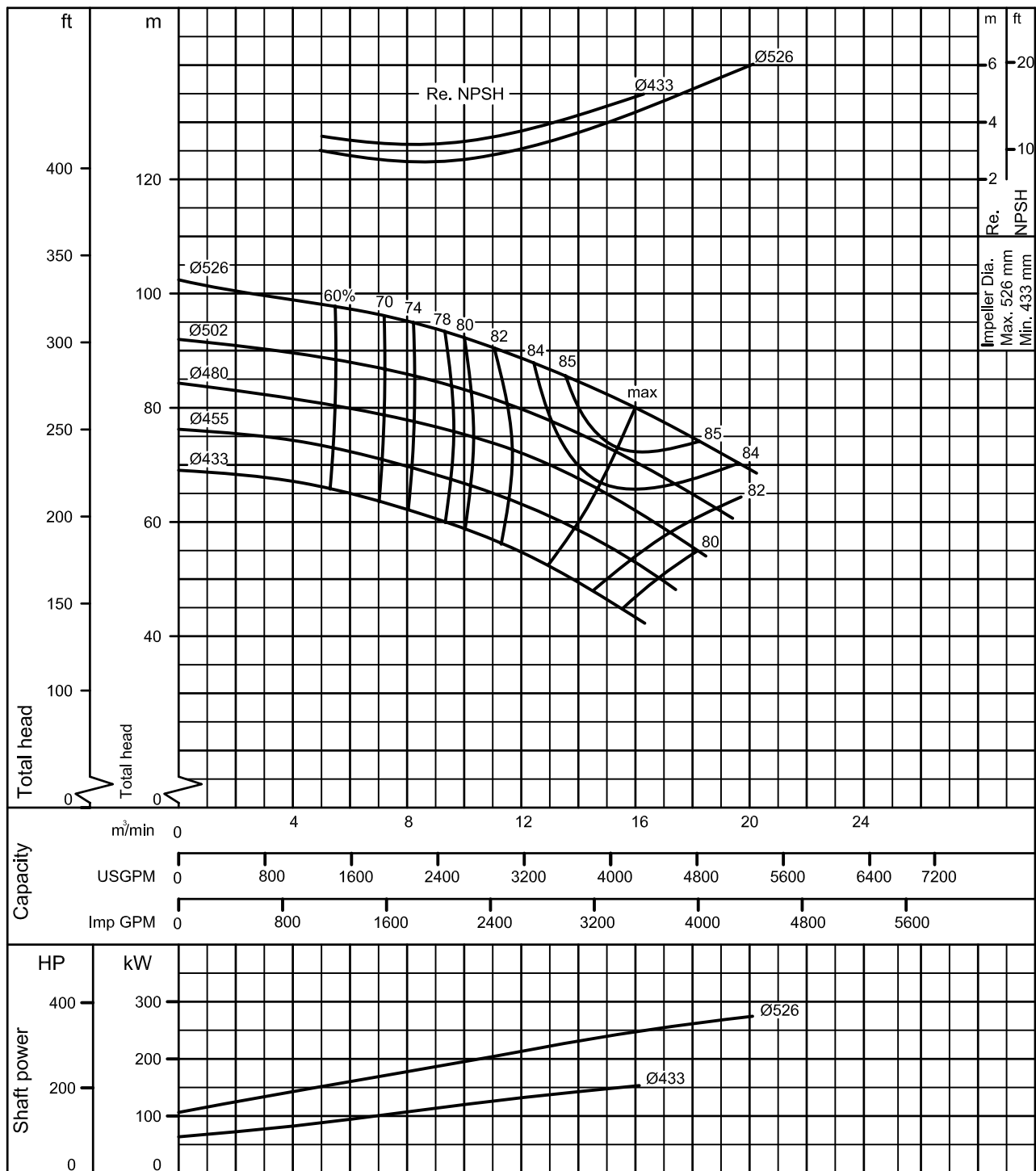


PERFORMANCE CURVE

50 Hz

V13

300 x 200 CNJA According to ISO testing code 2548 Class C  
 50Hz (Approx. speed 1450 min<sup>-1</sup>) S.G.= 1.0 Vis.= 1.0 cSt

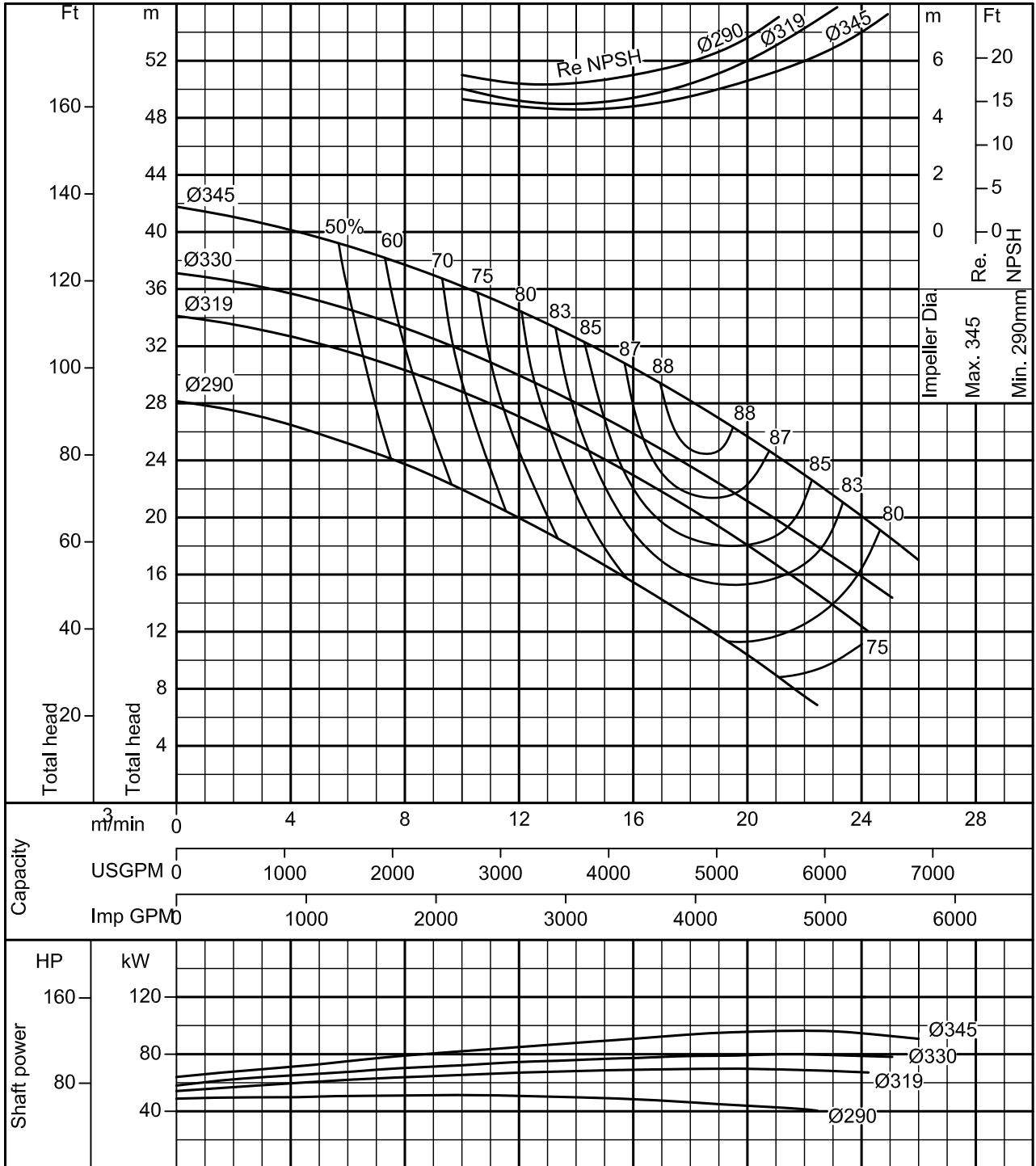


PERFORMANCE CURVE

50 Hz

V13

<h2>350 x 300 CNFA</h2>	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> ) S.G.= 1.0 Vis.= 1.0 cSt	

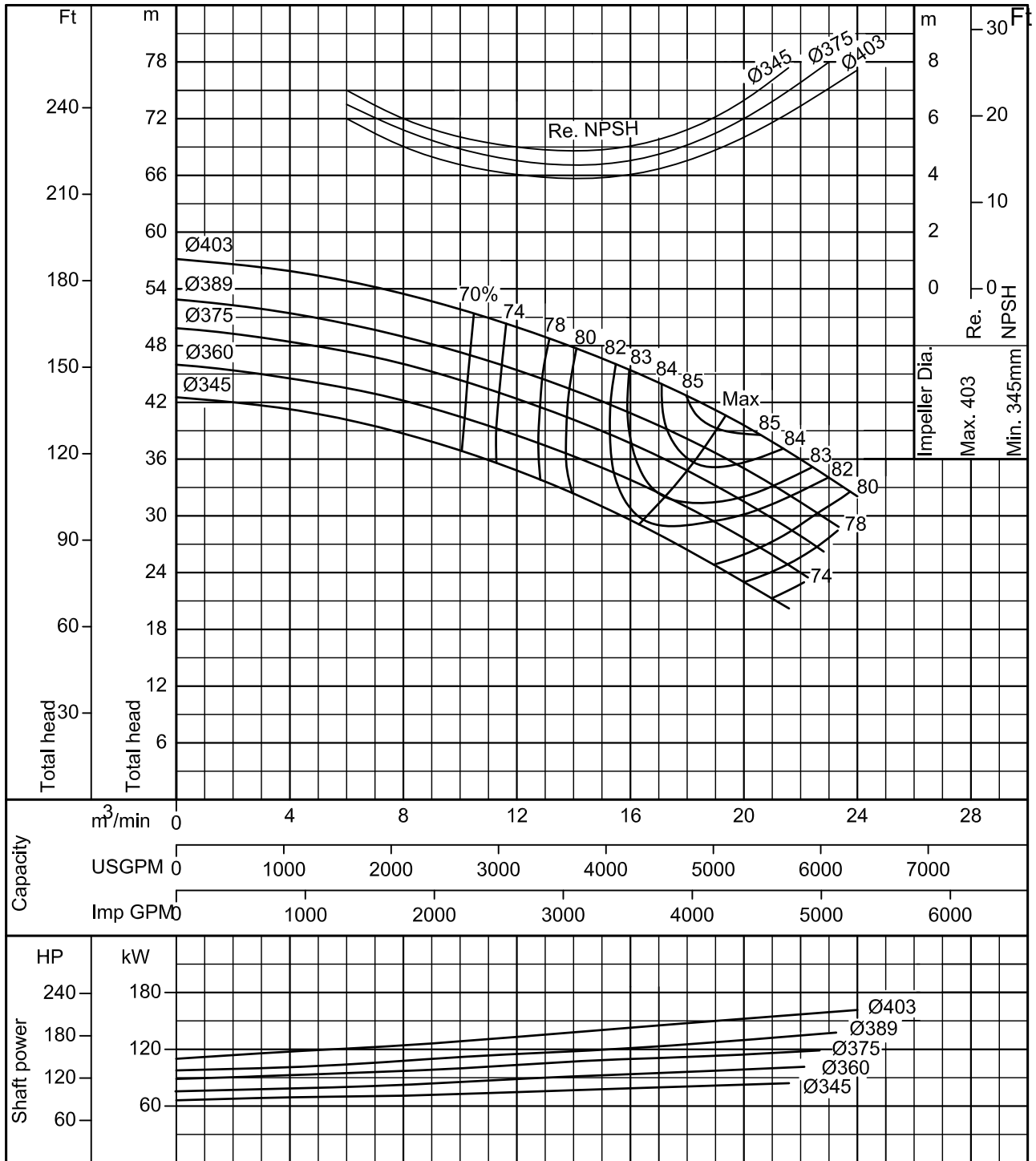


PERFORMANCE CURVE

50 Hz

V13

<b>350 x 250 CNGA</b>	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt



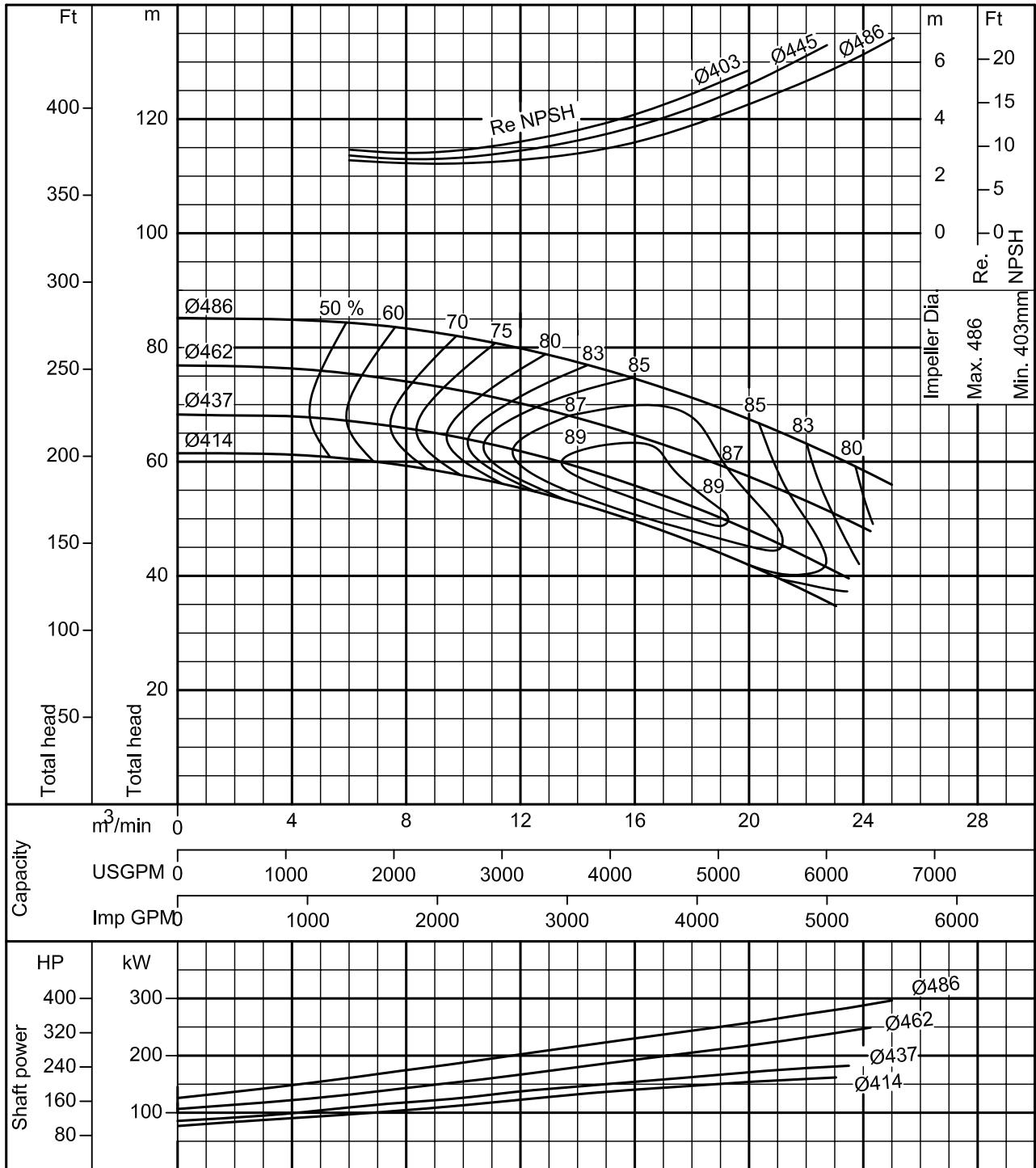


PERFORMANCE CURVE

50 Hz

V13

<h2>350 x 250 CNHA</h2>	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt

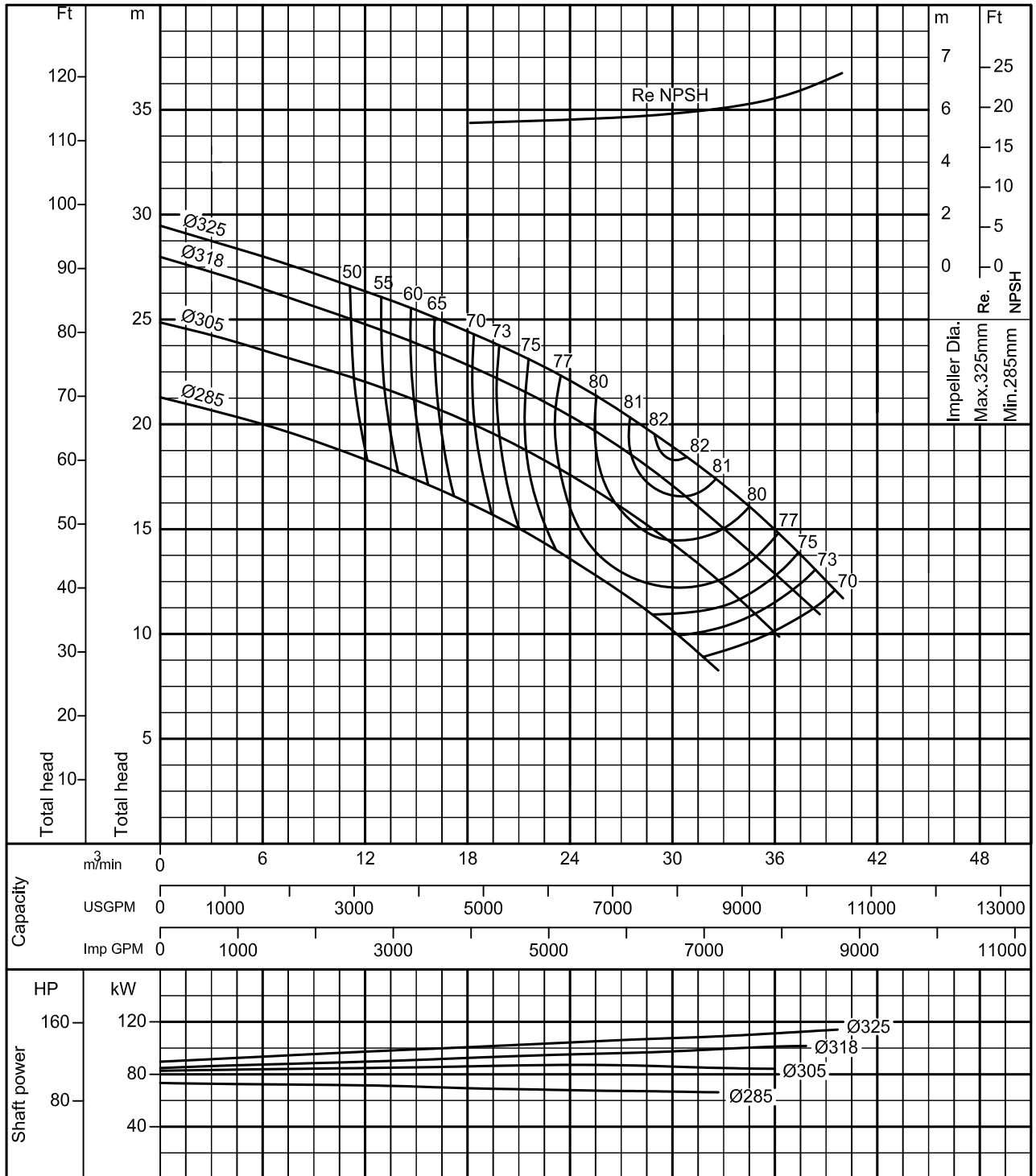


PERFORMANCE CURVE

50 Hz

V13

400 x 350 CNEA	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt

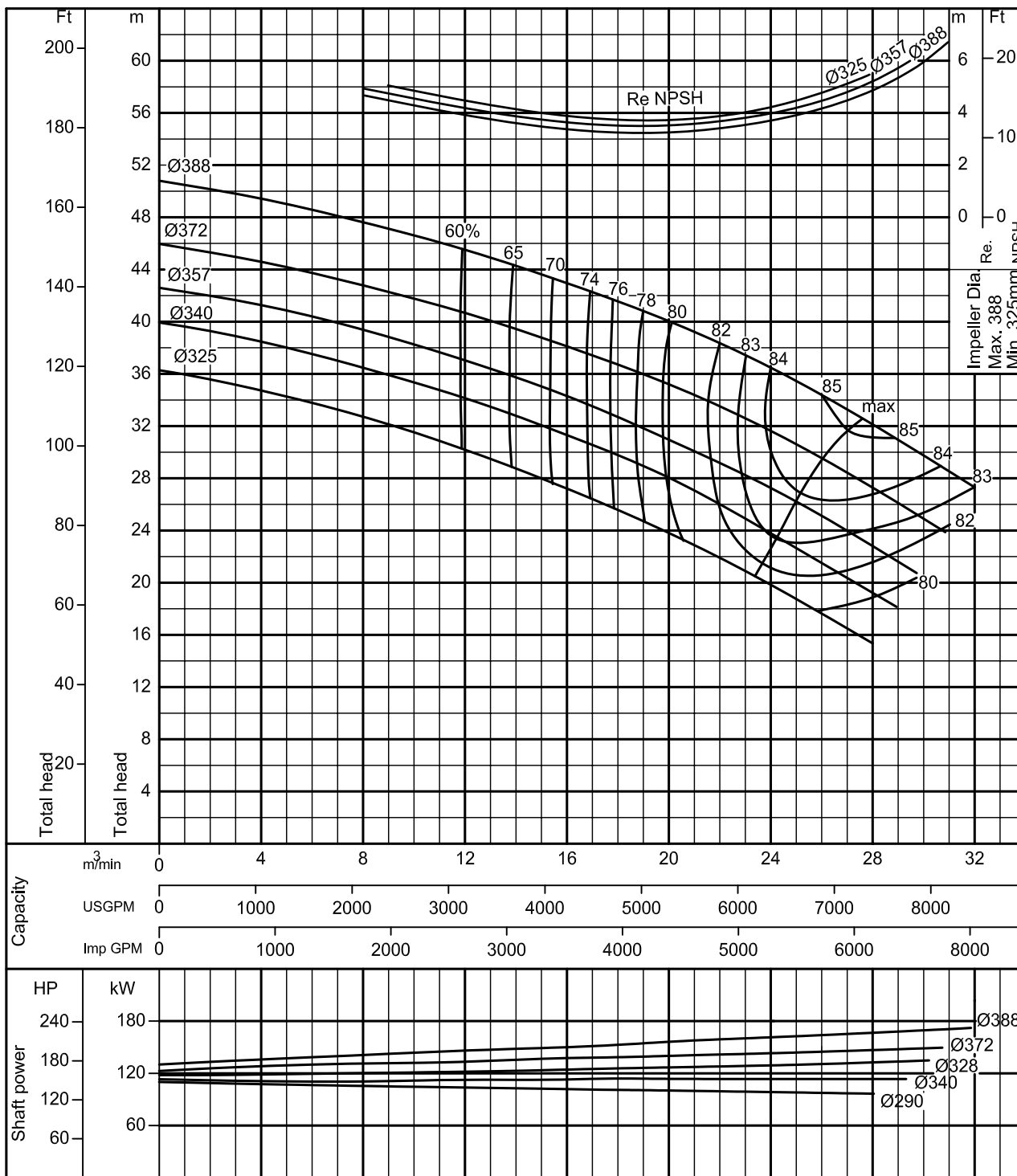


PERFORMANCE CURVE

50 Hz

V13

400 x 350 CNFA	According to JIS testing code B8301, B8302
50Hz (Approx. speed 1450min <sup>-1</sup> )	S.G.= 1.0 Vis.= 1.0 cSt

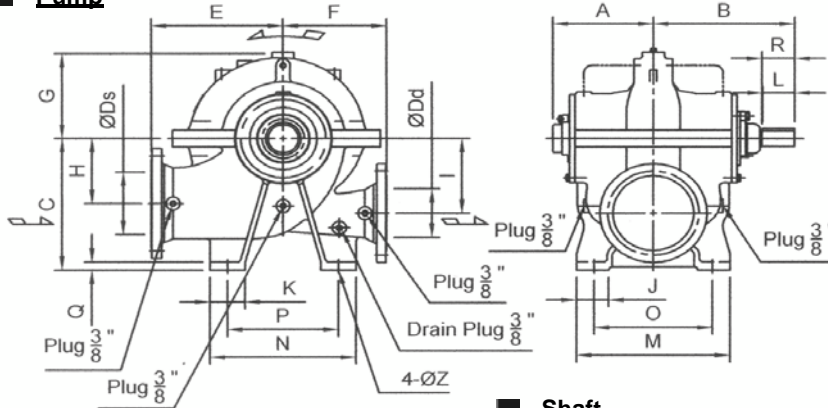


## DIMENSIONS - BARE SHAFT PUMP

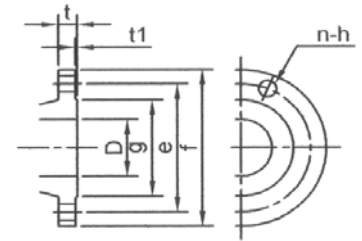
50 Hz

V13

### ■ Pump



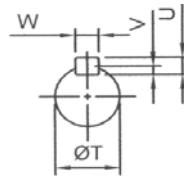
### ■ Flange



Dimension - Flange

D mm	f mm	e mm	g mm	t1 mm	t mm	n	h mm
80	200	160	135	2	24	8	23
100	225	185	160	2	26	8	23
125	270	225	195	2	26	8	25
150	305	260	230	2	28	12	25
200	350	305	275	2	30	12	25
250	430	380	345	2	34	12	27
300	480	430	395	3	36	16	27
350	540	480	440	3	38	16	33
400	605	540	495	3	42	16	33

### ■ Shaft



Dimensions Pump

Model	Size		Pump																	Shaft						wt kg																						
	Ds	Dd	A	B	C	E	F	G	H	I	J	K	M	N	O	P	Q	Y	Z	L	R	T	U	V	W																							
125x100 CNGA	125	100	231	350	295	290	300	181	150	60	70	300	290	250	230	20	-	19	80	82	38	8	5	10	209																							
125x100 CNHA		250				195	150	160																	242																							
125x80 CNJA		80				330	190	70																	80	340	320	280	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250		
150x150 CNFA	150	150	262	370	355	290	330	205	180	170	80	90	380	360	310	270	25	-	19	80	82	38	8	5	10	253																						
150x125 CNGA		125				262	370	260																		224	190	190	80	90	380	360	310	270	25	-	19	90	102	48	9	5.5	14	275				
150x125 CNHA		125				262	370	260																		224	190	210	190	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	270
150x100 CNJA		100				271	395	390																		380	290	269	240	90	100	430	400	350	300	300	300	300	300	300	300	300	300	300	300	300	300	330
200x200 CNEA		200				200	263	370																		375	300	223	190	190	90	100	430	400	350	300	25	-	19	80	82	38	8	5	10	270		
200x150 CNFA	150		224	245	210	210			210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210		210	210																		210	280	
200x150 CNGA	150		245	245	210	210			210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210		210	210																		210	210	310
200x150 CNHA	150		282	395	390	375			295	268	200	230	230	230	230	230	230	230	230	230	230	230	230	230	230		230	230																		230	230	355
200x100 CNJA	100		305	450	445	420			335	309	270	100	110	480	450	390	340	340	340	340	340	340	340	340	340		340	340																		340	340	445
250x200 CNEA	250	200	273	395	425	300	274	210	210	100	110	480	450	390	340	25	-	24	80	97	38	8	5	10	360																							
250x200 CNFA		200				247	276																		240	100	110	480	450	390	340	25	-	24	90	92	48	9	5.5	14	415							
250x150 CNGA		150				276	276																		240	100	110	480	450	390	340	25	-	24	90	92	48	9	5.5	14	415							
250x150 CNHA		150				315	450																		445	430	325	299	220	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	500	
250x150 CNJA		150				350	500																		495	470	355	346	300	110	120	550	520	450	400	30	-	24	110	124	65	11	7	18	605	605		
300x250 CNEA	300	250	302	415	475	300	274	235	235	110	120	550	520	450	400	30	-	24	90	92	48	9	5.5	14	435																							
300x200 CNFA		200				280	235																		235	110	120	550	520	450	400	30	-	24	100	102	55	10	6	16	520							
300x200 CNGA		200				300	300																		300	270	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	520	
300x200 CNHA		200				315	470																		495	465	365	332	250	335	110	120	550	520	450	400	30	-	24	110	124	65	11	7	18	625		
300x150 CNJA		150				382	530																		500	520	405	384	250	335	110	120	550	520	450	400	30	-	24	125	141	75	12	8	20	785		
300x250 CNFA		250				335	470																		495	495	405	313	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	570	
300x250 CNGA		250				360	500																		495	405	313	337	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	620	
300x250 CNHA		250				360	500																		495	405	313	337	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	615	
300x200 CNJA		200				382	530																		500	525	415	379	275	320	110	120	550	520	450	400	30	-	24	125	141	75	12	8	20	860		
350x300 CNFA		350				300	386																		530	600	450	345	310	310	130	150	620	700	500	550	38	-	24	110	125	65	11	7	18	800		
350x250 CNGA	250		350	310	303	135		150	620	700	500	550	38	-	24	125	140	75	12	7.5	20	845																										
350x250 CNHA	250		414	560	440	373		315	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330	330			330	330																		330	845	
400x350 CNEA	400	350	451	600	630	470	355	320	320	140	150	700	700	550	550	35	-	26	110	124	65	11	7	18	1030																							
400x350 CNFA		350				439	585																		440	385	305	344	150	150	700	700	550	550	38	-	26	125	140	75	12	7.5	20	1035				

Unit: mm, unless otherwise stated

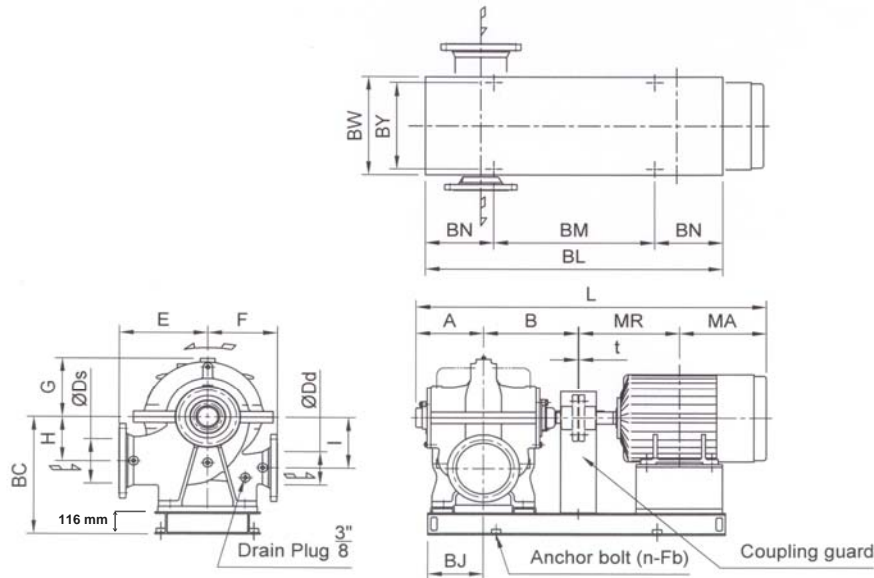
## DIMENSIONS - PUMPS WITH MOTORS (4-POLE)

50 Hz

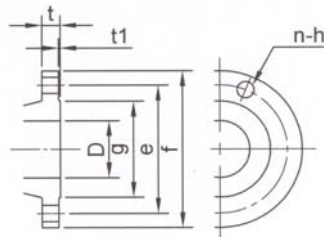
V13

\* Motor and base dimensions are typical only. Dimensions may vary depending on supplier.

### ■ Pump



### ■ Flange



Dimension - Flange

D mm	f mm	e mm	g mm	t1 mm	t mm	n	h mm
80	200	160	135	2	24	8	23
100	225	185	160	2	26	8	23
125	270	225	195	2	26	8	25
150	305	260	230	2	28	12	25

### Dimensions - Pump

Model	Motor		Pump									Motor				Common Base								Total			
	kW	Size	Ds	Dd	A	B	E	F	G	H	I	wt kg	Frame	MR	MA	wt kg	BC	BJ	BL	BM	BN	BW	BY	n-Fb	wt kg	t	L
125 x 100 CNGA	3.7	125	100	231	350	290	250	181	150	150	209	112M	200	182	42	411	170	830	530	150	380	330	4-M12	39	3	966	290
	5.5											132S	239	207	65			870	570					40		1030	314
	7.5											132M	258	226	76			900	550					45		1068	330
125 x 100 CNHA	7.5	125	100	231	350	300	250	195	150	160	242	132M	258	226	76	411	170	900	550	175	380	330	4-M12	45	3	1068	363
	11											160M	323	281	120			990	640				56	1188		418	
125 x 80 CNJA	11	125	80	231	350	330	250	226	150	190	250	160M	323	281	120	411	190	1010	780	175	400	350	4-M16	60	3	1188	430
	15											160L	345	303	158			1050	700				62	1232		470	
	18.5											180M	351.5	315.5	180			1060	710				82	1251		512	
150 x 150 CNFA	7.5	150	150	262	370	330	290	205	180	170	253	132M	258	226	76	471	210	970	620	175	450	400	4-M16	69	3	1119	398
	11											160M	323	281	120			1050	700				73	1239		446	
150 x 125 CNGA	11	150	125	262	395	330	260	224	190	190	275	160M	323	281	120	471	210	1070	640	215	450	400	4-M16	77	3	1273	472
	15											160L	345	303	158			1120	690				79	1317		512	
	18.5											180M	351.5	315.5	180			1130	700				86	1336		541	
	18.5											180M	351.5	315.5	180			1100	670				85	1302		535	
150 x 125 CNHA	22	150	125	262	370	350	280	243	190	210	270	180L	370.5	334.5	205	471	210	1140	710	215	450	400	4-M16	87	3	1340	562
	30											200L	395.5	372.5	290			1180	750				95	1404		655	
	30											200L	395.5	372.5	290			1230	800				98	1438		718	
	37											225S	432	379	320			1260	830				106	1481		756	
150 x 100 CNJA	45	150	100	271	395	380	290	269	190	240	330	225M	444.5	391.5	358	506	235	1260	830	215	500	450	4-M16	108	4	1506	796
	37											1290	860	108	1506			796									

Unit: mm, unless otherwise stated

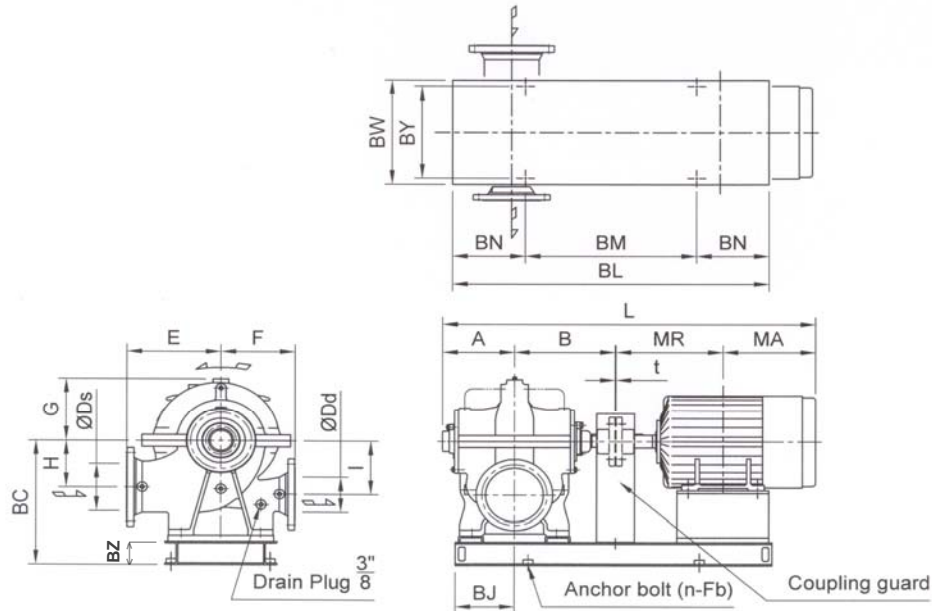
## DIMENSIONS - PUMPS WITH MOTORS (4-POLE)

50 Hz

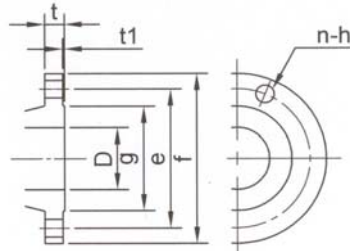
V13

\* Motor and base dimensions are typical only. Dimensions may vary depending on supplier.

### ■ Pump



### ■ Flange



Dimension - Flange

D	f	e	g	t1	t	n	h
mm	mm	mm	mm	mm	mm		mm
100	225	185	160	2	26	8	23
150	305	260	230	2	28	12	25
200	350	305	275	2	30	12	25

### Dimensions - Pump

Model	Motor		Pump								Motor				Common Base								Total							
	kW	Size	Ds	Dd	A	B	E	F	G	H	I	wt kg	Frame	MR	MA	wt kg	BC	BJ	BL	BM	BN	BW	BY	BZ	n-Fb	wt kg	t	L	wt kg	
200 x 200 CNEA	7.5	200	200	263	370	355	300	223	190	190	270	132M	258	226	76	491	235	1070	720	175	450	400	116	4-M16	74	3	1120	420		
	160M											323	281	120	78										1240				468	
	160L											345	303	158	80										1284				508	
200 x 150 CNFA	15	200	150	263	370	355	285	224	190	190	280	160L	345	303	158	491	235	1120	690	215	450	400	116	4-M16	80	3	1284	518		
	180M											351.5	315.5	180	91										1303				551	
	180L											351.5	315.5	180	91										1303				581	
200 x 150 CNGA	18.5	200	150	263	370	355	285	245	200	210	310	180L	370.5	334.5	205	491	235	1160	730	215	450	400	116	4-M16	91	3	1341	608		
	22											180L	370.5	334.5	205										93				1341	608
	30											200L	395.5	372.5	290										97				1405	697
	37											225S	432	379	320										105				1448	735
	30											200L	395.5	372.5	290										98				1449	743
200 x 150 CNHA	37	200	150	282	395	375	295	268	200	230	355	225S	432	379	320	506	235	1260	880	215	500	450	116	4-M16	106	4	1492	781		
	45											225M	444.5	391.5	358										108				1517	821
	55											250S	463.5	409	520										130				1554	1018
	45											225M	444.5	391.5	358										116				1595	920
	55											250S	463.5	409	520										141				1554	1018
200 x 100 CNJA	55	200	100	305	450	420	335	309	200	270	445	225M	444.5	391.5	358	561	260	1370	940	215	500	450	141	4-M20	117	4	1595	920		
	75											250S	463.5	409	520										155				1632	1120
	90											250M	482.5	428	580										159				1670	1184
	75											250M	482.5	428	580										159				1670	1184
	90											280S	544	463	700										179				1766	1324

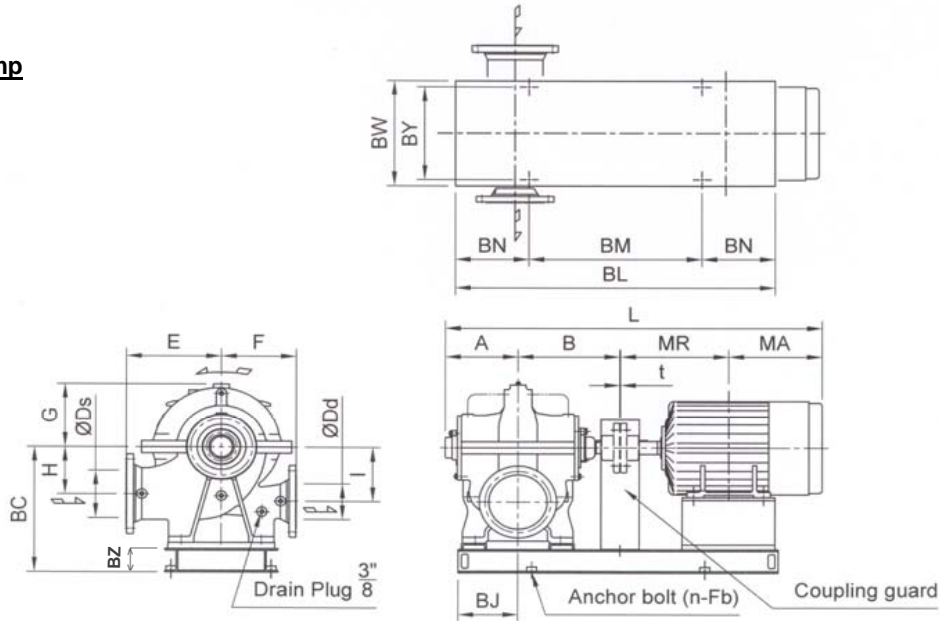
## DIMENSIONS - PUMPS WITH MOTORS (4-POLE)

50 Hz

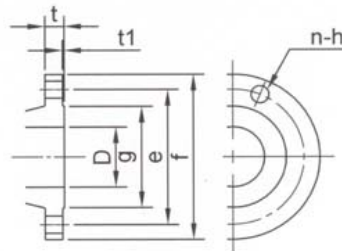
V13

\* Motor and base dimensions are typical only. Dimensions may vary depending on supplier.

### ■ Pump



### ■ Flange



Dimension - Flange

D	f	e	g	t1	t	n	h
mm	mm	mm	mm	mm	mm		mm
150	305	260	230	2	28	12	25
200	350	305	275	2	30	12	25
250	430	380	345	2	34	12	27

### Dimensions - Pump

Model	Motor		Pump									Motor				Common Base								Total						
	kW	Size	Ds	Dd	A	B	E	F	G	H	I	wt kg	Frame	MR	MA	wt kg	BC	BJ	BL	BM	BN	BW	BY	BZ	n-Fb	wt kg	t	L	wt kg	
250 x 200 CNEA	15	250	200	273	395	395	315	243	210	210	360	160L	345	303	158	541	260	1170	740	215	500	450	116	4-M16	90	3	1319	608		
	18.5											180M	351.5	315.5	180										1180	750	103	3	1338	643
	22											180L	370.5	334.5	205										1210	780	107	3	1376	672
250 x 200 CNFA	22	250	200	282	395	395	315	247	210	210	380	180L	370.5	334.5	205	541	260	1260	830	215	500	450	116	4-M16	107	3	1385	692		
	30											200L	395.5	372.5	290										1290	860	109	4	1449	779
	37											225S	432	379	320										1290	860	114	4	1492	814
250 x 150 CNGA	37	250	150	282	395	395	315	276	220	240	415	225S	432	379	320	561	260	1310	880	215	500	450	116	4-M16	114	4	1492	849		
	45											225M	444.5	391.5	358										1330	900	115	4	1517	888
	55											250S	463.5	409	520										1390	960	115	4	1554	1088
250 x 150 CNHA	55	250	150	315	450	430	325	299	220	260	500	250S	463.5	409	520	586	260	1390	960	215	560	500	116	4-M20	153	4	1642	1175		
	75											250M	482.5	428	580										1430	1000	155	4	1680	1239
	90											280S	544	463	700										1500	950	179	4	1776	1379
250 x 150 CNJA	75	250	150	350	500	470	355	346	220	300	605	250M	482.5	428	580	636	295	1520	970	275	580	520	141	4-M20	172	4	1765	1357		
	90											280S	544	463	700										1580	1030	184	4	1861	1489
	110											280M	569.5	488.5	800										1640	2x645	188	4	1912	1592
	132											315S	589	517	1030										1650	2x650	215	4	1960	1850
	150											315M	614.5	552.5	1030										1700	2x675	220	4	2011	1855

Unit: mm, unless otherwise stated

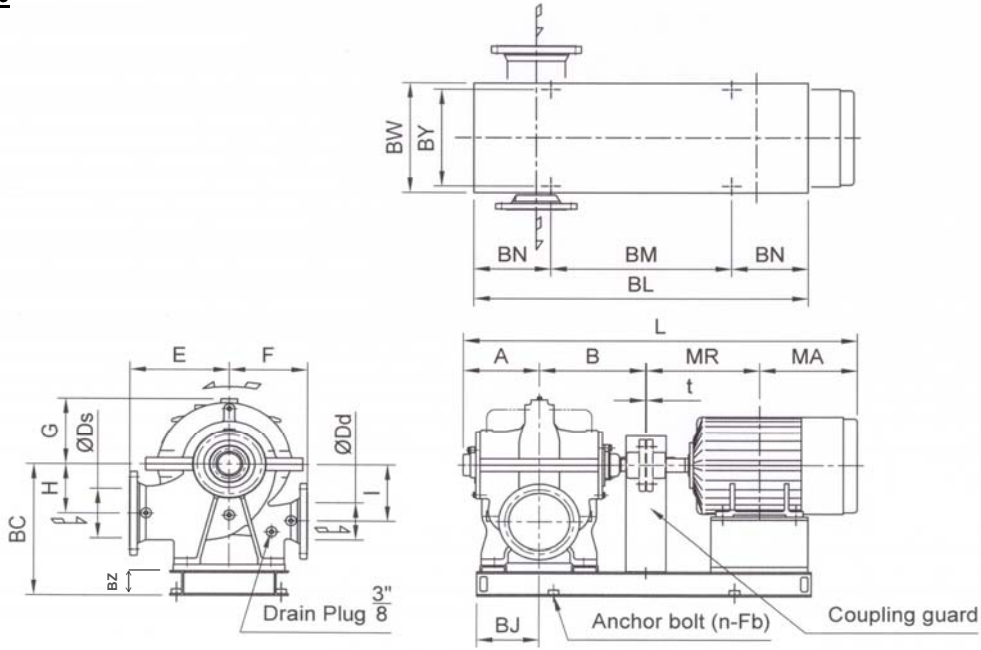
## DIMENSIONS - PUMPS WITH MOTORS (4-POLE)

50 Hz

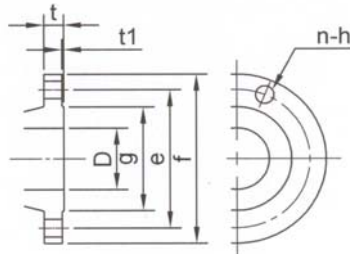
V13

\* Motor and base dimensions are typical only. Dimensions may vary depending on supplier.

### ■ Pump



### ■ Flange



Dimension - Flange

D	f	e	g	t1	t	n	h
mm	mm	mm	mm	mm	mm	mm	mm
150	305	260	230	2	28	12	25
200	350	305	275	2	30	12	25
250	430	380	345	2	34	12	27
300	480	430	395	3	36	16	27

### Dimensions - Pump

Model	Motor	Size		Pump									Motor				Common Base								Total			
	kW	Ds	Dd	A	B	E	F	G	H	I	wt kg	Frame	MR	MA	wt kg	BC	BJ	BL	BM	BN	BW	BY	BZ	n-Fb	wt kg	t	L	wt kg
300 x 250 CNEA	22	300	250	302	415	445	355	274	235	235	435	180L	370.5	334.5	205	616	295	1310	880	215	600	540	141	4-M20	141	4	1425	781
	200L											395.5	372.5	290	144									4	1489	869		
	225S											432	379	320	149									4	1532	904		
300 x 200 CNFA	37	300	200	315	450	445	355	280	235	235	490	225S	432	379	320	616	295	1400	970	215	600	540	160	4-M20	160	4	1580	970
	250S											463.5	409	520	167									4	1642	1177		
	250S											463.5	409	520	167									4	1662	1207		
300 x 200 CNGA	55	300	200	315	470	445	355	300	250	270	520	250M	482.5	428	580	636	295	1480	1050	215	640	580	183	4-M20	171	4	1770	1271
	280S											544	463	700	183									4	1796	1403		
	280S											544	463	700	183									4	1796	1403		
300 x 200 CNHA	90	300	200	350	500	465	365	332	250	290	625	280S	544	463	700	636	295	1580	1030	275	640	580	188	4-M20	184	4	1861	1509
	280M											569.5	488.5	800	188									4	1912	1613		
	315S											589	517	1030	215									4	1960	1870		
	315M											614.5	552.5	1030	220									4	2011	1875		
	315M											614.5	552.5	1030	235									4	2083	2050		
300 x 150 CNJA	150	300	150	382	530	520	405	384	250	335	785	315M	614.5	552.5	1070	666	300	1750	2x700	175	640	580	235	6-M20	235	4	2083	2090
	315M											614.5	552.5	1070	270									4	2413	2505		
	315AB											666	830	1450	270									4	2413	2505		
	315CB											741	905	1660	280									5	2563	2725		
	315CB											741	905	1800	280									5	2563	2865		

Unit: mm, unless otherwise stated



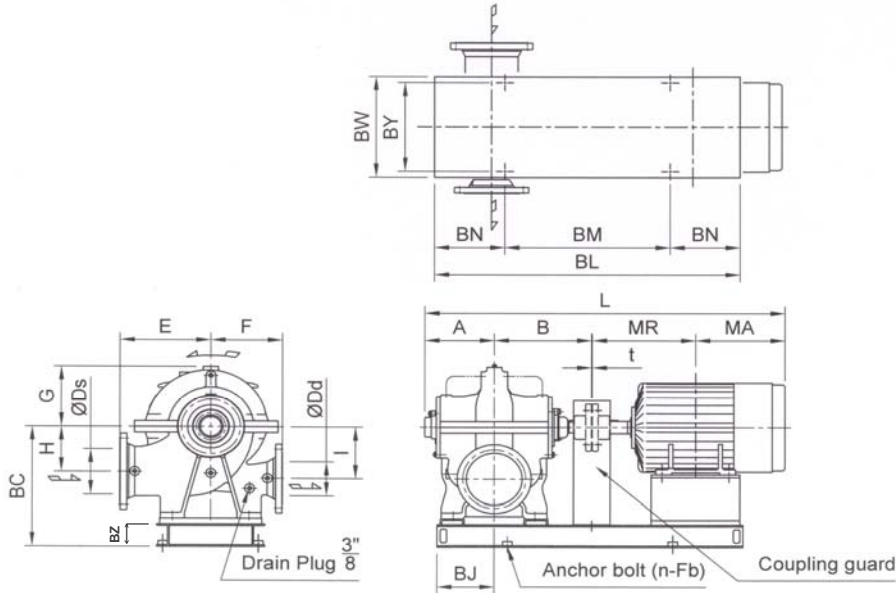
## DIMENSIONS - PUMPS WITH MOTORS (4-POLE)

50 Hz

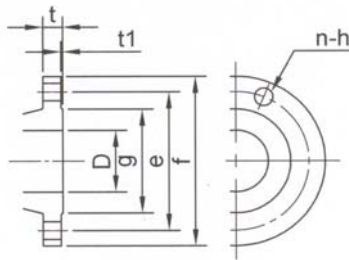
V13

\* Motor and base dimensions are typical only. Dimensions may vary depending on supplier.

### ■ Pump



### ■ Flange



Dimension - Flange

D	f	e	g	t1	t	n	h
mm	mm	mm	mm	mm	mm	mm	mm
200	350	305	275	2	30	12	25
250	430	380	345	2	34	12	27
300	480	430	395	3	36	16	27

### Dimensions - Pump

Model	Motor		Pump								Motor				Common Base								Total												
	kW	Size	Ds	Dd	A	B	E	F	G	H	I	wt kg	Frame	MR	MA	wt kg	BC	BJ	BL	BM	BN	BW	BY	BZ	n-Fb	wt kg	t	L	wt kg						
300 x 250 CNFA	37	300	250	335	470	495	405	306	250	260	570	225S	432	379	320	636	295	1400	970	215	600	540	141	4-M20	160	4	1620	1050							
	45												444.5	391.5	358				1410						980		162	1645	1090						
	55												463.5	409	520				1440						1010		167	1682	1257						
	75												482.5	428	580				1480						1050		171	1720	1321						
	75												482.5	428	580				1370						970		172	1775	1372						
300 x 250 CNGA	90	300	250	360	500	495	405	313	250	260	620	280M	544	463	700	616	295	1400	980	275	640	580	141	4-M20	184	4	1871	1504							
	110											569.5	488.5	800	1420				2x645						175		188	1922	1608						
	110											280M	569.5	488.5	800				1440						2x645		189	1922	1804						
	132											315S	589	517	1030				636						295		1480	2x700	175	640	580	6-M20	216	4	1970
300 x 250 CNHA	150	300	250	360	500	495	405	337	275	295	615	315M	614.5	552.5	1030	636	295	1480	2x725	175	640	580	141	6-M20	221	4	2021	2066							
	150											315M	614.5	552.5	1030				1550						2x725		221	2021	2066						
	185											315M	614.5	552.5	1070				1750						2x700		175	640	580	166	6-M20	235	4	2083	2125
	220											315M	614.5	552.5	1070				1750						2x700		175	640	580	166	6-M20	235	4	2083	2165
	260											315AB	666	830	1450				666						300		1910	2x740	215	700	640	6-M20	270	5	2413
300	315CB	741	905	1660	2060	2x755	275	700	640	166	6-M20	280	5	2563	2800																				
	315CB	741	905	1800	2060	2x755	275	700	640	166	6-M20	280	5	2563	2940																				

Unit: mm, unless otherwise stated

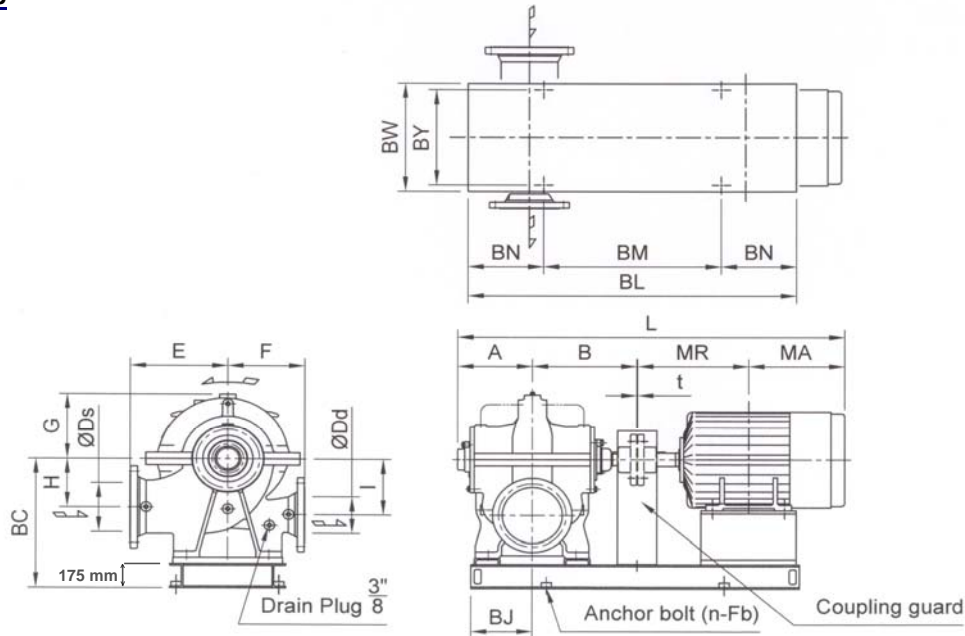
## DIMENSIONS - PUMPS WITH MOTORS (4-POLE)

50 Hz

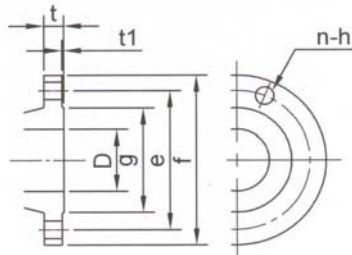
V13

\* Motor and base dimensions are typical only. Dimensions may vary depending on supplier.

### ■ Pump



### ■ Flange



Dimension - Flange

D	f	e	g	t1	t	n	h
mm	mm	mm	mm	mm	mm	mm	mm
250	430	380	345	2	34	12	27
300	480	430	395	3	36	16	27
350	540	480	440	3	38	16	33
400	605	540	495	3	42	16	33

### Dimensions - Pump

Model	Motor		Pump								Motor				Common Base								Total										
	kW	Ds	Dd	A	B	E	F	G	H	I	wt kg	Frame	MR	MA	wt kg	BC	BJ	BL	BM	BN	BW	BY	n-Fb	wt kg	t	L	wt kg						
350 x 300 CNFA	90	350	300	386	530	560	450	345	310	310	800	280S	544	463	700	775	355	1700	2x675	175	790	720	6-M22	250	4	1927	1750						
	110											280M	569.5	488.5	800													1750	2x700	175	265	1978	1865
	132											315S	589	517	1030													1770	2x710	175	270	2026	2100
	132											315S	589	517	920													1770	2x710	175	270	2026	1980
350 x 250 CNGA	150	350	250	386	530	560	450	350	310	303	790	315M	614.5	552.5	1030	775	355	1820	2x695	215	790	720	6-M22	285	4	2087	2105						
	185											315M	614.5	552.5	1070													1820	2x695	215	285	2087	2145
	185											315M	614.5	552.5	1070													1850	2x710	215	290	2145	2205
	220											315AB	666	830	1450													200	2x725	275	315	2474	2610
350 x 250 CNHA	260	350	250	414	560	560	440	373	315	330	845	315CB	741	905	1660	775	355	2150	3x600	175	790	720	8-M22	335	5	2624	2840						
	300											315CB	741	905	1800													2150	3x600	175	335	2624	2980
	300											315DB	841	1005	1900													2350	3x640	215	350	2824	3095
	335											280S	544	463	700													1810	2x730	175	275	2062	2005
400 x 350 CNEA	110	400	350	451	600	570	470	355	320	320	1030	280M	569.5	488.5	800	805	390	1860	2x715	215	790	720	6-M22	285	4	2113	2115						
	132											315S	589	517	1030													1870	2x720	215	285	2161	2345
	150											315M	614.5	552.5	1030													1920	2x745	215	295	2222	2355
	150											315M	614.5	552.5	1030													1910	2x740	215	295	2195	2360
400 x 350 CNFA	185	400	350	439	585	625	510	385	305	344	1035	315M	614.5	552.5	1070	805	390	1910	2x740	215	790	720	6-M22	295	5	2195	2400						
	220											315AB	666	830	1450													2050	2x750	275	315	2524	2800

Unit: mm, unless otherwise stated