GS

Cast Iron End Suction Pumps
(to EN733)

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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, applications & exploded view

Combining over 100 years of experience with the latest computer aided design, EBARA has developed the new **GS** series of pumps that offer world leading performance and efficiencies.

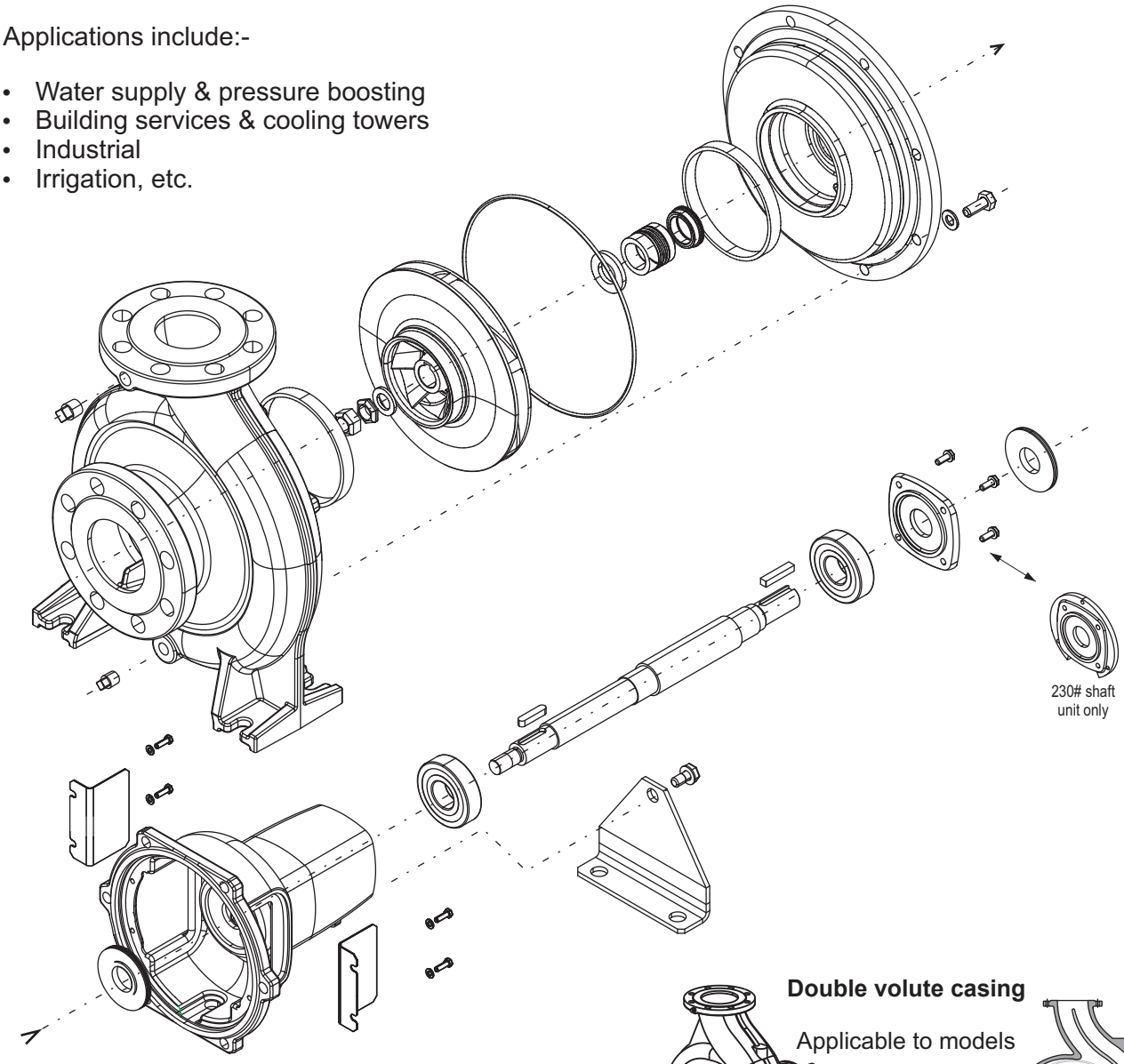
A versatile high quality pump suitable for many applications where water needs to be transferred or boosted

- Pump dimensions to EN733[#]
- 16 Bar rated. PN 16 Flanges (24 Bar hydrostatic test pressure)
- High efficiency hydraulic design (MEI≥0.6 all models)
- Mechanical seals to EN172756
- Cast Iron/Bronze/Stainless steel construction
- O' Ring seal for casing
  Cast iron components ED painted. (Electro deposition painting)

[#] *Except "L" models & 150-315*
See page 400 for details.

Applications include:-

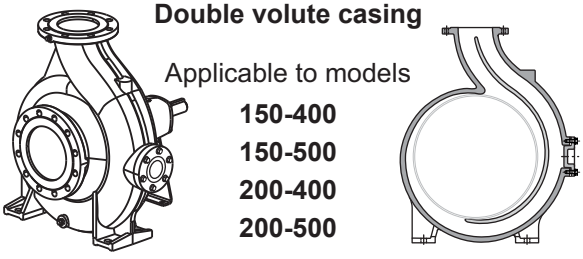
- Water supply & pressure boosting
- Building services & cooling towers
- Industrial
- Irrigation, etc.



Double volute casing

Applicable to models

150-400
150-500
200-400
200-500



Specifications

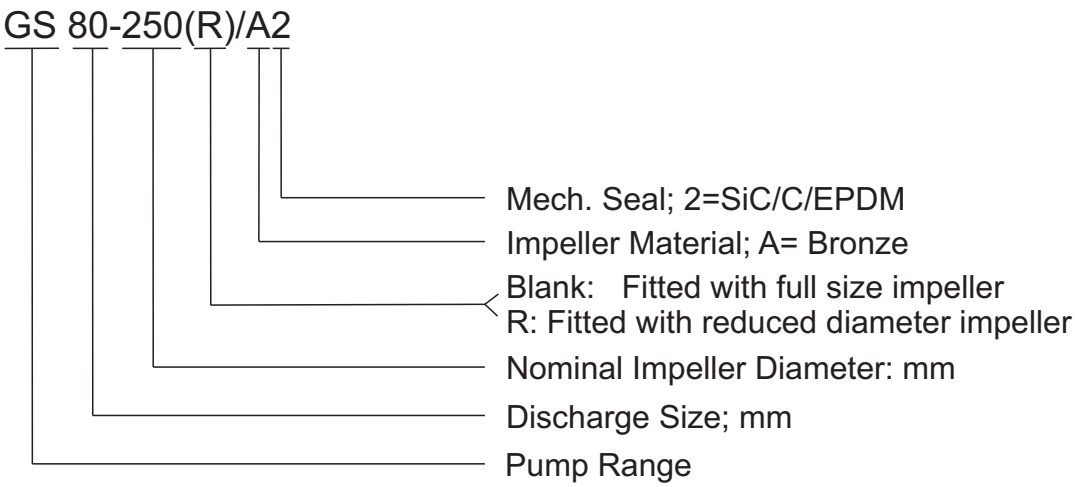
		Standard (50 Hz)	Option
Pump	Type	End suction centrifugal pump to EN733#	
	Flanges	DIN/EN PN 16 (EN 1092-1)	
Scope	Pump discharge	32 mm to 200 mm	
	Motor power required	2 Pole: upto 220 kW 4 Pole: upto 355 kW	
	Performance	2 pole: (Q) 8 - 1100 m³/hr (H) 10 - 150 m hd 4 pole: (Q) 4 - 1300 m³/hr (H) 3 - 95 m hd	
Liquid handled	Type	Water	
	Temperature	-10° to +120°C See note①page 302	
Max. allowable working pressure (MAWP)		16 Bar*	
Max. allowable suction pressure (MASP)**		<16 Bar- Pump shut-off pressure (PSP)	
Construction	Impeller	Closed centrifugal	
	Mechanical seal	Single spring, rubber bellows (to EN12756)	
Materials	Casing	Cast iron (FC250)	
	Impeller	Bronze (CAC 406)	
	Casing wear rings	Bronze (CAC 406)	
	Shaft	420 Stainless steel	
	Mechanical Seal	SiC/Carbon/EPDM	
	Casing cover	Cast iron (FC250)	
	Bearing housing	Cast iron (FC250)	
	Bearings	Sealed ball bearings	
Supply		Bareshaft pump	

* 16 Bar rating to ISO5199

**MASP < MAWP - PSP

Except "L" models & 150-315
See page 400 for details.

Model code



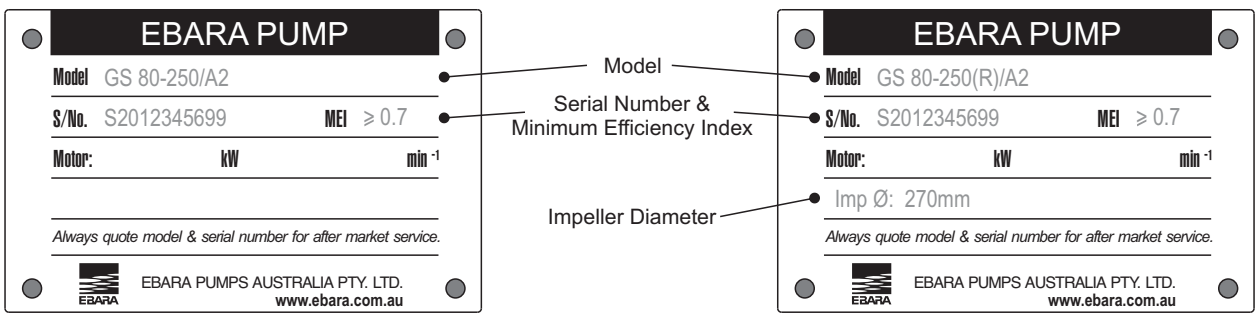
"L" models - 80-315L, 100-315L, 125-250L

The letter "L" following the impeller classification code indicates a larger shaft unit is fitted.
(see page 401 & 502 for more details)

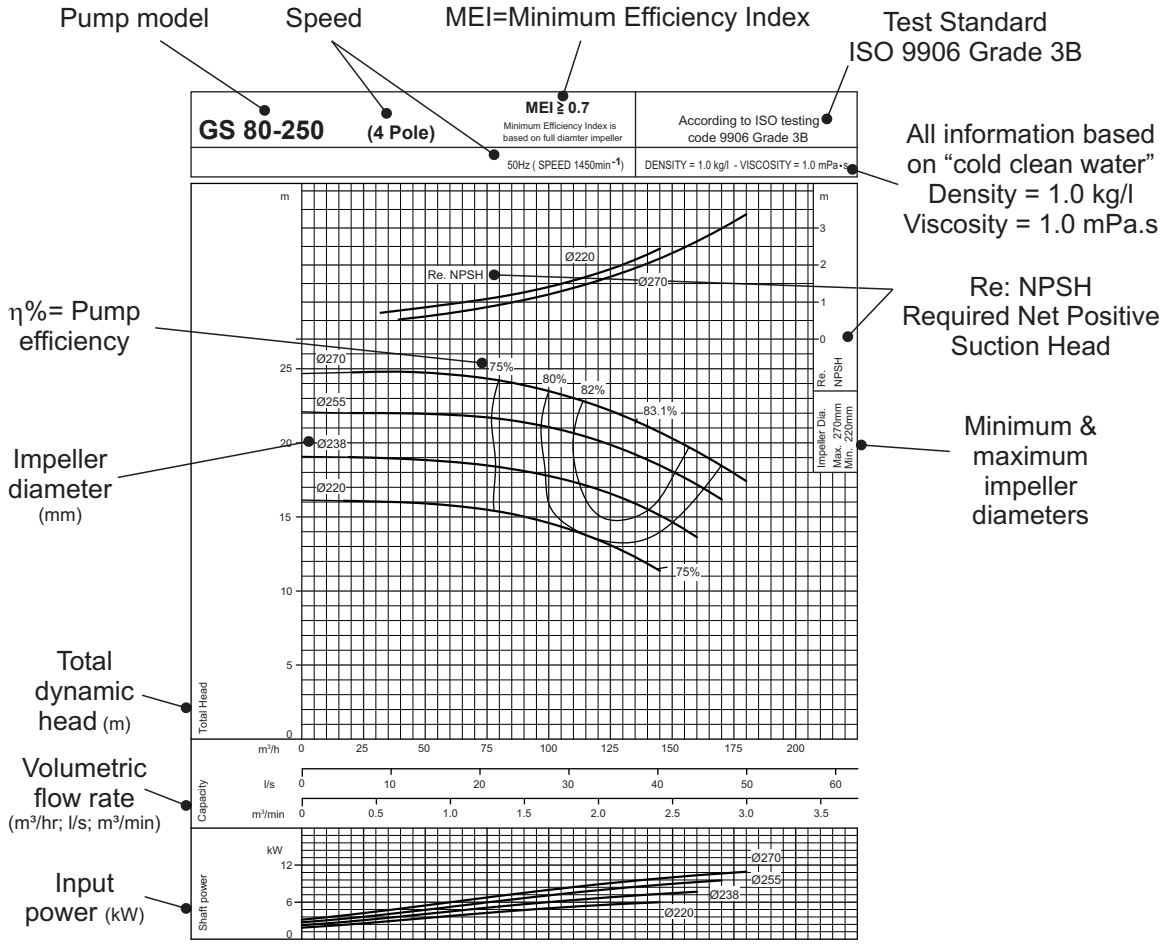
Nameplate

Standard model with full size impeller

Standard model with reduced impeller



Performance curves

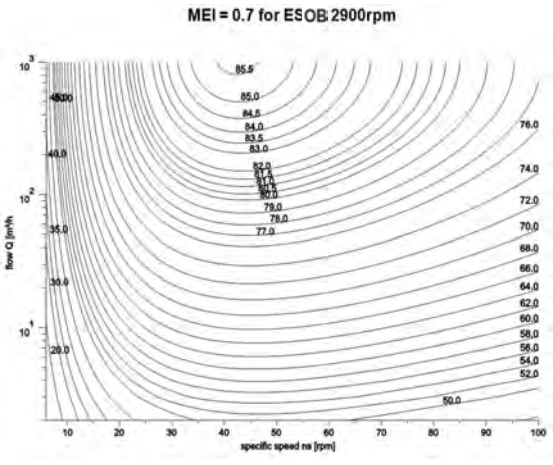


MEI - Minimum efficiency index

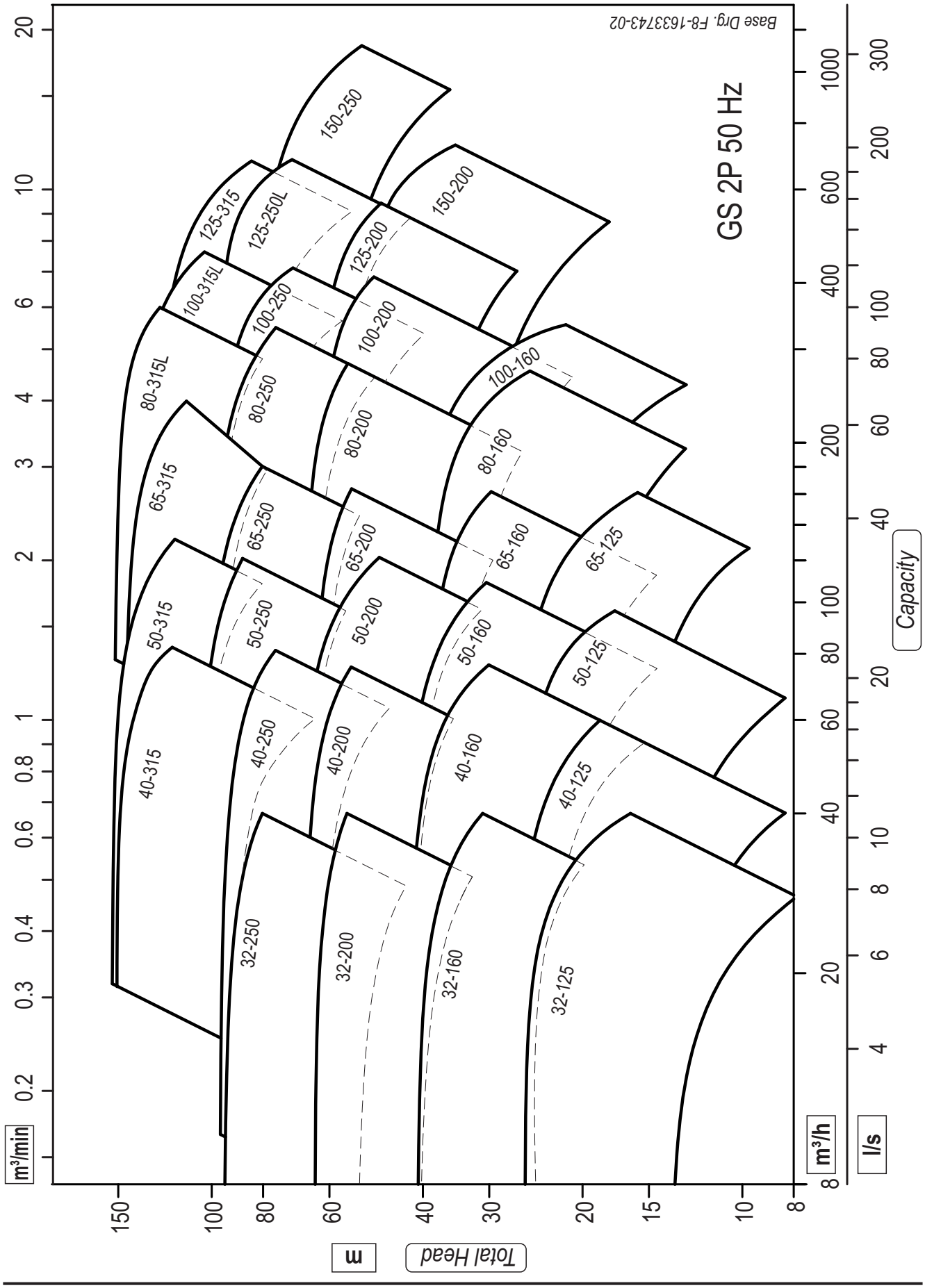
The Minimum Efficiency Index (MEI) was introduced in Europe as a comparative measure of a pumps efficiency. Recognising that pumping equipment is a major consumer of electrical power, this comparative measure was developed, and pumping equipment had to meet a minimum standard (MEI>0.4) to be sold in Europe after January 2015.

The MEI is based on the full size impeller, and takes into account best efficiency point as well as part load and overload efficiencies to provide a broader comparison. Basically the higher the MEI, the higher the efficiency and comparative performance of the pumps.

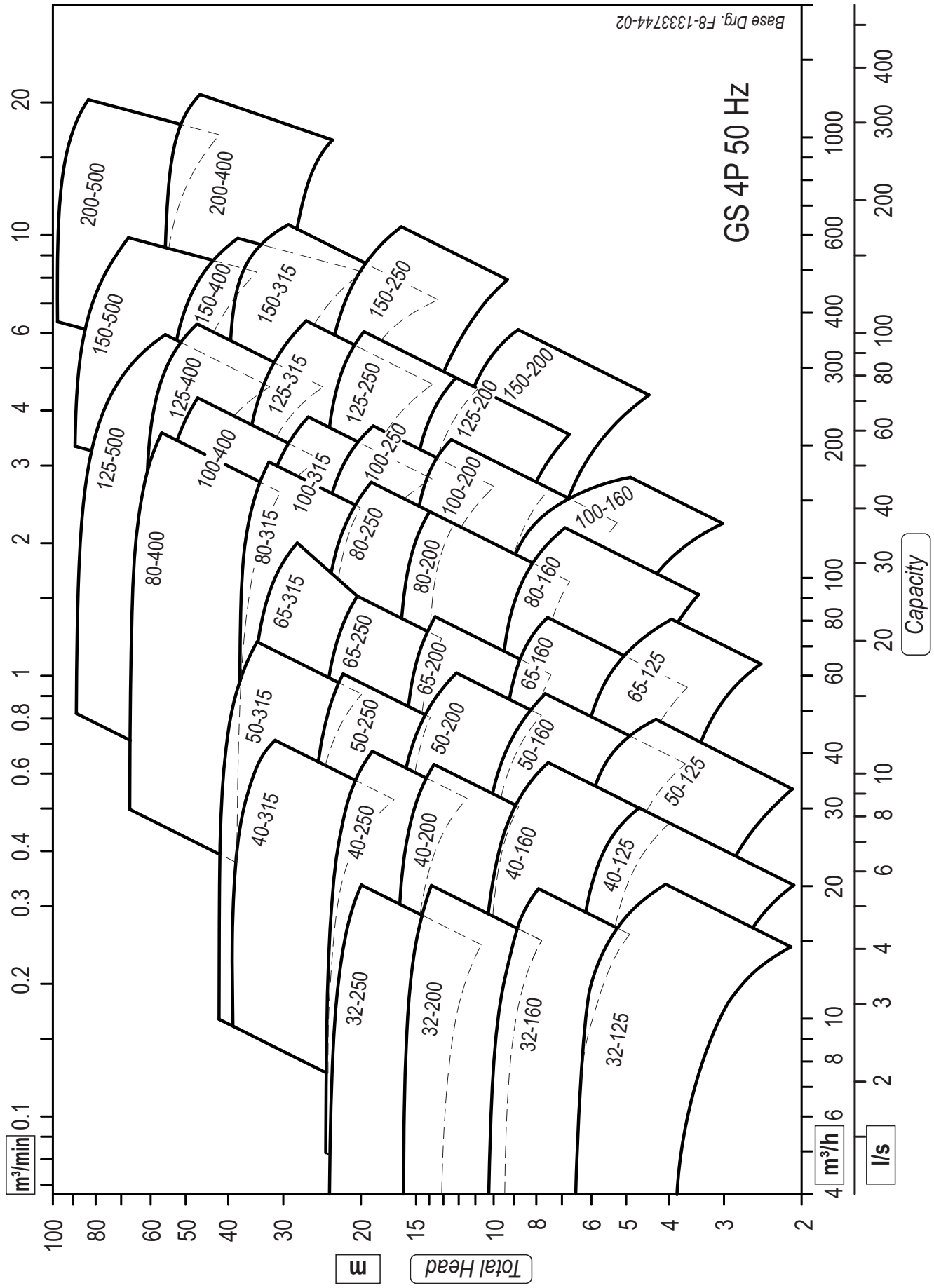
The majority of the GS range are MEI>0.7, with the balance >0.6, an indication of the high quality design and manufacture by Ebara.



Selection chart - 2 Pole - 2900 rpm



Selection chart - 4 Pole - 1450 rpm



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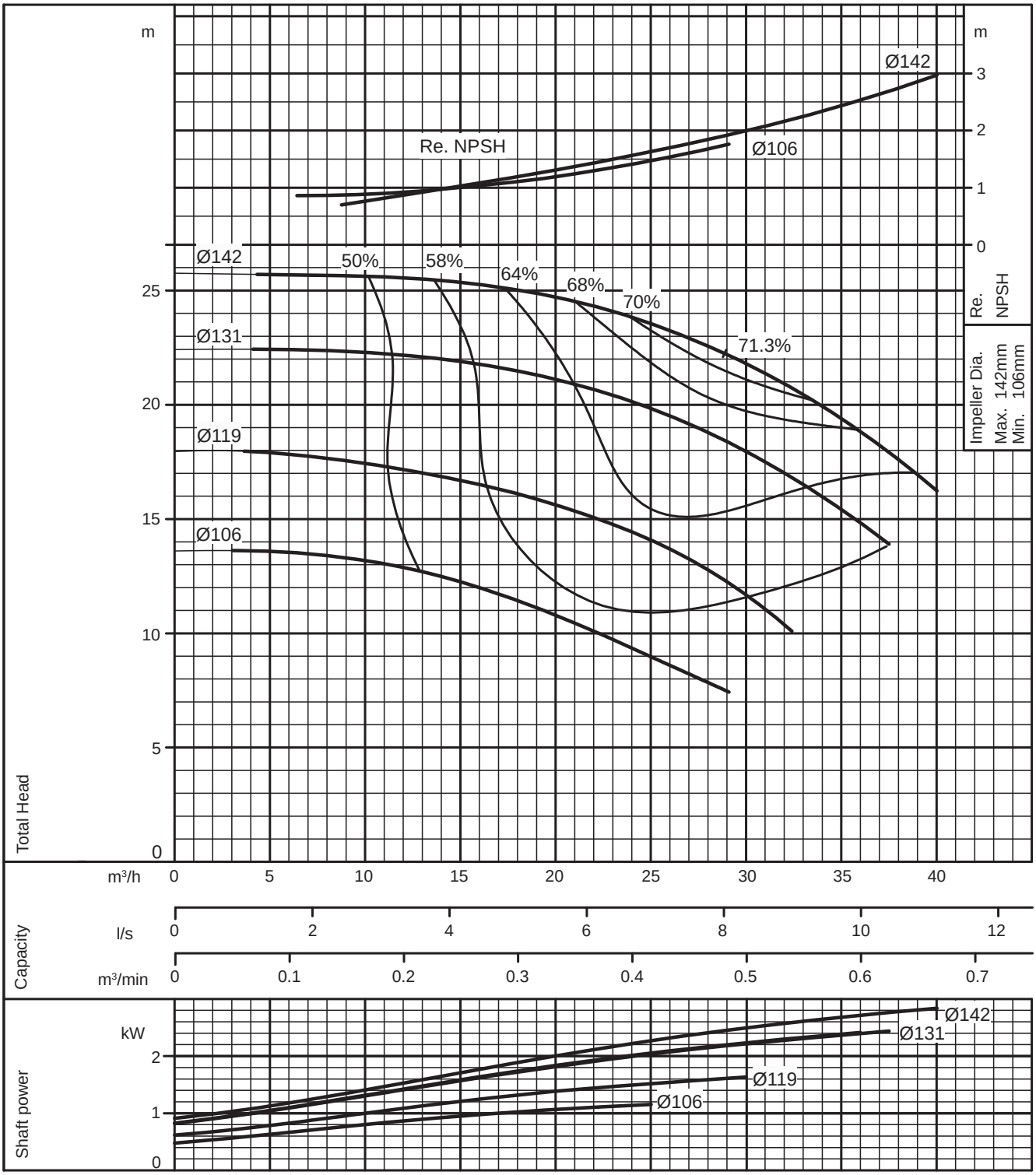
Performance Curve

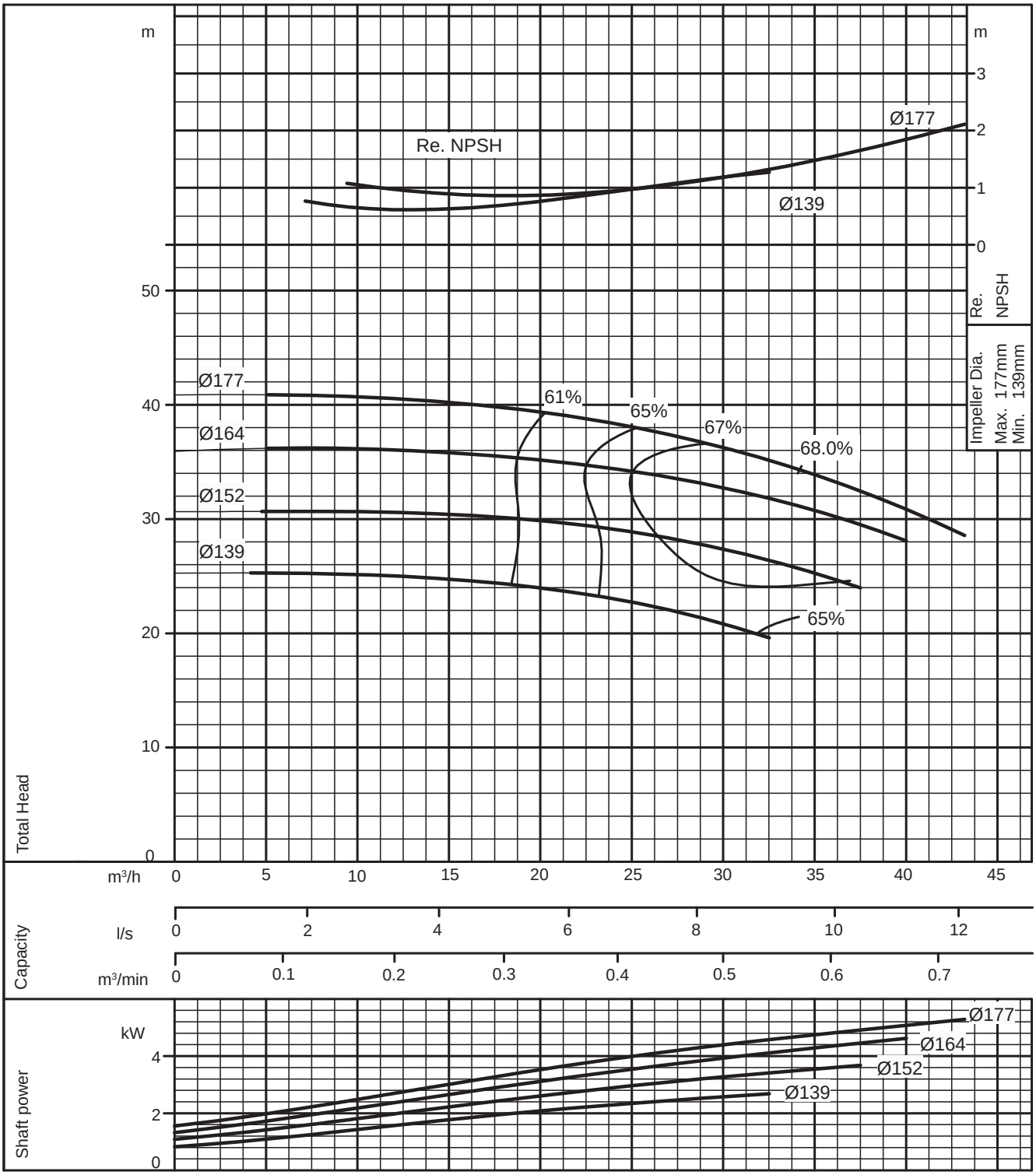
GS 32-125 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633562-01

Performance Curve

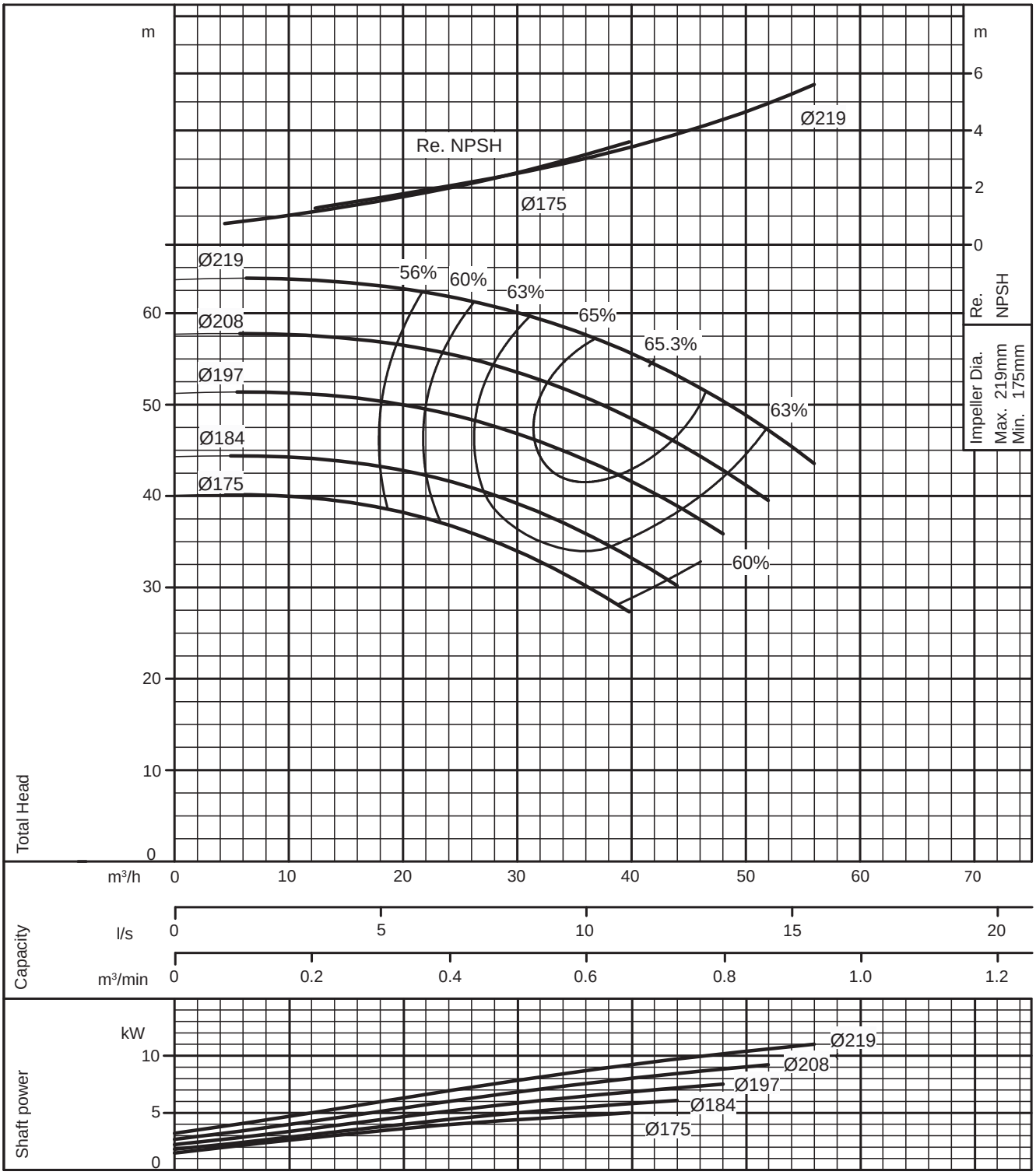
GS 32-160 (2 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633563-01

Performance Curve

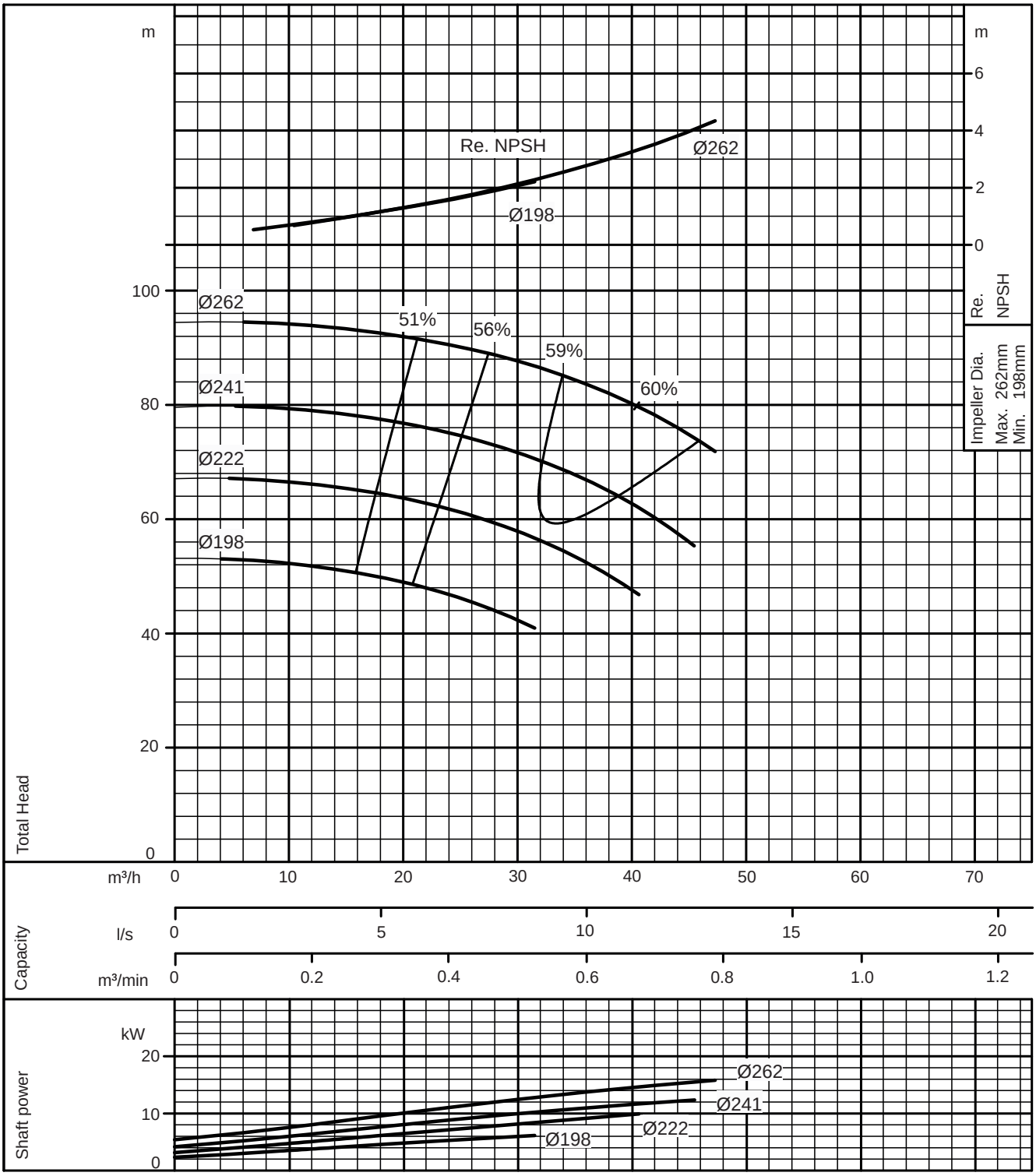
GS 32-200 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633564-01

Performance Curve

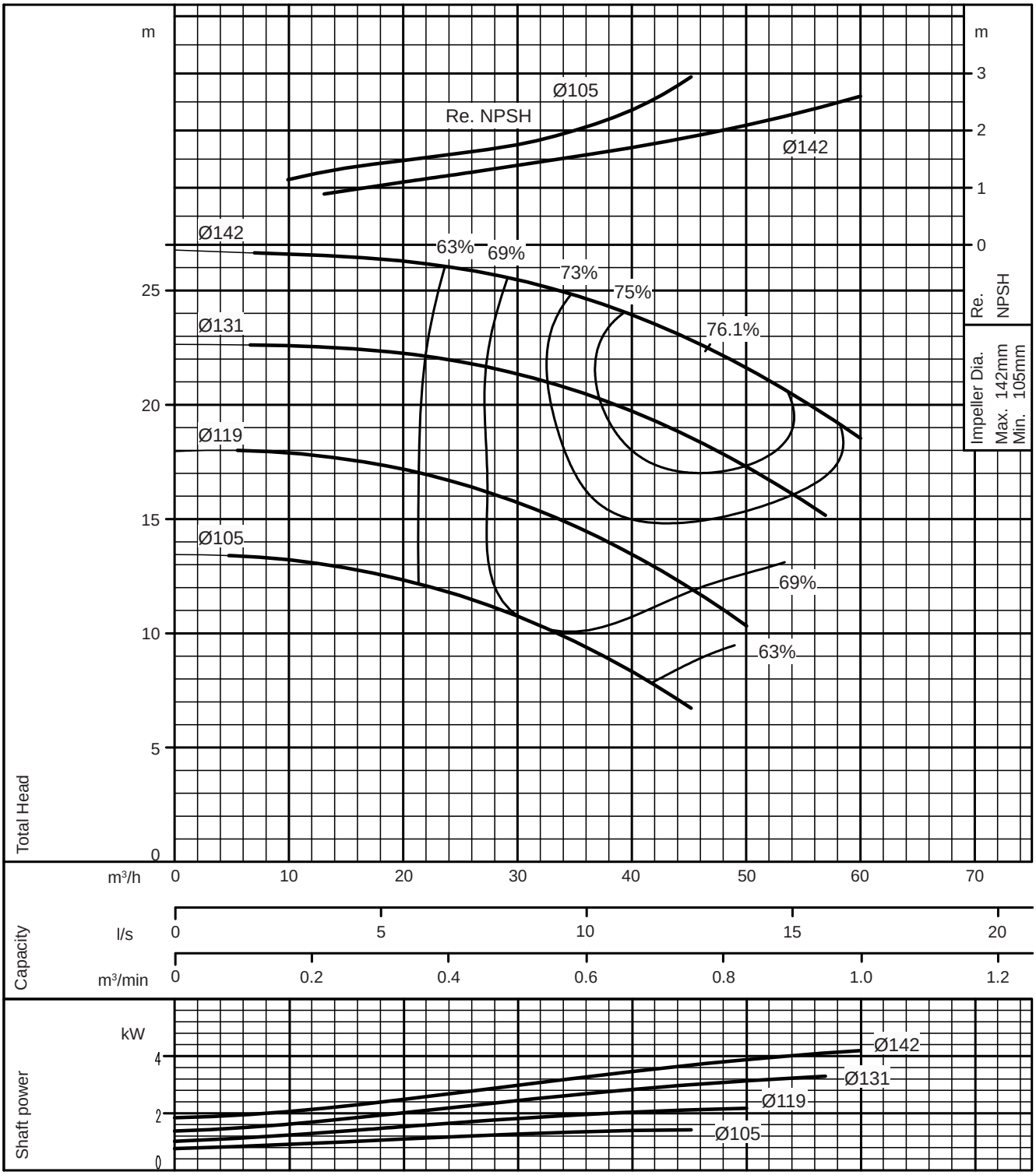
GS 32-250 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633565-01

Performance Curve

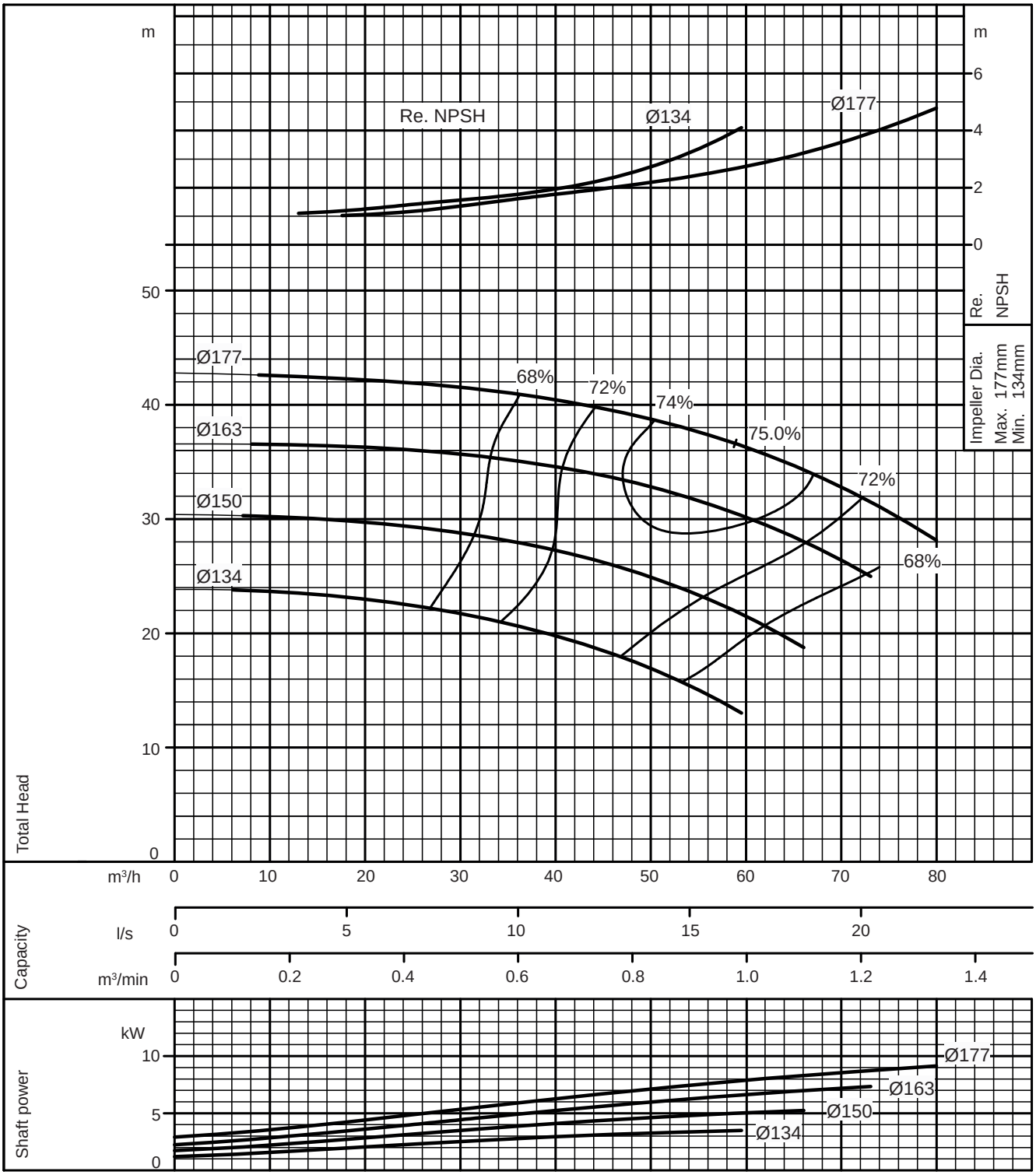
GS 40-125 (2 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633566-01

Performance Curve

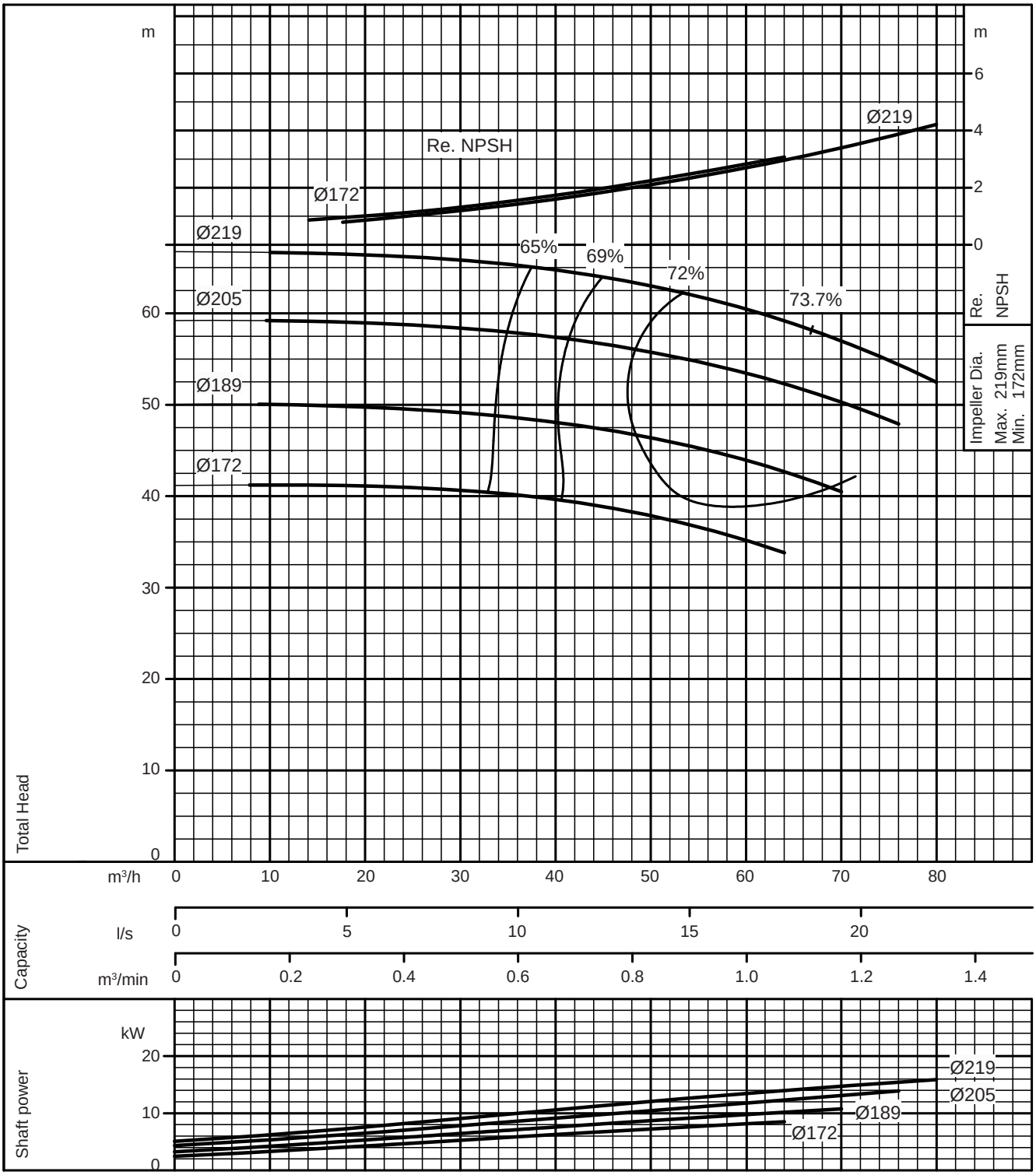
GS 40-160 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633567-01

Performance Curve

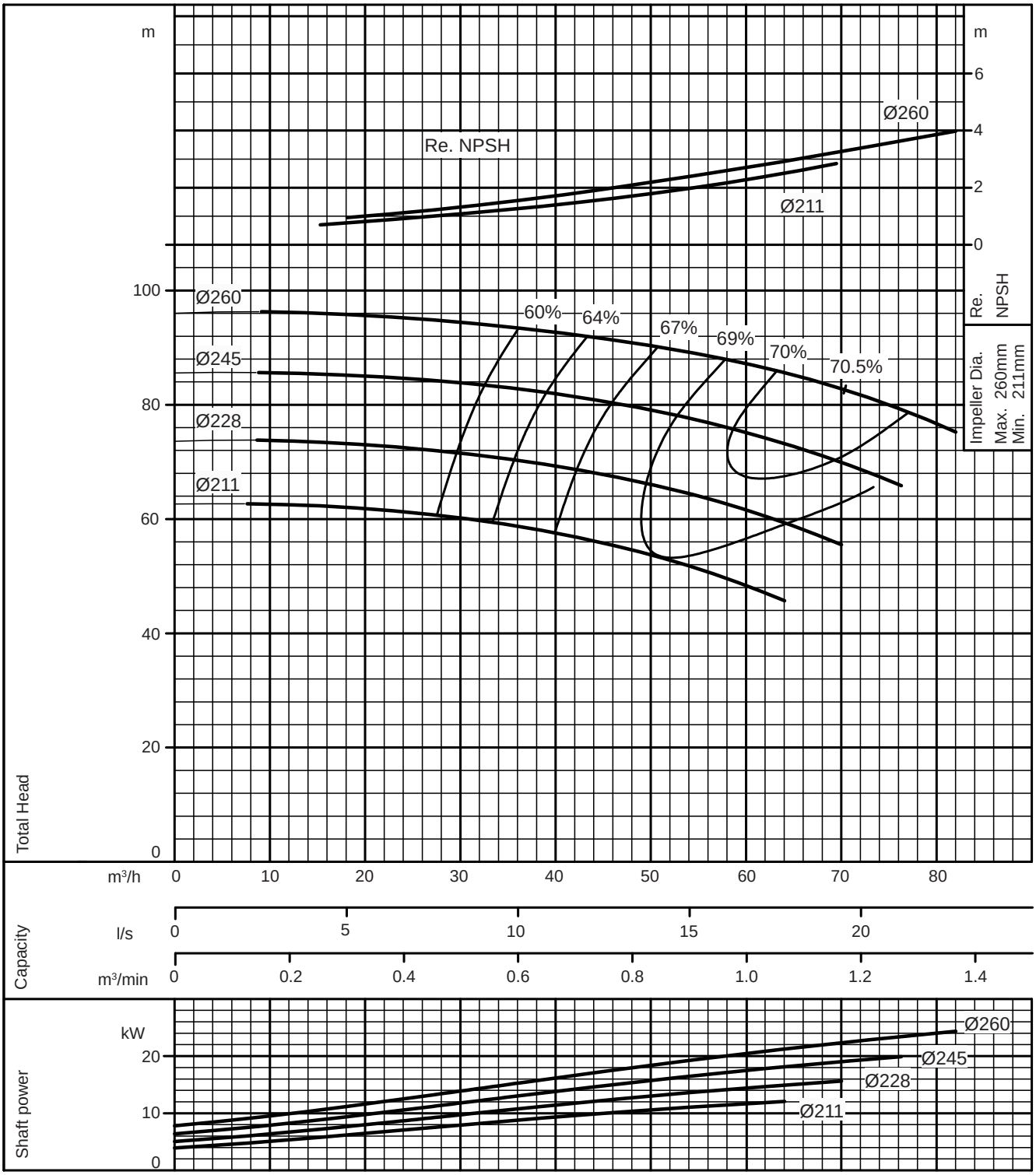
GS 40-200 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633568-01

Performance Curve

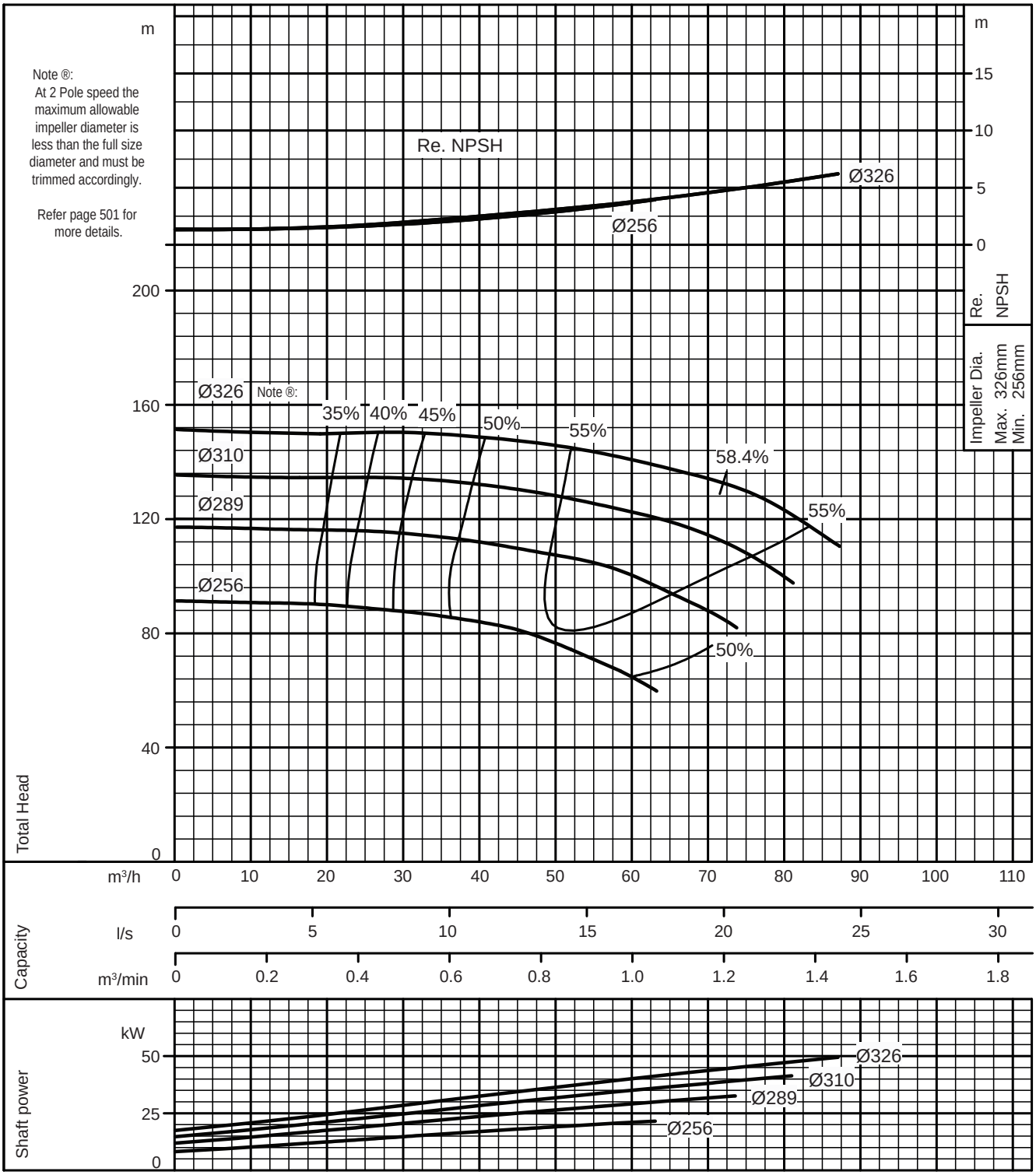
GS 40-250 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633569-01

Performance Curve

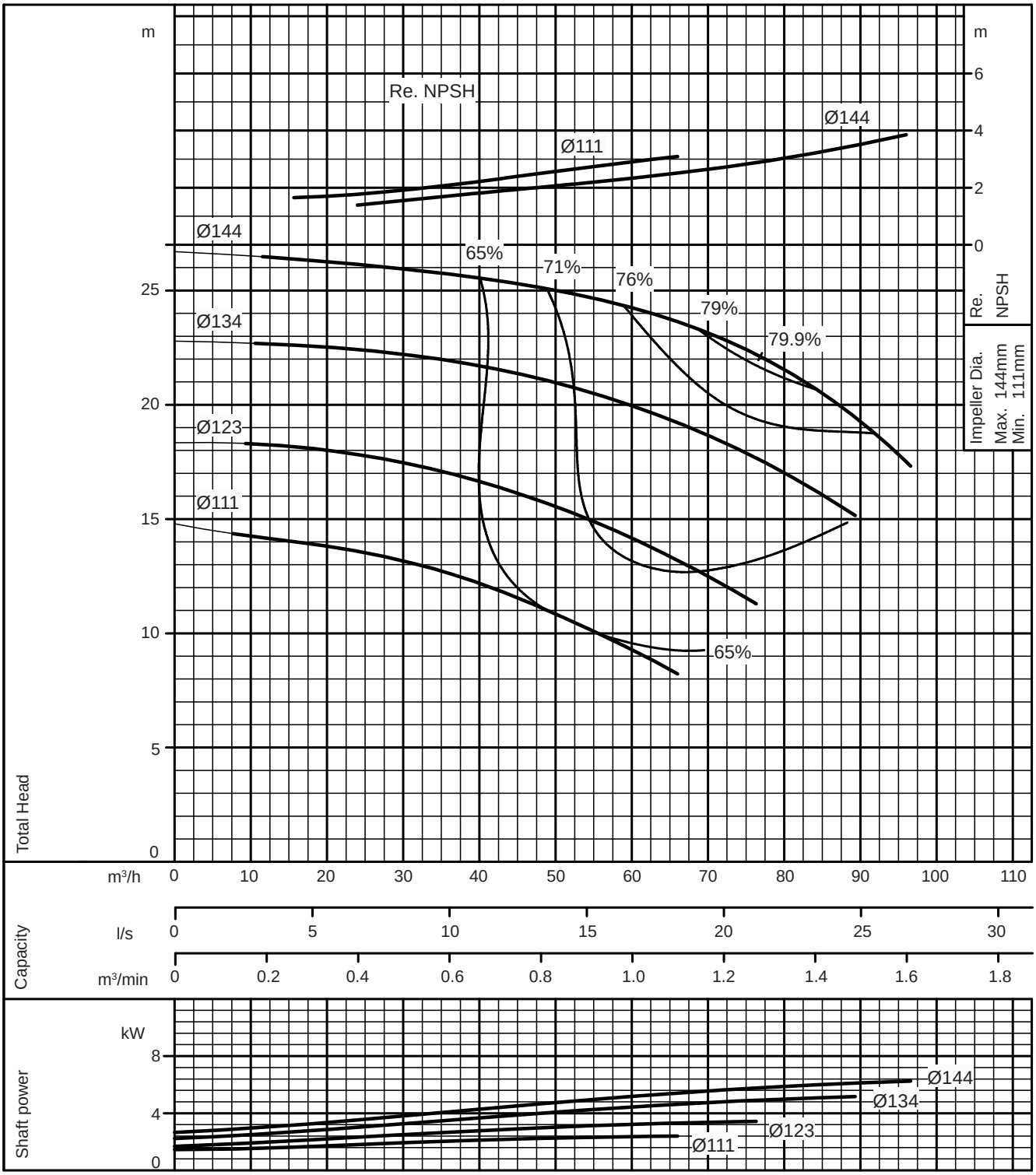
GS 40-315 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1632151-02

Performance Curve

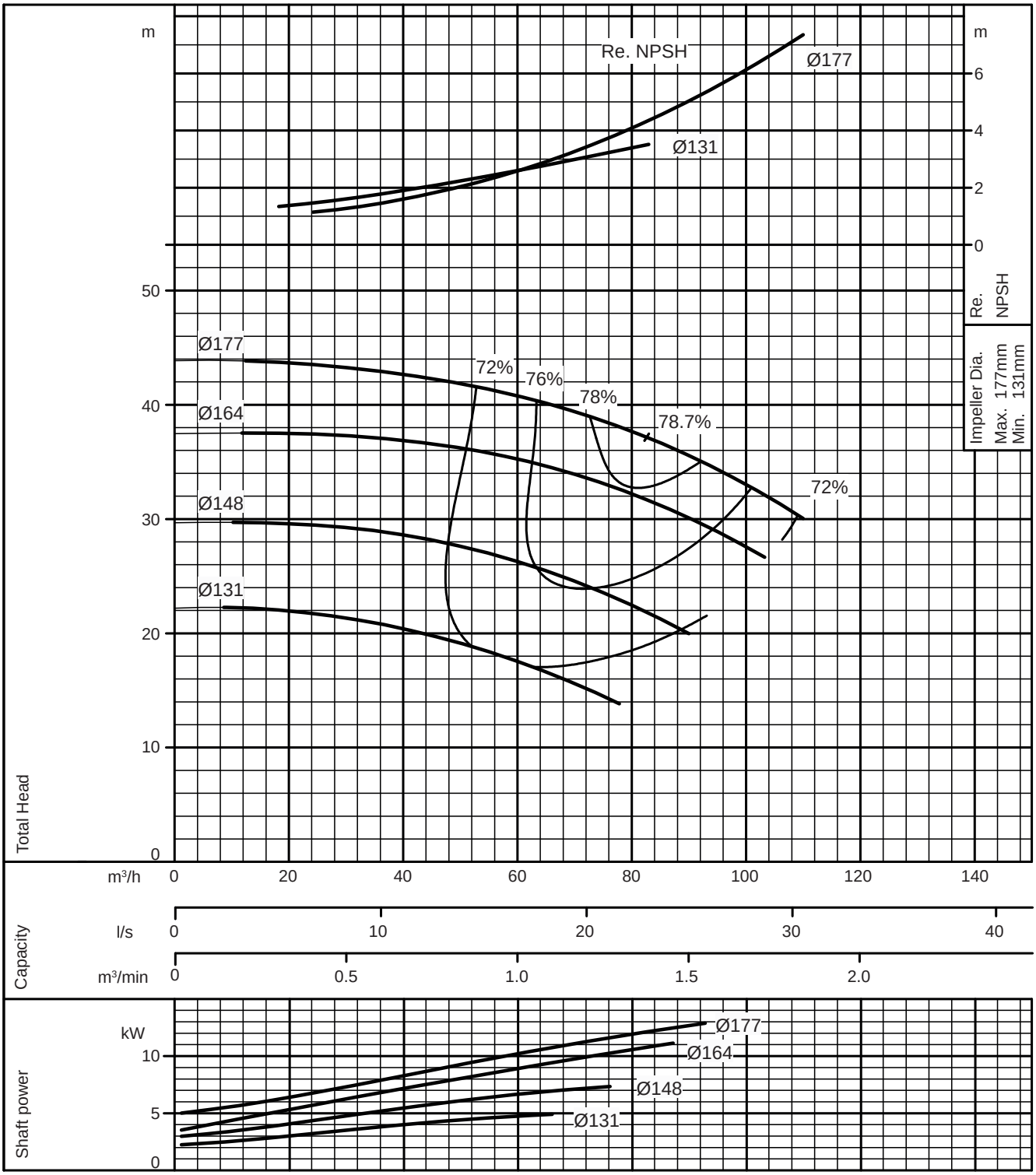
GS 50-125 (2 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633571-01

Performance Curve

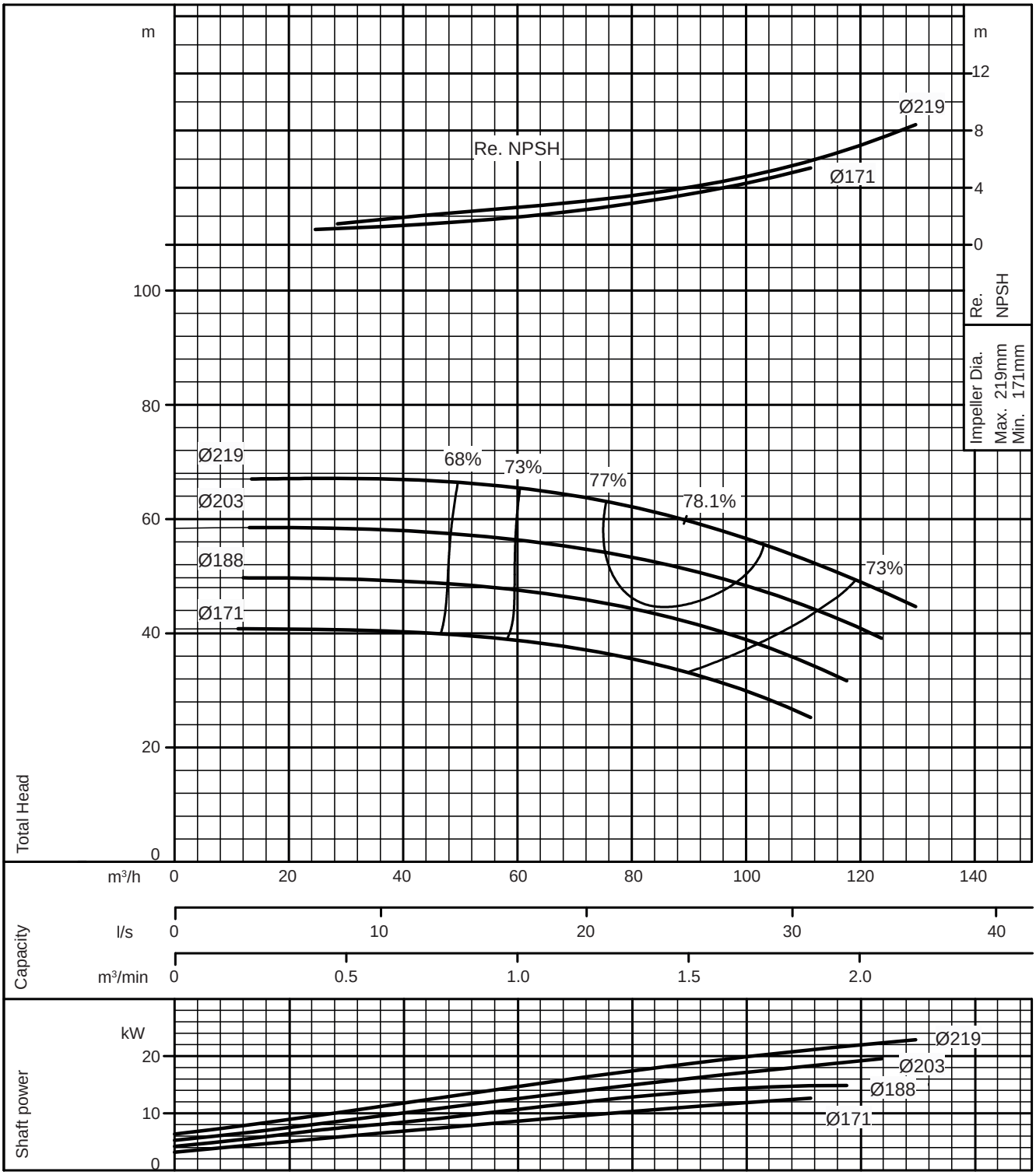
GS 50-160 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633572-01

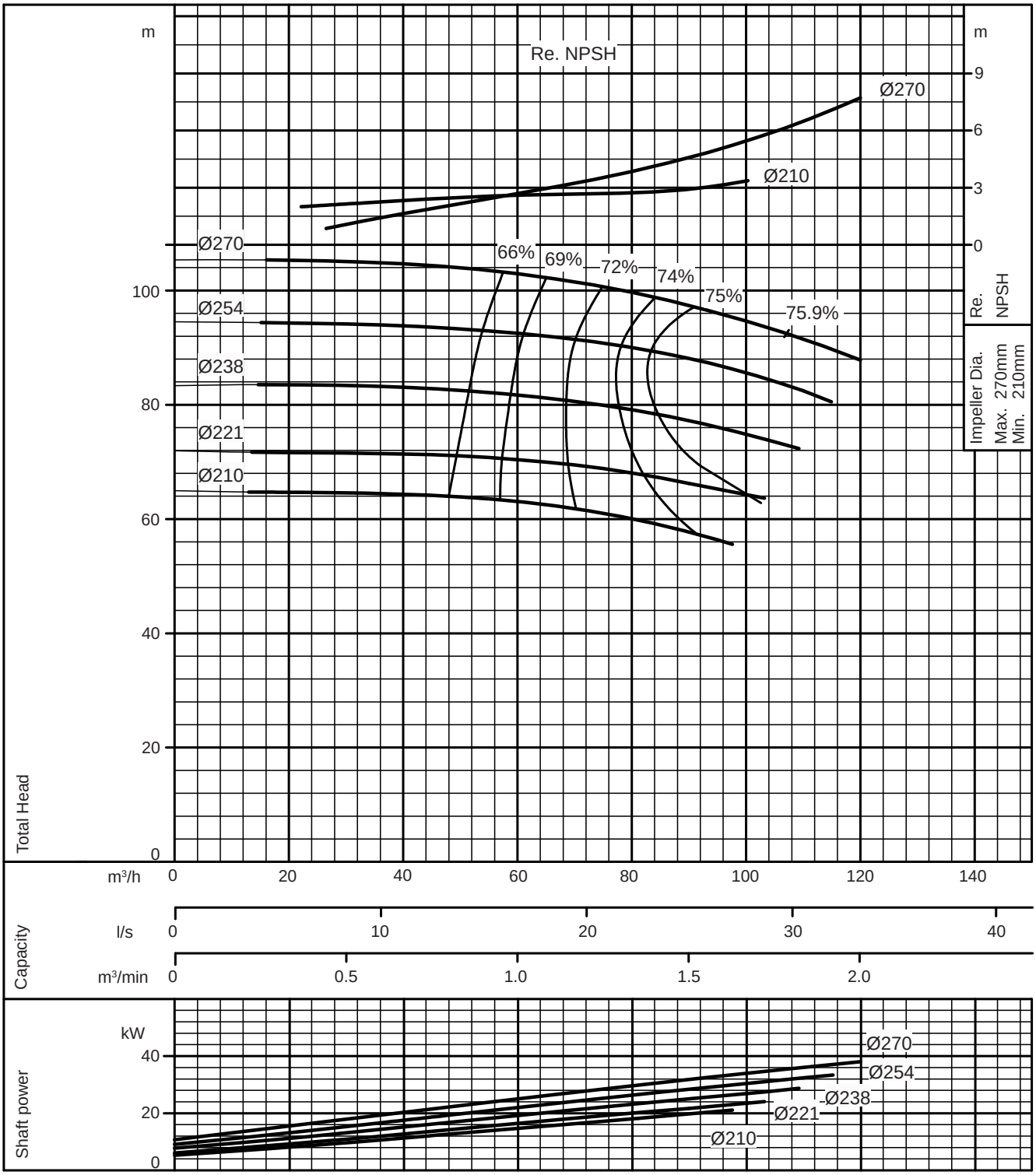
Performance Curve

GS 50-200 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



Performance Curve

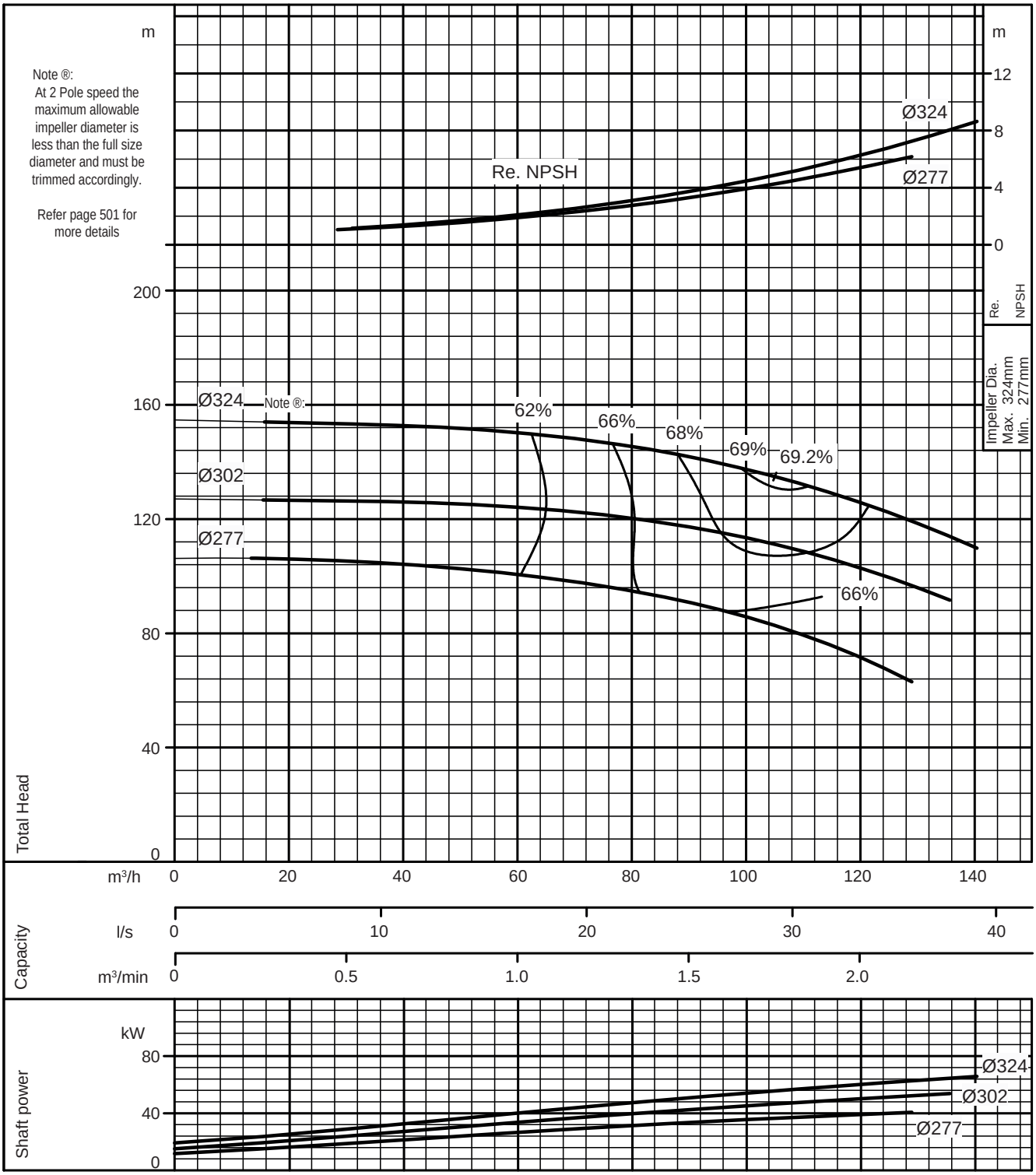
GS 50-250 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633574-01

Performance Curve

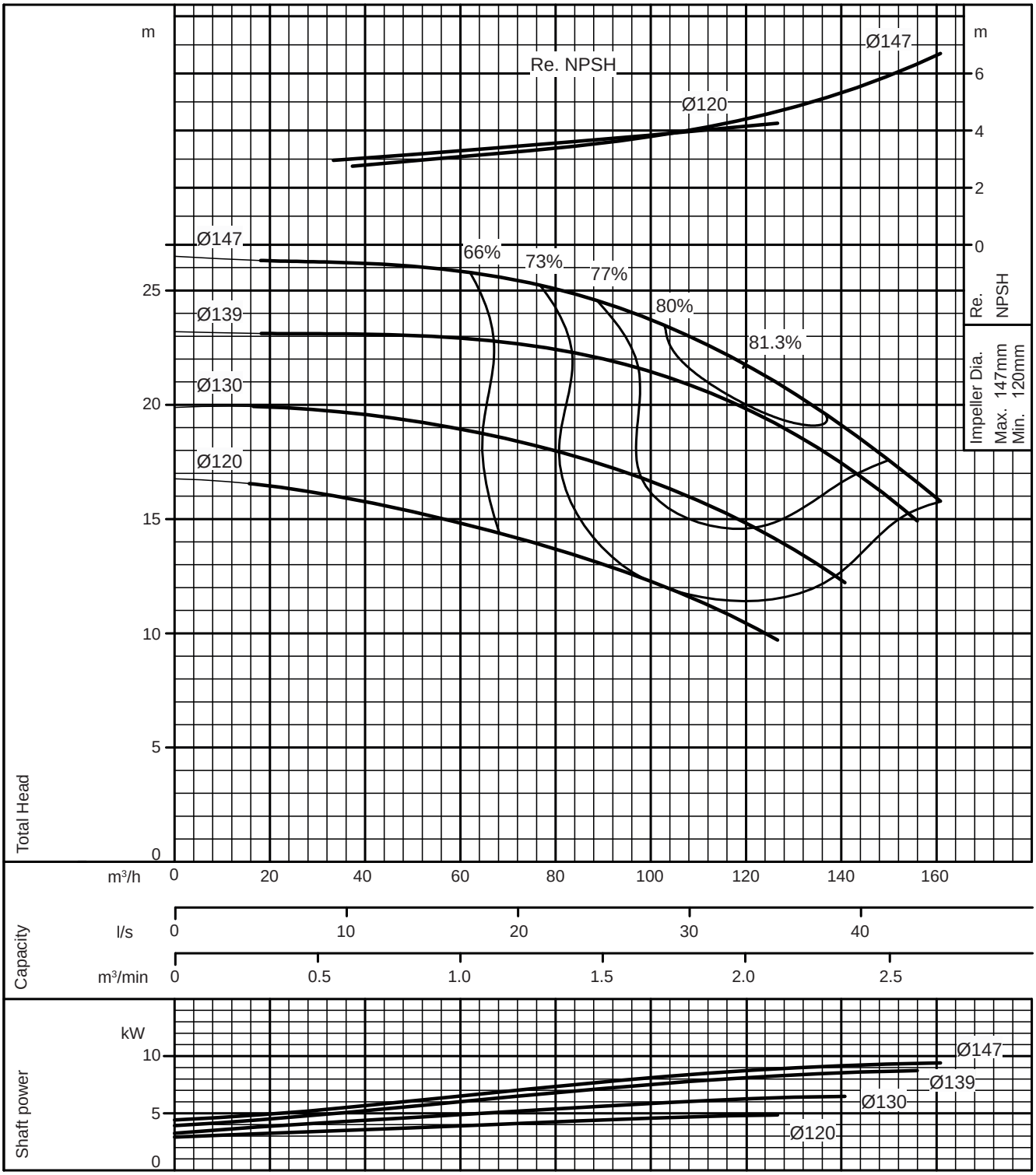
GS 50-315 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633575-01

Performance Curve

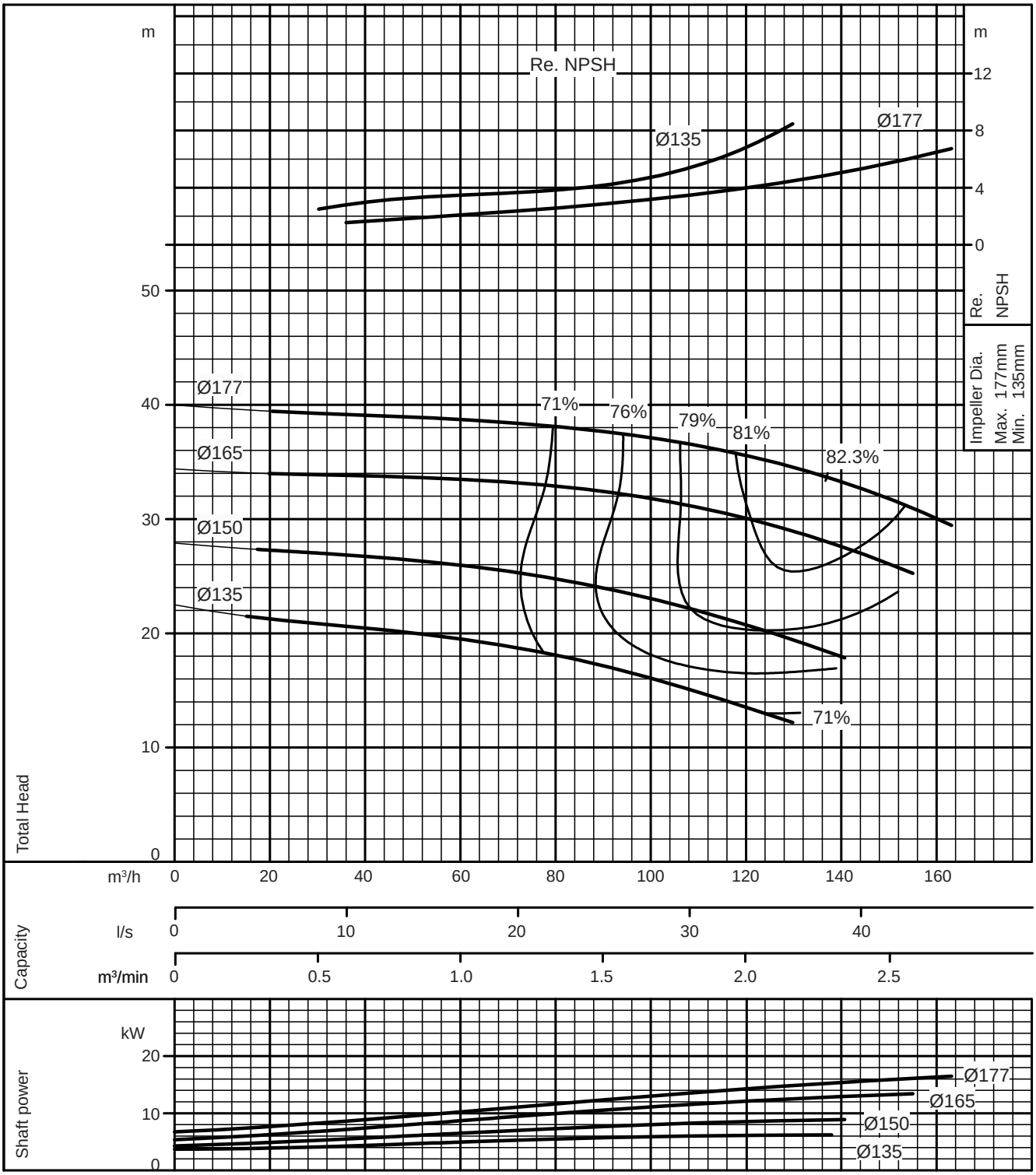
GS 65-125 (2 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633576-01

Performance Curve

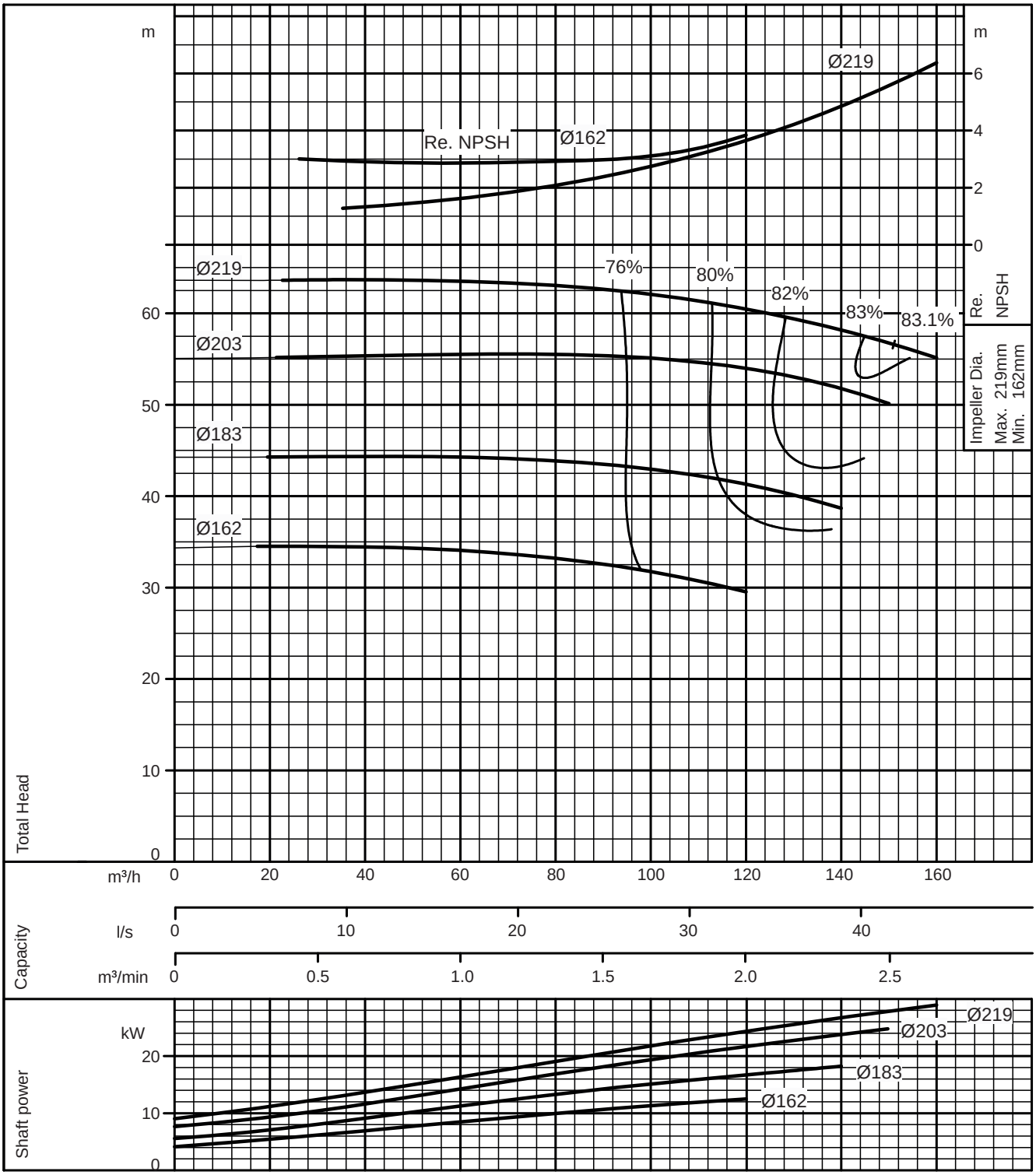
GS 65-160 (2 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633577-01

Performance Curve

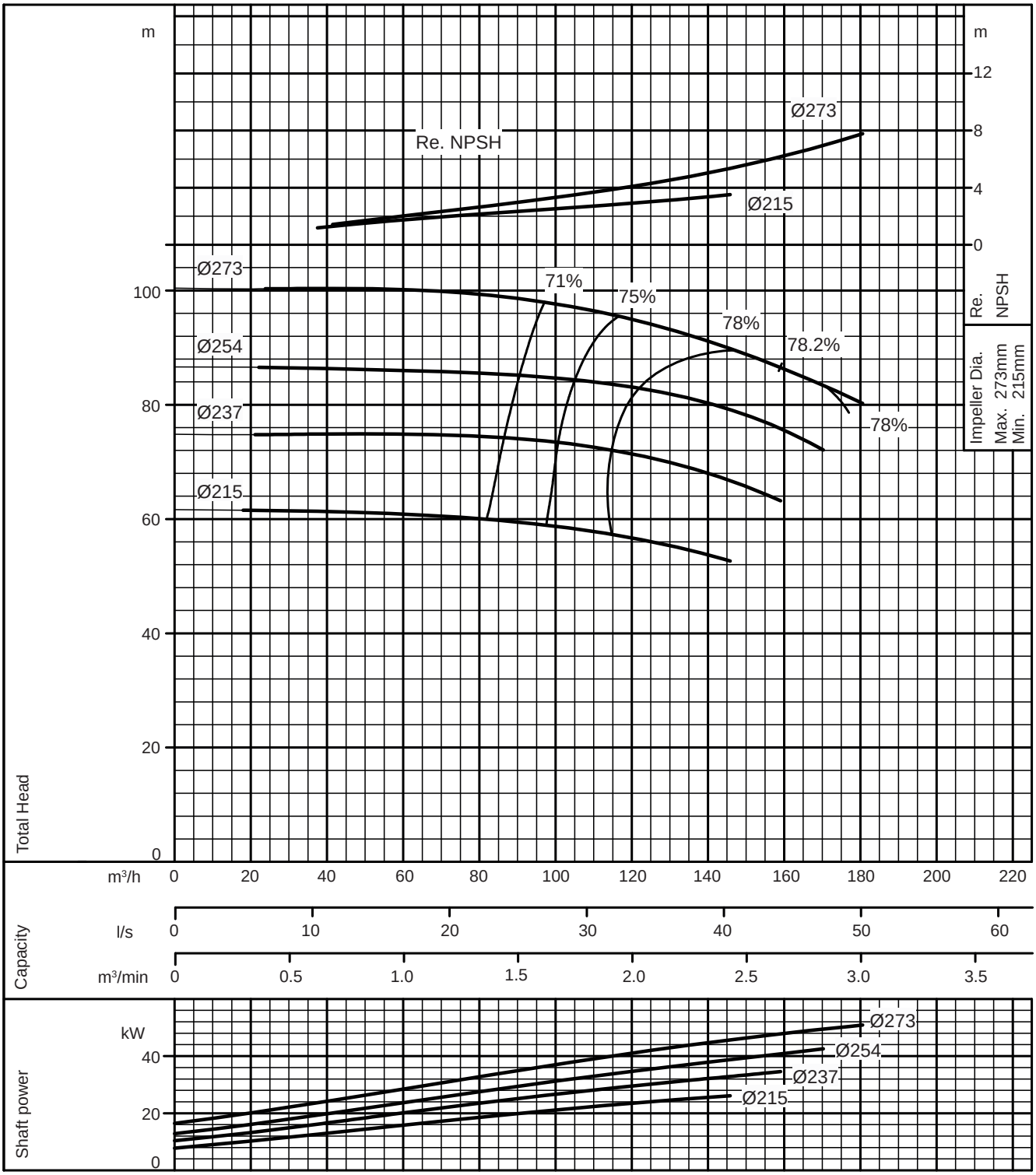
GS 65-200 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633578-01

Performance Curve

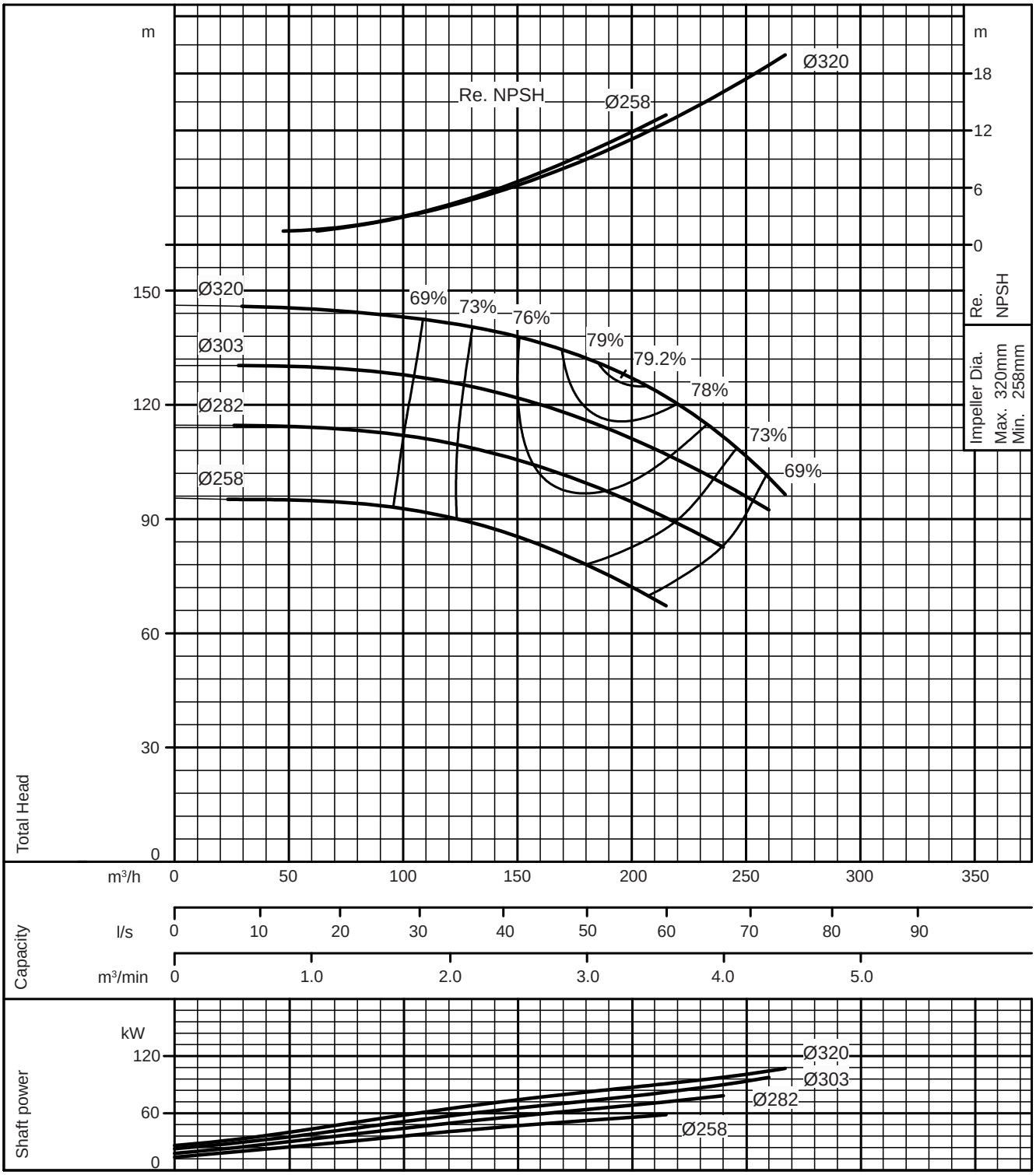
GS 65-250 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633579-01

Performance Curve

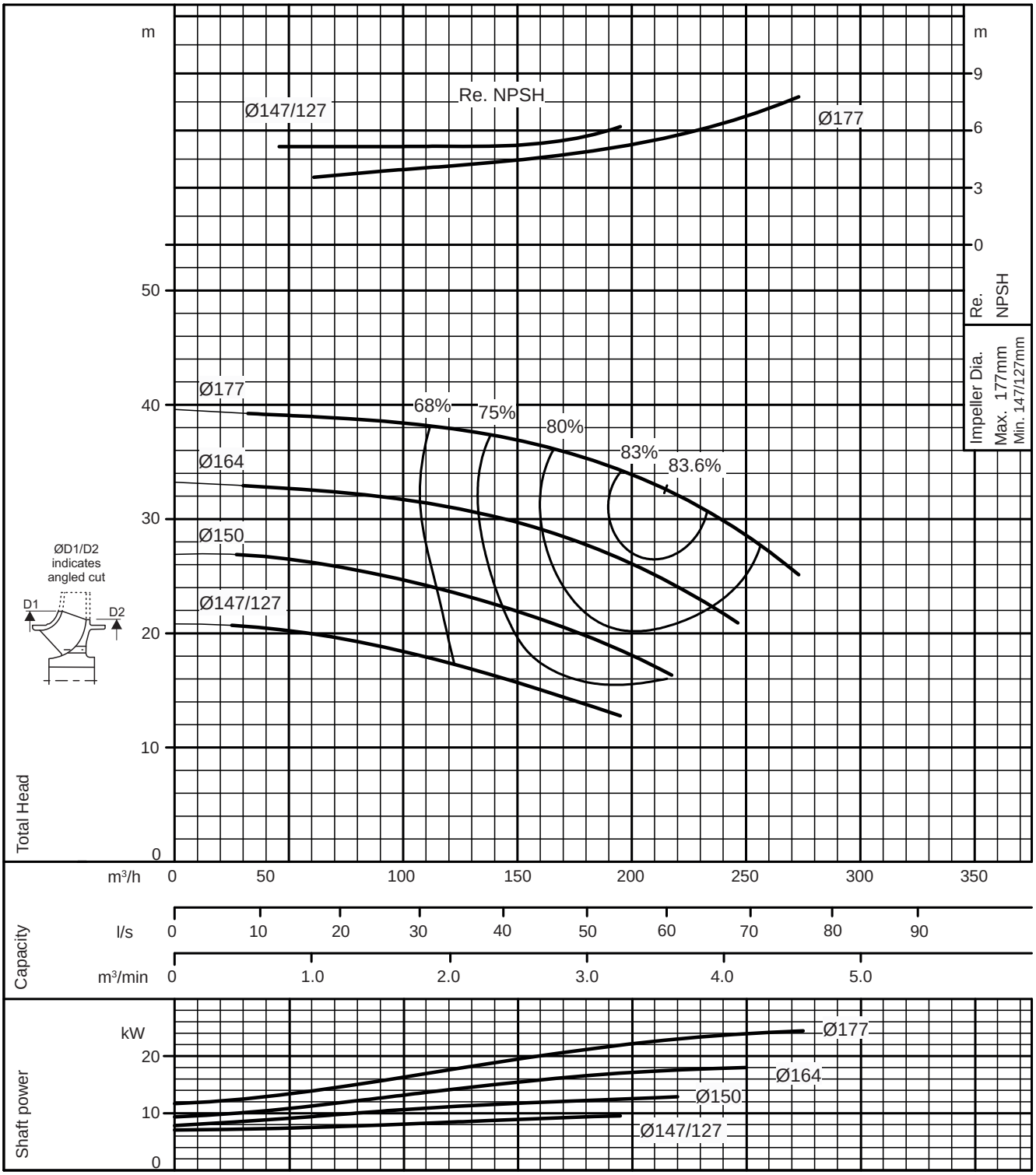
GS 65-315 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633580-01

Performance Curve

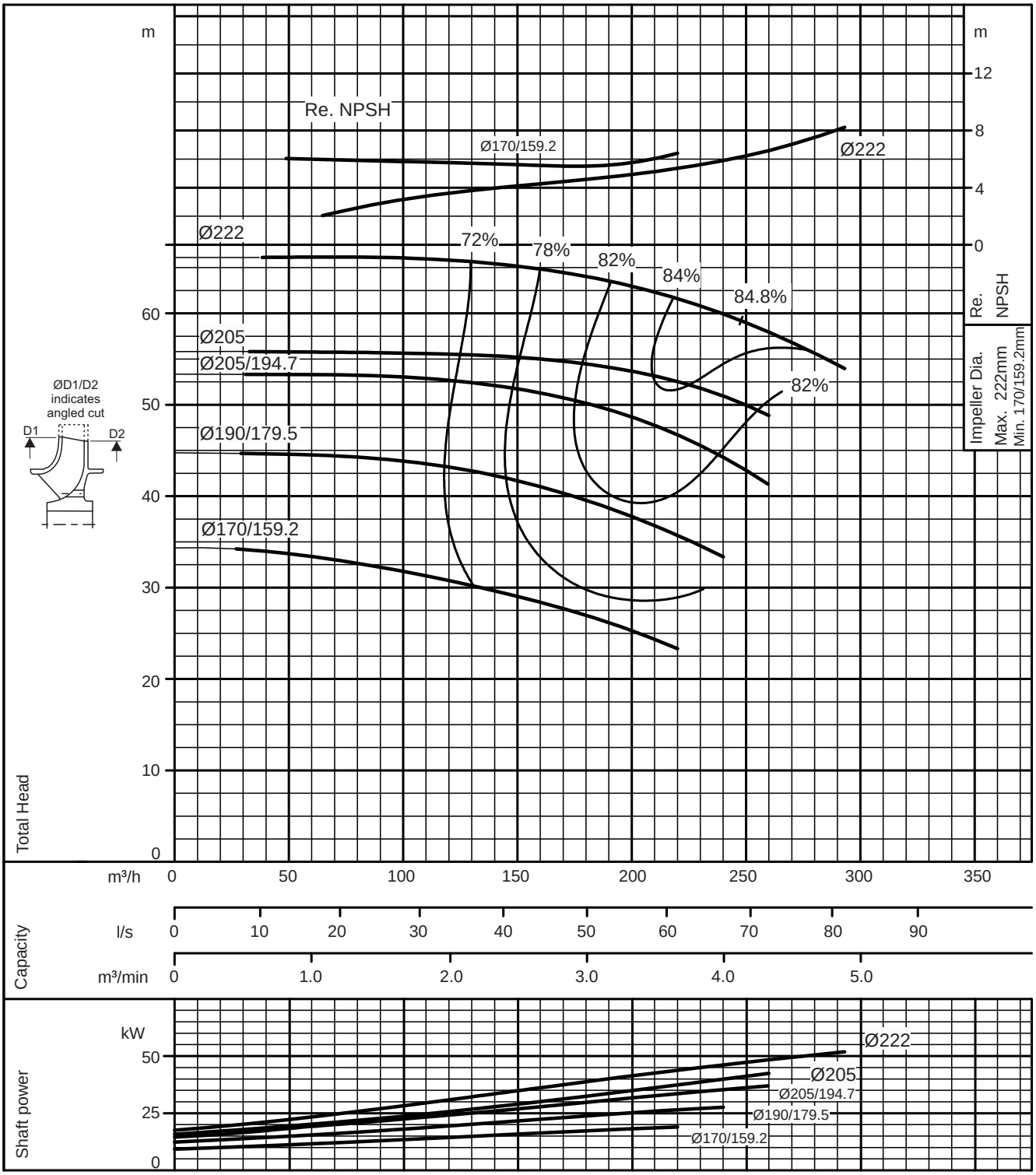
GS 80-160 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633581-01

Performance Curve

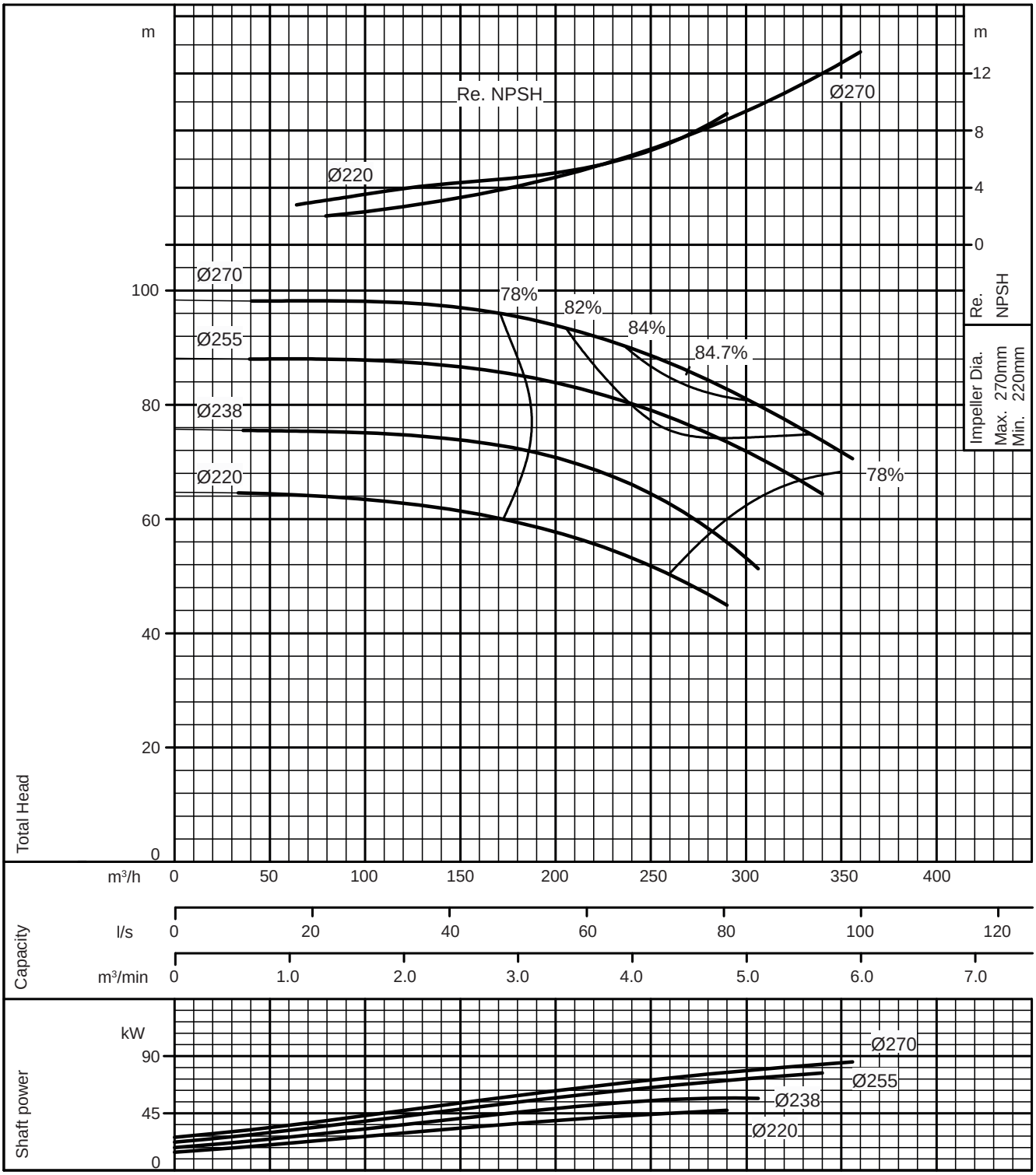
GS 80-200 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633582-01

Performance Curve

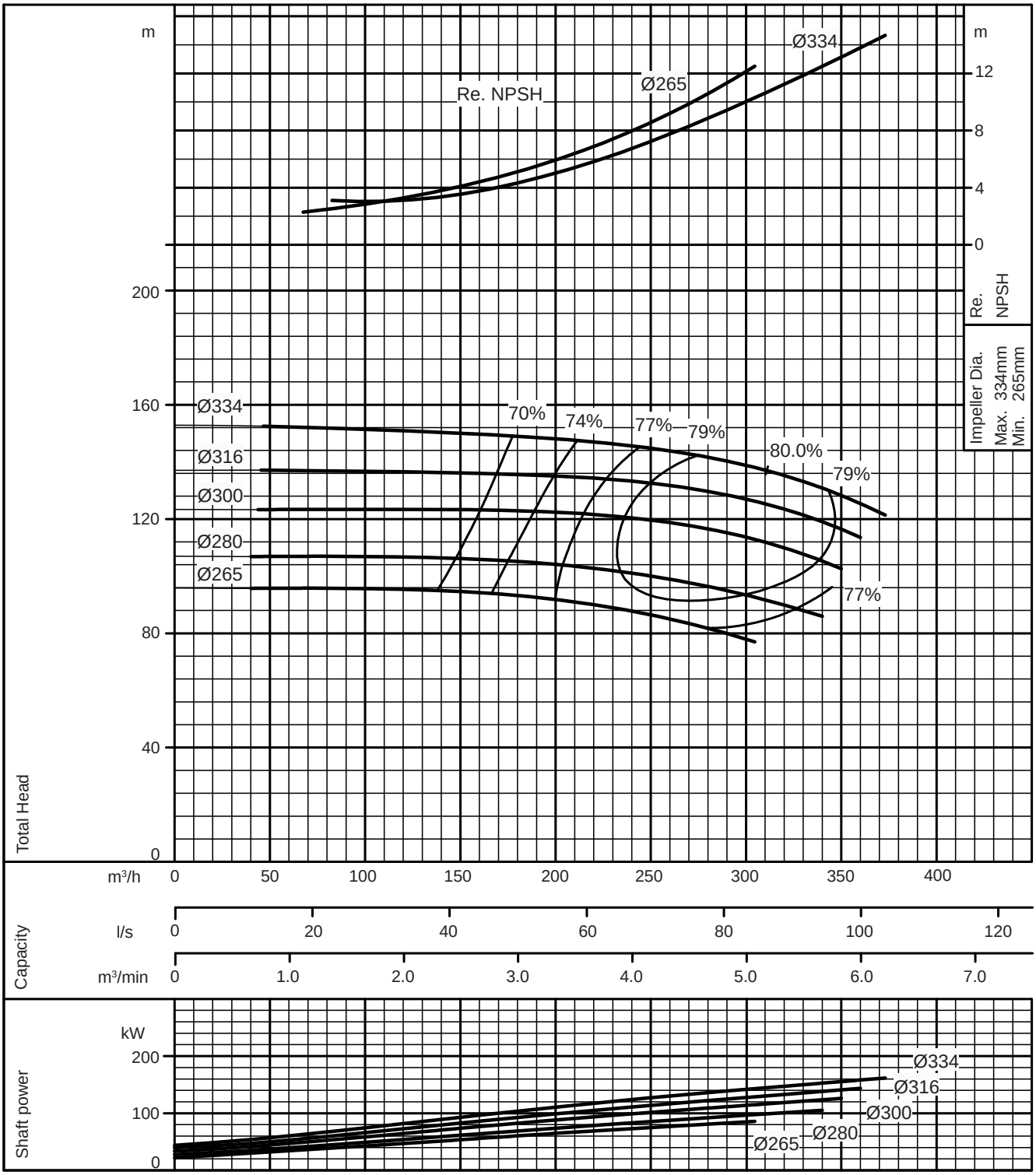
GS 80-250 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633583-01

Performance Curve

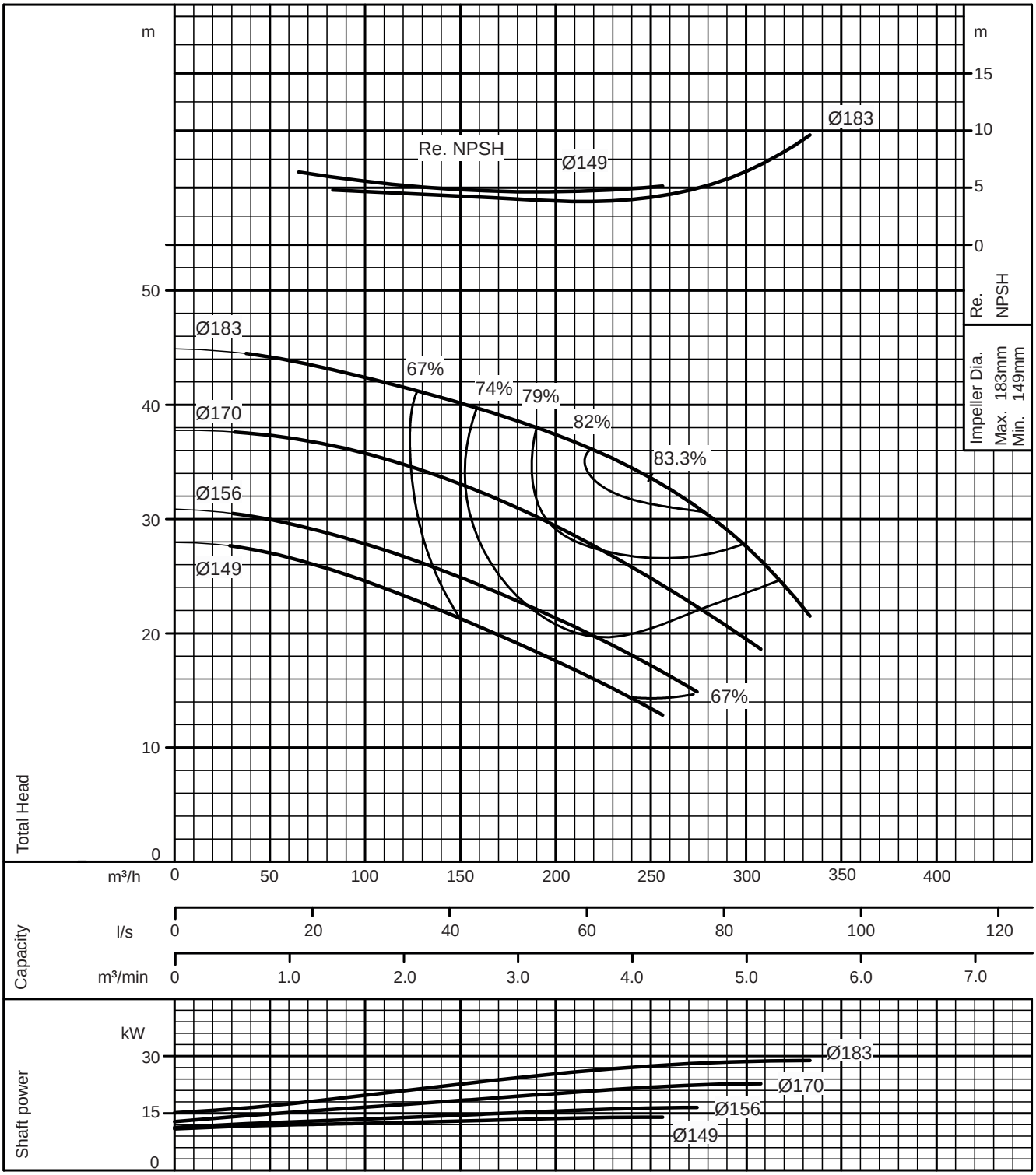
GS 80-315L (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633584-01

Performance Curve

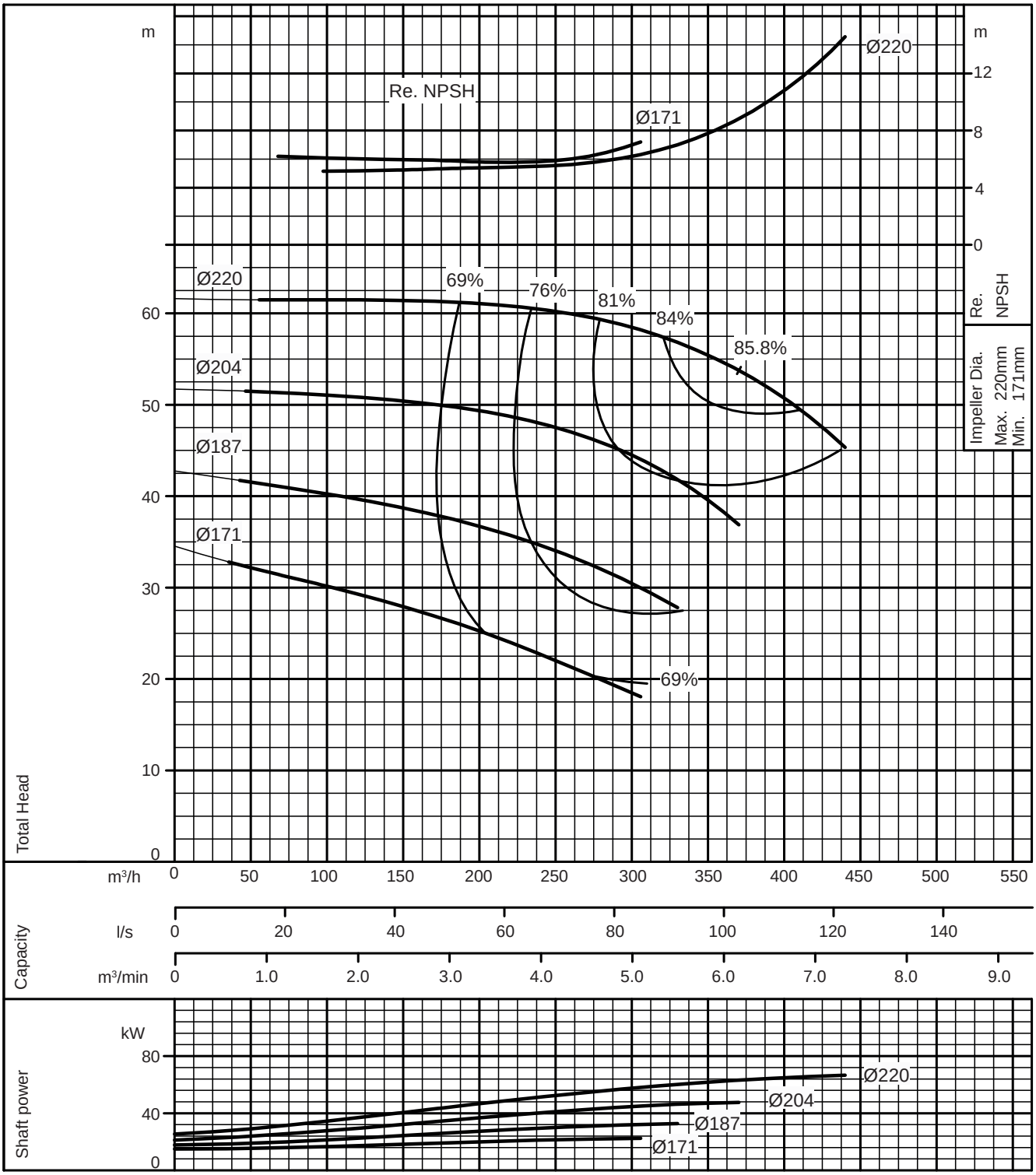
GS 100-160 (2 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633585-01

Performance Curve

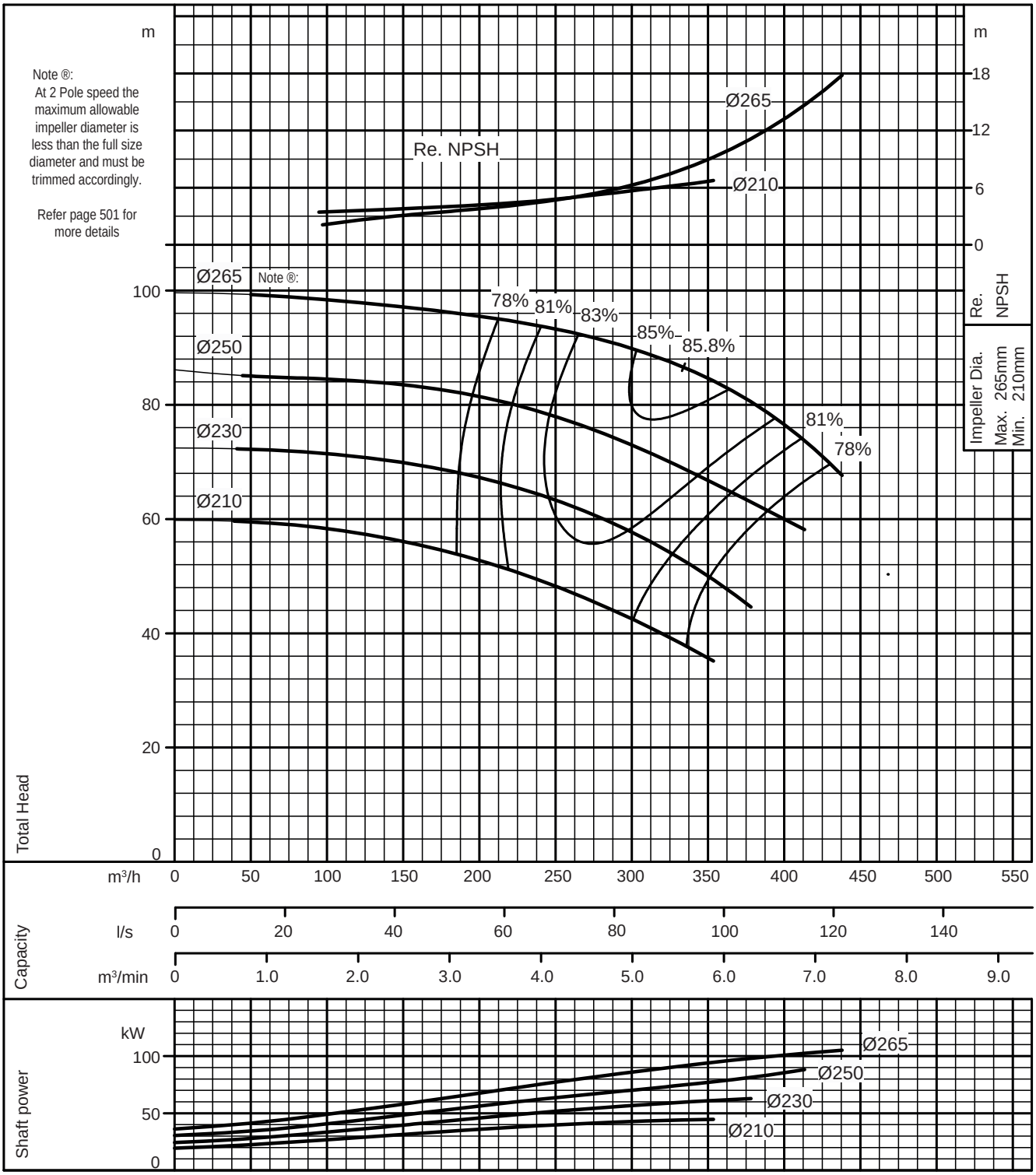
GS 100-200 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633586-01

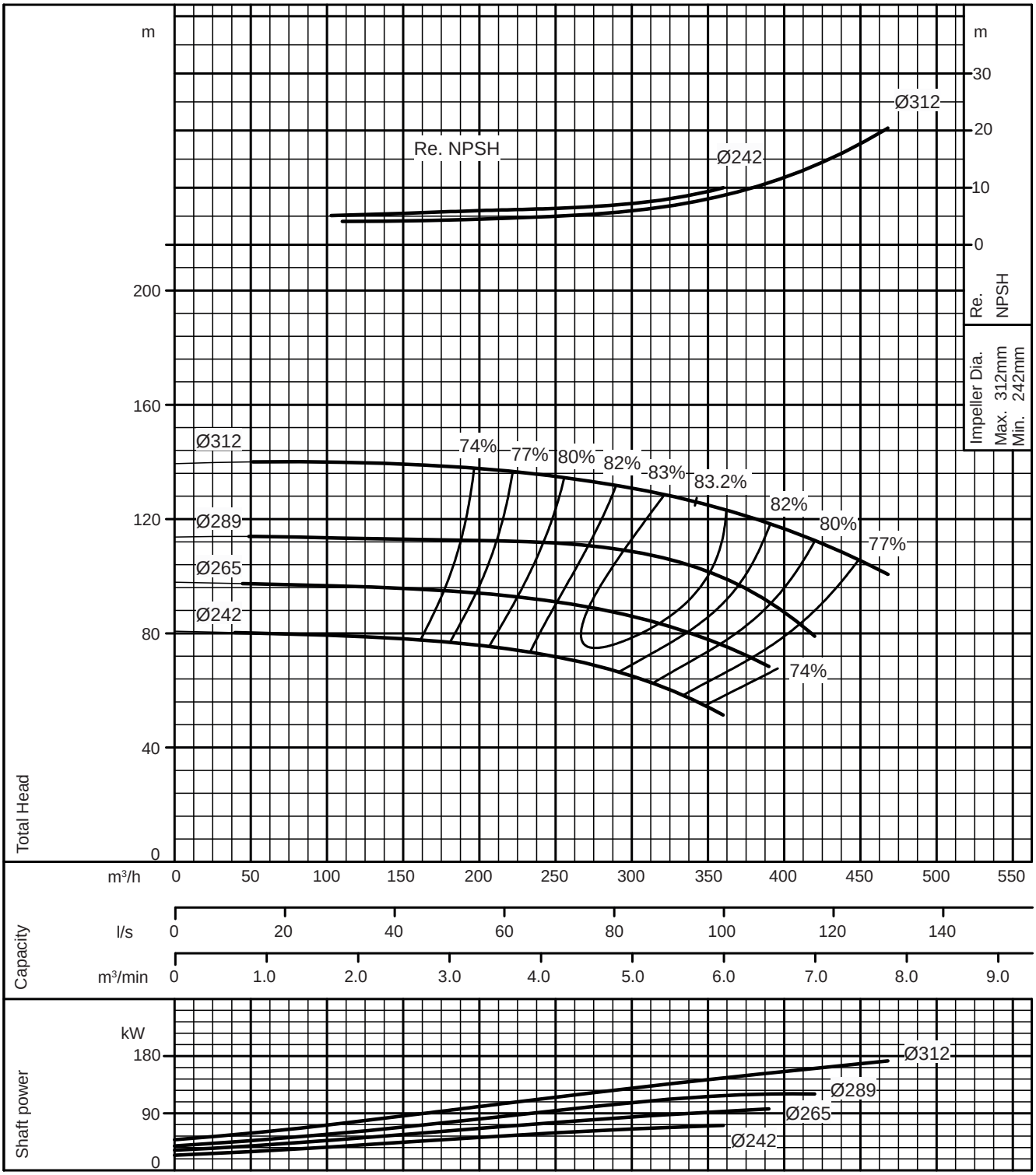
Performance Curve

GS 100-250 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



Performance Curve

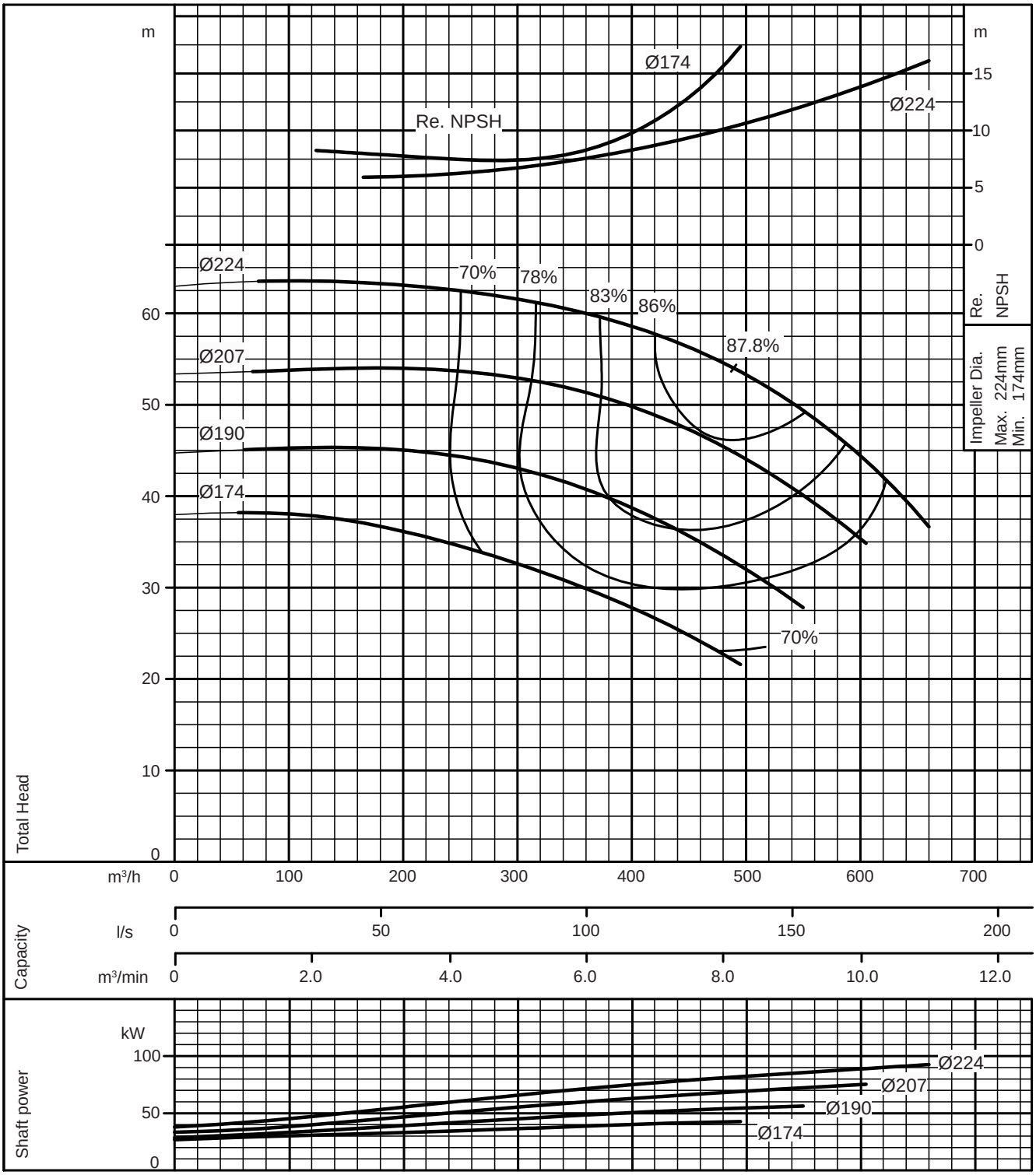
GS 100-315L (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633588-01

Performance Curve

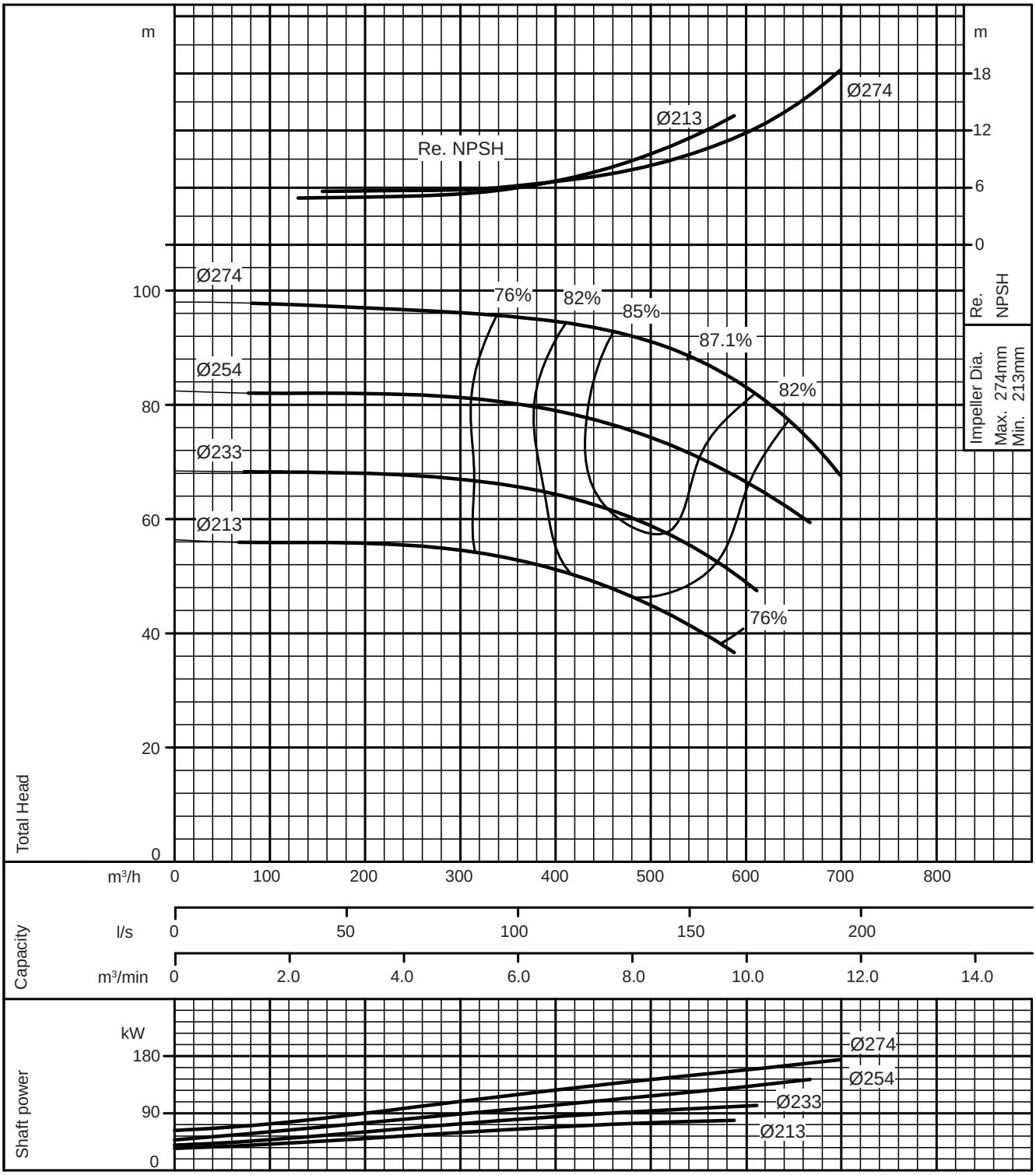
GS 125-200 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633589-01

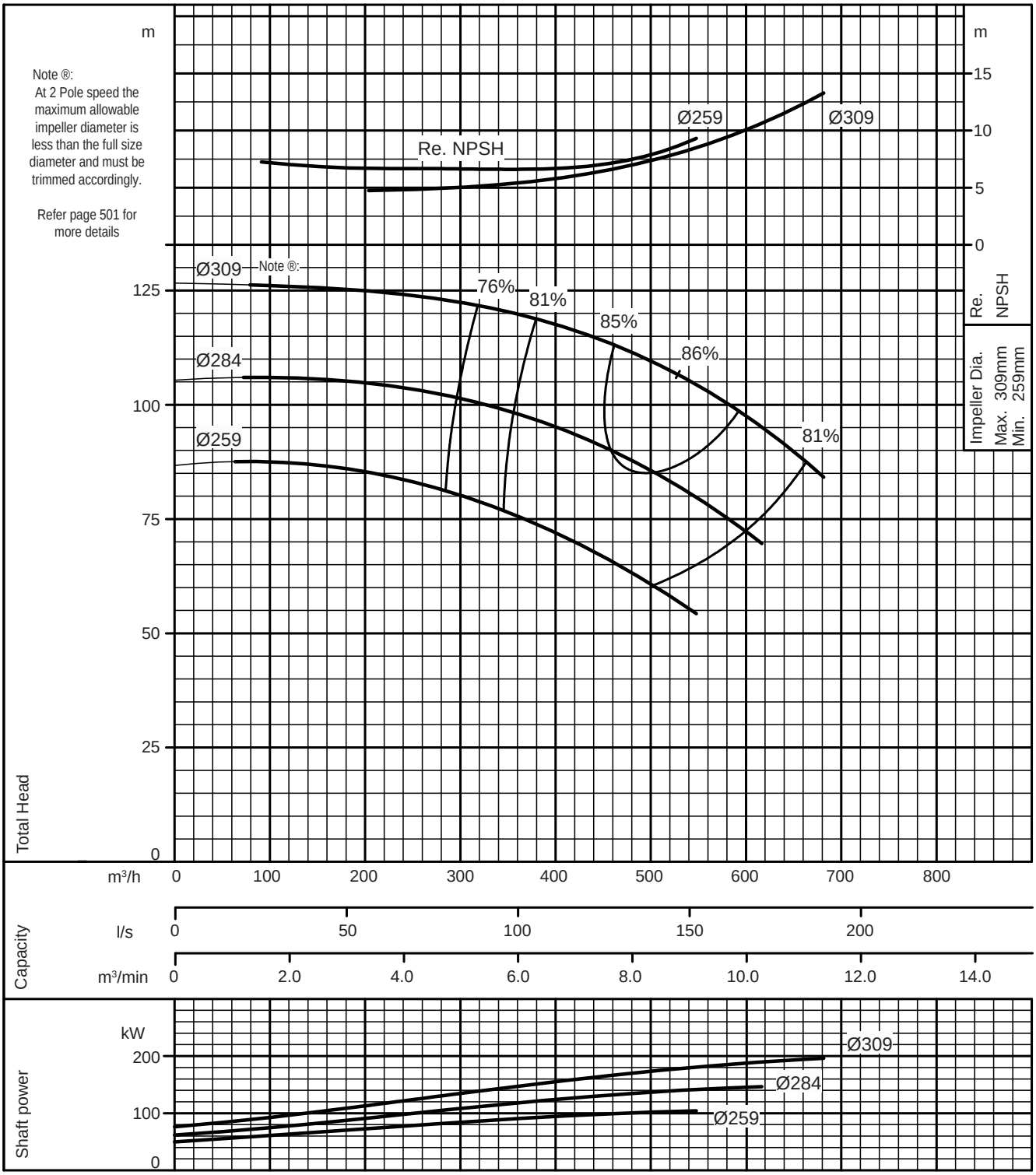
Performance Curve

GS 125-250L (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



Performance Curve

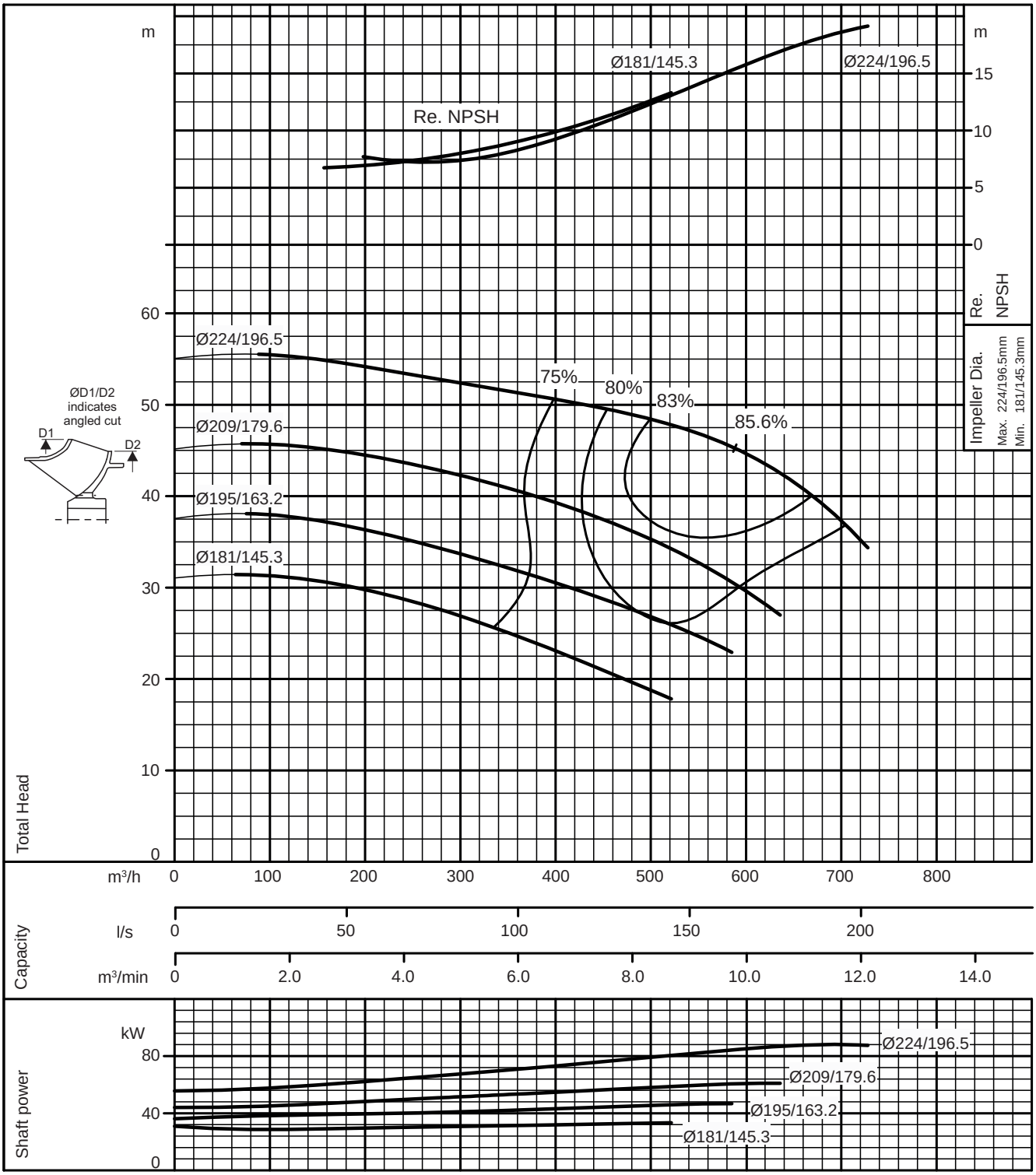
GS 125-315 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633591-01

Performance Curve

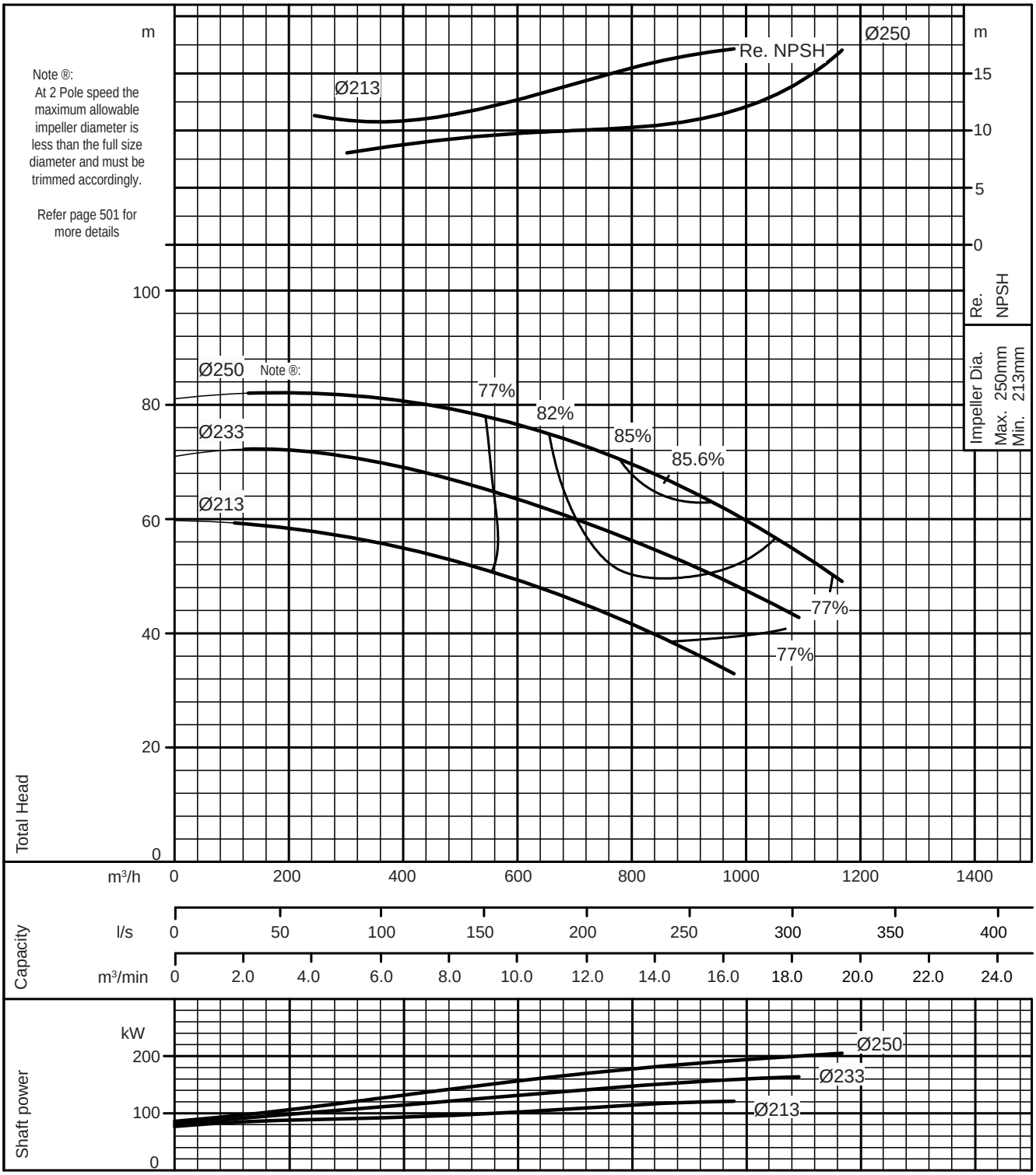
GS 150-200 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633592-01

Performance Curve

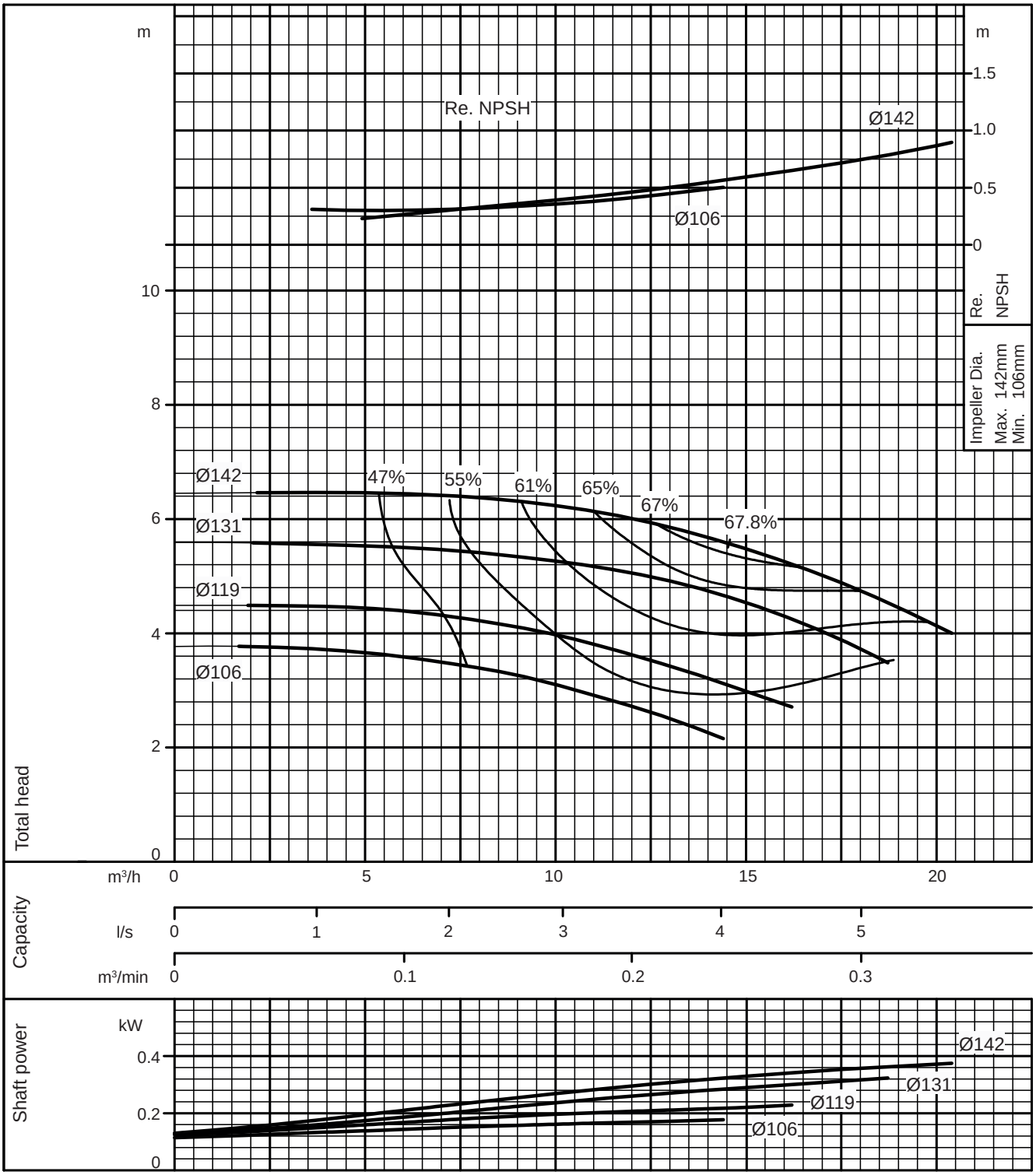
GS 150-250 (2 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 2900min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633593-01

Performance Curve

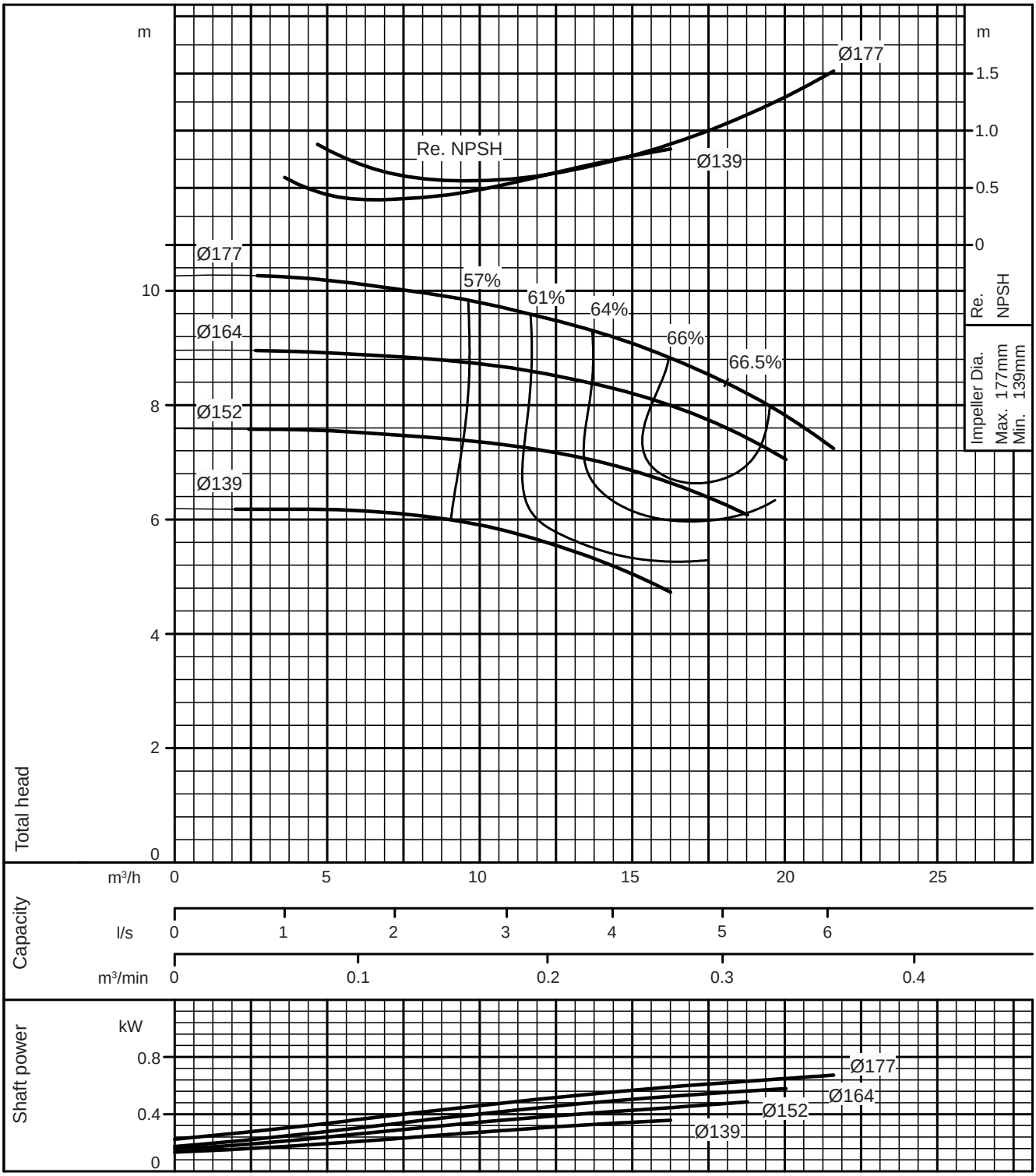
GS 32-125 (4 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633597-01

Performance Curve

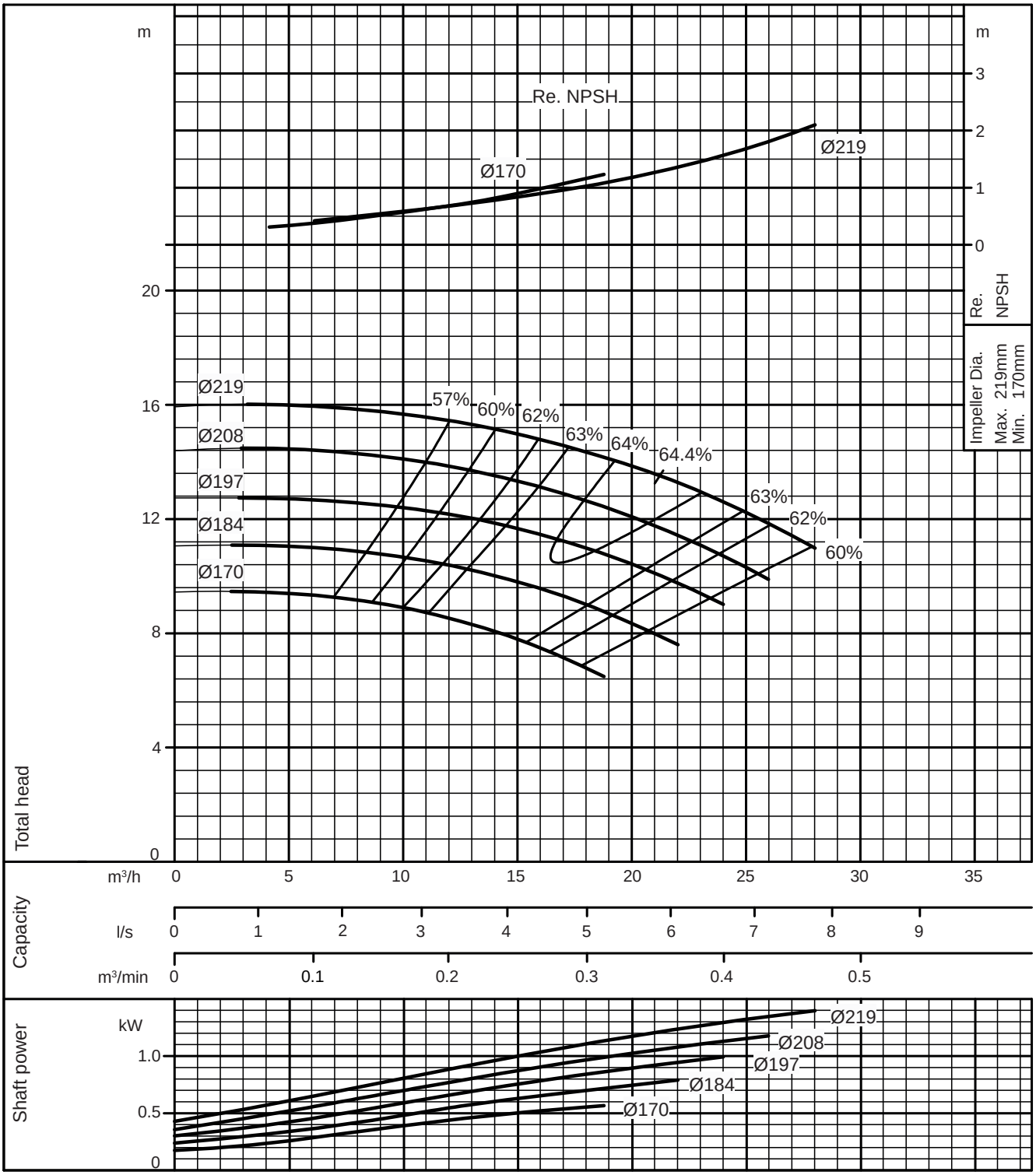
GS 32-160 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633598-01

Performance Curve

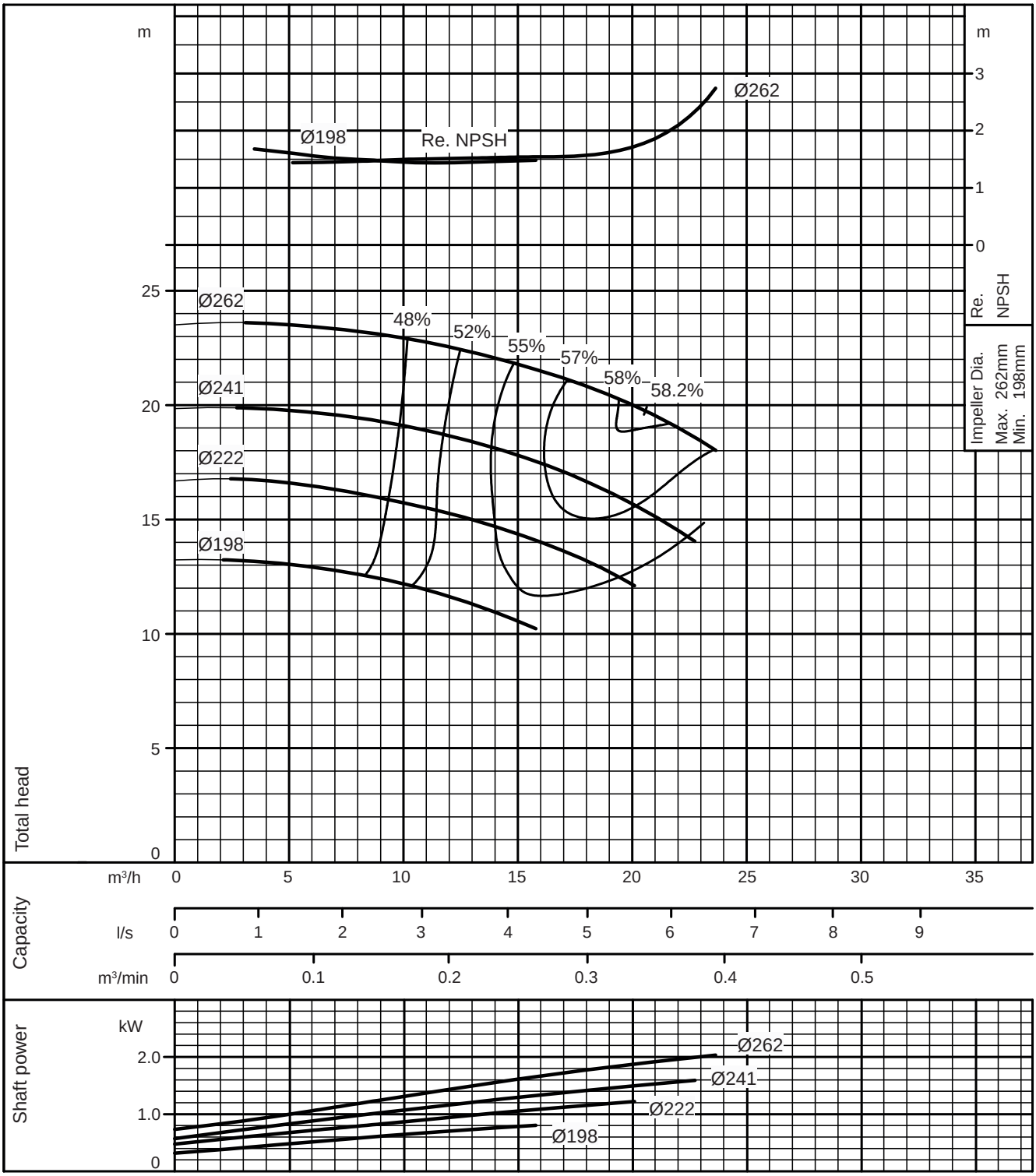
GS 32-200 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633599-01

Performance Curve

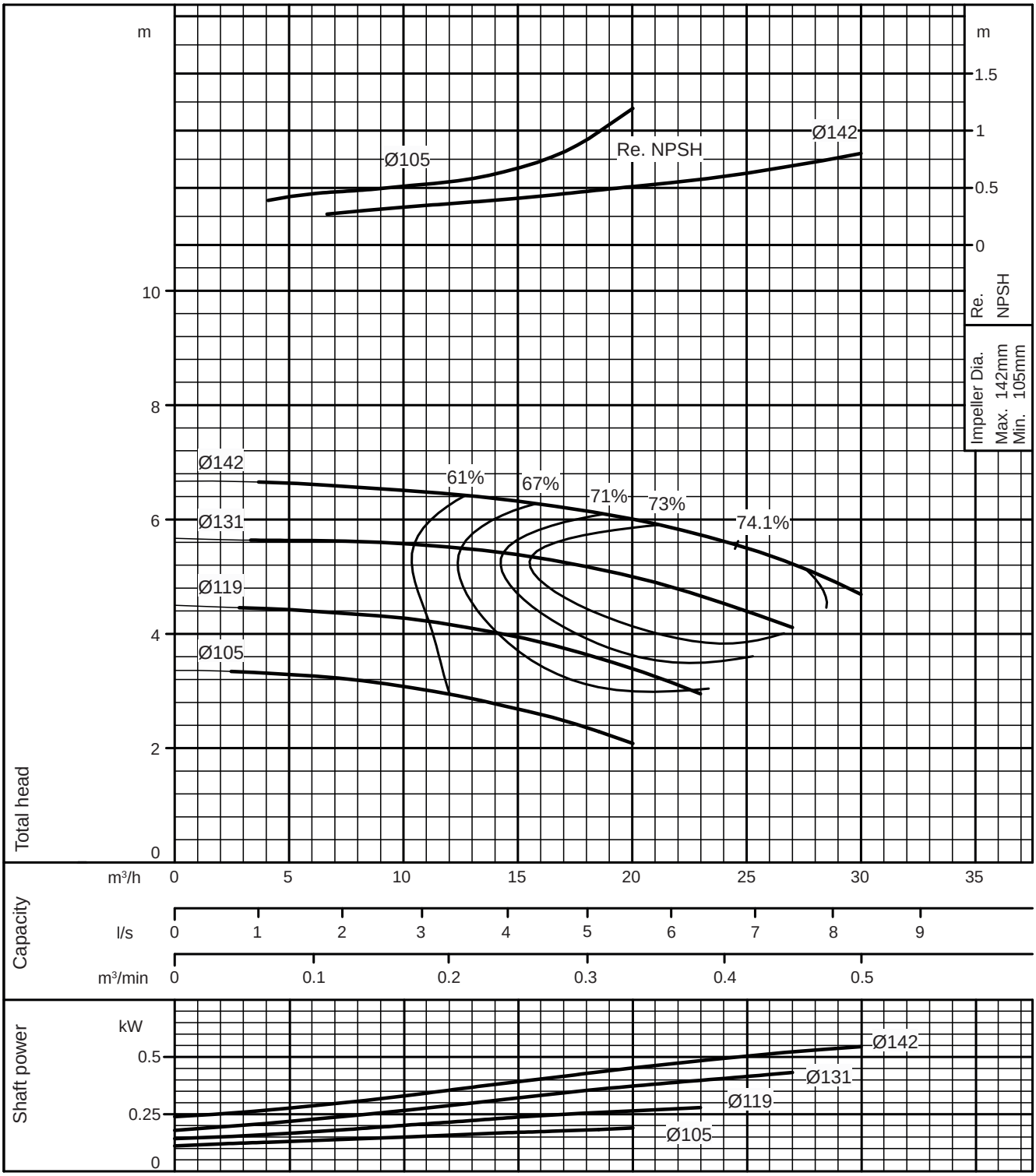
GS 32-250 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633600-01

Performance Curve

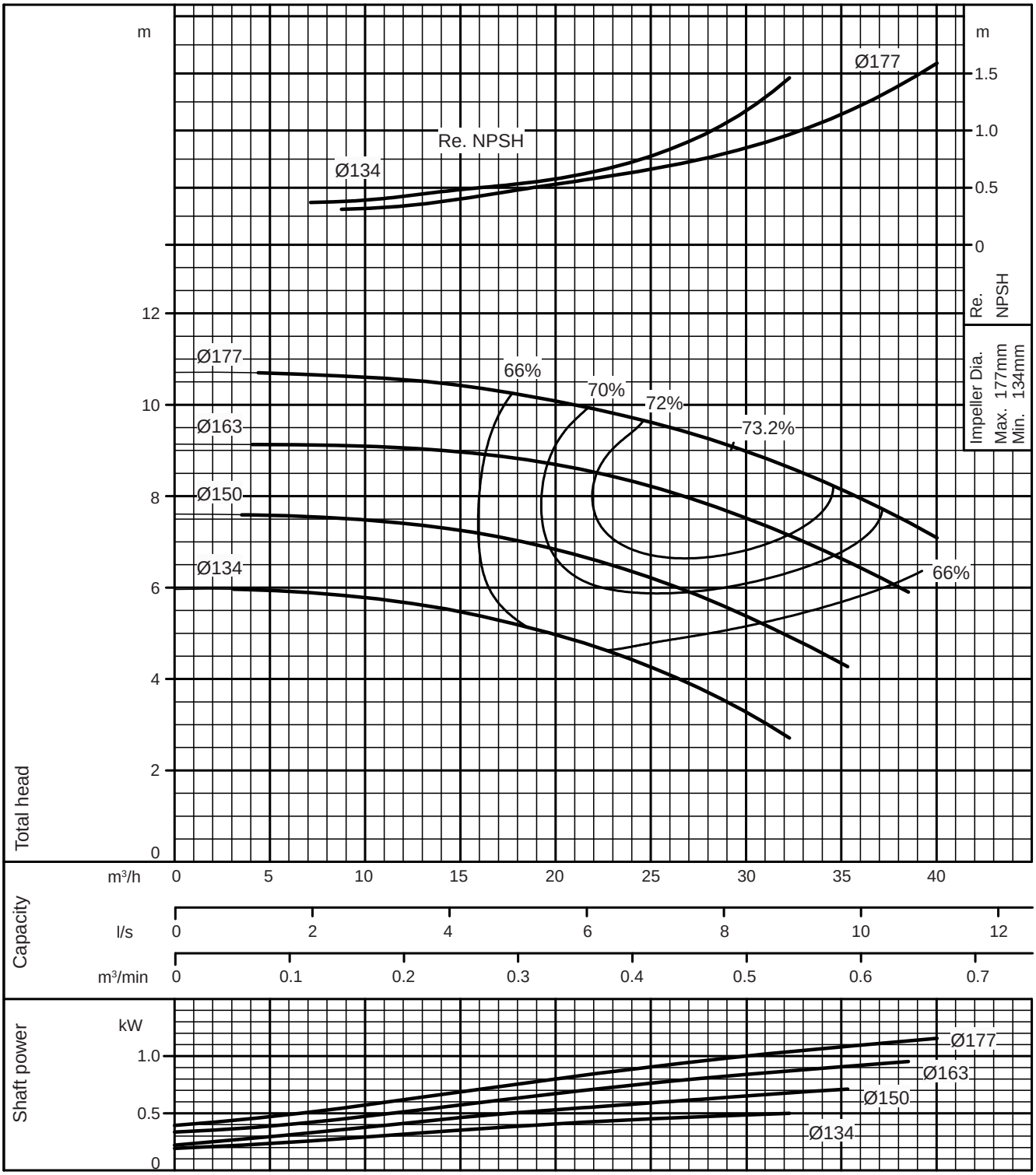
GS 40-125 (4 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633601-01

Performance Curve

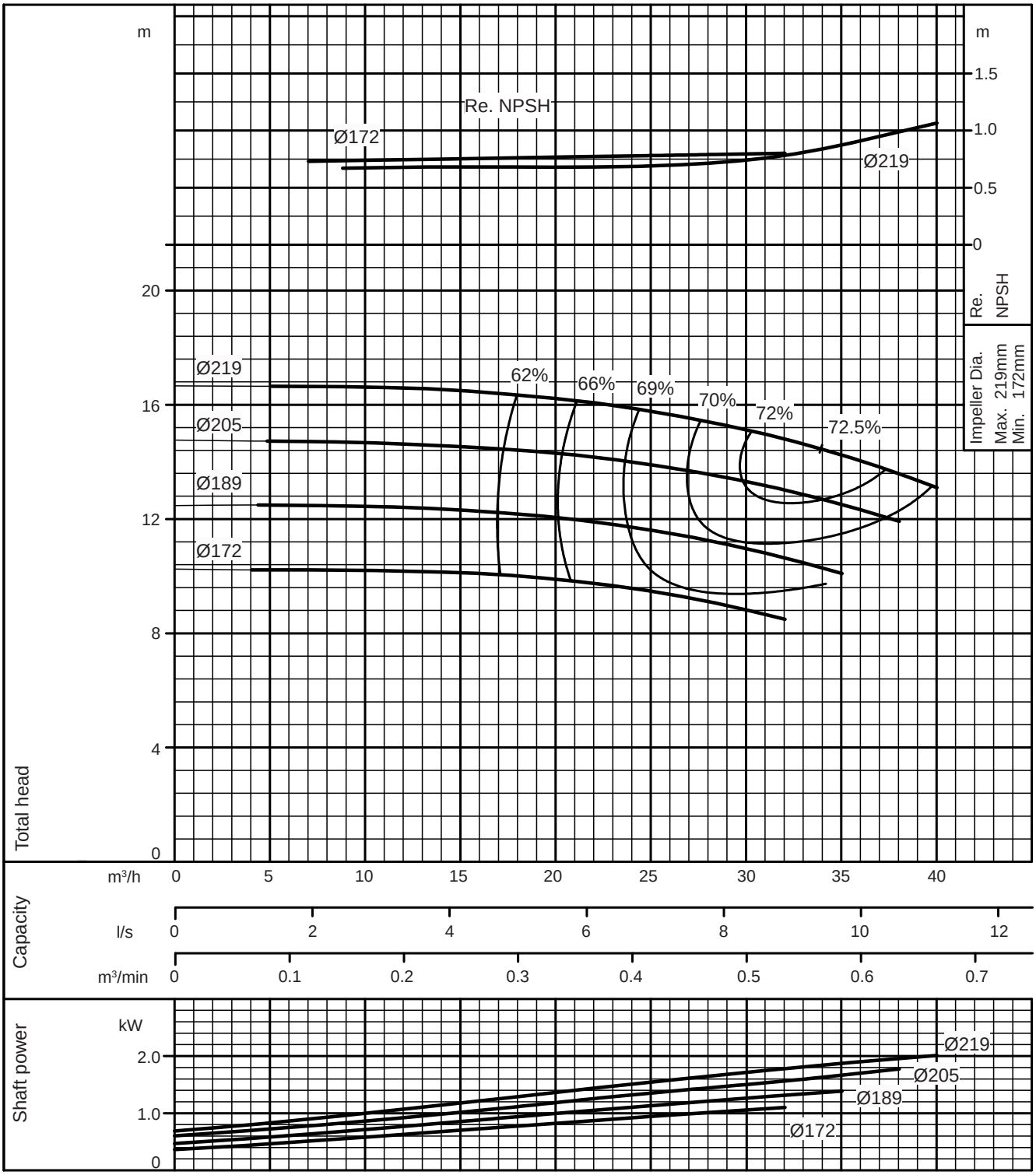
GS 40-160 (4 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633602-01

Performance Curve

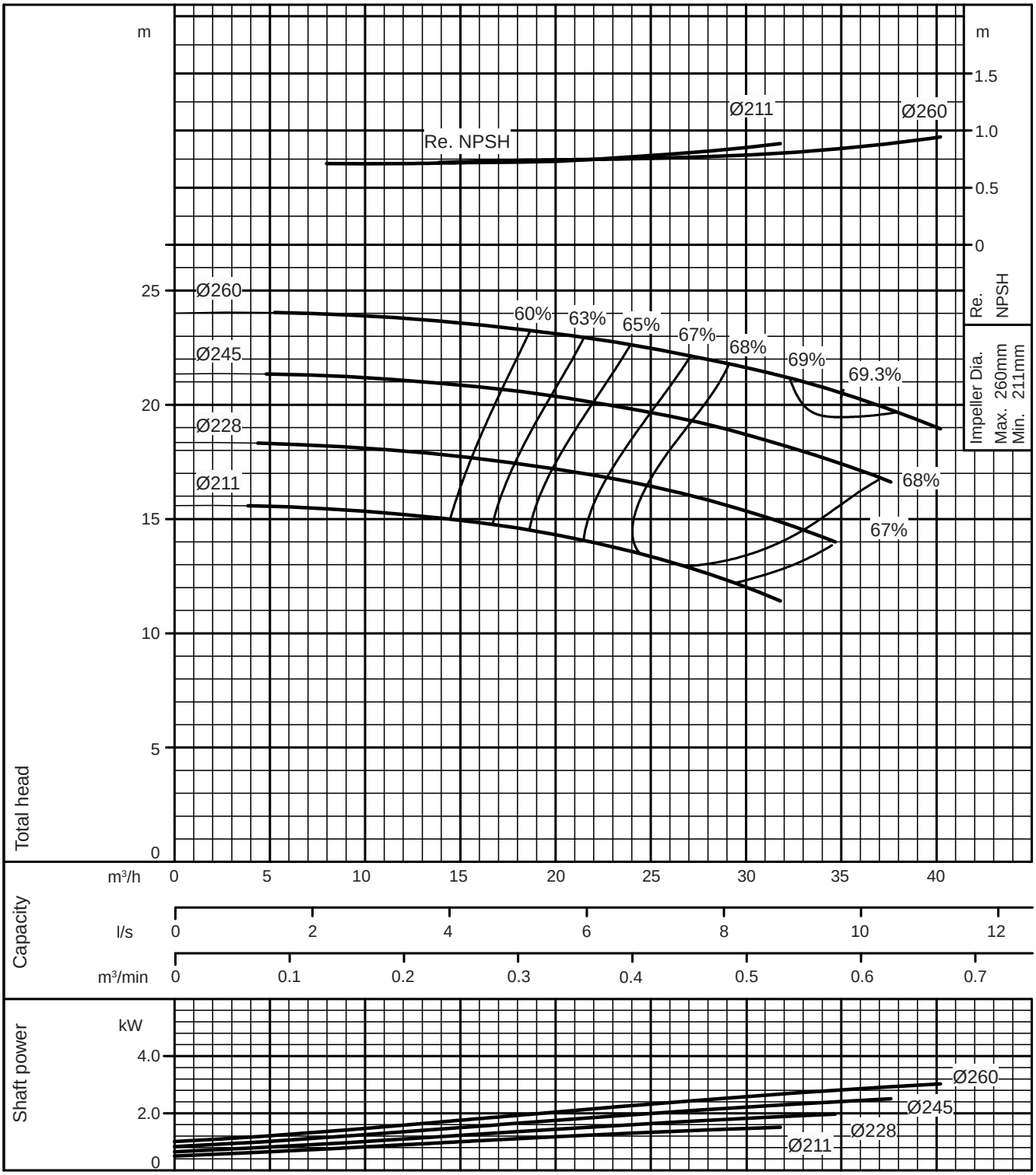
GS 40-200 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633603-01

Performance Curve

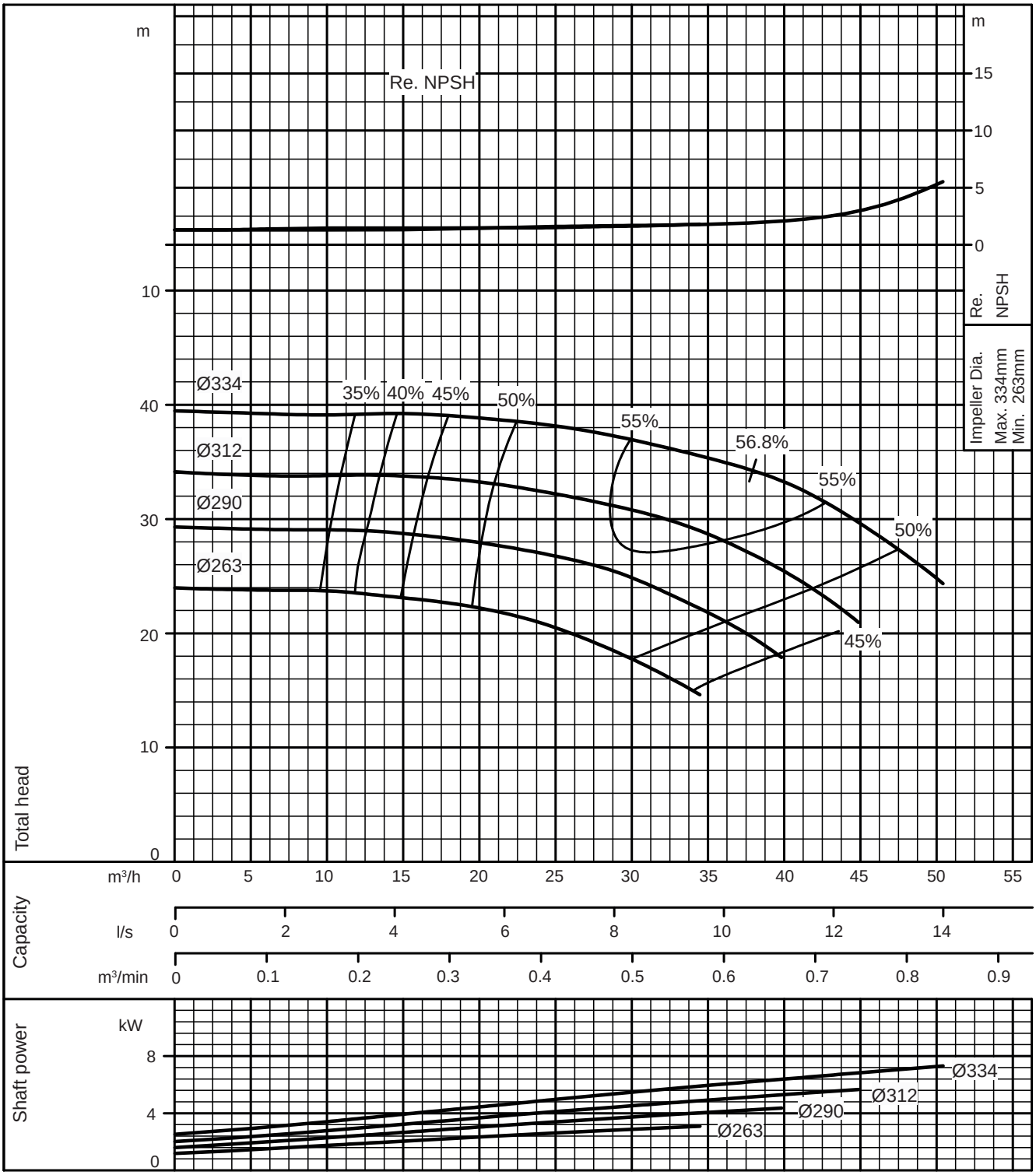
GS 40-250 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633604-01

Performance Curve

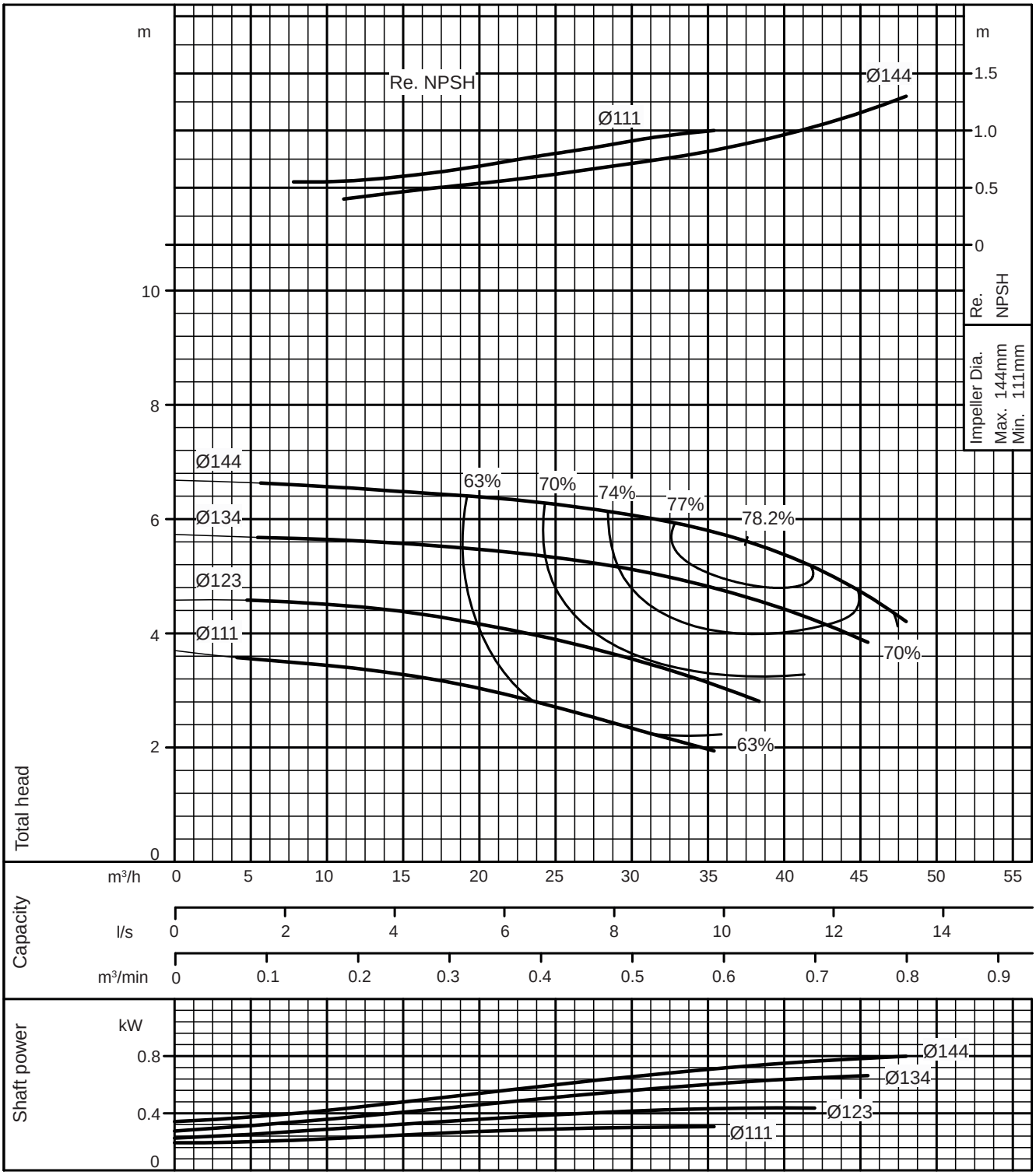
GS 40-315 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1632186-02

Performance Curve

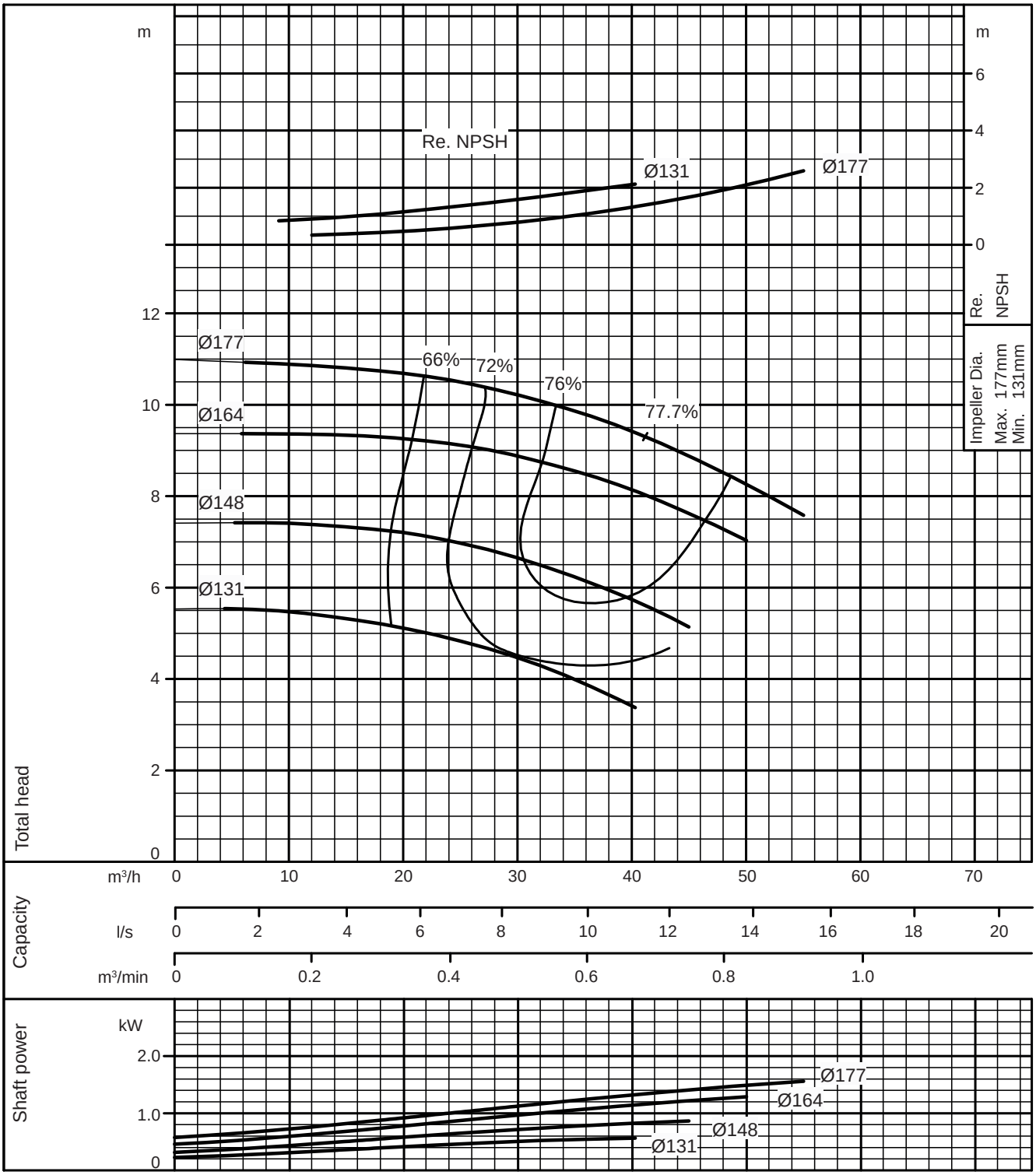
GS 50-125 (4 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633606-01

Performance Curve

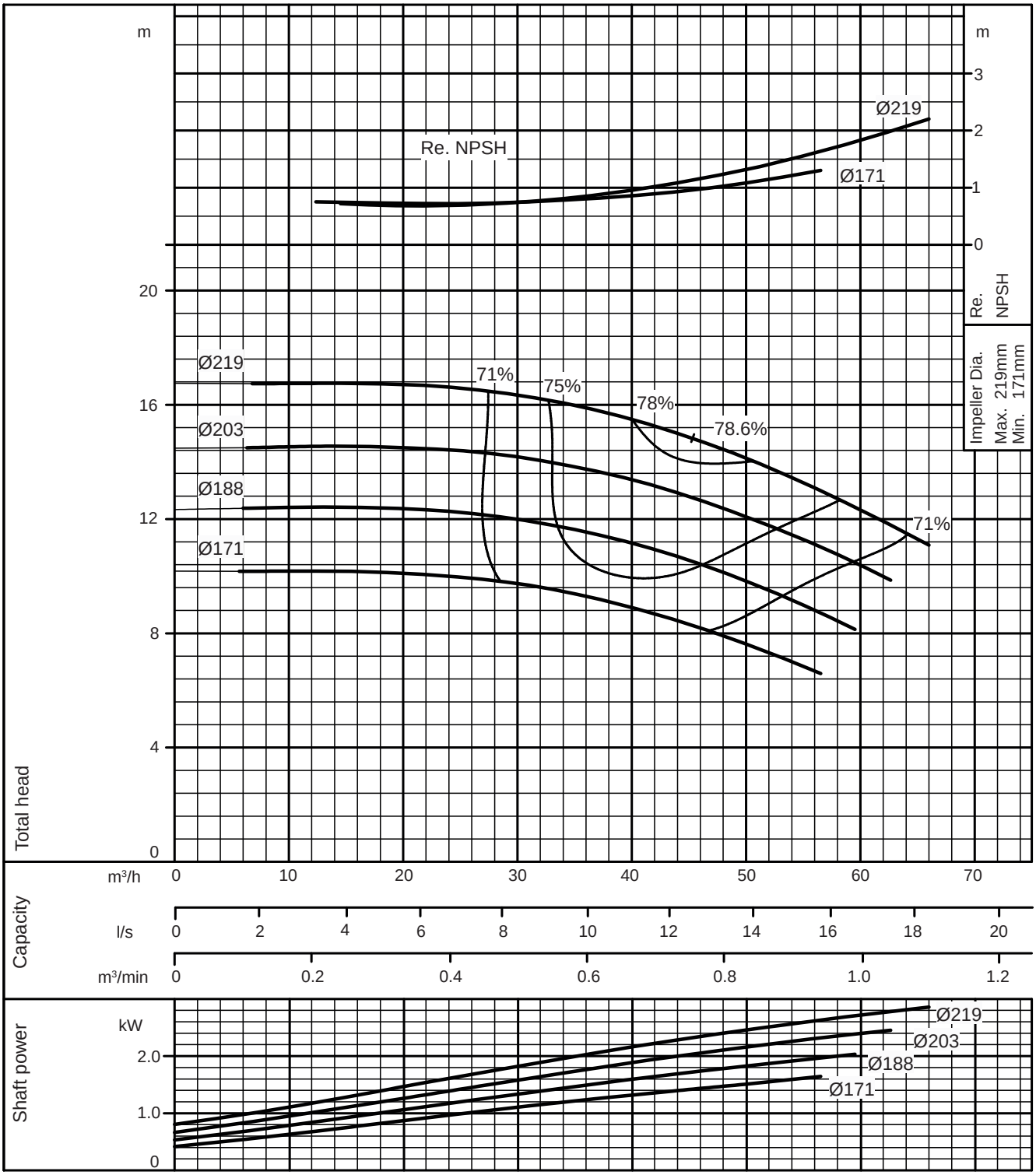
GS 50-160 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633607-01

Performance Curve

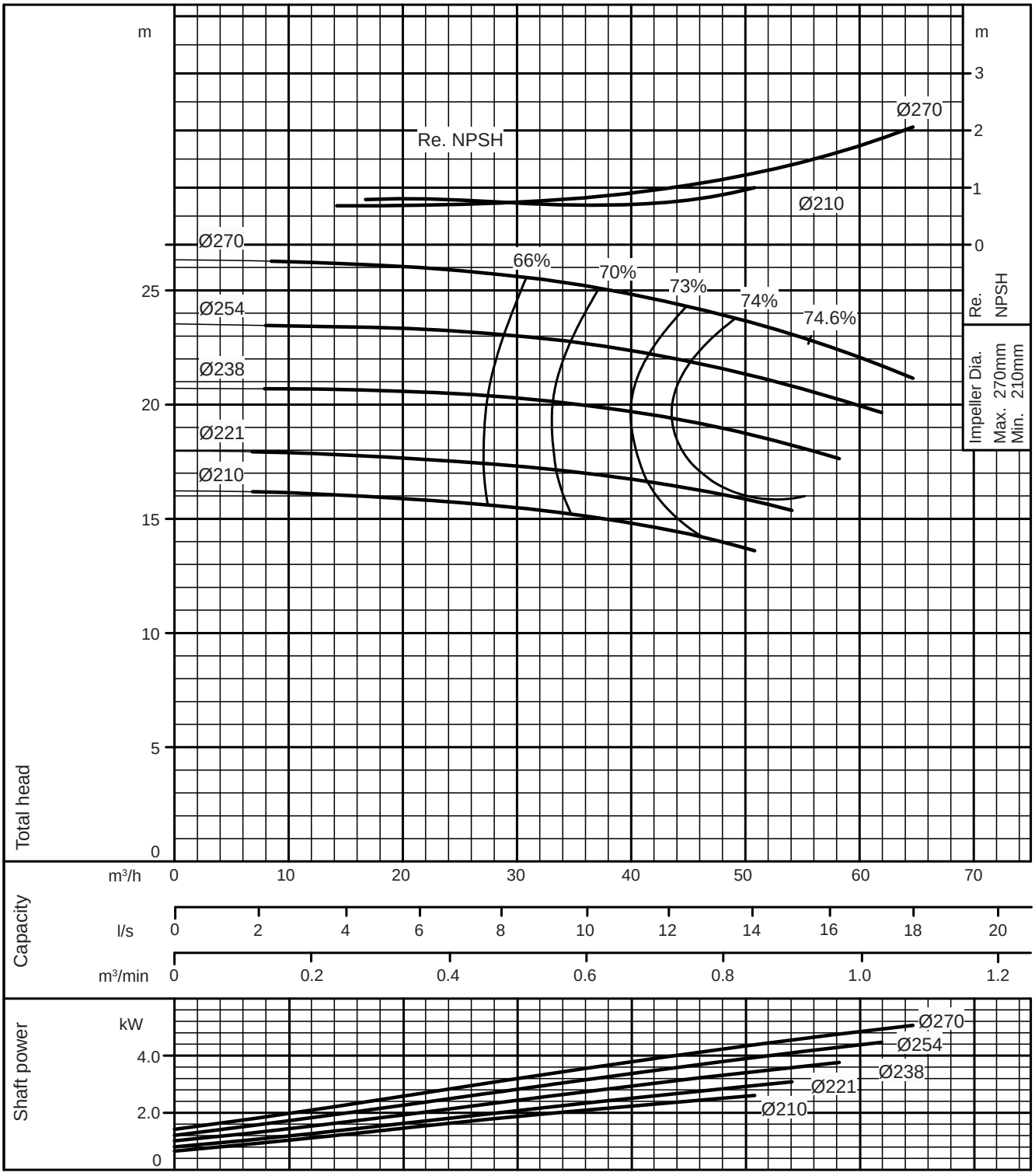
GS 50-200 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633608-01

Performance Curve

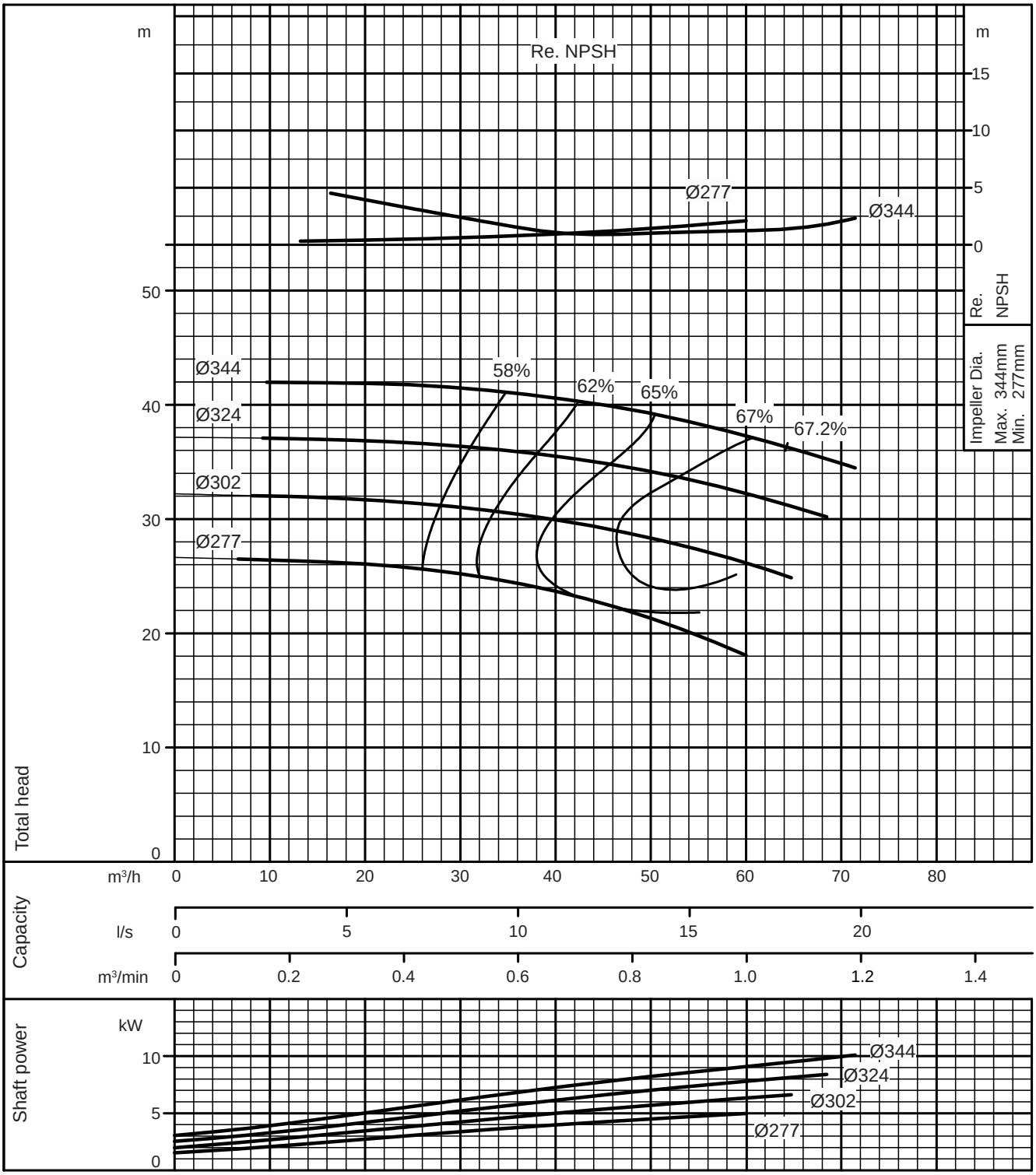
GS 50-250 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633609-01

Performance Curve

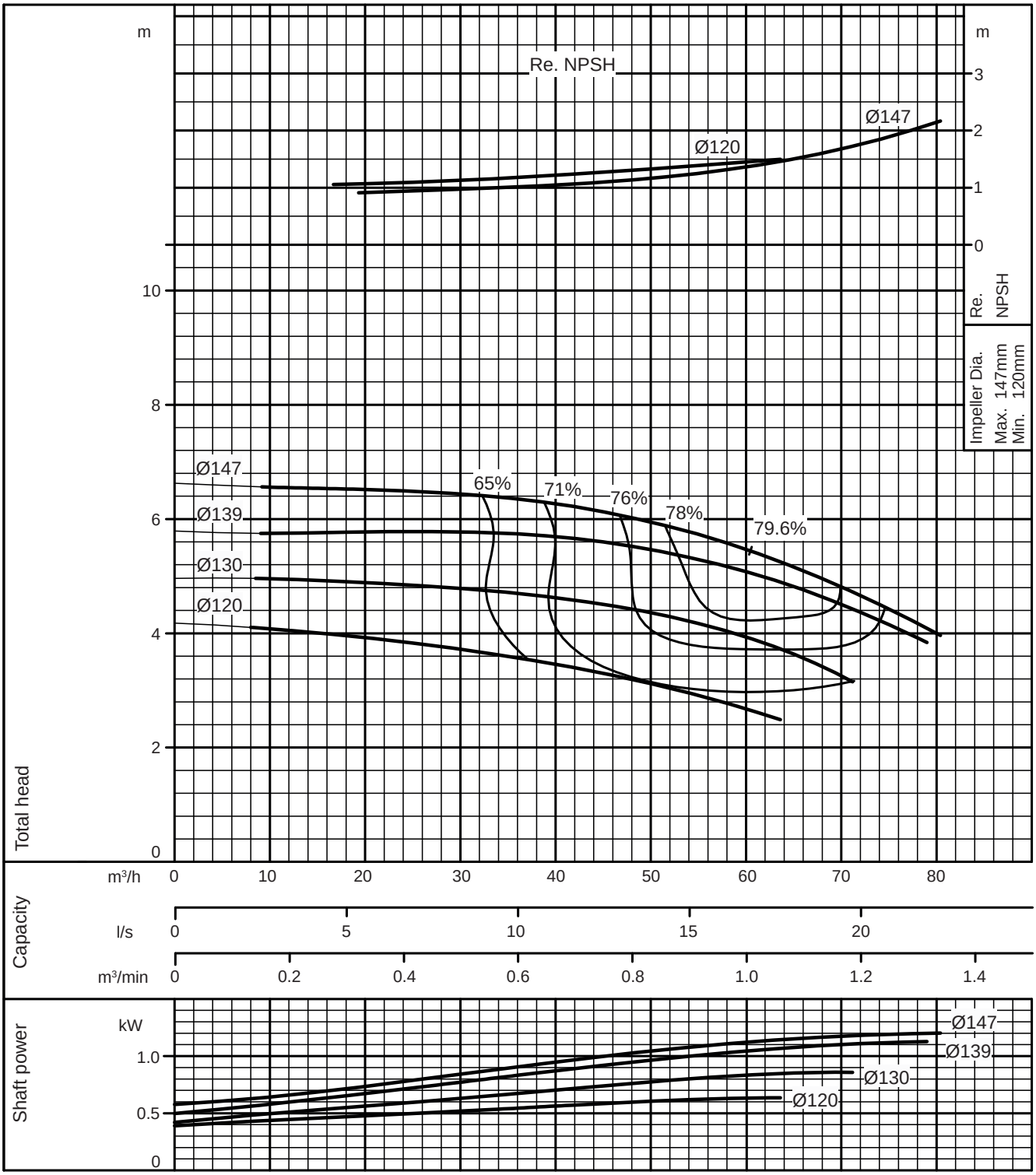
GS 50-315 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633610-01

Performance Curve

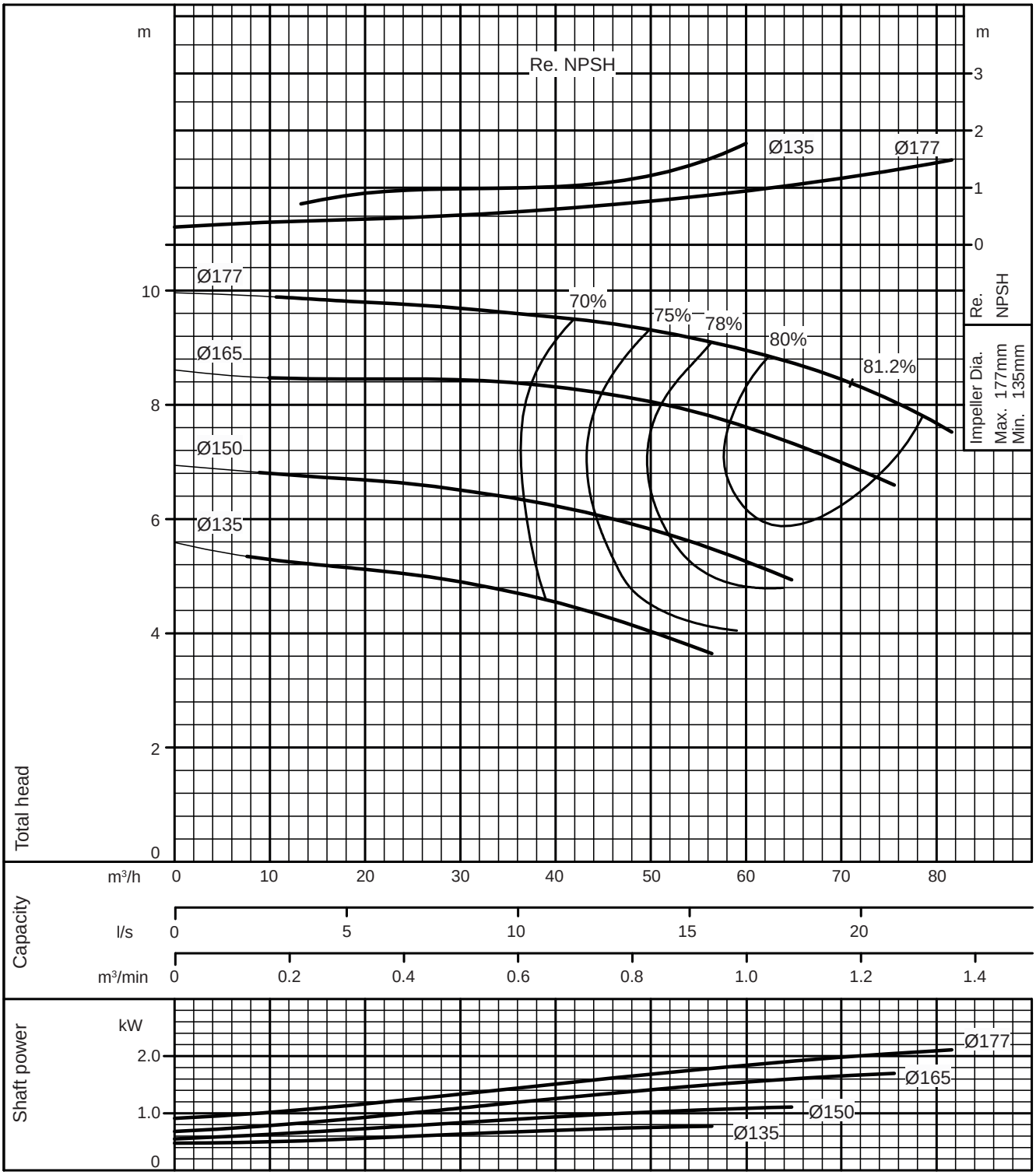
GS 65-125 (4 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633611-01

Performance Curve

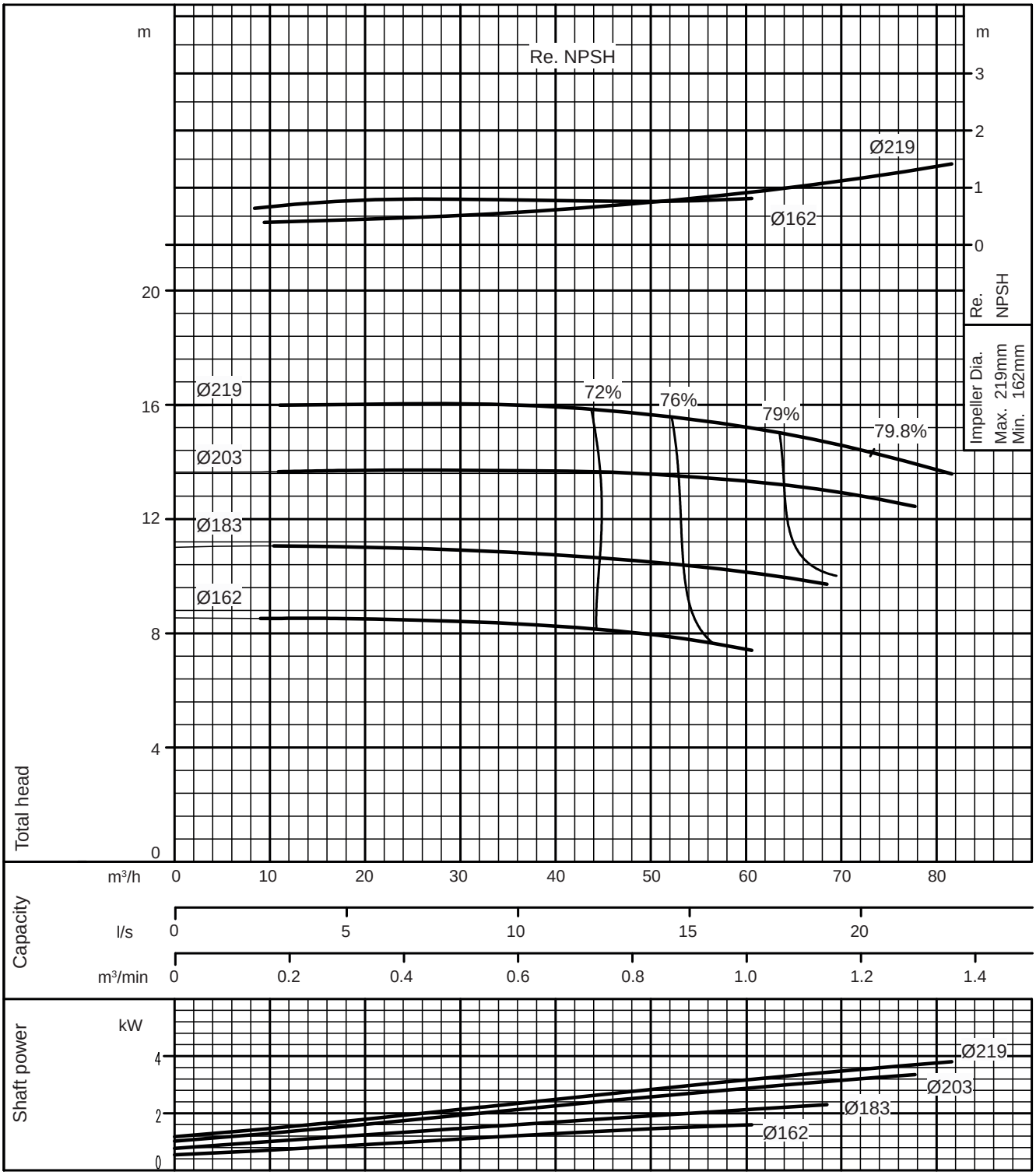
GS 65-160 (4 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633612-01

Performance Curve

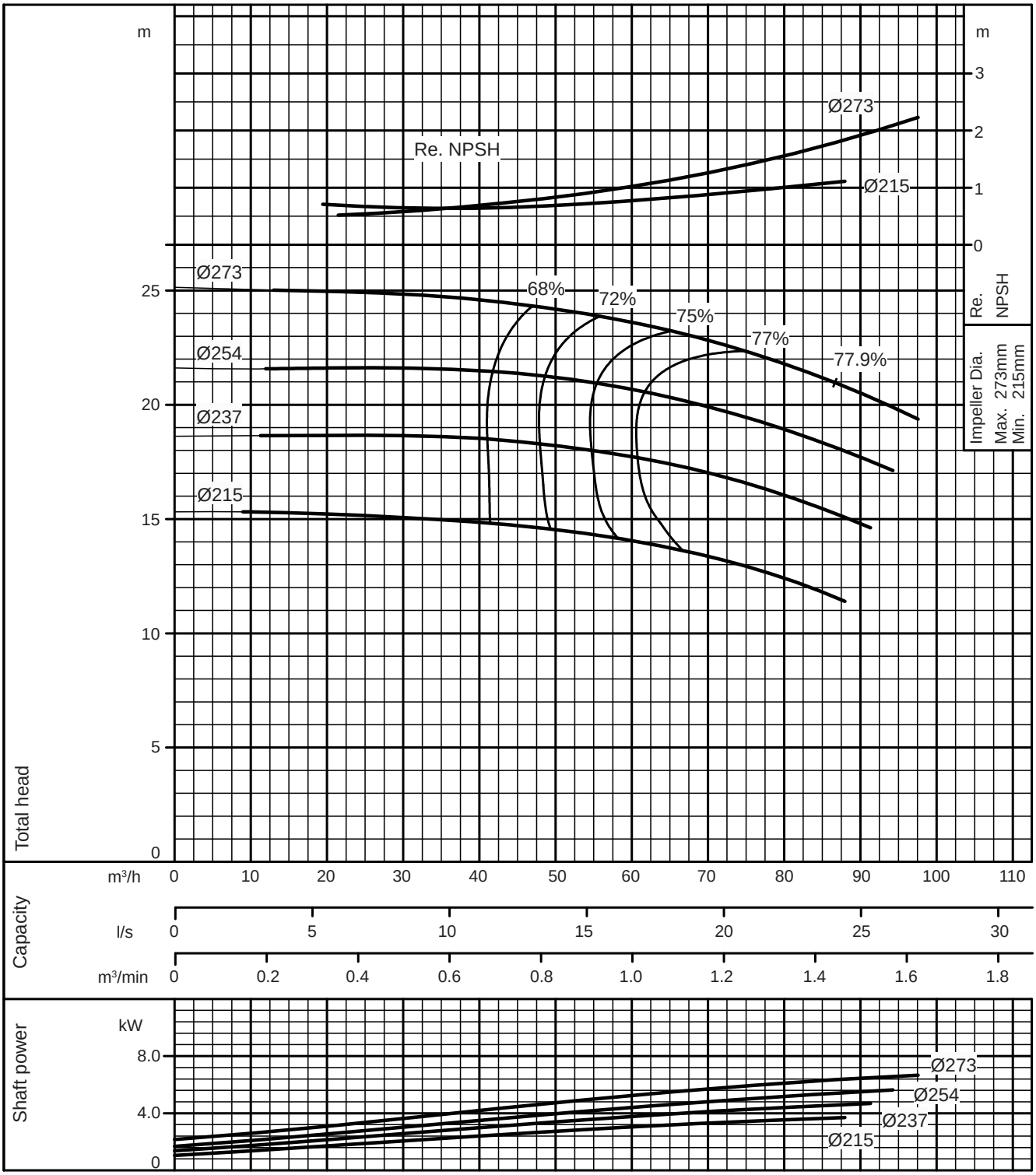
GS 65-200 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633613-01

Performance Curve

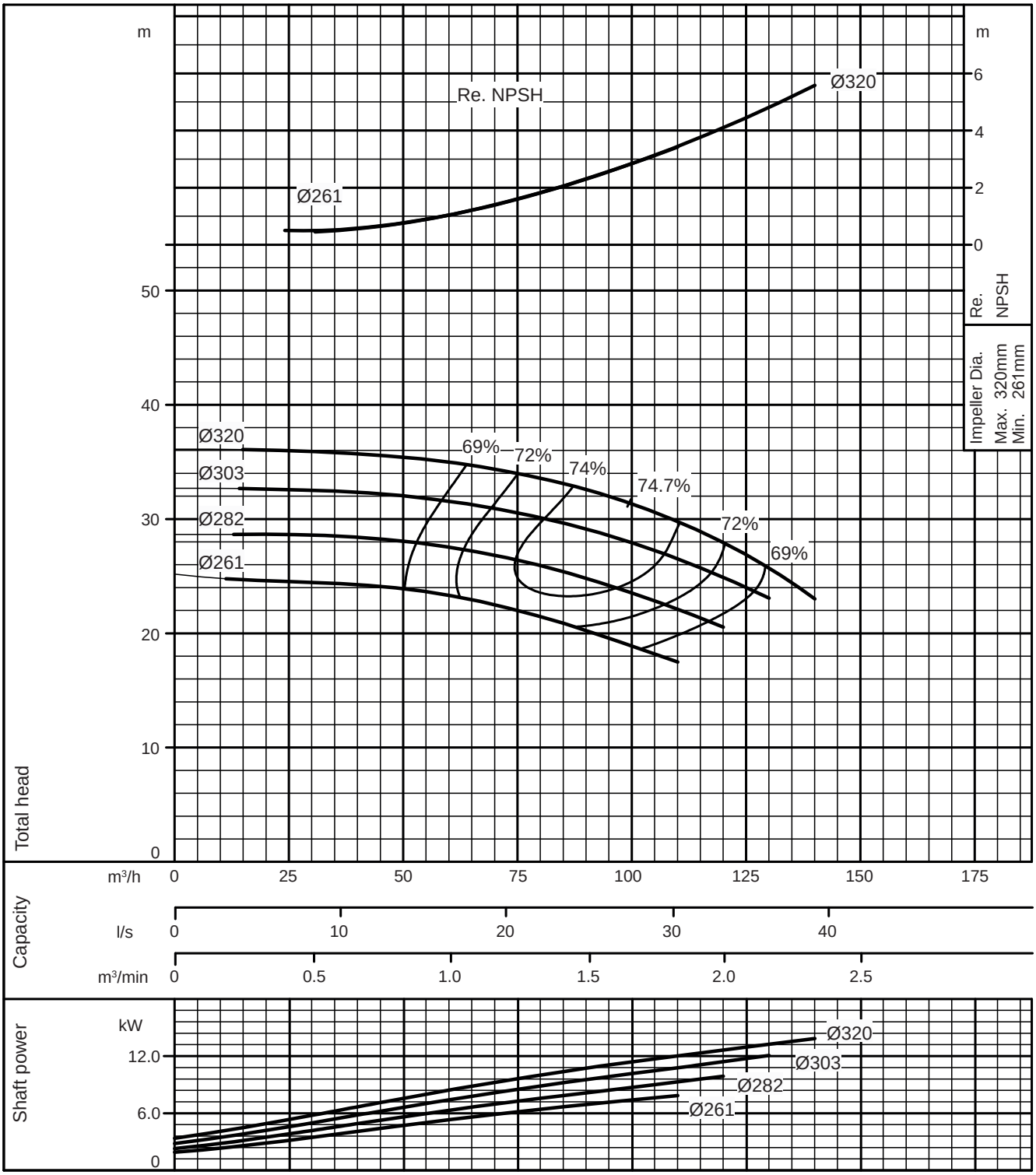
GS 65-250 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633614-01

Performance Curve

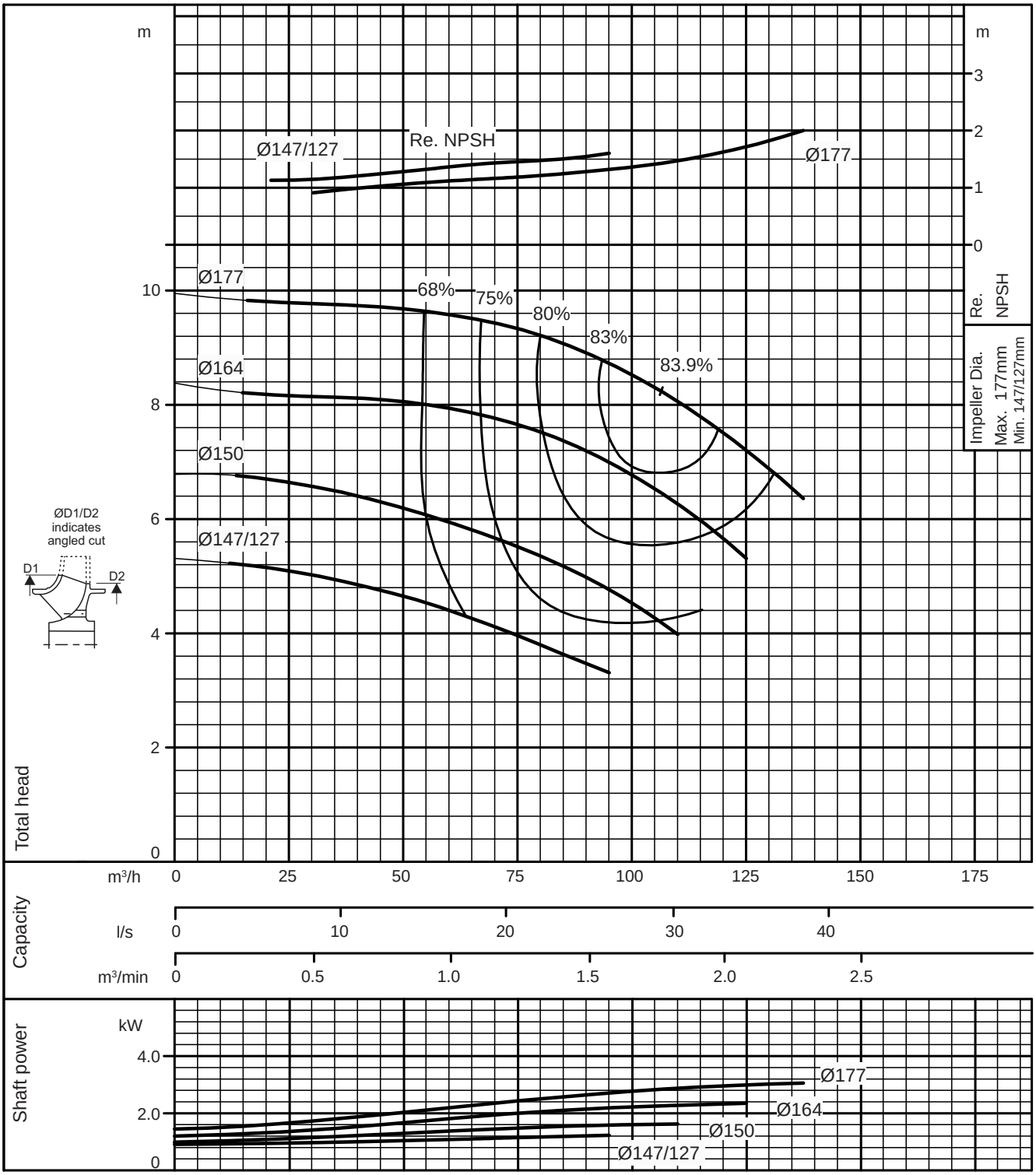
GS 65-315 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633615-01

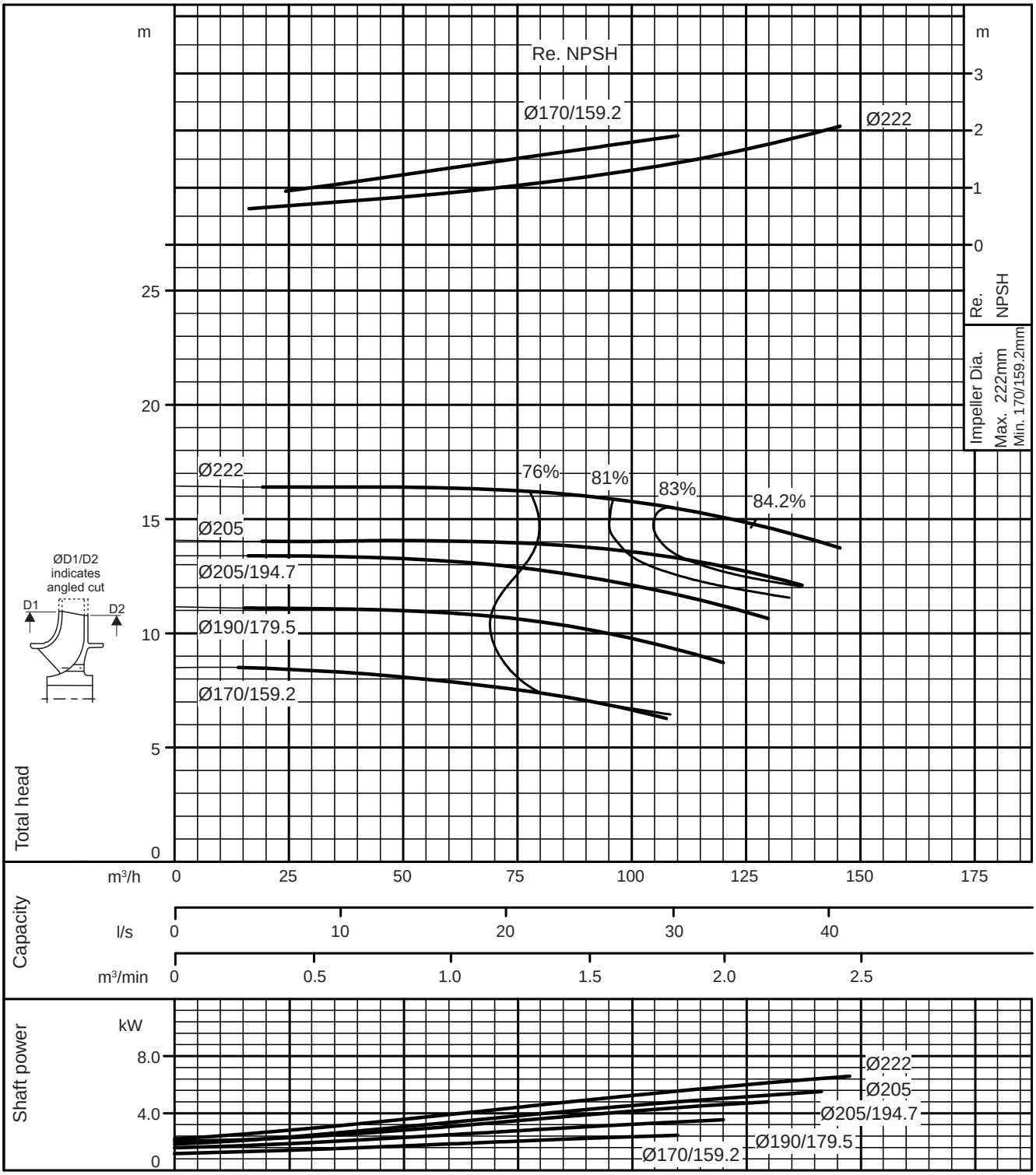
Performance Curve

GS 80-160 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



Performance Curve

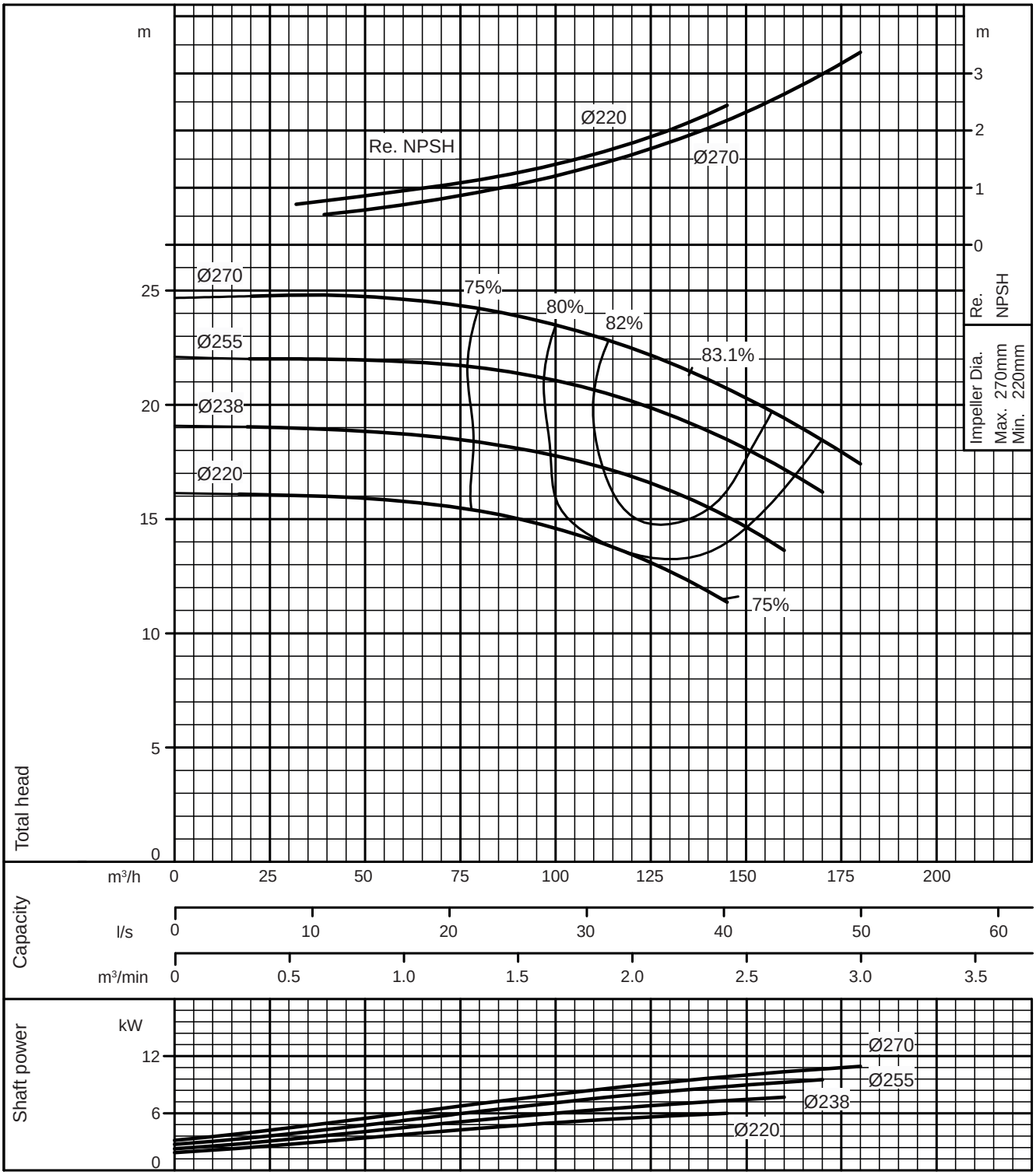
GS 80-200 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633617-01

Performance Curve

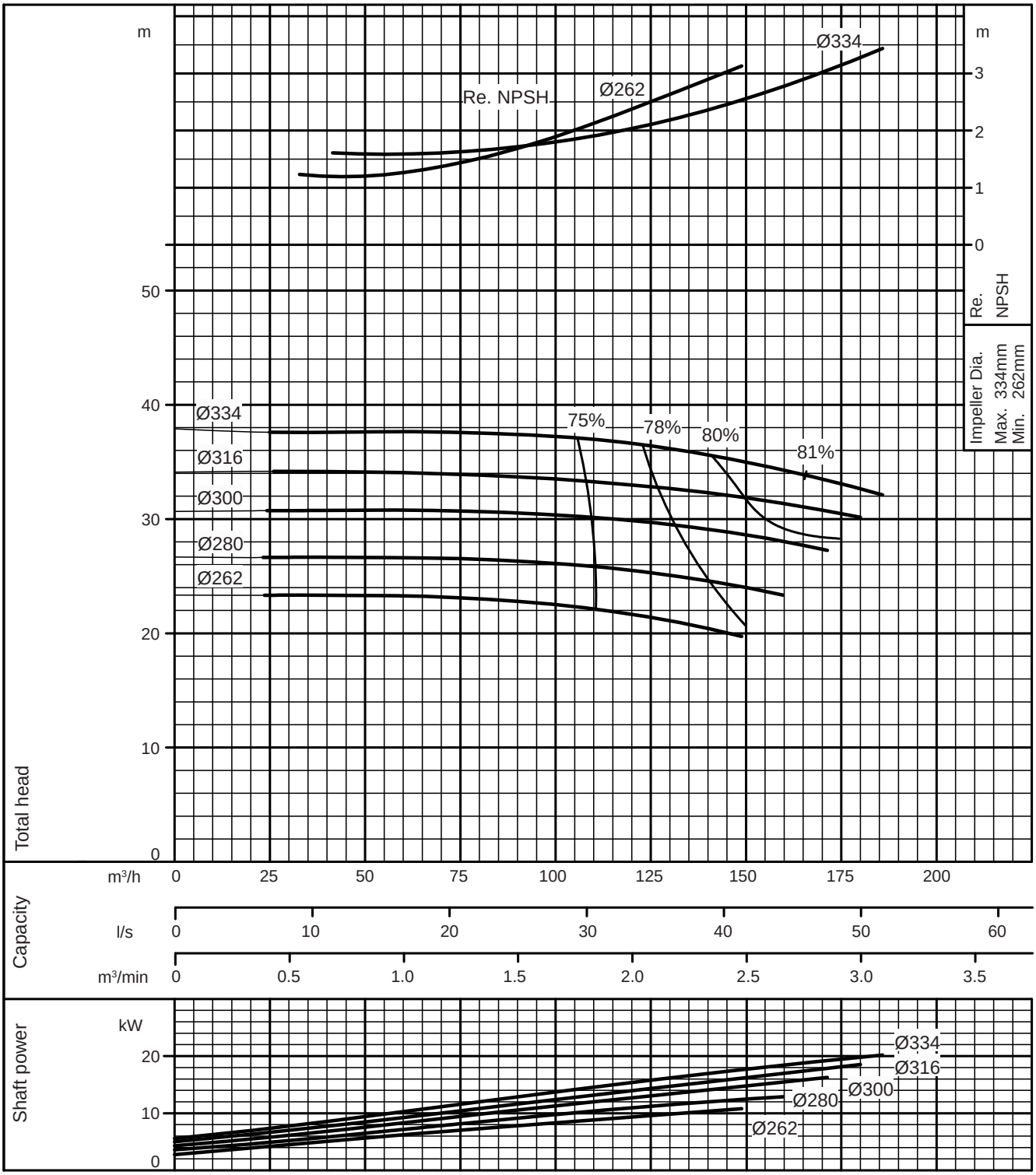
GS 80-250 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633618-01

Performance Curve

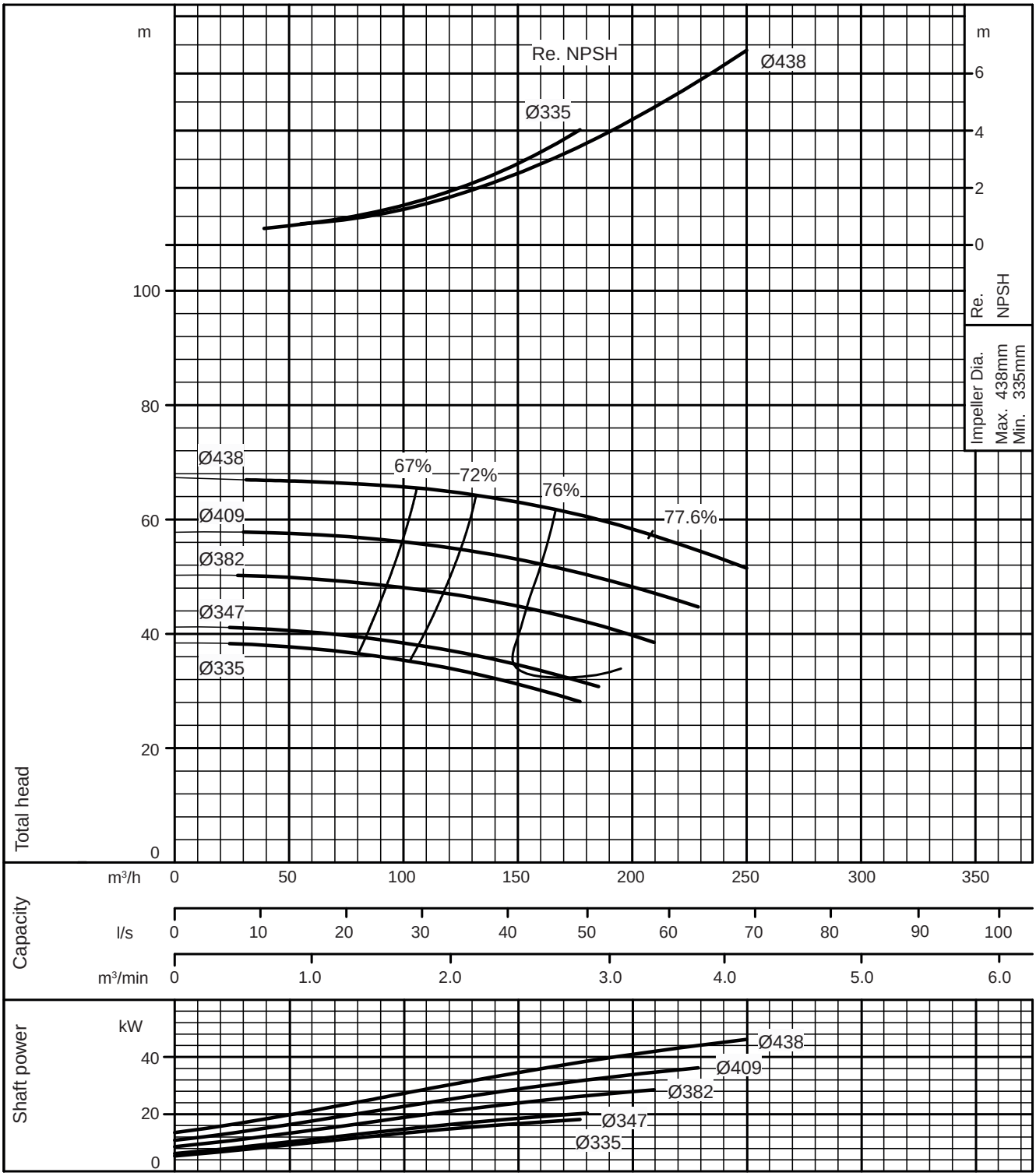
GS 80-315 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633619-01

Performance Curve

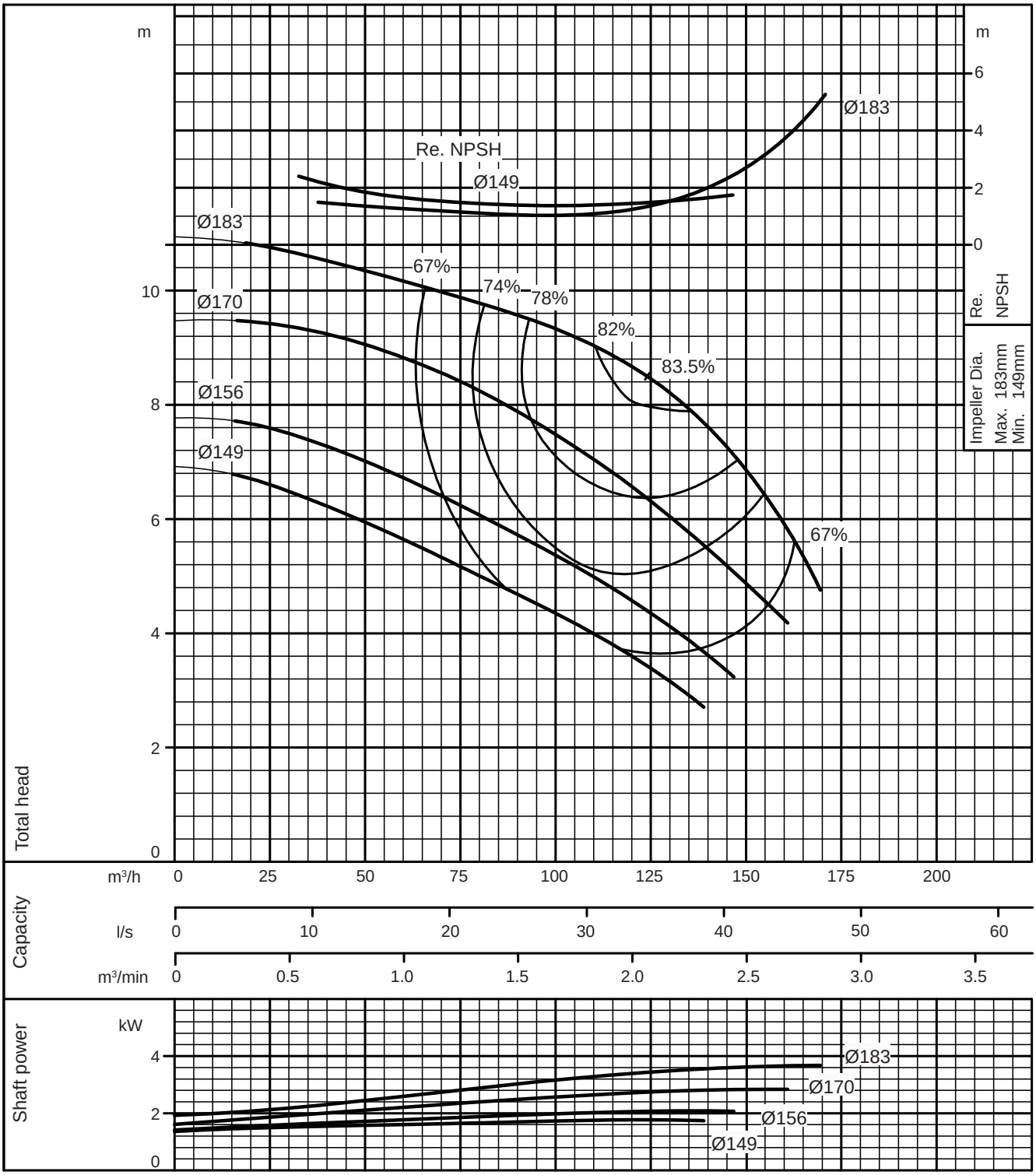
GS 80-400 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633620-01

Performance Curve

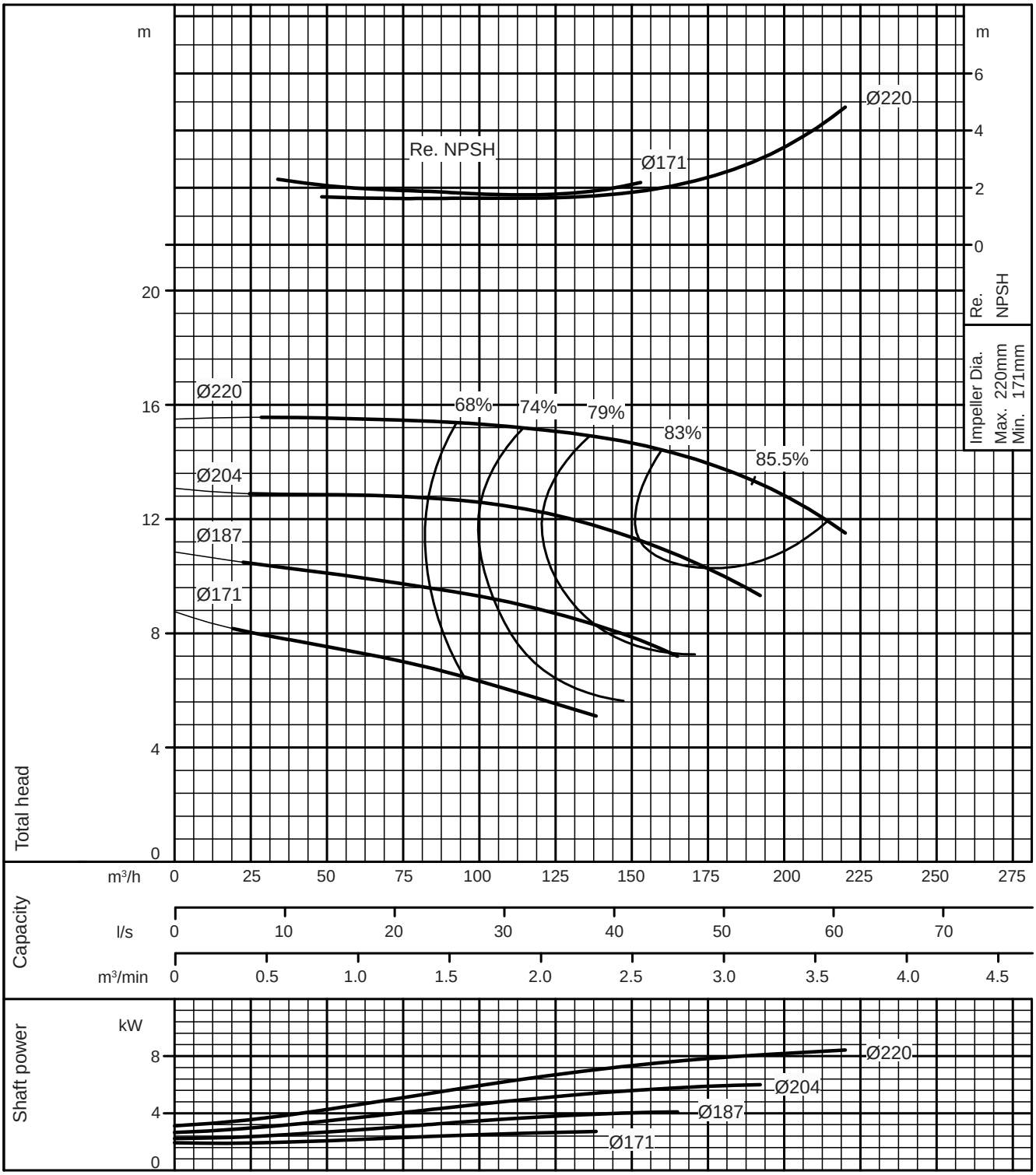
GS 100-160 (4 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633621-01

Performance Curve

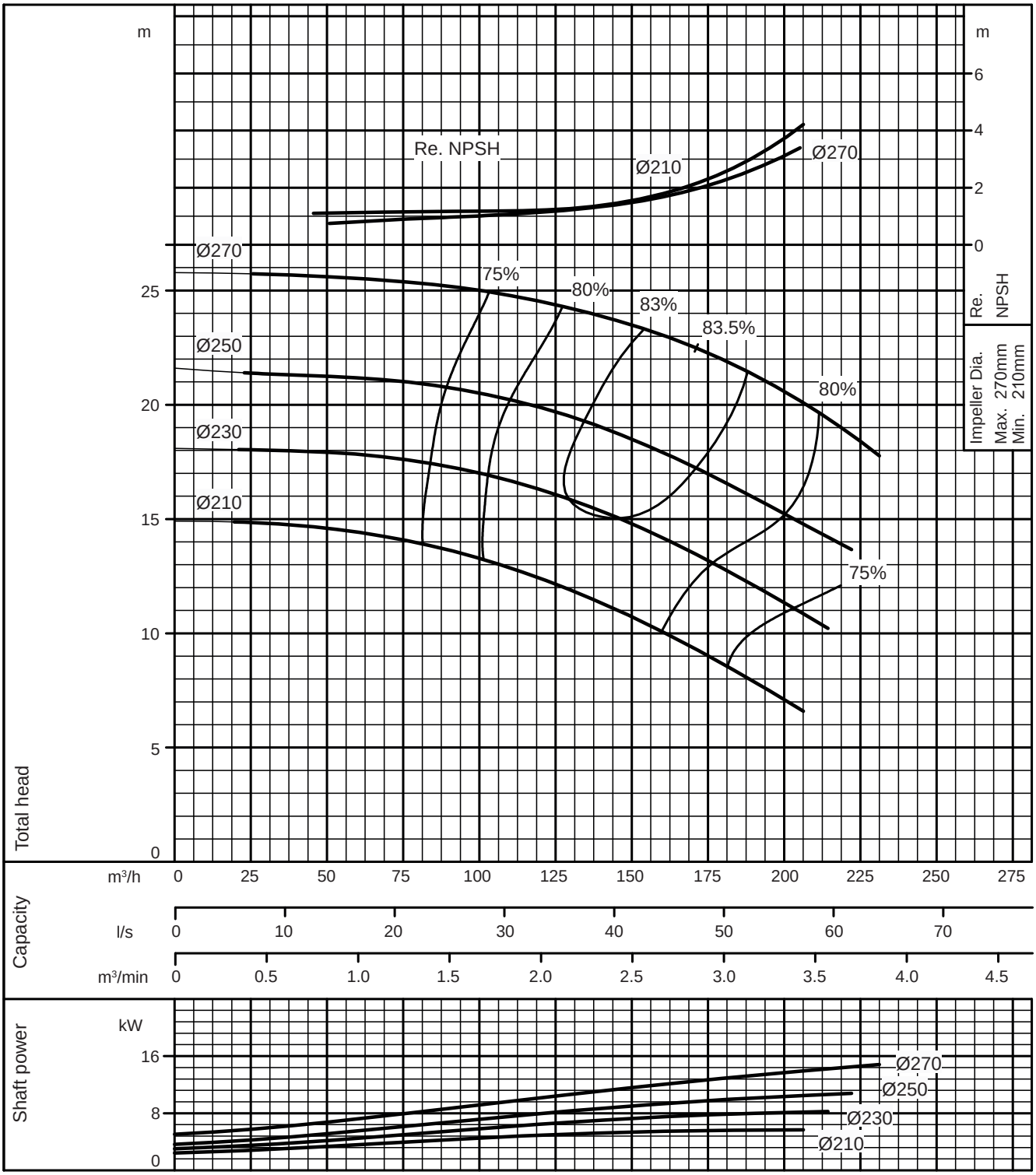
GS 100-200 (4 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633622-01

Performance Curve

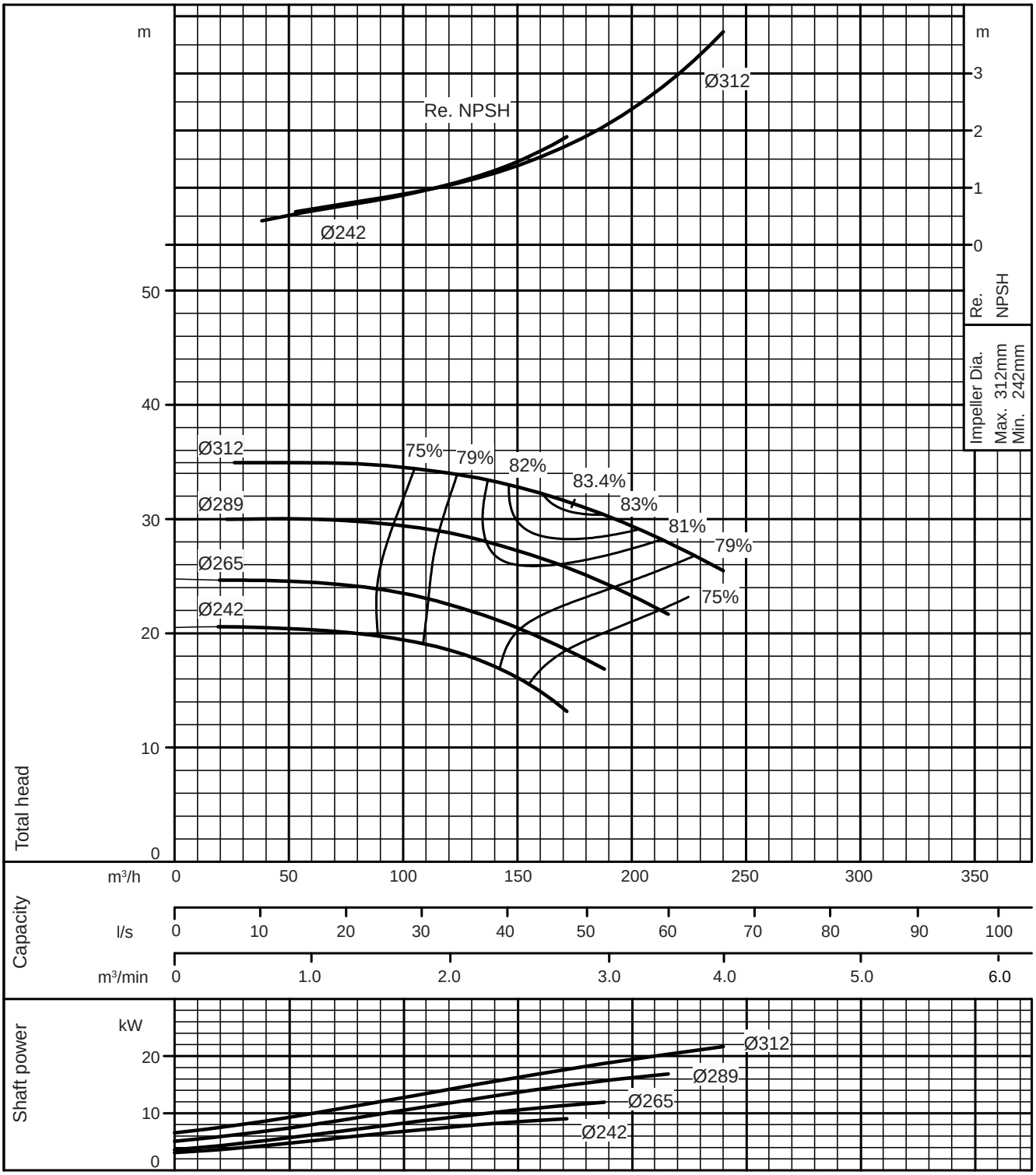
GS 100-250 (4 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633623-01

Performance Curve

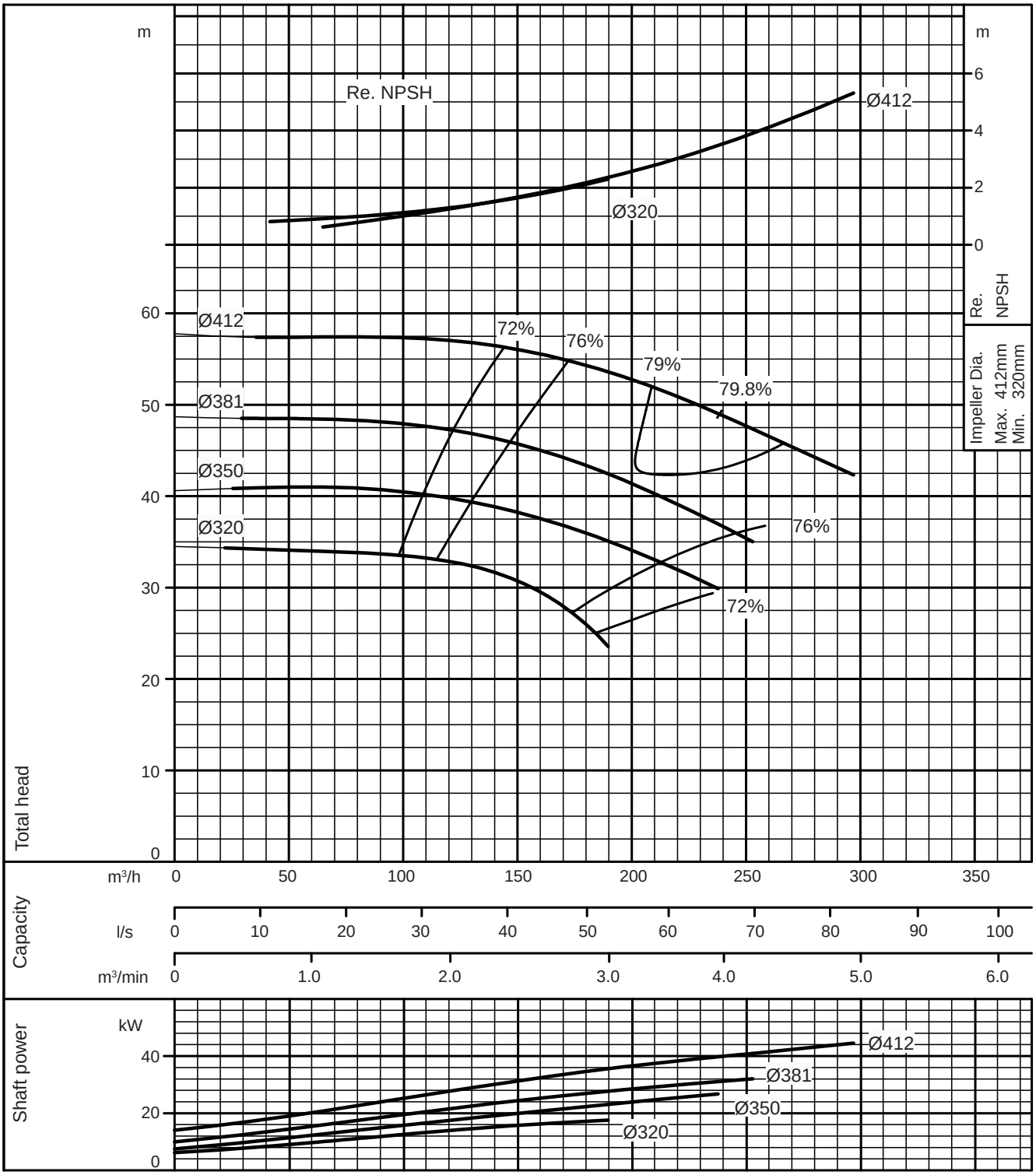
GS 100-315 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633624-01

Performance Curve

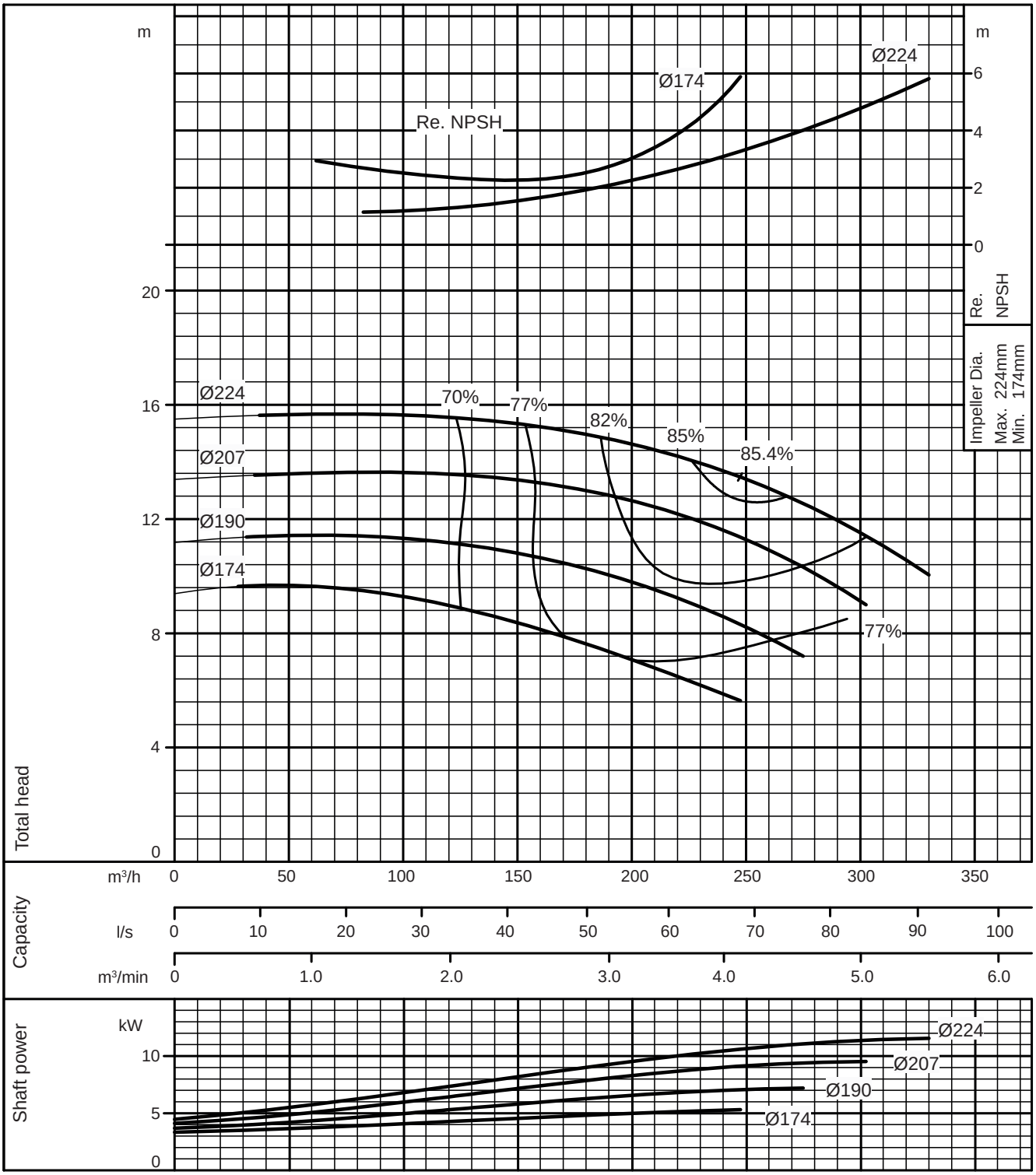
GS 100-400 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633625-01

Performance Curve

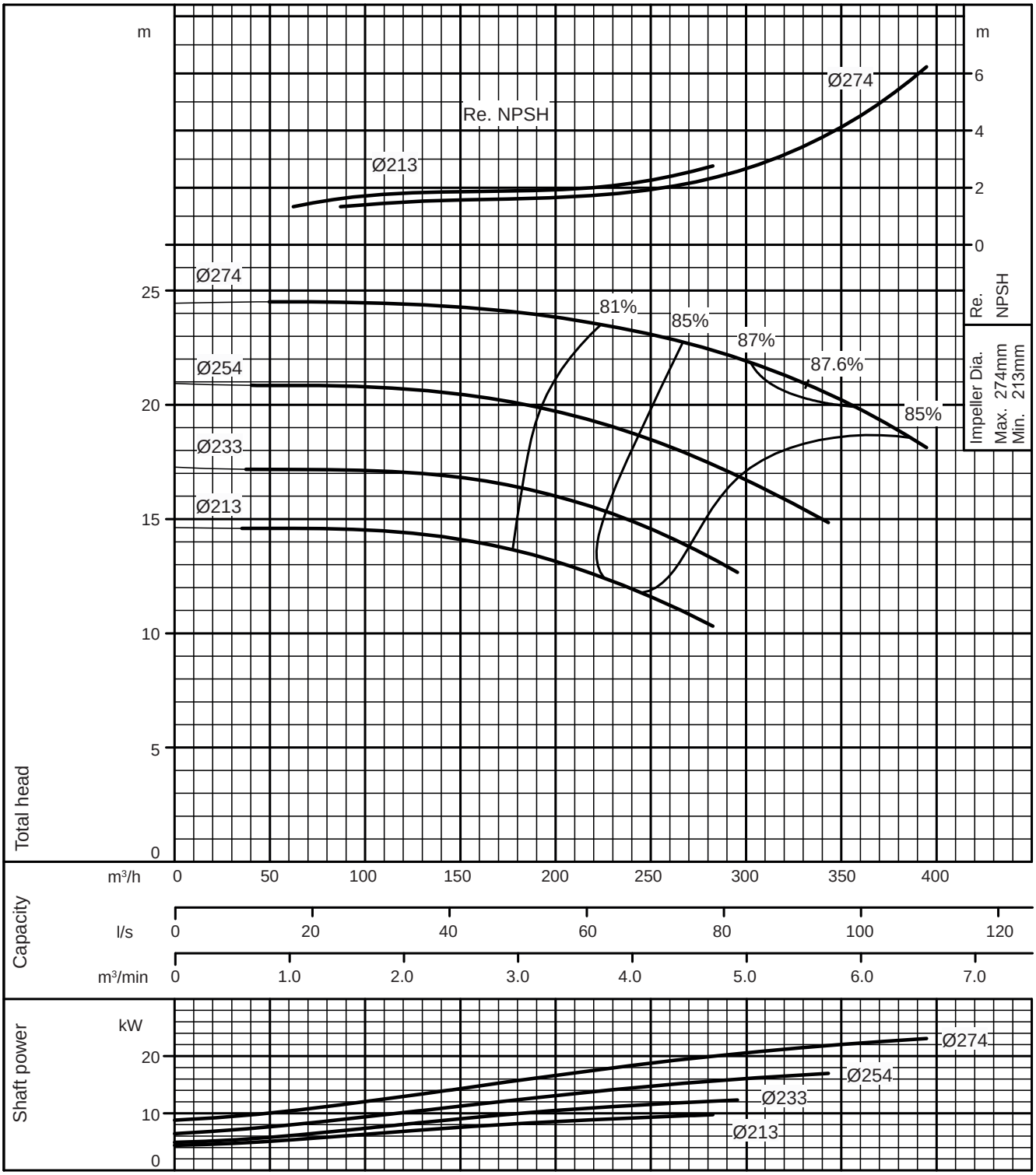
GS 125-200 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633626-01

Performance Curve

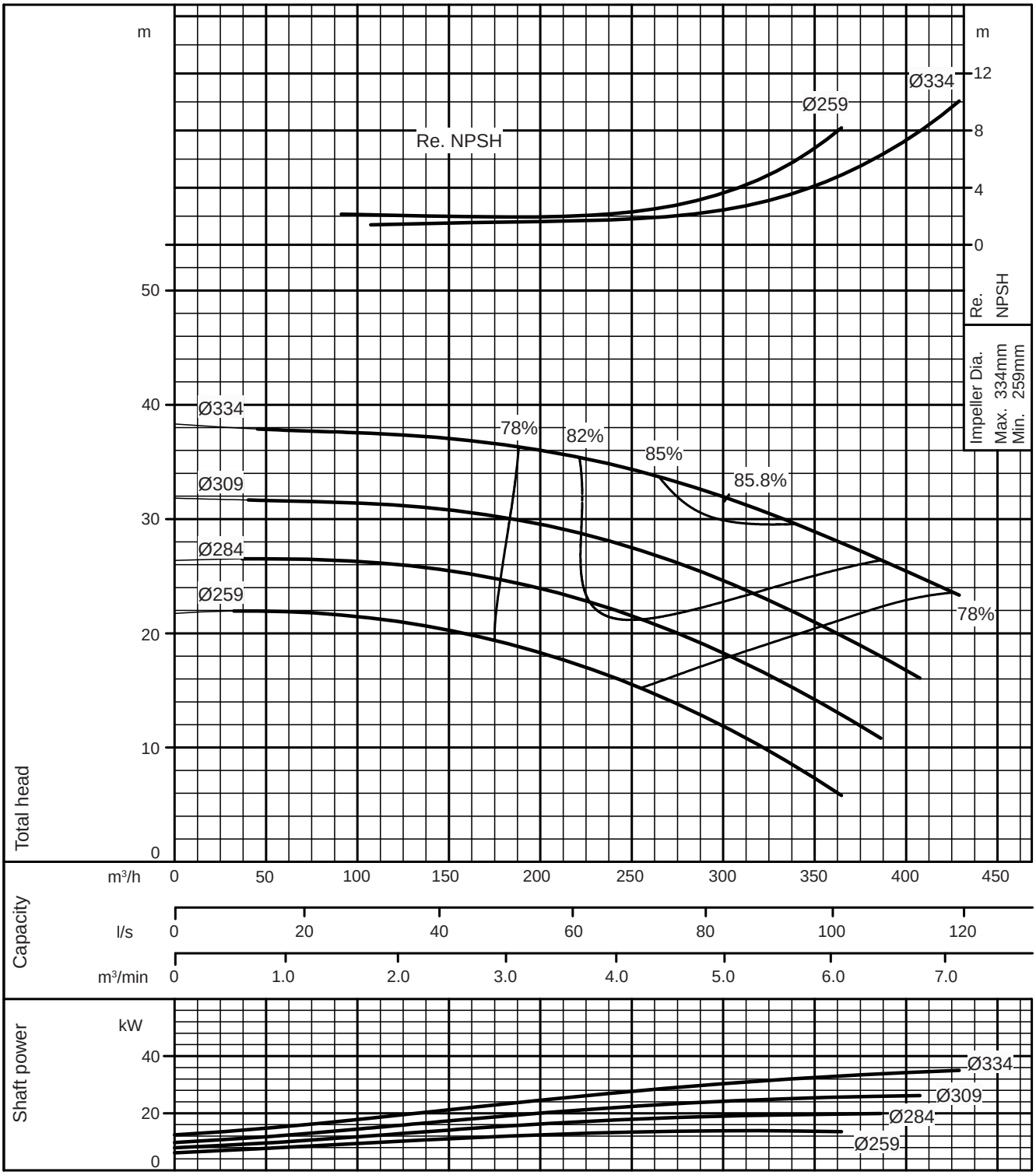
GS 125-250 (4 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633627-01

Performance Curve

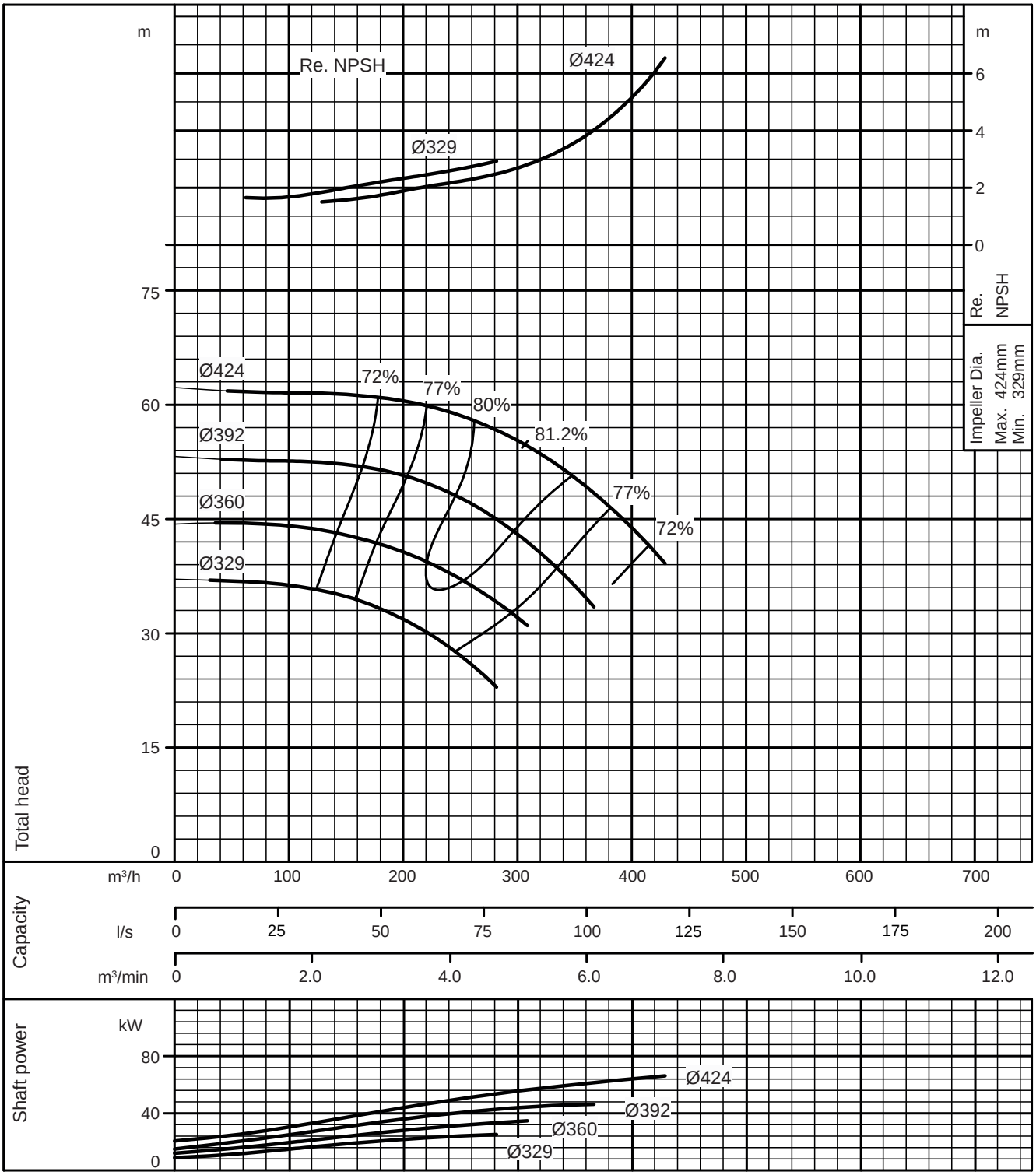
GS 125-315 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633628-01

Performance Curve

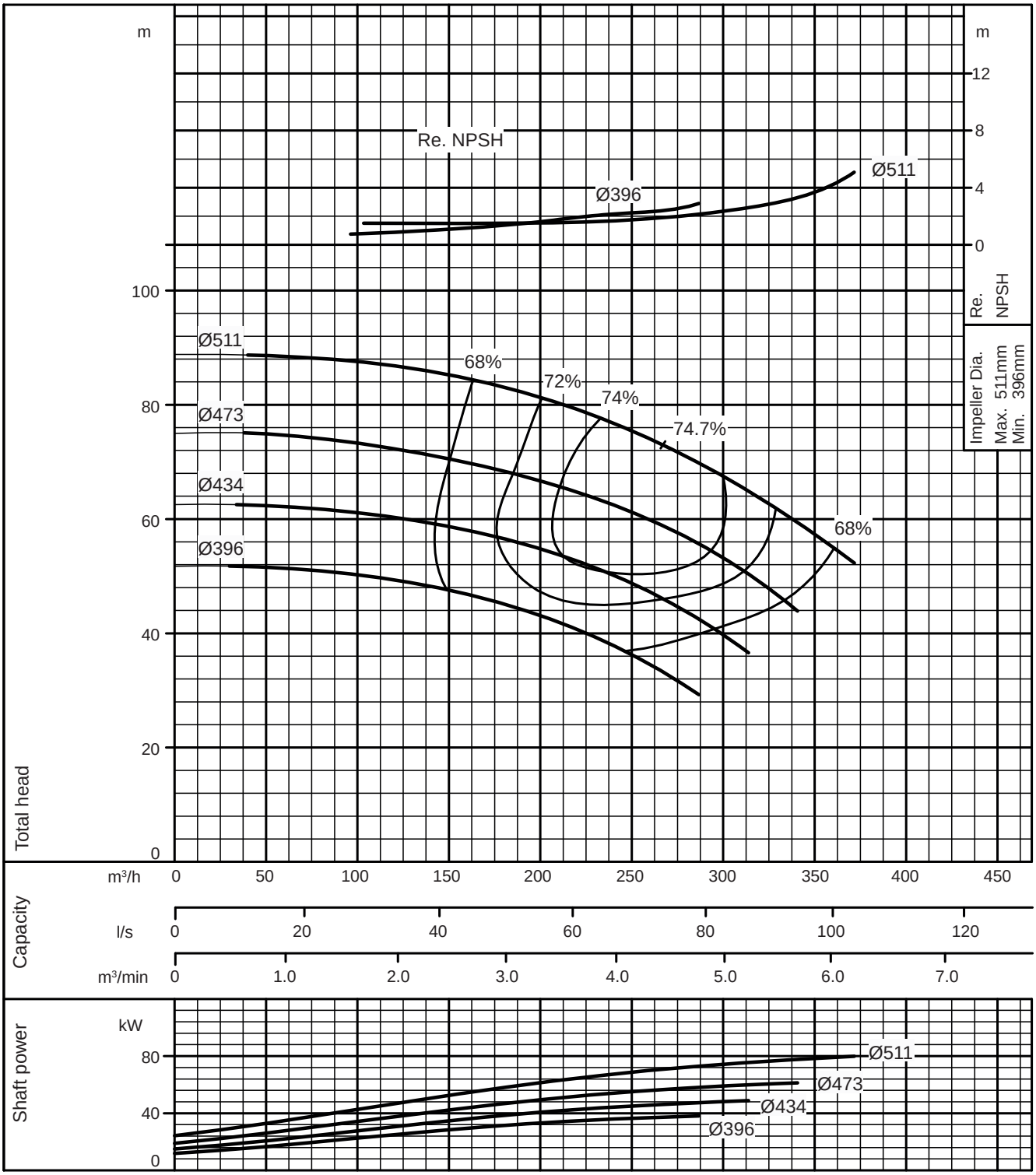
GS 125-400 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633629-00

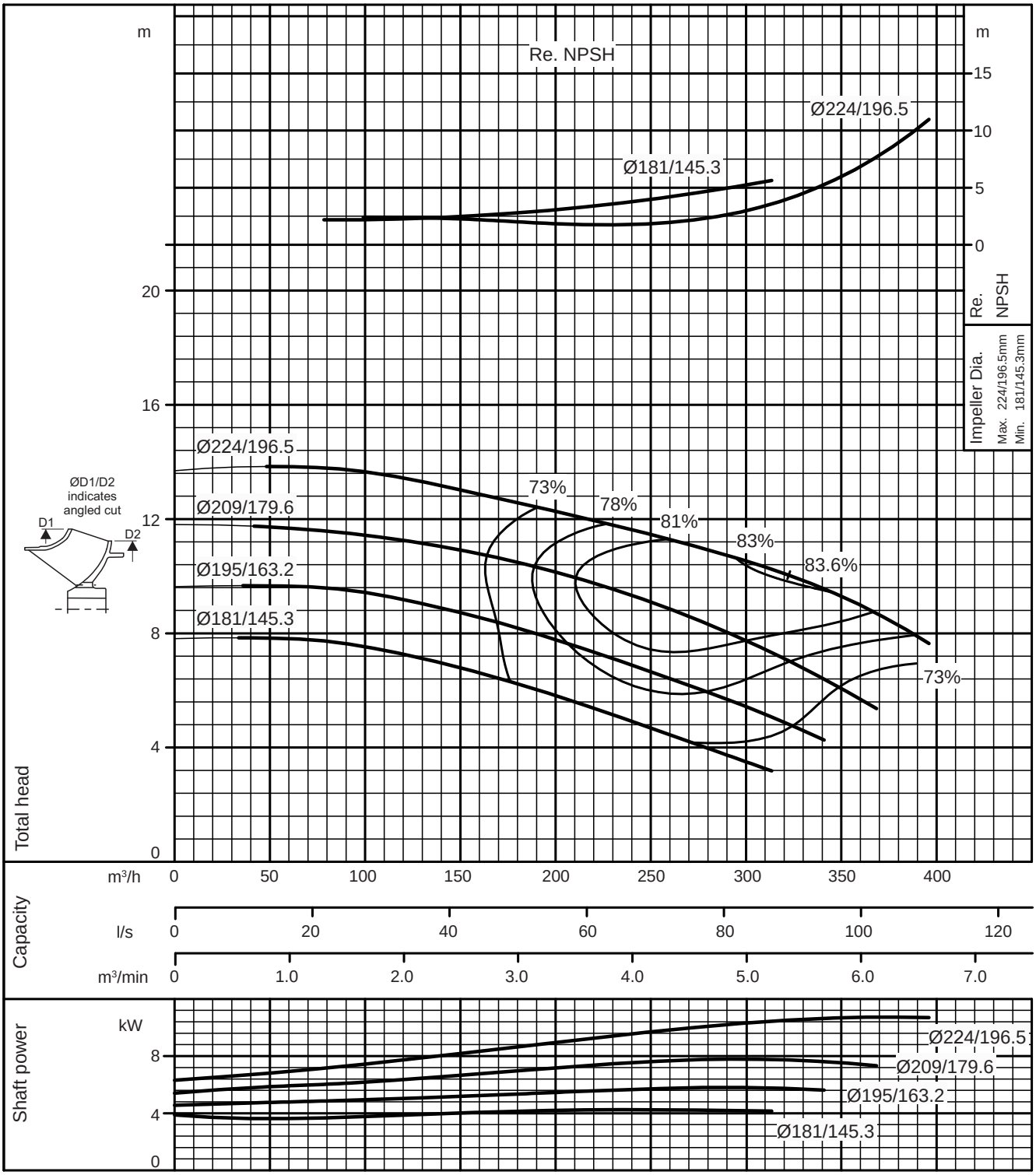
Performance Curve

GS 125-500 (4 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



Performance Curve

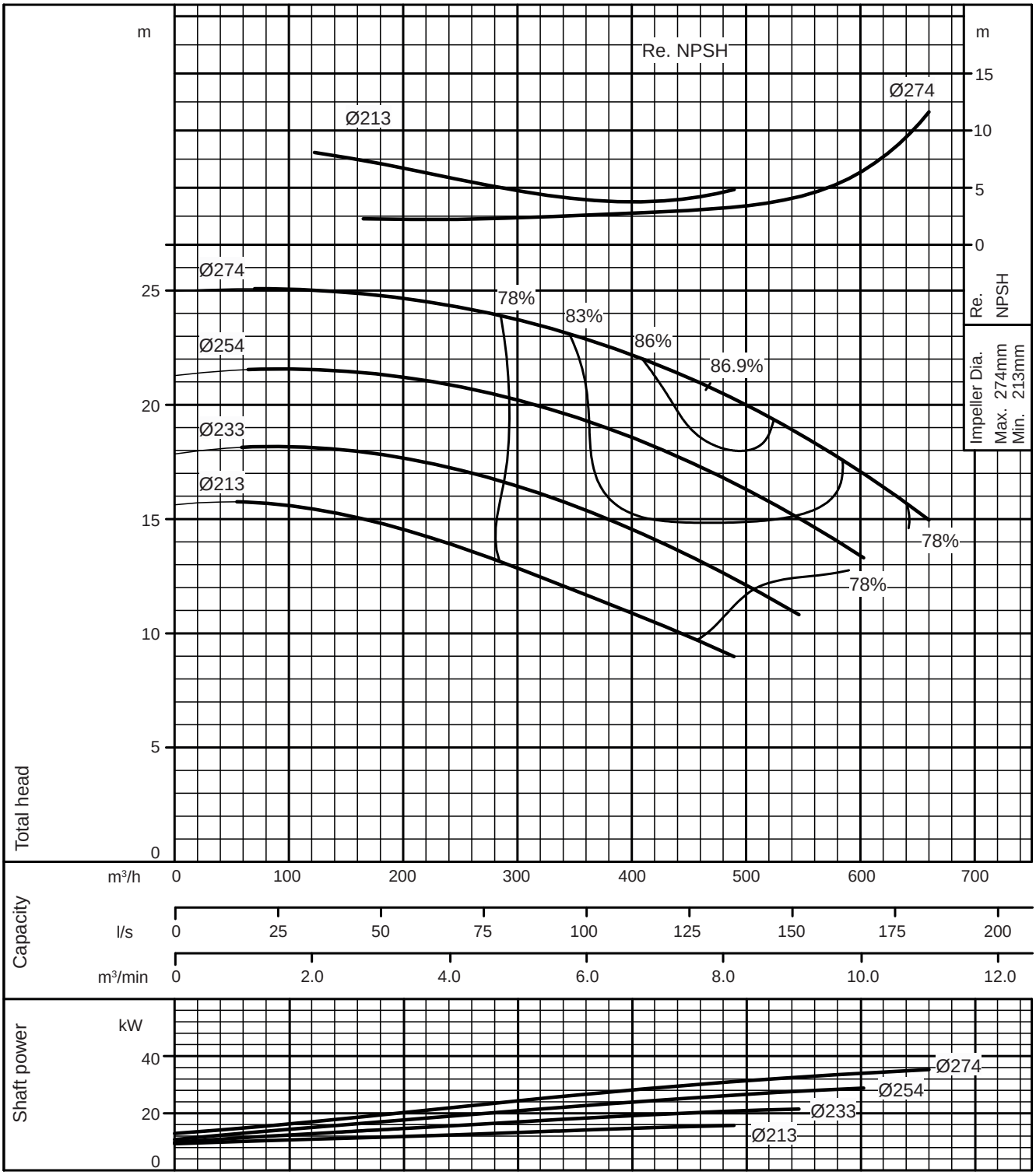
GS 150-200 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633631-01

Performance Curve

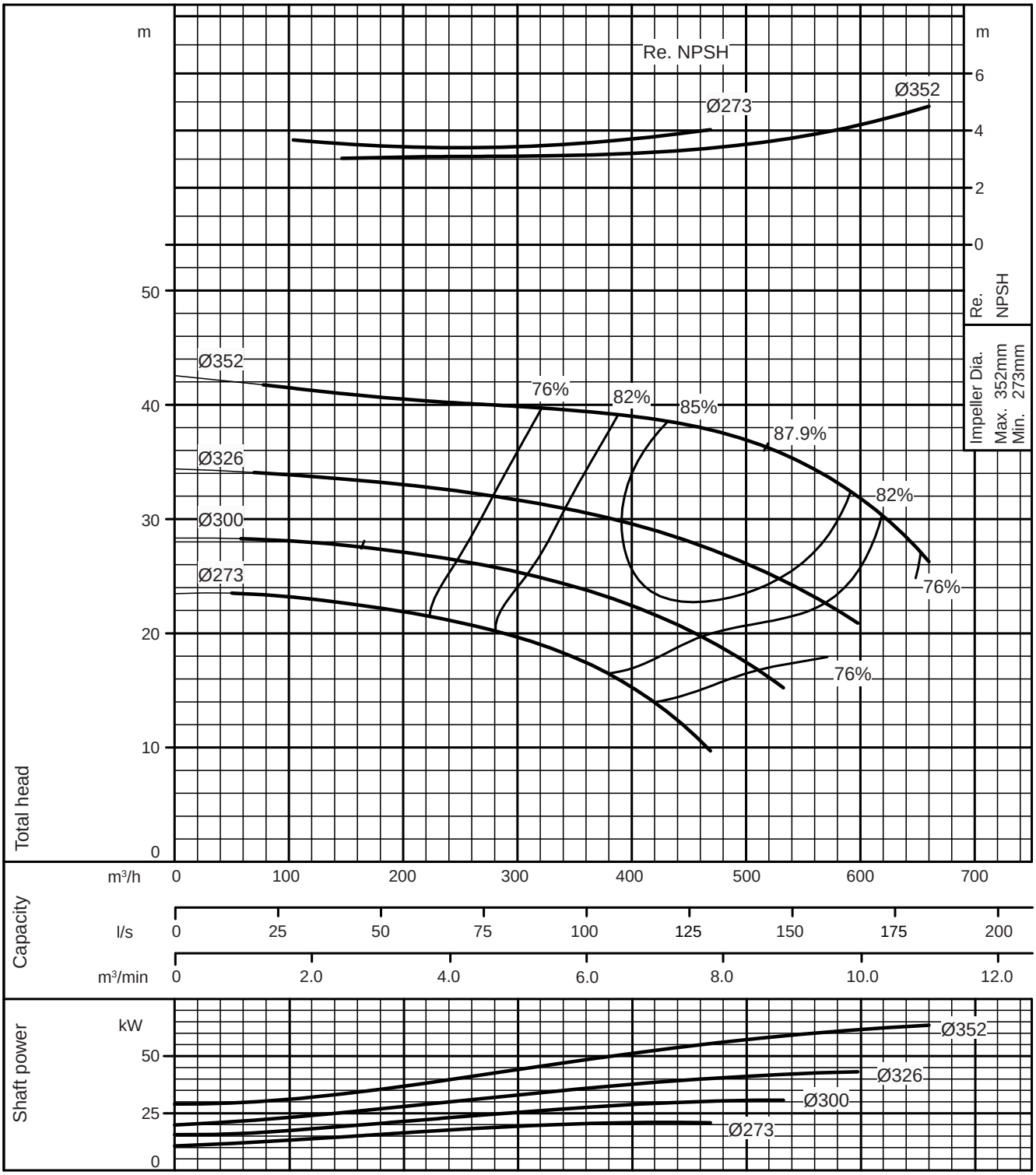
GS 150-250 (4 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633632-01

Performance Curve

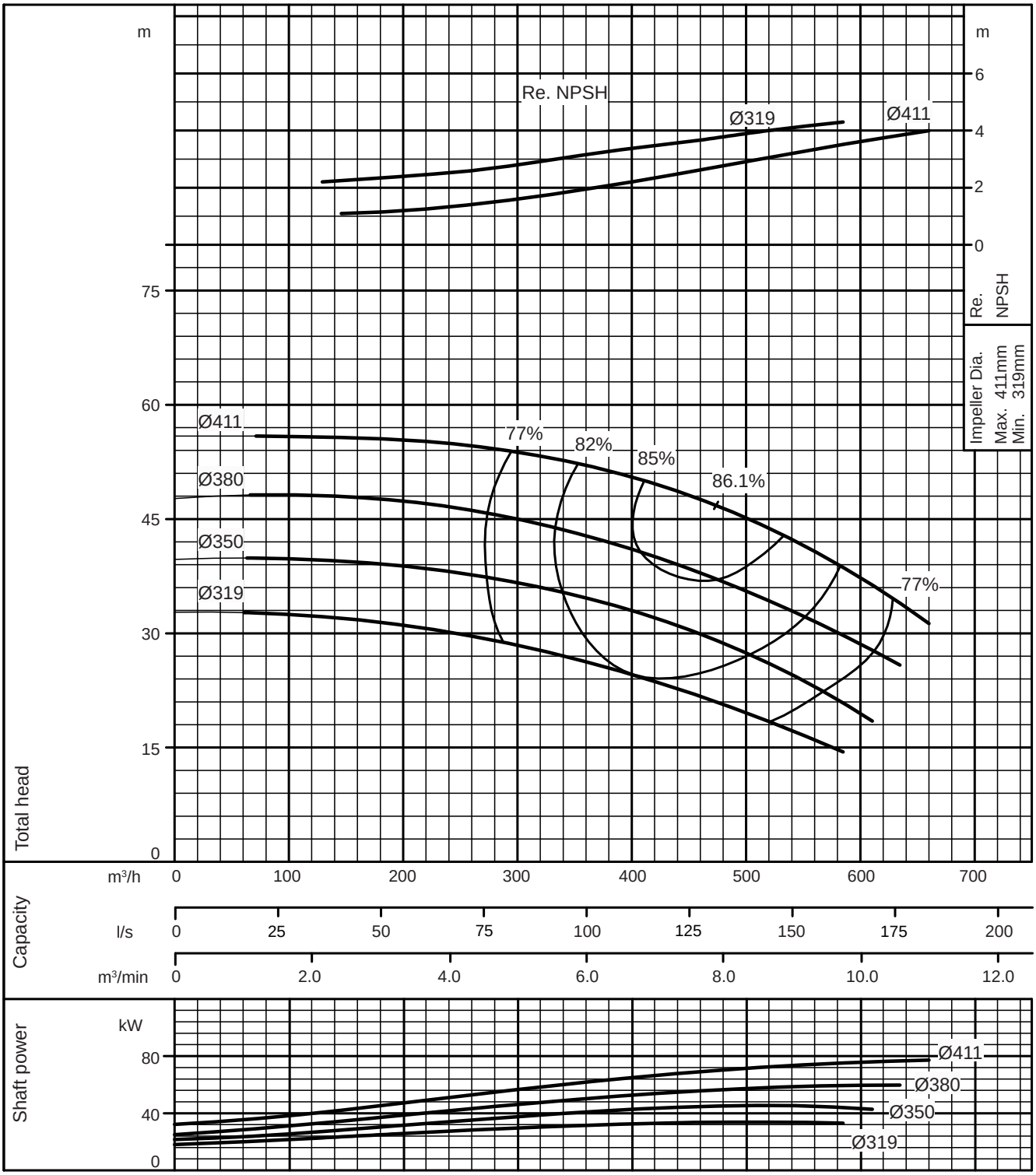
GS 150-315 (4 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633633-01

Performance Curve

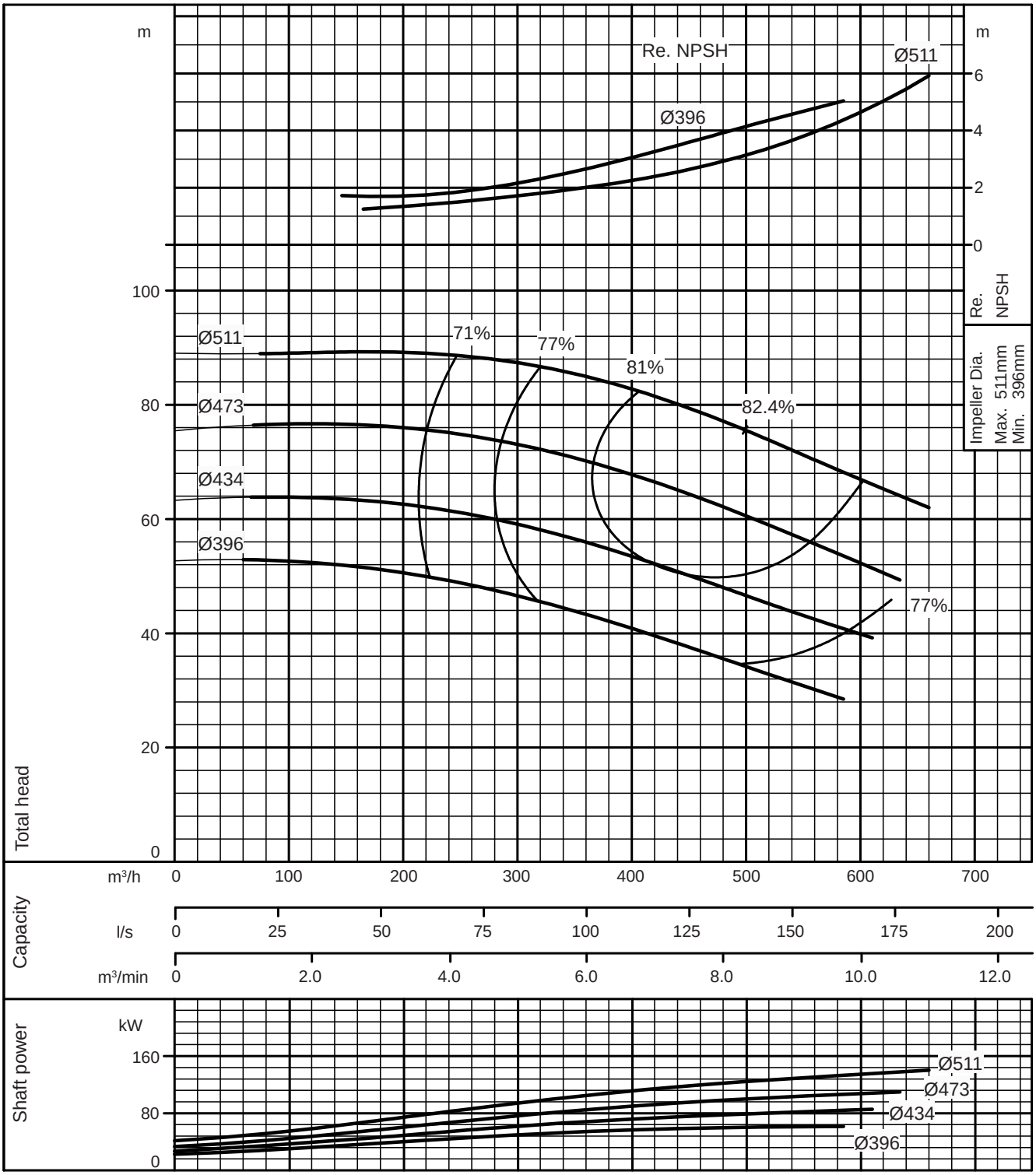
GS 150-400 (4 Pole)	MEI ≧ 0.6 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633634-01

Performance Curve

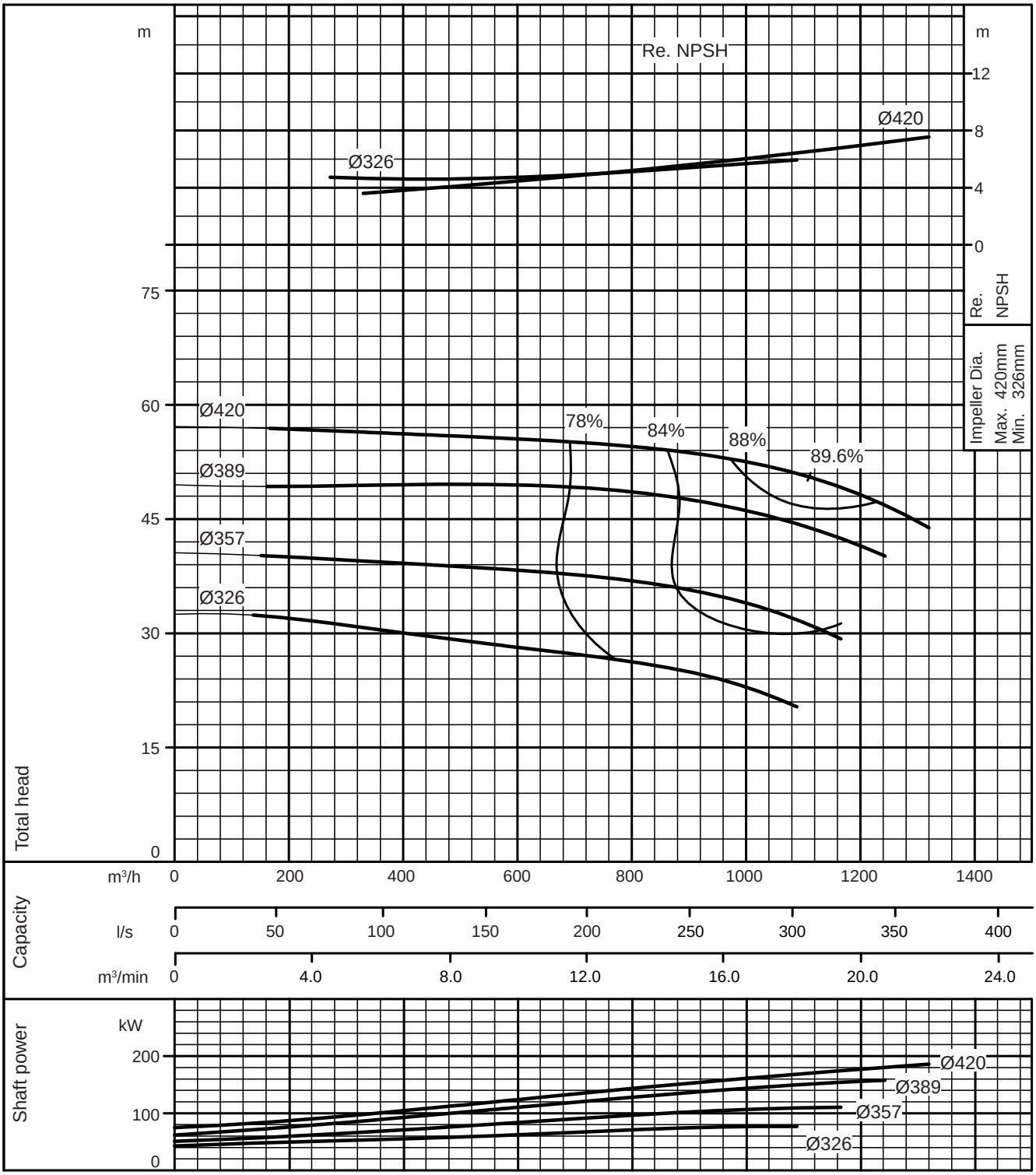
GS 150-500 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633635-01

Performance Curve

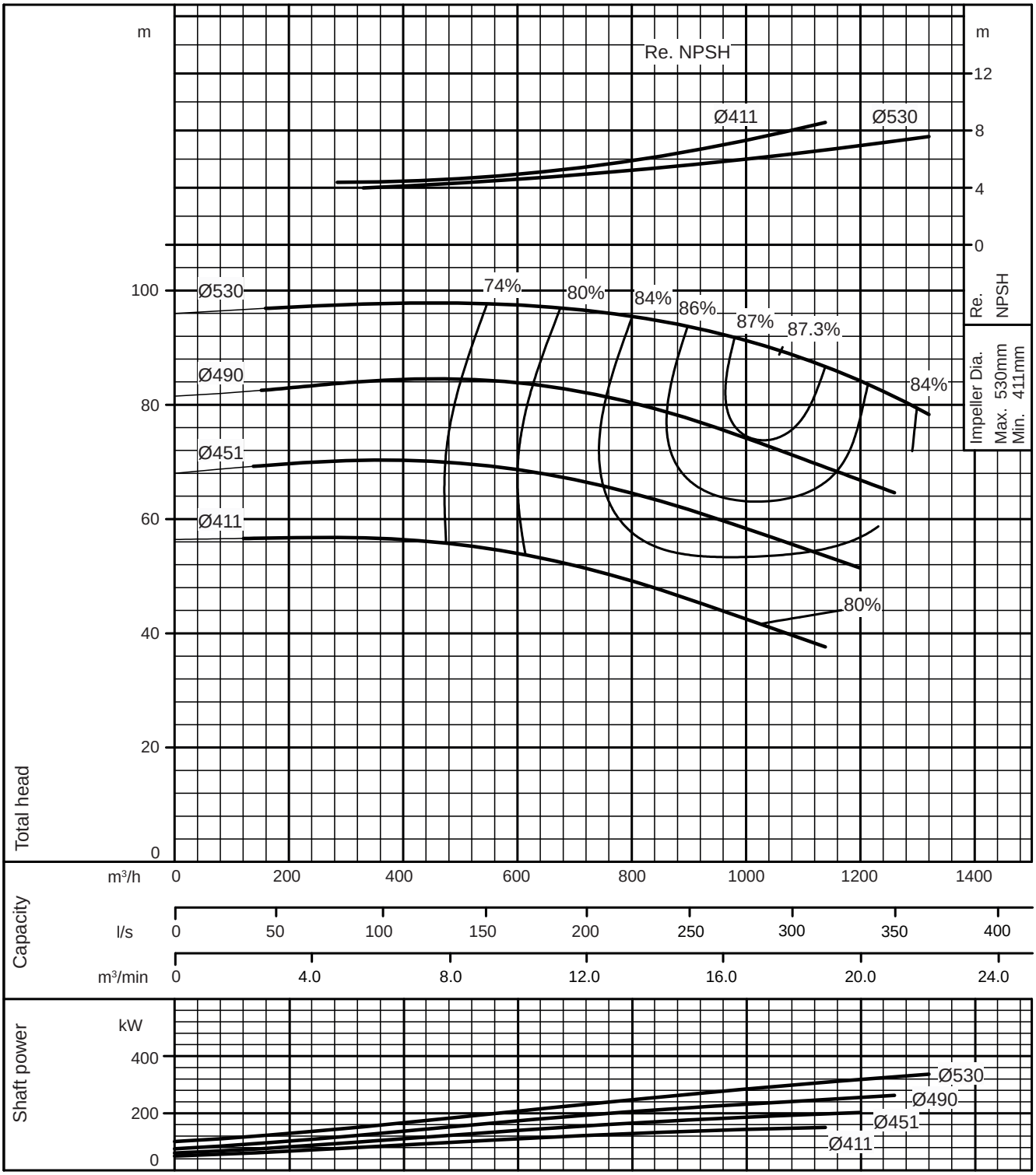
GS 200-400 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s



F8-1633636-01

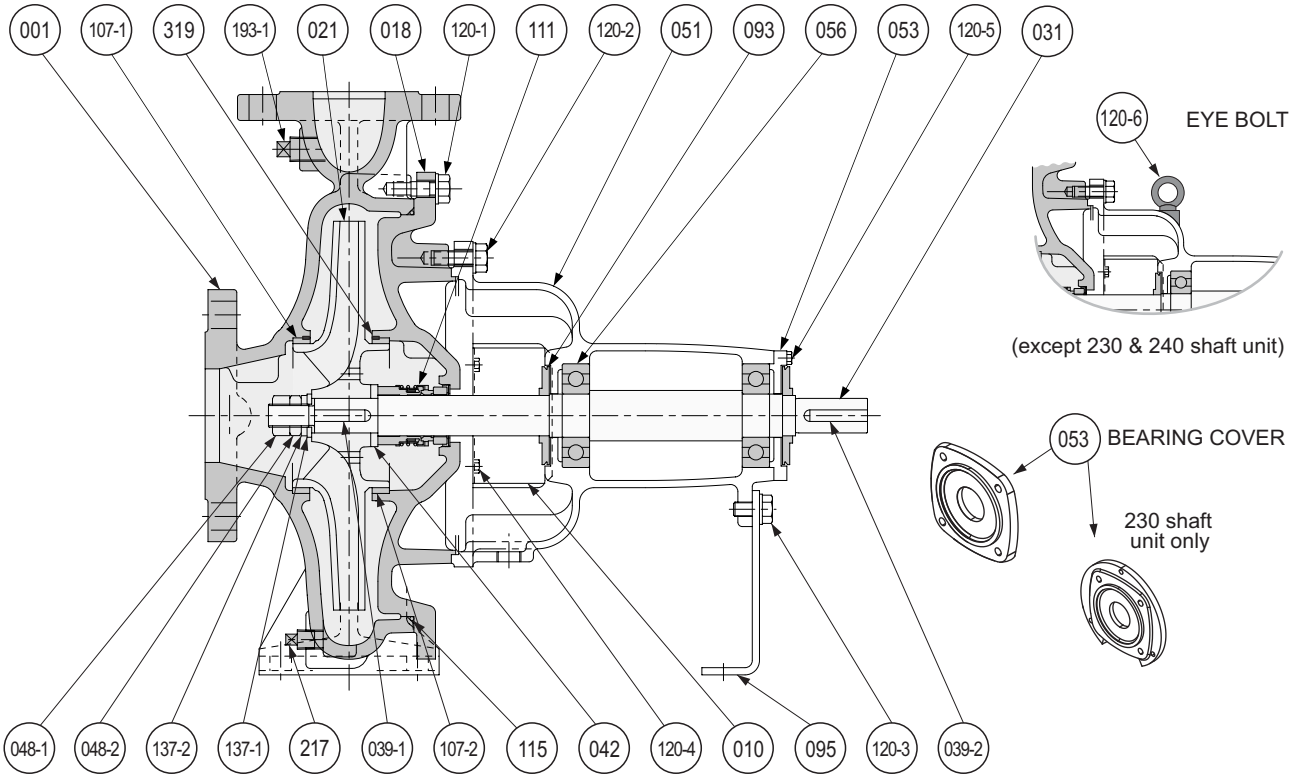
Performance Curve

GS 200-500 (4 Pole)	MEI ≧ 0.7 Minimum Efficiency Index is based on full diamter impeller	According to ISO testing code 9906 Grade 3B
	50Hz (SPEED 1450min^{-1})	DENSITY = 1.0 kg/l - VISCOSITY = 1.0 mPa▪s

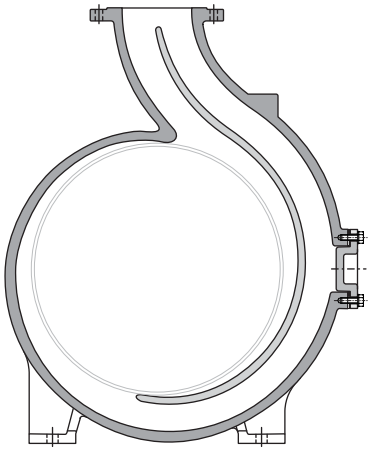


F8-1633637-01

Sectional view and construction



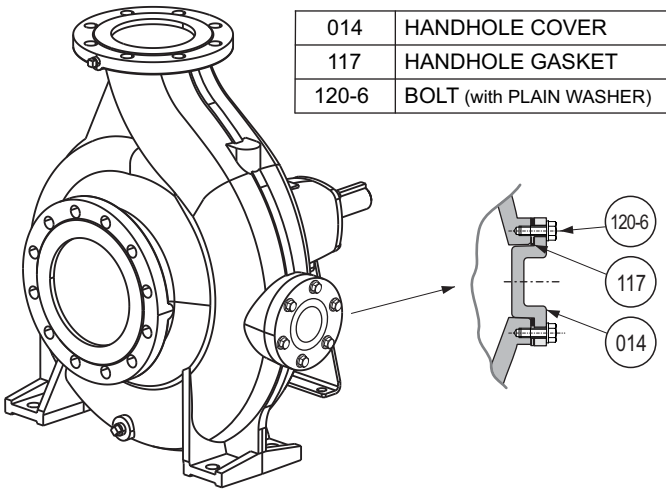
Item No.	Part name	
001	CASING	1
010	PROTECTOR	2
018	CASING COVER	1
021	IMPELLER	1
031	SHAFT	1
039-1	KEY	1
039-2	KEY	1
042	MECHANICAL SEAL SPACER	1
048-1	IMPELLER NUT(A)	1
048-2	IMPELLER NUT(B)	1
051	BEARING HOUSING	1
053	BEARING COVER	1
056	BALL BEARING	2
093	DEFLECTOR	2
095	STAY	1
107-1	CASING RING	1
107-2	CASING RING	1
111	MECHANICAL SEAL	1
115	O-RING	1
120-1	BOLT (with PLAIN WASHER) *(Casing cover to casing)*	X*
120-2	BOLT (with PLAIN WASHER) *(Bearing housing to casing cover)*	6
120-3	BOLT (with PLAIN WASHER) *(Stay to bearing housing)*	1
120-4	BOLT (with PLAIN WASHER) *(Protectors to bearing housing)*	4
120-5	BOLT *(Bearing cover to bearing housing)*	4
137-1	PLAIN WASHER	4
137-2	SPRING LOCK WASHER	4
193	PLUG	1
217	DRAIN PLUG	1
319	SPRING PIN	2



Double volute casing
(with handhole cover)

Applicable to models

150-400
150-500
200-400
200-500



014	HANDHOLE COVER	1
117	HANDHOLE GASKET	1
120-6	BOLT (with PLAIN WASHER)	6

*X * qty depends on model*

Materials of construction

Item No.	Part name		Materials		
001	CASING	1	Cast Iron (ED painted)	FC250	EN-GJL-250(EN-JL1040)
010	PROTECTOR	2	304 Stainless steel (or steel)#	SPCC (SS400)#	DC01(1.0330)
011	CASING COVER	1	Cast Iron (ED painted)	FC250	EN-GJL-250(EN-JL1040)
014	HANDHOLE COVER	1	Cast Iron (ED painted)	FC250	
021	IMPELLER	1	Bronze	CAC406	CuSn5Zn5Pb5(CC491K)
031	SHAFT	1	420 Stainless steel Wetted part	SUS420J2Q/S35C	X30Cr13(1.4028)/C35
039-1	KEY	1	420 Stainless steel	SUS420J2	X30Cr13(1.4028)
039-2	KEY	1	Carbon steel	S50C	C50(1.0540)
042	MECHANICAL SEAL SPACER	1	304 Stainless steel	SUS304	X5CrNi18-10(1.4301)
048-1	IMPELLER NUT(A)	1	304 Stainless steel	SUS304	X5CrNi18-10(1.4301)
048-2	IMPELLER NUT(B)	1	304 Stainless steel	SUS304	X5CrNi18-10(1.4301)
051	BEARING HOUSING	1	Cast Iron (ED painted)	FC250	EN-GJL-250(EN-JL1040)
053	BEARING COVER	1	Cast Iron (ED painted)	FC250	EN-GJL-250(EN-JL1040)
056	BALL BEARING	2	-		
093	DEFLECTOR	2	Rubber	EPDM	
095	STAY	1	Steel (ED painted)	SS400	
107-1	CASING RING	1	Bronze	CAC406	CuSn5Zn5Pb5(CC491K)
107-2	CASING RING	1	Bronze	CAC406	CuSn5Zn5Pb5(CC491K)
111	MECHANICAL SEAL	1	Elastomer bellows seal	SiC/C/EPDM/316	BQ1EGG
115	O-RING	1	Rubber	EPDM	
117	HANDHOLE GASKET	1	(Joint sheet gasket)	V#6500	
120-1	BOLT (with PLAIN WASHER) *(Casing cover to casing)*	X*	Steel, Zn plated	SS400	
120-2	BOLT (with PLAIN WASHER) *(Bearing housing to casing cover)*	6	Steel, Zn plated	SS400	
120-3	BOLT (with PLAIN WASHER) *(Stay to bearing housing)*	1	Steel, Zn plated	SS400	
120-4	BOLT (with PLAIN WASHER) *(Protectors to bearing housing)*	4	Steel, Zn plated	SS400	
120-5	BOLT *(Bearing cover to bearing housing)*	4	Steel, Zn plated	SS400	
120-6	BOLT (with PLAIN WASHER)	6	Steel, Zn plated	SS400	
120-7	EYE BOLT	1	Steel, Zn plated	SS400	
137-1	PLAIN WASHER	4	304 Stainless steel	SUS304	X5CrNi18-10(1.4301)
137-2	SPRING LOCK WASHER	4	304 Stainless steel	SUS304	X5CrNi18-10(1.4301)
193	PLUG	1	Steel, Zn plated	SS	
217	DRAIN PLUG	1	Steel, Zn plated	SS	
319	SPRING PIN	2	420 Stainless steel	SUS420J1	X20Cr13(1.4021)

X* - 6,8,10,12,16 depending on model # Painted steel for 260,270 & 280 shaft units

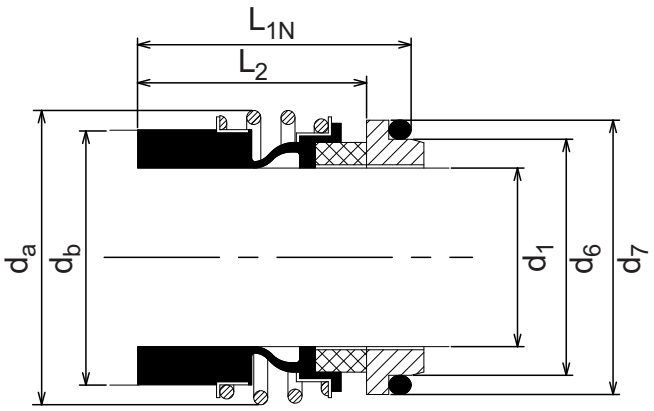
Mechanical seal

Maker: Eagle Burgmann
Standard: EN12756
Liquid handled: Fresh water
Liquid temperature: -10° to +120° C Note①
Maximum speed: 3600 rpm (≤48 mm) 1800 rpm ≥55 mm)
Pressure range: -0.5 - 16 bar

Note①
When temperature is >80° C the stuffing box pressure (P_{box}) should be less than 10 bar where

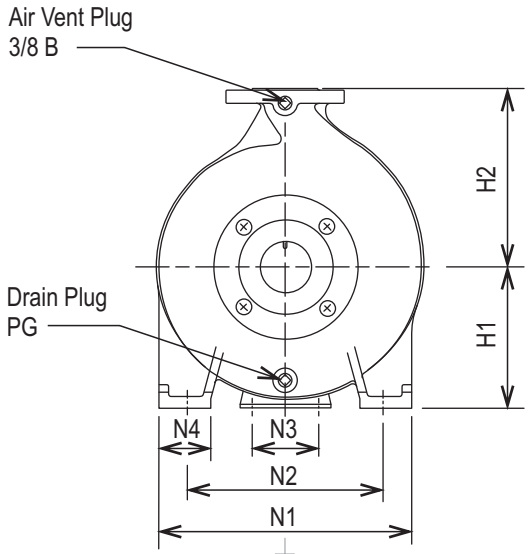
$$P_{box} = (0.05 \times TH) + P_s$$

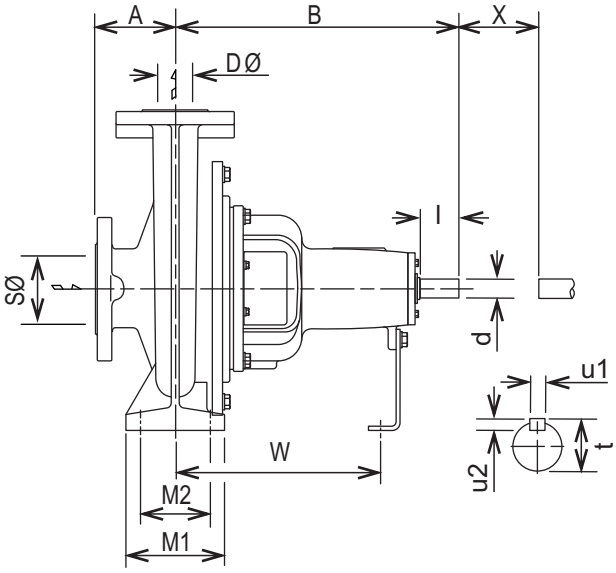
P_{box} = stuffing box pressure
TH = Total Head (Differential pressure)
P_s = Suction Pressure

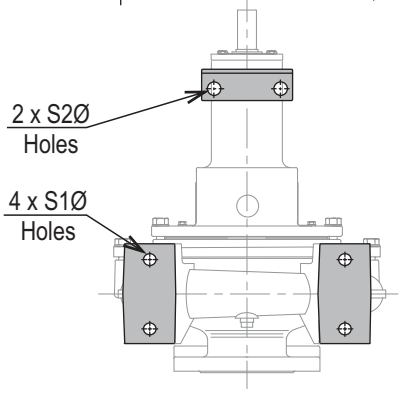


		Dimensions (mm)							Materials			
Shaft unit	Seal model	d_1	d_a	d_b	d_6	d_7	L_{1N}	L_2	Rotating Face	Stationary Face	Elastomers	Spring etc.
230#	MG13/28-G6-BQ1EGG	28	49	44	37	43	50	42.5	Carbon Graphite Resin Impregnated (B)	Silicon Carbide (Q1)	EPDM Ethylene Propylene Rubber (E)	316 Stainless Steel (GG)
240#	MG13/38-G6-BQ1EGG	38	59	53	49	56	55	46				
250#	MG13/48-G6-BQ1EGG	48	70.5	63	59	66	60	51				
260#	MG13/55-G6-BQ1EGG	55	81	72	67	75	70	59				
270#	MG13/65-G6-BQ1EGG	65	93.5	84	77	85	80	69				
280#	MG13/75-G6-BQ1EGG	75	107	95	88	97	80	68.7				

Dimensions - Bare shaft pumps







S2	Bolt
17Ø	M12
19Ø	M16

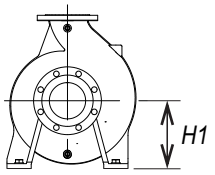
①

S1	Bolt
15Ø	M12
19Ø	M16
24Ø	M20
27Ø	M24

Shaft unit	② Shaft dimensions in mm				
	d	l	t	u1	u2
230#	24	50	27	8	7
240#	32	80	35	10	8
250#	42	110	45	12	8
260#	48	110	51.5	14	9
270#	60	110	64	18	11
280#	75	125	79.5	20	12

Note:
Following models are not fully compliant to EN 733

 # Dimension note
For 150-315 dimension H1 is 35mm higher than EN standard



⋆ "L" models

80-315L, 100-315L, 125-250L

The letter "L" following the impeller classification code indicates a larger shaft unit is fitted.
(see page 401 & 502 for more details)

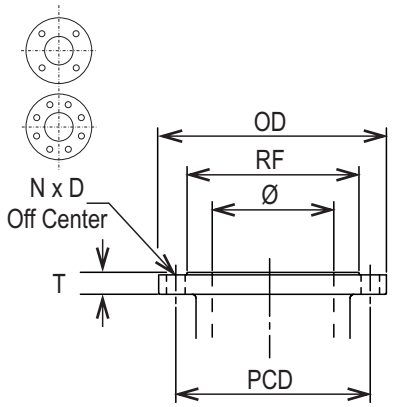
PN16 Flanges
Ø200 & Ø250 flanges vary from PN10 dimensions.

Ø200: N=12 holes (not 8)

Ø250: All dimensions differ

PN 16 Flange Dimensions

EN PN 16 FLANGES, Cast Iron



	Suction Flange						Discharge Flange					
Model	**SØ**	OD	PCD	RF	T	N x D	**DØ**	OD	PCD	RF	T	N x D
GS 32	**50**	165	125	99	20	4x19Ø	**32**	140	100	76	18	4x19Ø
GS 40	**65**	185	145	118	20	4x19Ø	**40**	150	110	84	18	4x19Ø
GS 50	**65**	185	145	118	20	4x19Ø	**50**	165	125	99	20	4x19Ø
GS 65	**80**	200	160	132	22	8x19Ø	**65**	185	145	118	20	4x19Ø
GS 80	**100**	220	180	156	24	8x19Ø	**80**	200	160	132	22	8x19Ø
GS 100	**125**	250	210	184	26	8x19Ø	**100**	220	180	156	24	8x19Ø
GS 125	**150**	285	240	211	26	8x23Ø	**125**	250	210	184	26	8x19Ø
GS 150	**200**	340	295	266	30	12x23Ø	**150**	285	240	211	26	8x23Ø
GS 200	**250**	405	355	319	32	12x28Ø	**200**	340	295	266	30	12x23Ø

Dimensions - Bare shaft pumps

	Dimensions in mm																	Refers to dimensional drawing on page 400.	Shaft unit	Wgt kg
Model	SØ	DØ	A	B	H1	H2	PG	M1	M2	N1	N2	N3	N4	W	S1	S2	X			
32-125	50	32	80	360	112	140	¼"	100	70	190	140	110	50	260	15Ø	17Ø	100		230#	28
32-160			80	360	132	160	¼"	100	70	240	190	110	50	260	15Ø	17Ø	100		230#	29
32-200			80	360	160	180	¼"	100	70	240	190	110	50	260	15Ø	17Ø	100		230#	39
32-250			100	360	180	225	¼"	125	95	320	250	110	65	260	15Ø	17Ø	100		230#	46
40-125	65	40	80	360	112	140	¼"	100	70	210	160	110	50	260	15Ø	17Ø	100		230#	30
40-160			80	360	132	160	¼"	100	70	240	190	110	50	260	15Ø	17Ø	100		230#	31
40-200			100	360	160	180	¼"	100	70	265	212	110	50	260	15Ø	17Ø	100		230#	41
40-250			100	360	180	225	¼"	125	95	320	250	110	65	260	15Ø	17Ø	100		230#	48
40-315			125	470	225	250	¼"	125	95	345	280	110	65	340	15Ø	17Ø	100		240#	82
50-125	65	50	100	360	132	160	¼"	100	70	240	190	110	50	260	15Ø	17Ø	100		230#	33
50-160			100	360	160	180	¼"	100	70	265	212	110	50	260	15Ø	17Ø	100		230#	33
50-200			100	360	160	200	¼"	100	70	265	212	110	50	260	15Ø	17Ø	100		230#	44
50-250			100	360	180	225	¼"	125	95	320	250	110	65	260	15Ø	17Ø	100		230#	50
50-315			125	470	225	280	¼"	125	95	345	280	110	65	340	15Ø	17Ø	100		240#	86
65-125	80	65	100	360	160	180	¼"	125	95	280	212	110	65	260	15Ø	17Ø	100		230#	37
65-160			100	360	160	200	¼"	125	95	280	212	110	65	260	15Ø	17Ø	100		230#	41
65-200			100	360	180	225	¼"	125	95	320	250	110	65	260	15Ø	17Ø	140		230#	47
65-250			100	470	200	250	¼"	160	120	360	280	110	80	340	19Ø	17Ø	140		240#	73
65-315			125	470	225	280	¼"	160	120	400	315	110	80	340	19Ø	17Ø	140		240#	90
80-160	100	80	125	360	180	225	¼"	125	95	320	250	110	65	260	15Ø	17Ø	140		230#	46
80-200			125	470	180	250	¼"	125	95	345	280	110	65	340	15Ø	17Ø	140		240#	67
80-250			125	470	200	280	¼"	160	120	400	315	110	80	340	19Ø	17Ø	140		240#	77
80-315			125	470	250	315	¼"	160	120	400	315	110	80	340	19Ø	17Ø	140		240#	101
80-315L*			125	530	250	315	¼"	160	120	400	315	110	80	370	19Ø	17Ø	140		250#	112
80-400			125	530	280	355	¼"	160	120	435	355	110	80	370	19Ø	17Ø	140		250#	162
100-160	125	100	125	470	200	250	⅜"	160	120	360	280	110	80	340	19Ø	17Ø	140		240#	91
100-200			125	470	200	280	⅜"	160	120	360	280	110	80	340	19Ø	17Ø	140		240#	103
100-250			140	470	225	280	⅜"	160	120	400	315	110	80	340	19Ø	17Ø	140		240#	108
100-315			140	470	250	315	⅜"	160	120	400	315	110	80	340	19Ø	17Ø	140		240#	109
100-315L*			140	530	250	315	⅜"	160	120	400	315	110	80	370	19Ø	17Ø	140		250#	134
100-400			140	530	280	355	⅜"	200	150	500	400	110	100	370	24Ø	17Ø	140		250#	189
125-200	150	125	140	470	250	315	⅜"	160	120	400	315	110	80	340	19Ø	17Ø	140		240#	120
125-250			140	470	250	355	⅜"	160	120	400	315	110	80	340	19Ø	17Ø	140		240#	131
125-250L*			140	530	250	355	⅜"	160	120	400	315	110	80	370	19Ø	17Ø	140		250#	148
125-315			140	530	280	355	⅜"	200	150	500	400	110	100	370	24Ø	17Ø	140		250#	176
125-400			140	530	315	400	⅜"	200	150	500	400	110	100	370	24Ø	17Ø	140		250#	218
125-500			180	670	375	450	⅜"	200	150	550	450	140	100	500	24Ø	19Ø	140		260#	365
150-200	200	150	160	470	280	355	⅜"	200	150	500	400	110	100	340	24Ø	17Ø	140		240#	154
150-250			160	530	280	375	⅜"	200	150	500	400	110	100	370	24Ø	17Ø	140		250#	171
150-315#			160	530	315	400	⅜"	200	150	550	450	110	100	370	24Ø	17Ø	140		250#	225
150-400			160	530	315	450	½"	200	150	550	450	110	100	370	24Ø	17Ø	140		250#	339
150-500			180	670	375	560	½"	200	150	550	450	140	100	500	24Ø	19Ø	180		270#	491
200-400	250	200	180	670	385	560	½"	315	250	660	560	140	100	500	24Ø	19Ø	180		270#	508
200-500			200	820	435	630	½"	315	250	660	560	160	100	630	27Ø	19Ø	180		280#	645

(*) *"L" models* (#) *Dimension note*

Refer to page 400

(1) *Hole details* (2) *Shaft details*

Refer to page 400

MEI - Minimum Efficiency Index

N/A = not applicable

	MEI	
Model	2 Pole	4 Pole
32-125	≥0.7	≥0.6
32-160	≥0.6	≥0.7
32-200	≥0.7	≥0.7
32-250	≥0.7	≥0.7
40-125	≥0.6	≥0.6
40-160	≥0.7	≥0.6
40-200	≥0.7	≥0.7
40-250	≥0.7	≥0.7
40-315	≥0.7	≥0.7
50-125	≥0.6	≥0.6
50-160	≥0.7	≥0.7
50-200	≥0.7	≥0.7
50-250	≥0.7	≥0.7
50-315	≥0.7	≥0.7
65-125	≥0.6	≥0.6
65-160	≥0.6	≥0.6
65-200	≥0.7	≥0.7
65-250	≥0.7	≥0.7
65-315	≥0.7	≥0.7
80-160	≥0.7	≥0.7
80-200	≥0.7	≥0.7
80-250	≥0.7	≥0.7
80-315	*N/A*	≥0.7
80-315L	≥0.7	*N/A*
80-400	*N/A*	≥0.7
100-160	≥0.6	≥0.6
100-200	≥0.7	≥0.6
100-250	≥0.7	≥0.6
100-315	*N/A*	≥0.7
100-315L	≥0.7	*N/A*
100-400	*N/A*	≥0.7
125-200	≥0.7	≥0.7
125-250	*N/A*	≥0.6
125-250L	≥0.7	*N/A*
125-315	≥0.7	≥0.7
125-400	*N/A*	≥0.7
125-500	*N/A*	≥0.6
150-200	≥0.7	≥0.7
150-250	≥0.7	≥0.6
150-315	*N/A*	≥0.6
150-400	*N/A*	≥0.6
150-500	*N/A*	≥0.7
200-400	*N/A*	≥0.7
200-500	*N/A*	≥0.7

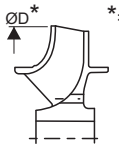
Minimum/Maximum impeller diameters

Important note:

XXX^{R}

^{R}= Reduced Max. for 2 Pole model

For the models indicated the maximum allowable impeller diameter at 2 pole speed is less than the full size diameter and must be trimmed accordingly



*= Angled cut

N/A = not applicable

	2 Pole 50 Hz		4 Pole 50 Hz	
Model	Min. Ø	Max. Ø	Min. Ø	Max. Ø
32-125	106	142	106	142
32-160	139	177	139	177
32-200	175	219	170	219
32-250	198	262	198	262
40-125	105	142	105	142
40-160	134	177	134	177
40-200	172	219	172	219
40-250	211	260	211	260
40-315	256	326^{R}	263	334
50-125	111	144	111	144
50-160	131	177	131	177
50-200	171	219	171	219
50-250	210	270	210	270
50-315	277	324^{R}	277	344
65-125	120	147	120	147
65-160	135	177	135	177
65-200	162	219	162	219
65-250	215	273	215	273
65-315	258	320	261	320
80-160	147*	177	147*	177
80-200	170*	222	170*	222
80-250	220	270	220	270
80-315	*N/A*	*N/A*	262	334
80-315L	265	334	*N/A*	*N/A*
80-400	*N/A*	*N/A*	335	438
100-160	149	183	149	183
100-200	171	220	171	220
100-250	210	265^{R}	210	270
100-315	*N/A*	*N/A*	242	312
100-315L	242	312	*N/A*	*N/A*
100-400	*N/A*	*N/A*	320	412
125-200	174	224	174	224
125-250	*N/A*	*N/A*	213	274
125-250L	213	274	*N/A*	*N/A*
125-315	259	309^{R}	259	334
125-400	*N/A*	*N/A*	329	424
125-500	*N/A*	*N/A*	396	511
150-200	181*	224*	181*	224*
150-250	213	250^{R}	213	274
150-315	*N/A*	*N/A*	273	352
150-400	*N/A*	*N/A*	319	411
150-500	*N/A*	*N/A*	396	511
200-400	*N/A*	*N/A*	326	420
200-500	*N/A*	*N/A*	411	530

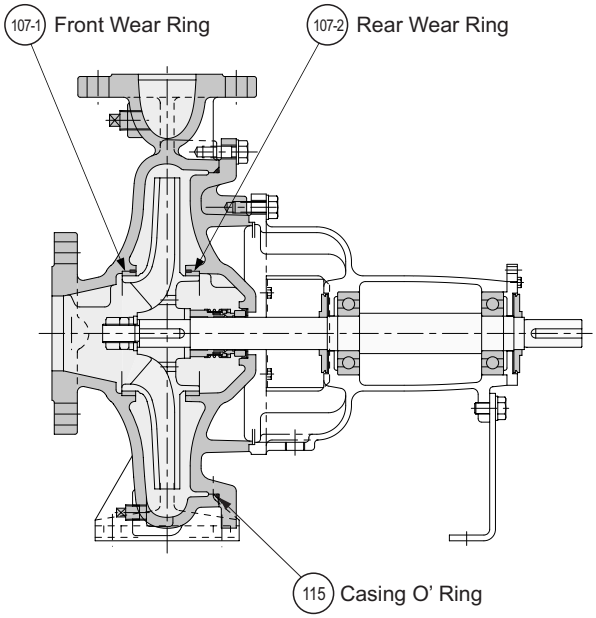
Applicable motor speeds

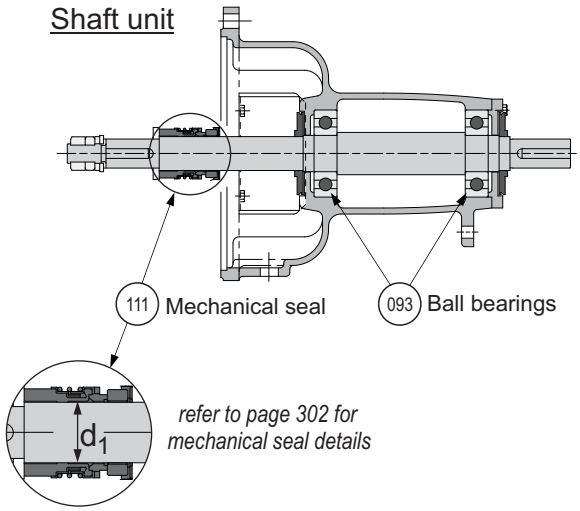
Model	50 Hz 2 Pole 2900 rpm	50 Hz 4 Pole 1450 rpm	60 Hz 2 Pole 3500 rpm	60 Hz 4 Pole 1750 rpm
32-125	■	■	■	■
32-160	■	■	■	■
32-200	■	■	■	■
32-250	■	■	■	■
40-125	■	■	■	■
40-160	■	■	■	■
40-200	■	■	■	■
40-250	■	■	■	■
40-315	■	■	*N/A*	■
50-125	■	■	■	■
50-160	■	■	■	■
50-200	■	■	■	■
50-250	■	■	■	■
50-315	■	■	*N/A*	■
65-125	■	■	■	■
65-160	■	■	■	■
65-200	■	■	■	■
65-250	■	■	■	■
65-315	■	■	*N/A*	■
80-160	■	■	■	■
80-200	■	■	■	■
80-250	■	■	■	■
80-315	*N/A*	■	*N/A*	■
80-315L	■	*N/A*	*N/A*	*N/A*
80-400	*N/A*	■	*N/A*	■
100-160	■	■	■	■
100-200	■	■	■	■
100-250	■	■	*N/A*	■
100-315	*N/A*	■	*N/A*	■
100-315L	■	*N/A*	*N/A*	*N/A*
100-400	*N/A*	■	*N/A*	■
125-200	■	■	■	■
125-250	*N/A*	■	*N/A*	■
125-250L	■	*N/A*	■	*N/A*
125-315	■	■	*N/A*	■
125-400	*N/A*	■	*N/A*	■
125-500	*N/A*	■	*N/A*	■
150-200	■	■	■	■
150-250	■	■	*N/A*	■
150-315	*N/A*	■	*N/A*	■
150-400	*N/A*	■	*N/A*	*N/A*
150-500	*N/A*	■	*N/A*	■
200-400	*N/A*	■	*N/A*	■
200-500	*N/A*	■	*N/A*	■

■ = *applicable*
N/A = not applicable

Nominal dimensions of parts

Model	Shaft unit	Casing O' Ring	Wear Ring Front	Wear Ring Rear
32-125	230#	3.53x183.74	76	76
32-160	230#	3.53x183.74	76	76
32-200	230#	3.53x234.54	76	76
32-250	230#	3.53x278.99	76	76
40-125	230#	3.53x183.74	88	88
40-160	230#	3.53x183.74	88	88
40-200	230#	3.53x234.54	88	88
40-250	230#	3.53x278.99	88	88
40-315	240#	3.53x355.19	100	100
50-125	230#	3.53x183.74	100	100
50-160	230#	3.53x183.74	100	100
50-200	230#	3.53x234.54	100	100
50-250	230#	3.53x278.99	100	100
50-315	240#	3.53x355.19	116	116
65-125	230#	3.53x183.74	116	116
65-160	230#	3.53x183.74	116	116
65-200	230#	3.53x234.54	116	116
65-250	240#	3.53x278.99	116	116
65-315	240#	3.53x355.19	132	132
80-160	230#	3.53x183.74	132	132
80-200	240#	3.53x234.54	132	132
80-250	240#	3.53x278.99	148	148
80-315	240#	3.53x355.19	148	148
80-315L	250#	3.53x355.19	148	148
80-400	250#	3.53x456.06	148	148
100-160	240#	3.53x183.74	148	153
100-200	240#	3.53x234.54	158	158
100-250	240#	3.53x278.99	158	158
100-315	240#	3.53x355.19	158	162
100-315L	250#	3.53x355.19	158	162
100-400	250#	5.33x456.06	168	168
125-200	240#	3.53x234.54	168	158
125-250	240#	3.53x278.99	178	168
125-250L	250#	3.53x278.99	178	178
125-315	250#	3.53x355.19	188	178
125-400	250#	5.33x456.06	188	188
125-500	260#	3.53x532.26	200	200
150-200	240#	3.53x234.54	178	162
150-250	250#	3.53x278.99	212	212
150-315	250#	3.53x355.19	212	212
150-400	250#	5.33x456.06	236	236
150-500	270#	5.33x532.26	250	250
200-400	270#	5.33x456.06	278	278
200-500	280#	5.33x532.26	278	278





Shaft unit	Mech. seal d_1 (mm)	Ball bearings
230#	24	6306ZZ
240#	32	6308ZZ
250#	42	6310ZZ
260#	48	6312ZZ
270#	60	6314ZZ
280#	75	6316ZZ

Noise levels - Pump only

Overall Sound Pressure Level dB(A)		
Model	2 Pole 2900 rpm	4 pole 1450 rpm
32-125	64	52
32-160	68	54
32-200	72	58
32-250	73	62
40-125	66	54
40-160	70	58
40-200	73	62
40-250	76	63
40-315	81	69
50-125	70	54
50-160	72	58
50-200	76	63
50-250	78	67
50-315	83	71
65-125	70	58
65-160	74	62
65-200	77	65
65-250	81	69
65-315	85	72
80-160	76	63
80-200	81	69
80-250	84	71
80-315	—	74
80-315L	87	—
80-400	—	78
100-160	77	65
100-200	81	69
100-250	85	72
100-315	—	74
100-315L	87	—
100-400	—	78
125-200	84	71
125-250	—	74
125-250L	87	—
125-315	89	77
125-400	—	79
125-500	—	81
150-200	84	71
150-250	89	77
150-315	—	79
150-400	—	80
150-500	—	84
200-400	—	85
200-500	—	88

Note: The overall sound pressure level is the value measured 1m away from the pump unit, and does not include driver noise.