# F4

**50 Hz n= 1450 min-1**

## Znormalizowane “EN 733” pompy odśrodkowe

Do wody czystej

Przemysł



### DANE WYDAJNOŚCIOWE

- Wydajność do **3000 l/min** (180 m³/h)
- Wysokość podnoszenia **24 m**

### DANE TECHNICZNE

- Wysokość ssania do **7 m**
- Zakres temperatur medium **-10 °C** and **+90 °C**
- Temperatura otoczenia od **-10 °C** and **+40 °C**
- Max. ciśnienie w obudowie pompy **10 bar** (PN10)
- Tryb pracy silnika - Praca ciągła S1

### KONSTRUKCJA I STANDARDY BEZPIECZEŃSTWA

**EN 60335-1**
**IEC 60335-1**
**CEI 61-150**

**EN 60034-1**
**IEC 60034-1**
**CEI 2-3**

CE

OBUDOWA POMPY WYMIARY zgodne z **EN 733**

**EU REGULATION Nr 547/2012**

### CERTYFIKATY, KONSTRUKCJA I STANDARDY BEZPIECZEŃSTWA

Firma zarzadzana certyfkatem DNV
ISO 9001: QUALITY

EAC

### ZASTOSOWANIE

- Zaopatrzenie w wode
- Zestawy podnoszenia ciśnienia
- Nawadnianie
- Woda lodowa w układach cyrulacji systemów chłodzących
- Urządzenia myjące
- Systemy gaśnicze
- IPrzemysłowe układy
- Rolnicze układu

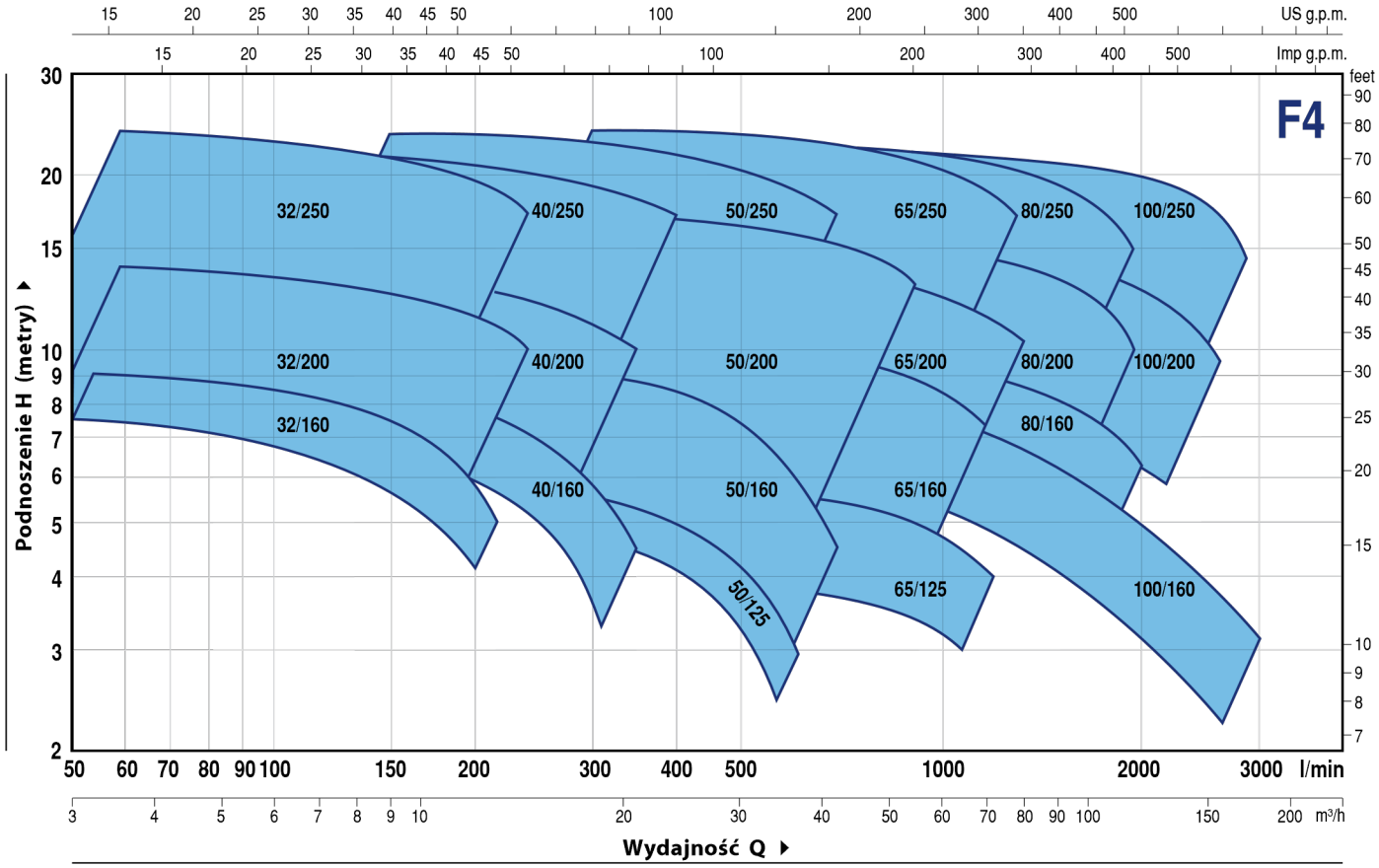
Instalację należy wykonywać w dobrze wentylowanych zamkniętych pomieszczeniach lub chronić pompę przed bezpośrednim działaniem złych warunków pogodowych..

### OPCJE DOSTĘPNE NA ŻĄDANIE

- Zestaw kołnierza przeciwstawnego wraz ze śrubami, nakrętkami i podkładkami
- Specjalne uszczelnienie mechaniczne
- Inne napięcie i częstotliwość 60 Hz
- Kompatybilność z cieplejszymi lub zimniejszymi płynami
- Kompatybilność z cieplejszym lub zimniejszym środowiskiem

## DANE WYDAJNOŚCIOWE

**50 Hz** **n= 1450 min-1**




## DANE O WYDAJNOŚCI

**50 Hz** **n= 1450 min-1**

| MODEL | MOC (P2) | | | WYDAJNOŚĆ | |
|---|---|---|---|---|---|
| Trójfazowa | kW | HP | ▲ | Q l/min | H metry |
| F4-32/160B | 0.37 | 0.5 | IE2 | 50 – 200 | 7.5 – 4.5 |
| F4-32/160A | 0.37 | 0.5 | | 50 – 225 | 9 – 5 |
| F4-32/200B | 0.75 | 1 | IE3 | 50 – 250 | 12.5 – 9 |
| F4-32/200A | 1.1 | 1.5 | | 50 – 250 | 14 – 10.5 |
| F4-32/200BH | 0.75 | 1 | | 50 – 150 | 11.3 – 9.2 |
| F4-32/200AH | 0.75 | 1 | | 50 – 160 | 13.8 – 11 |
| F4-32/250C | 1.1 | 1.5 | | 50 – 220 | 18.4 – 15 |
| F4-32/250B | 1.5 | 2 | | 50 – 250 | 21.7 – 17.4 |
| F4-32/250A | 2.2 | 3 | | 50 – 270 | 23.8 – 18.7 |
| F4-40/160B | 0.37 | 0.5 | IE2 | 50 – 320 | 7.5 – 3.5 |
| F4-40/160A | 0.55 | 0.75 | | 50 – 350 | 9 – 4.5 |
| F4-40/200B | 0.75 | 1 | IE3 | 50 – 350 | 11.5 – 7 |
| F4-40/200A | 1.1 | 1.5 | | 50 – 350 | 13.8 – 10 |
| F4-40/250C | 1.1 | 1.5 | | 50 – 400 | 15.5 – 10 |
| F4-40/250B | 1.5 | 2 | | 50 – 400 | 17.5 – 12 |
| F4-40/250A | 2.2 | 3 | | 50 – 400 | 22 – 17 |
| F4-50/125B | 0.55 | 0.75 | IE2 | 150 – 600 | 5 – 2 |
| F4-50/125A | 0.55 | 0.75 | | 150 – 600 | 6 – 3 |
| F4-50/160B | 0.75 | 1 | IE3 | 150 – 650 | 8 – 3.8 |
| F4-50/160A | 1.1 | 1.5 | | 150 – 700 | 9.3 – 4.5 |
| F4-50/200C | 1.5 | 2 | | 200 – 850 | 11 – 7.5 |
| F4-50/200B | 2.2 | 3 | | 200 – 850 | 13 – 9.5 |
| F4-50/200A | 2.2 | 3 | | 200 – 900 | 15 – 11.2 |
| F4-50/200AR | 3 | 4 | | 200 – 900 | 17 – 13.2 |
| F4-50/250D | 1.1 | 1.5 | IE3 | 150 – 650 | 12.5 – 5 |
| F4-50/250C | 1.5 | 2 | | 150 – 700 | 14 – 5 |
| F4-50/250B | 2.2 | 3 | | 150 – 700 | 18 – 10.5 |
| F4-50/250A | 2.2 | 3 | | 150 – 700 | 20 – 13 |
| F4-50/250AR | 3 | 4 | | 150 – 700 | 23.5 – 17 |

| MODEL | MOC (P2) | | | WYDAJNOŚĆ | |
|---|---|---|---|---|---|
| Trójfazowa | kW | HP | ▲ | Q l/min | H metry |
| F4-65/125B | 0.75 | 1 | IE3 | 300 – 1100 | 4.7 – 3 |
| F4-65/125A | 1.1 | 1.5 | | 300 – 1200 | 5.7 – 4 |
| F4-65/160C | 1.1 | 1.5 | | 300 – 1100 | 7.5 – 5.5 |
| F4-65/160B | 1.5 | 2 | | 300 – 1200 | 9.1 – 5.7 |
| F4-65/160A | 2.2 | 3 | | 300 – 1200 | 10.1 – 7 |
| F4-65/200A | 2.2 | 3 | | 300 – 1250 | 12 – 8.5 |
| F4-65/200AR | 3 | 4 | | 300 – 1300 | 14 – 10 |
| F4-65/250B | 4 | 5.5 | | 200 – 1250 | 21.8 – 15.5 |
| F4-65/250A | 5.5 | 7.5 | | 200 – 1300 | 23.5 – 17 |
| F4-80/160D | 1.5 | 2 | IE3 | 300 – 2000 | 6.3 – 2.5 |
| F4-80/160C | 2.2 | 3 | | 300 – 2000 | 7.5 – 3.8 |
| F4-80/160B | 2.2 | 3 | | 300 – 2000 | 8.8 – 5 |
| F4-80/160A | 3 | 4 | | 300 – 2000 | 10 – 6.2 |
| F4-80/200B | 4 | 5.5 | | 300 – 1800 | 14 – 9 |
| F4-80/200A | 5.5 | 7.5 | | 300 – 1900 | 15.5 – 10.5 |
| F4-80/250B | 5.5 | 7.5 | | 300 – 1800 | 19.5 – 13.5 |
| F4-80/250A | 7.5 | 10 | | 300 – 1950 | 22 – 15 |
| F4-100/160B | 2.2 | 3 | IE3 | 400 – 2600 | 8.3 – 3.5 |
| F4-100/160A | 3 | 4 | | 400 – 2800 | 10 – 4.7 |
| F4-100/200C | 4 | 5.5 | | 400 – 2300 | 12.7 – 7 |
| F4-100/200B | 5.5 | 7.5 | | 400 – 2400 | 14.2 – 8.5 |
| F4-100/200A | 5.5 | 7.5 | | 400 – 2600 | 15.8 – 9.5 |
| F4-100/250B | 7.5 | 10 | | 400 – 2600 | 18.5 – 11.5 |
| F4-100/250A | 9.2 | 12.5 | | 400 – 2900 | 22 – 13.5 |

**Q** =Wydajność

**H** =Wysokość podnoszenia

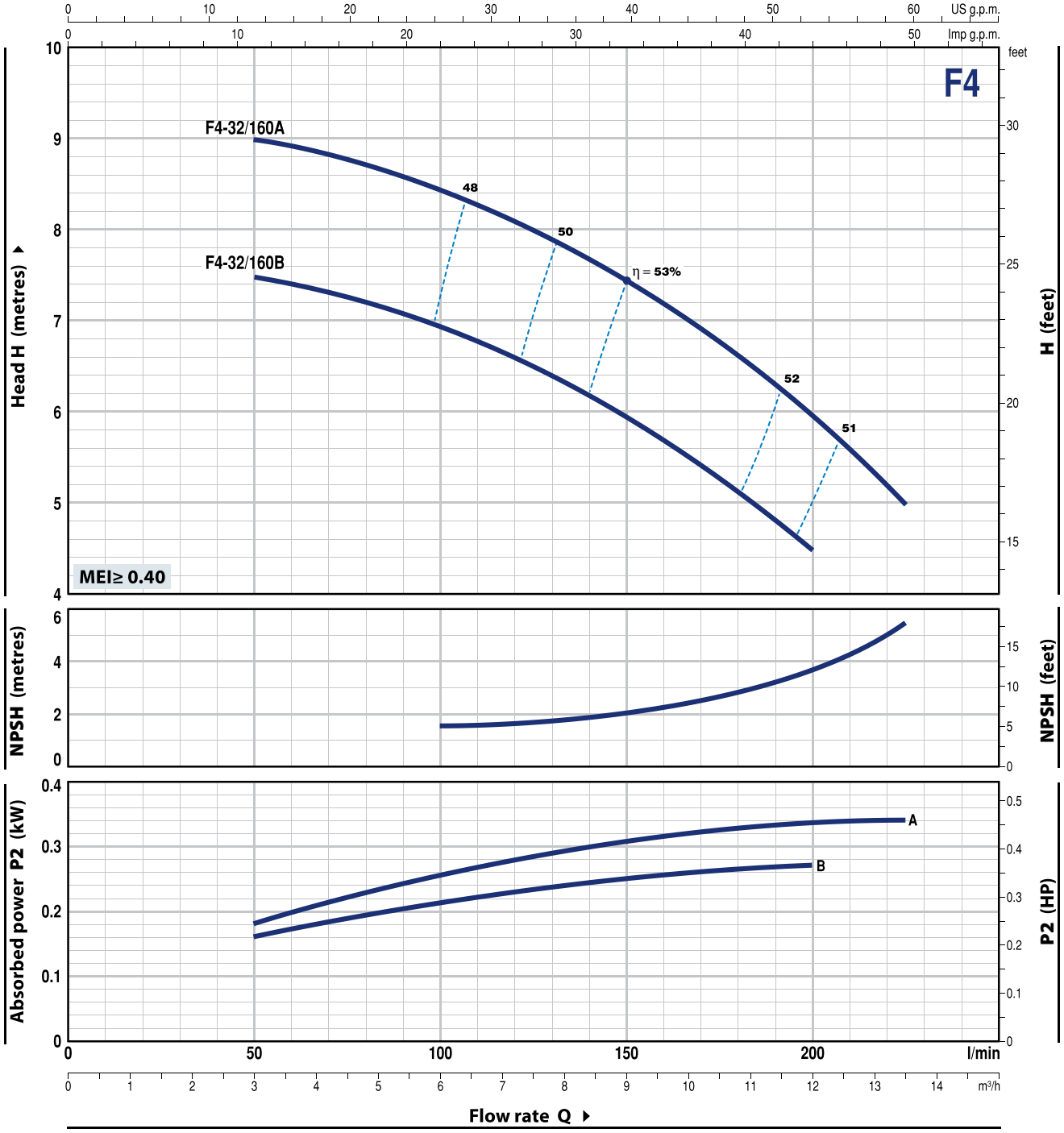
Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

▲ Klasa wydajności silnika trójfazowego (IEC 60034-30-1)

# F4-32/160

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q | m³/h | 3 | 4.5 | 6 | 7.5 | 9 | 10.8 | 12 | 13.5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | | l/min | **50** | **75** | **100** | **125** | **150** | **180** | **200** | **225** |
| **F4-32/160B** | 0.37 | 0.5 | H | metry | 7.5 | 7.3 | 6.9 | 6.5 | 6 | 5.1 | 4.5 | |
| **F4-32/160A** | 0.37 | 0.5 | | | 9 | 8.8 | 8.4 | 8 | 7.5 | 6.6 | 6 | 5 |

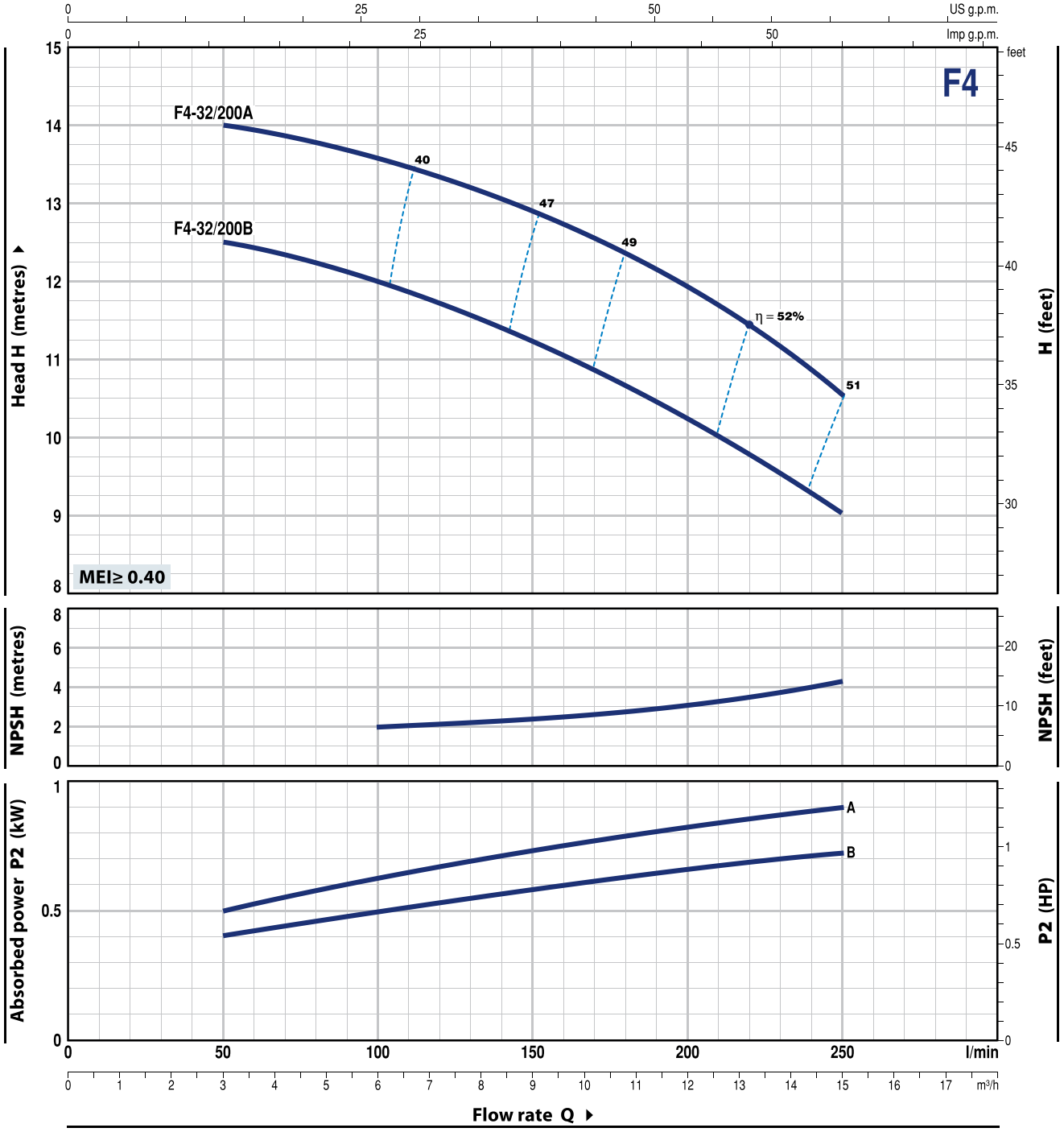
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-32/200

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q | m³/h | 3 | 6 | 9 | 12 | 15 |
|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | | l/min | **50** | **100** | **150** | **200** | **250** |
| **F4-32/200B** | 0.75 | 1 | H | metry | 12.5 | 12 | 11.2 | 10.3 | 9 |
| **F4-32/200A** | 1.1 | 1.5 | | | 14 | 13.6 | 12.8 | 11.9 | 10.5 |

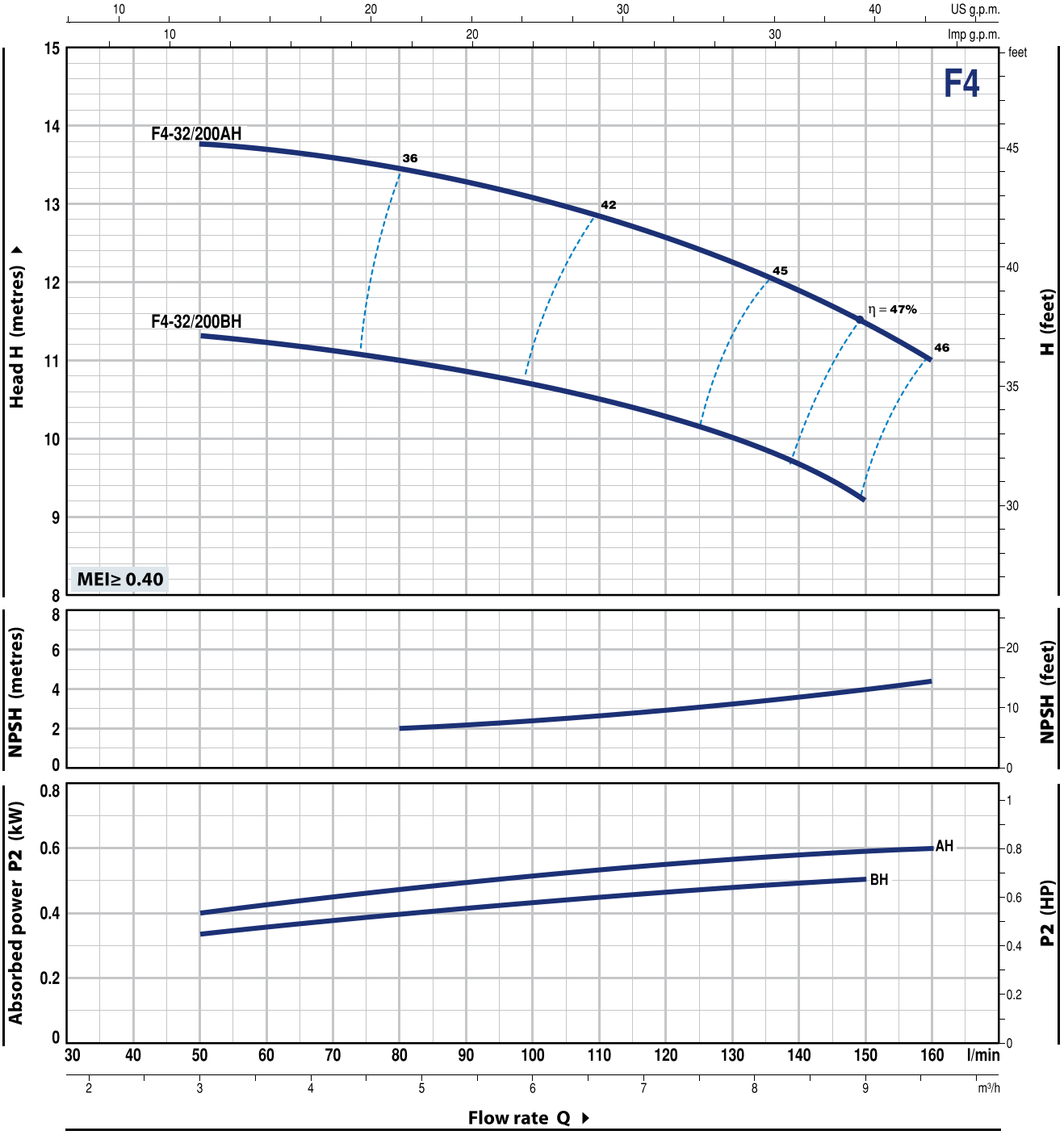
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-32/200H

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q | m³/h | 3 | 4.2 | 5.4 | 6.6 | 7.8 | 9 | 9.6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | | l/min | **50** | **70** | **90** | **110** | **130** | **150** | **160** |
| **F4-32/200BH** | 0.75 | 1 | **H** | metry | 11.3 | 11.1 | 10.8 | 10.5 | 10 | 9.2 | |
| **F4-32/200AH** | 0.75 | 1 | | | 13.8 | 13.6 | 13.3 | 12.8 | 12.2 | 11.5 | 11 |

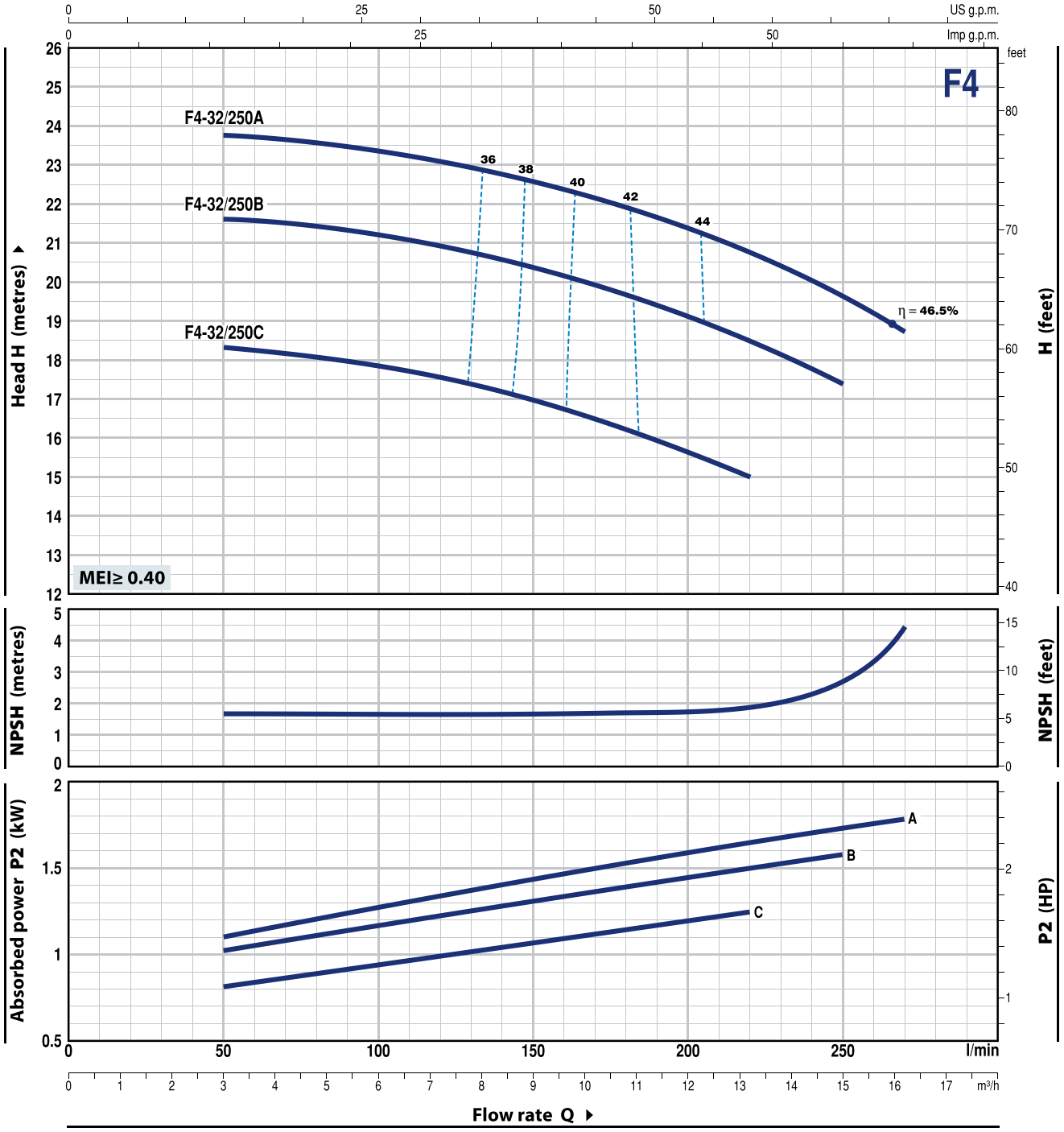
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-32/250

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q | m³/h | 3 | 4.5 | 6 | 7.5 | 9 | 10.5 | 13.2 | 15 | 16.2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | | l/min | **50** | **75** | **100** | **125** | **150** | **175** | **220** | **250** | **270** |
| **F4-32/250C** | 1.1 | 1.5 | **H** | metry | 18.4 | 18.1 | 17.8 | 17.5 | 17 | 16.4 | 15 | | |
| **F4-32/250B** | 1.5 | 2 | | | 21.7 | 21.5 | 21.2 | 20.9 | 20.4 | 19.8 | 18.5 | 17.4 | |
| **F4-32/250A** | 2.2 | 3 | | | 23.8 | 23.6 | 23.4 | 23 | 22.6 | 22.1 | 20.8 | 19.6 | 18.7 |

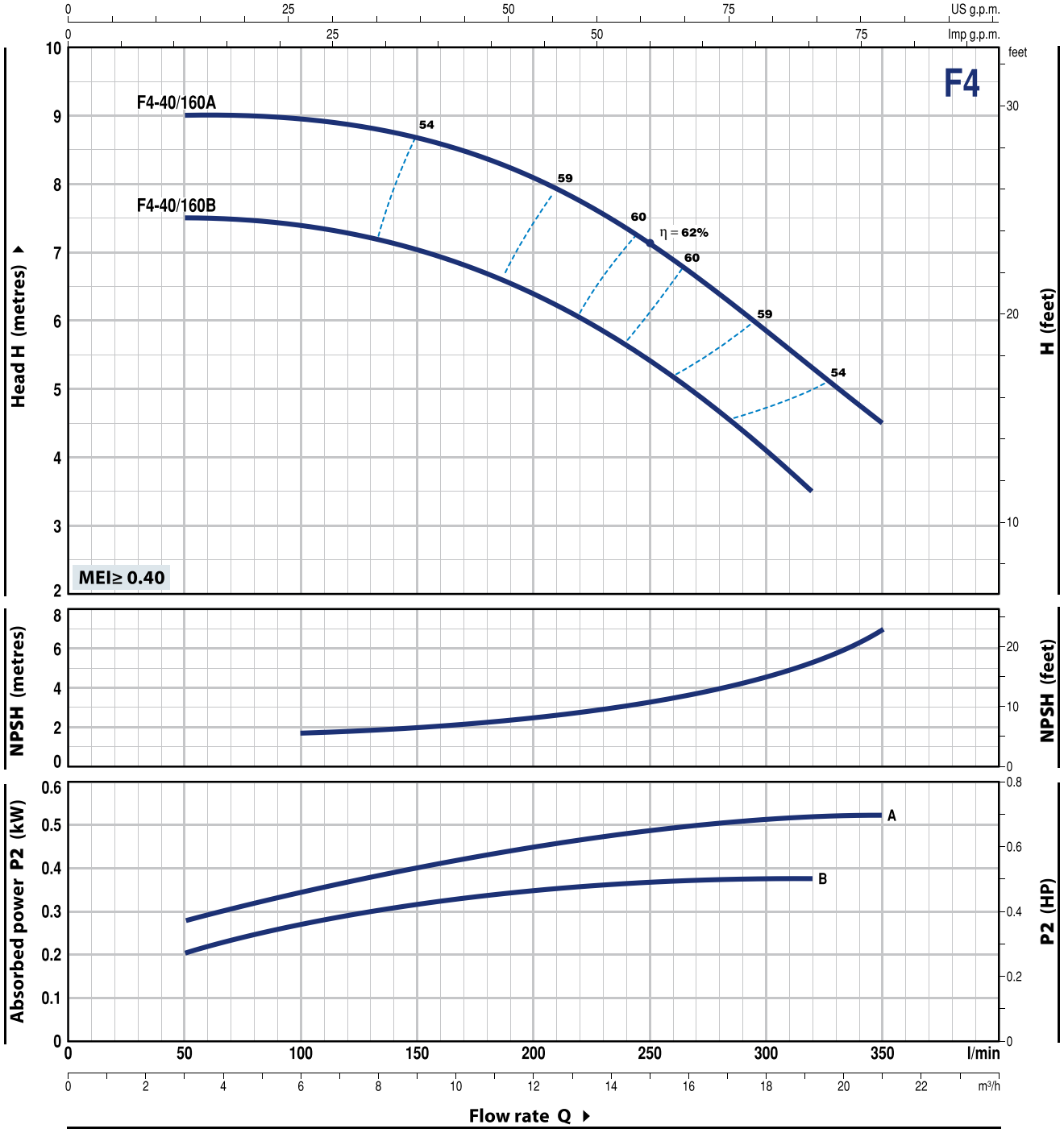
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-40/160

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q | m³/h | 3 | 6 | 9 | 12 | 15 | 18 | 19.2 | 21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | | l/min | 50 | 100 | 150 | 200 | 250 | 300 | 320 | 350 |
| F4-40/160B | 0.37 | 0.5 | H | metry | 7.5 | 7.4 | 7 | 6.4 | 5.4 | 4.1 | 3.5 | |
| F4-40/160A | 0.55 | 0.75 | | | 9 | 8.9 | 8.7 | 8.1 | 7.1 | 5.8 | 5.3 | 4.5 |

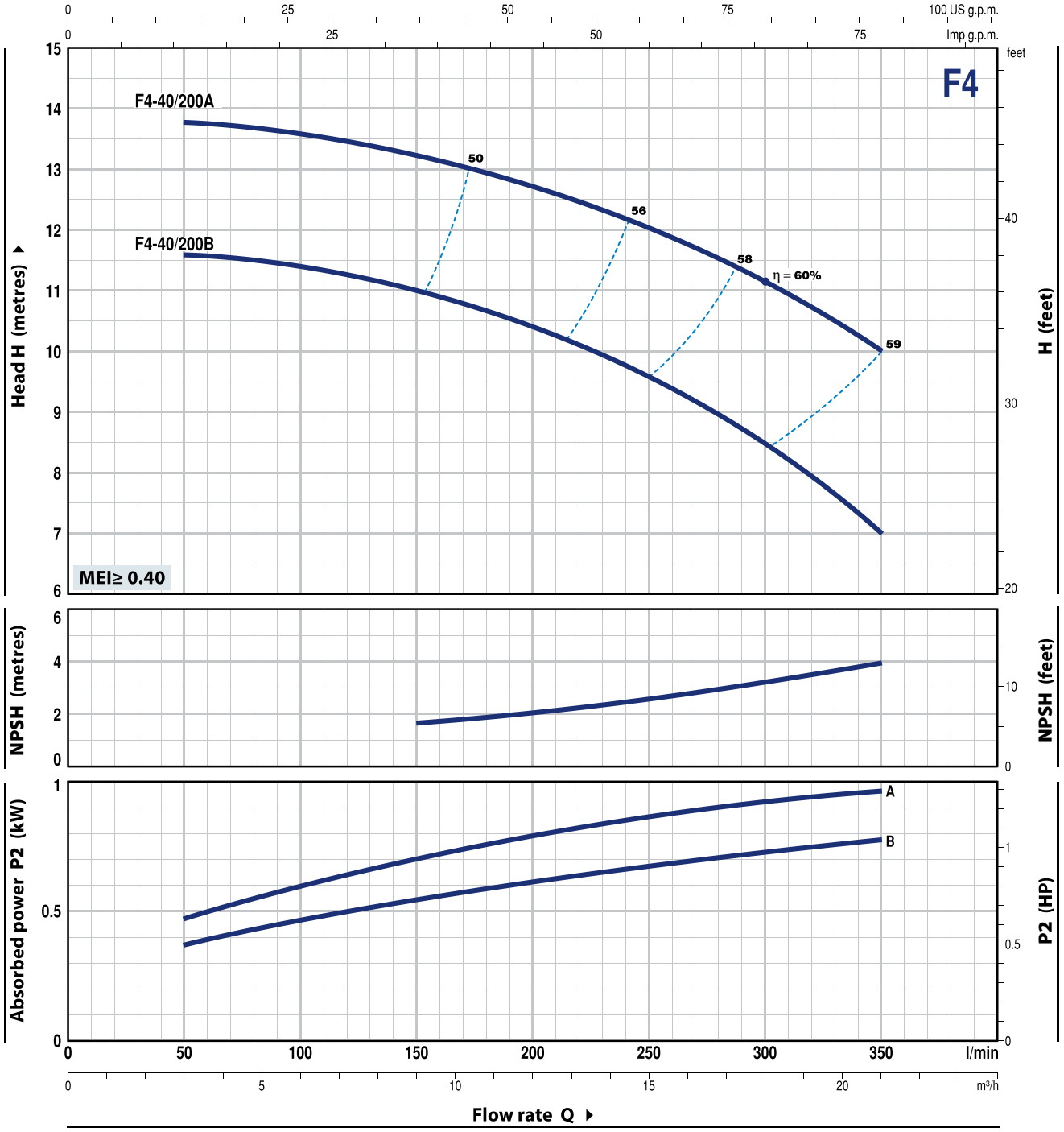
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-40/200

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q | m³/h | 3 | 6 | 9 | 12 | 15 | 18 | 21 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | | l/min | **50** | **100** | **150** | **200** | **250** | **300** | **350** |
| **F4-40/200B** | 0.75 | 1 | **H** | metry | 11.5 | 11.4 | 11 | 10.4 | 9.5 | 8.5 | 7 |
| **F4-40/200A** | 1.1 | 1.5 | | | 13.8 | 13.6 | 13.2 | 12.7 | 12 | 11.1 | 10 |

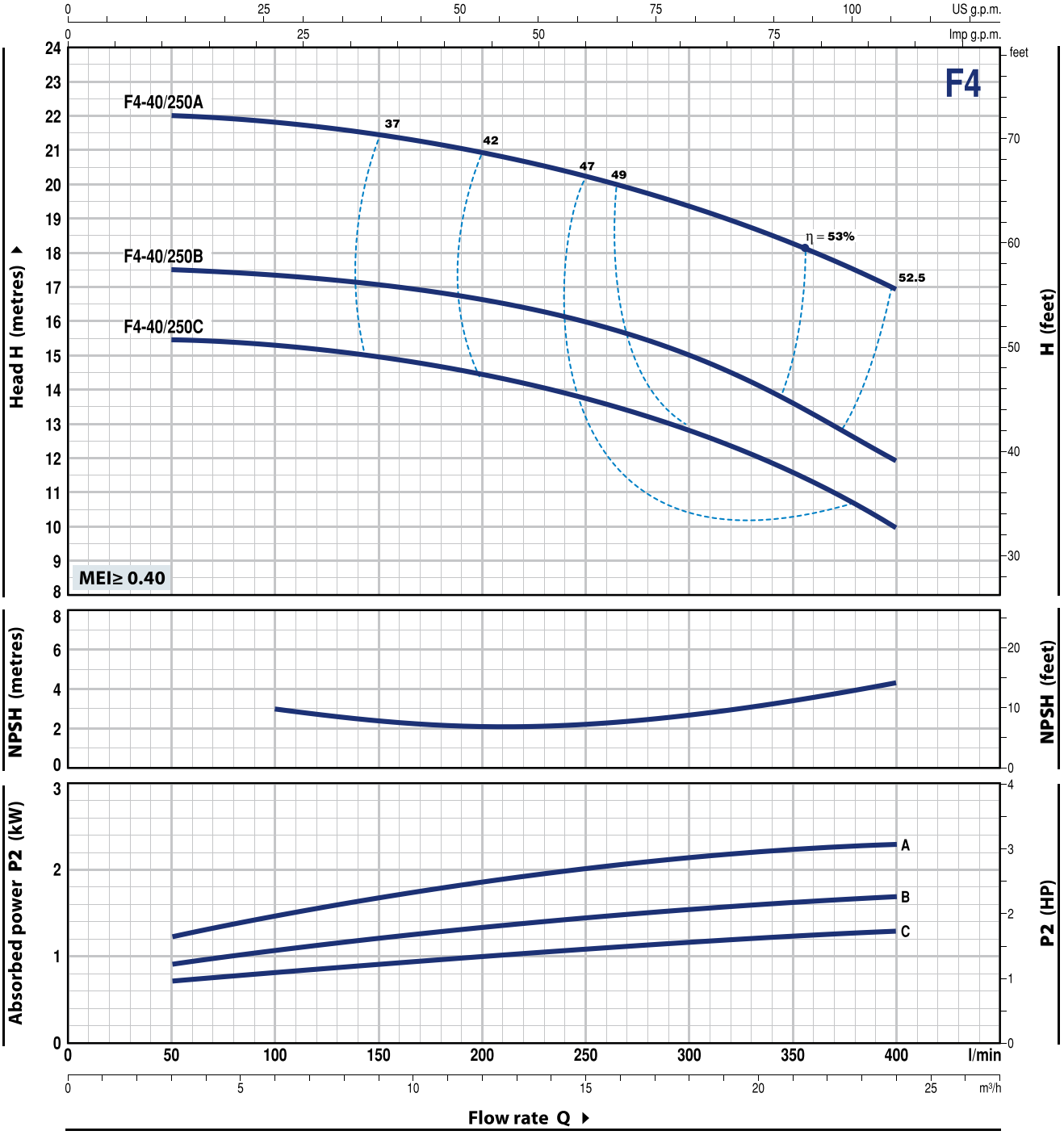
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-40/250

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q m³/h | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | l/min | **50** | **100** | **150** | **200** | **250** | **300** | **350** | **400** |
| **F4-40/250C** | 1.1 | 1.5 | H metry | 15.5 | 15.2 | 15 | 14.5 | 13.6 | 12.9 | 11.5 | 10 |
| **F4-40/250B** | 1.5 | 2 | | 17.5 | 17.2 | 17 | 16.5 | 16 | 15 | 13.5 | 12 |
| **F4-40/250A** | 2.2 | 3 | | 22 | 21.9 | 21.5 | 21 | 20.2 | 19.2 | 18.2 | 17 |

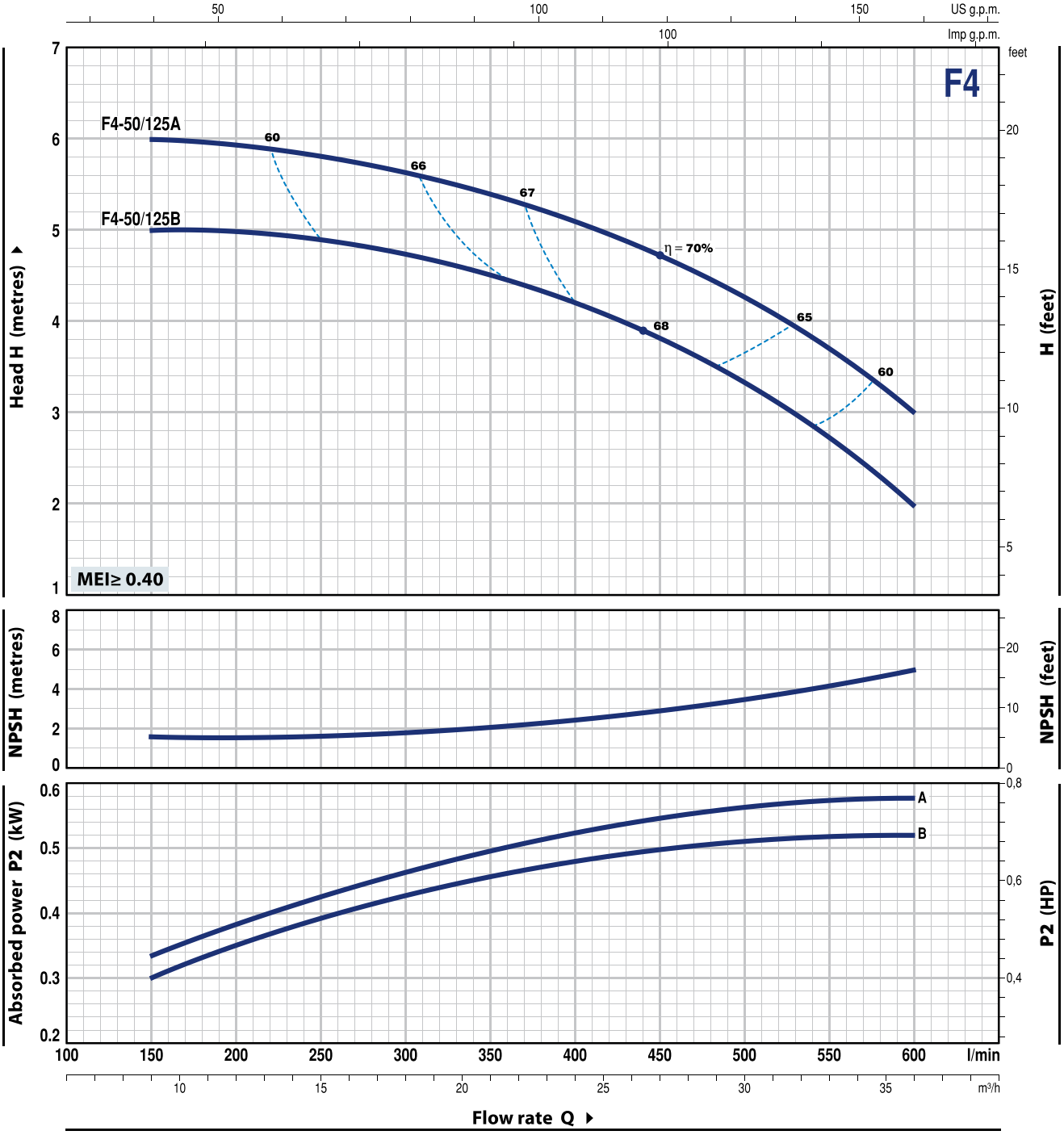
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-50/125

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q m³/h | 9 | 12 | 15 | 17 | 21 | 24 | 27 | 30 | 33 | 36 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | l/min | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 |
| F4-50/125B | 0.55 | 0.75 | H metry | 5 | 5 | 4.9 | 4.7 | 4.5 | 4.2 | 3.8 | 3.3 | 2.7 | 2 |
| F4-50/125A | 0.55 | 0.75 | | 6 | 5.9 | 5.8 | 5.6 | 5.4 | 5.1 | 4.7 | 4.2 | 3.7 | 3 |

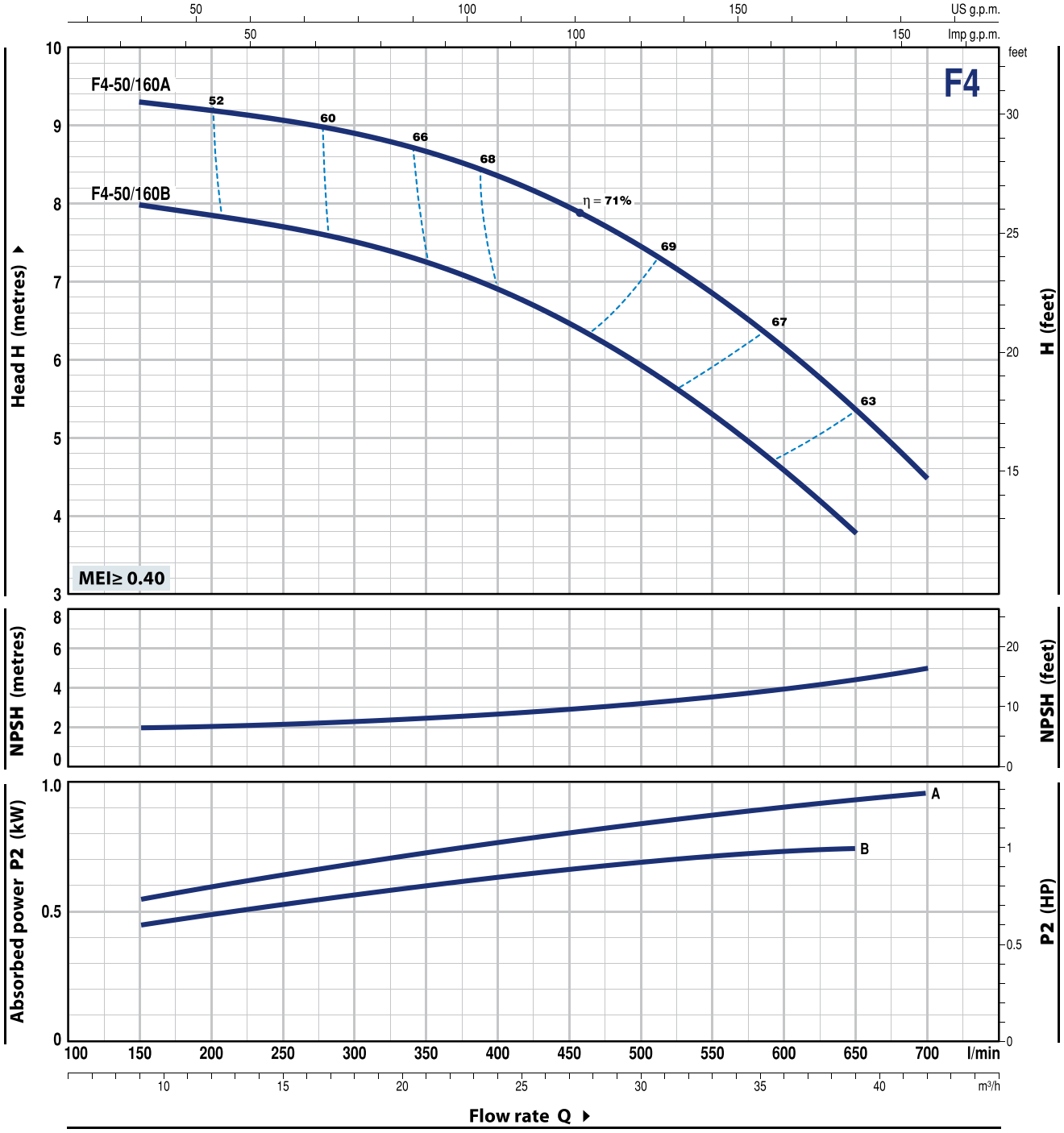
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-50/160

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q | m³/h | 9 | 12 | 15 | 17 | 21 | 24 | 27 | 30 | 33 | 36 | 39 | 42 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | | l/min | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 |
| F4-50/160B | 0.75 | 1 | H | metry | 8 | 7.8 | 7.7 | 7.5 | 7.2 | 6.9 | 6.5 | 5.9 | 5.3 | 4.6 | 3.8 | |
| F4-50/160A | 1.1 | 1.5 | | | 9.3 | 9.2 | 9.1 | 8.9 | 8.7 | 8.4 | 8 | 7.4 | 6.8 | 6.2 | 5.4 | 4.5 |

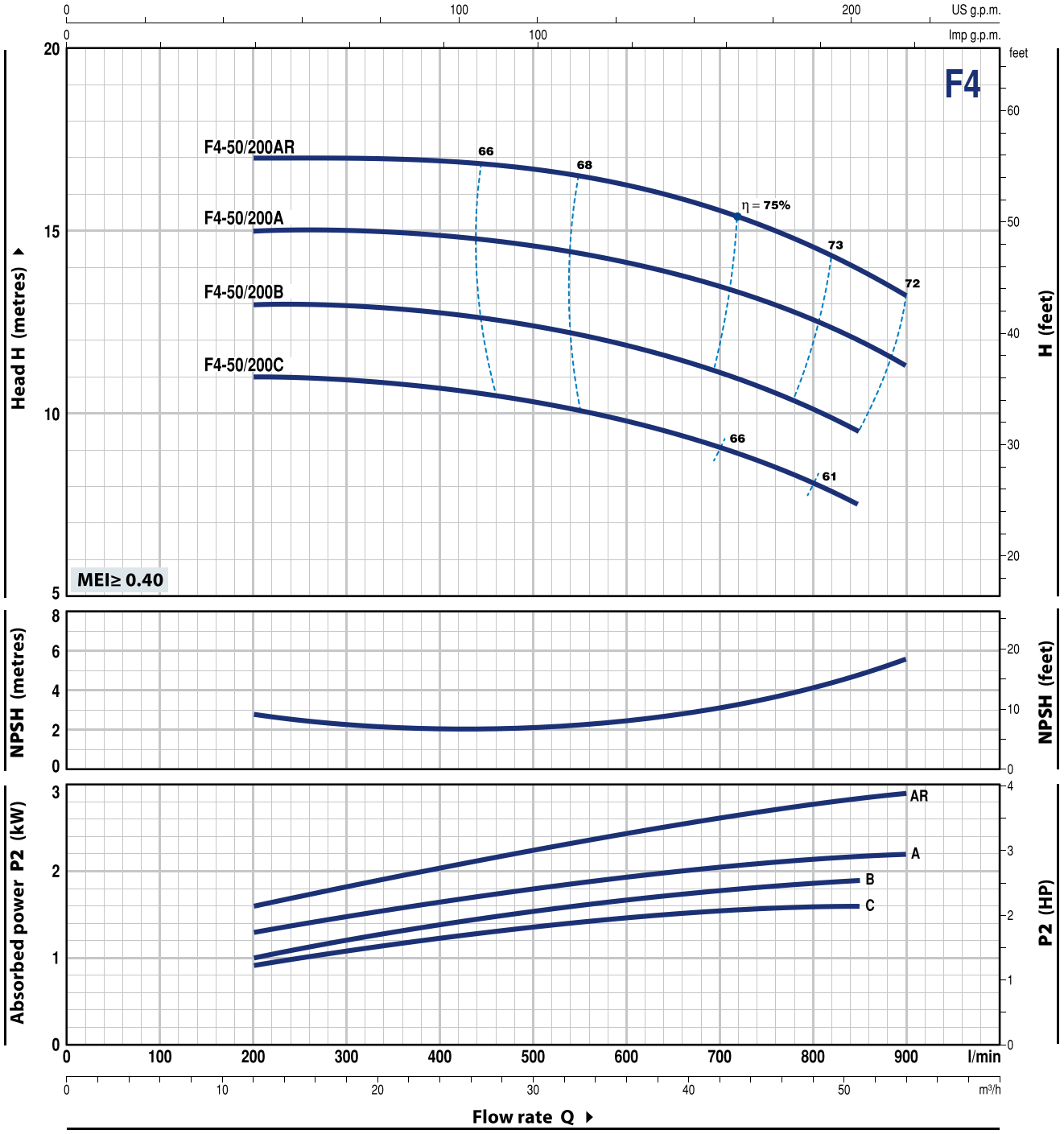
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-50/200

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q m³/h | 12 | 17 | 24 | 30 | 36 | 42 | 48 | 51 | 54 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | l/min | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 850 | 900 |
| F4-50/200C | 1.5 | 2 | H metry | 11 | 11 | 10.8 | 10.3 | 9.8 | 9 | 8 | 7.5 | |
| F4-50/200B | 2.2 | 3 | | 13 | 13 | 12.8 | 12.4 | 11.9 | 11.1 | 10.1 | 9.5 | |
| F4-50/200A | 2.2 | 3 | | 15 | 15 | 14.9 | 14.6 | 14.1 | 13.5 | 12.5 | 12 | 11.2 |
| F4-50/200AR | 3 | 4 | | 17 | 17 | 16.9 | 16.7 | 16.2 | 15.5 | 14.5 | 14 | 13.2 |

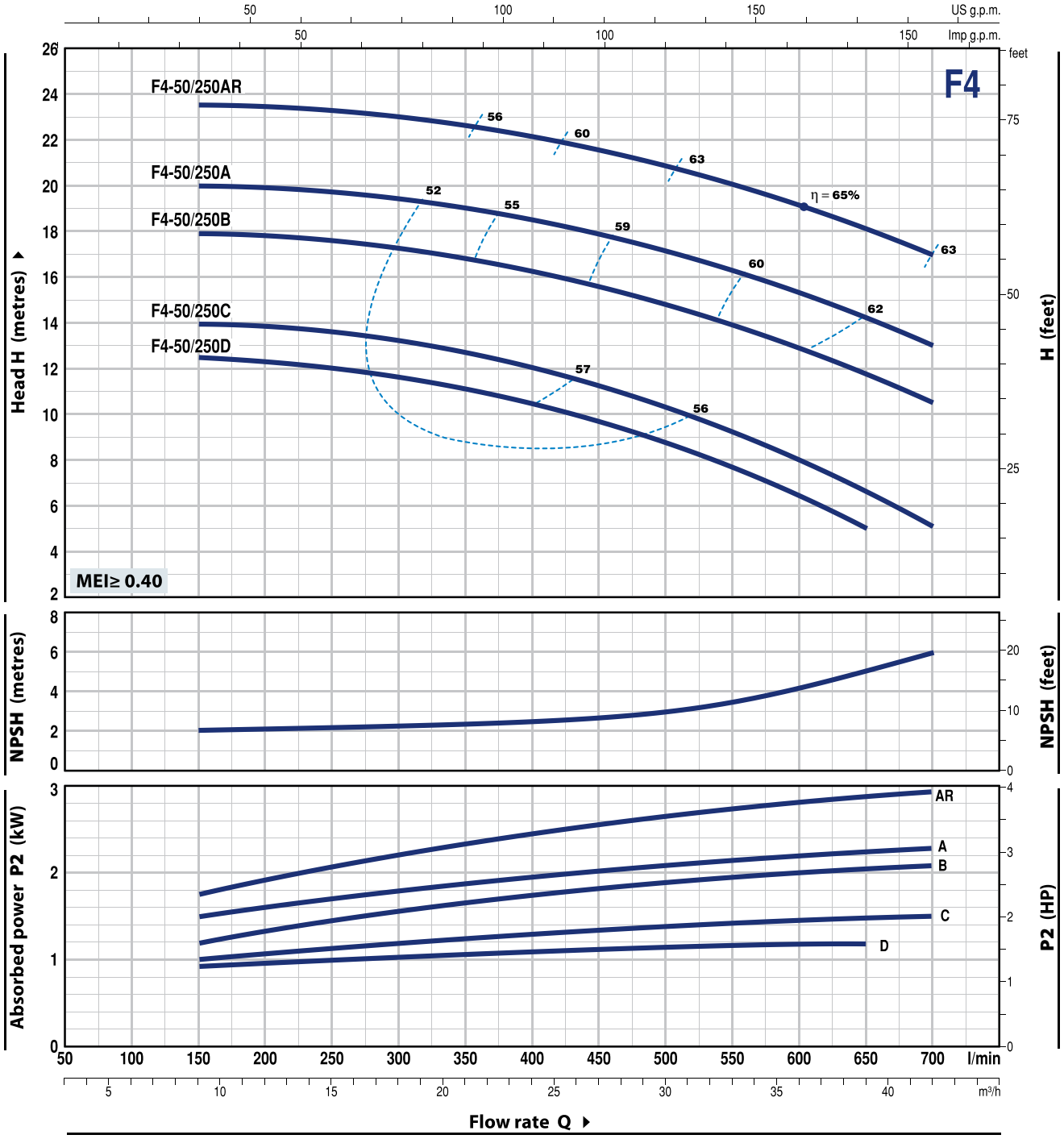
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-50/250

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q m³/h | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 | 39 | 42 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | l/min | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 |
| F4-50/250D | 1.1 | 1.5 | H metry | 12.5 | 12.3 | 12 | 11.5 | 11.1 | 10.5 | 9.8 | 8.8 | 7.8 | 6.5 | 5 | |
| F4-50/250C | 1.5 | 2 | | 14 | 13.9 | 13.6 | 13.2 | 12.8 | 12 | 11.2 | 10.2 | 9.2 | 8 | 6.6 | 5 |
| F4-50/250B | 2.2 | 3 | | 18 | 17.9 | 17.6 | 17.2 | 16.8 | 16.2 | 15.5 | 14.8 | 14 | 13 | 11.8 | 10.5 |
| F4-50/250A | 2.2 | 3 | | 20 | 19.9 | 19.7 | 19.5 | 19 | 18.5 | 18 | 17.2 | 16.2 | 15.3 | 14.2 | 13 |
| F4-50/250AR | 3 | 4 | | 23.5 | 23.4 | 23.2 | 23 | 22.6 | 22.1 | 21.6 | 21 | 20 | 19 | 18 | 17 |

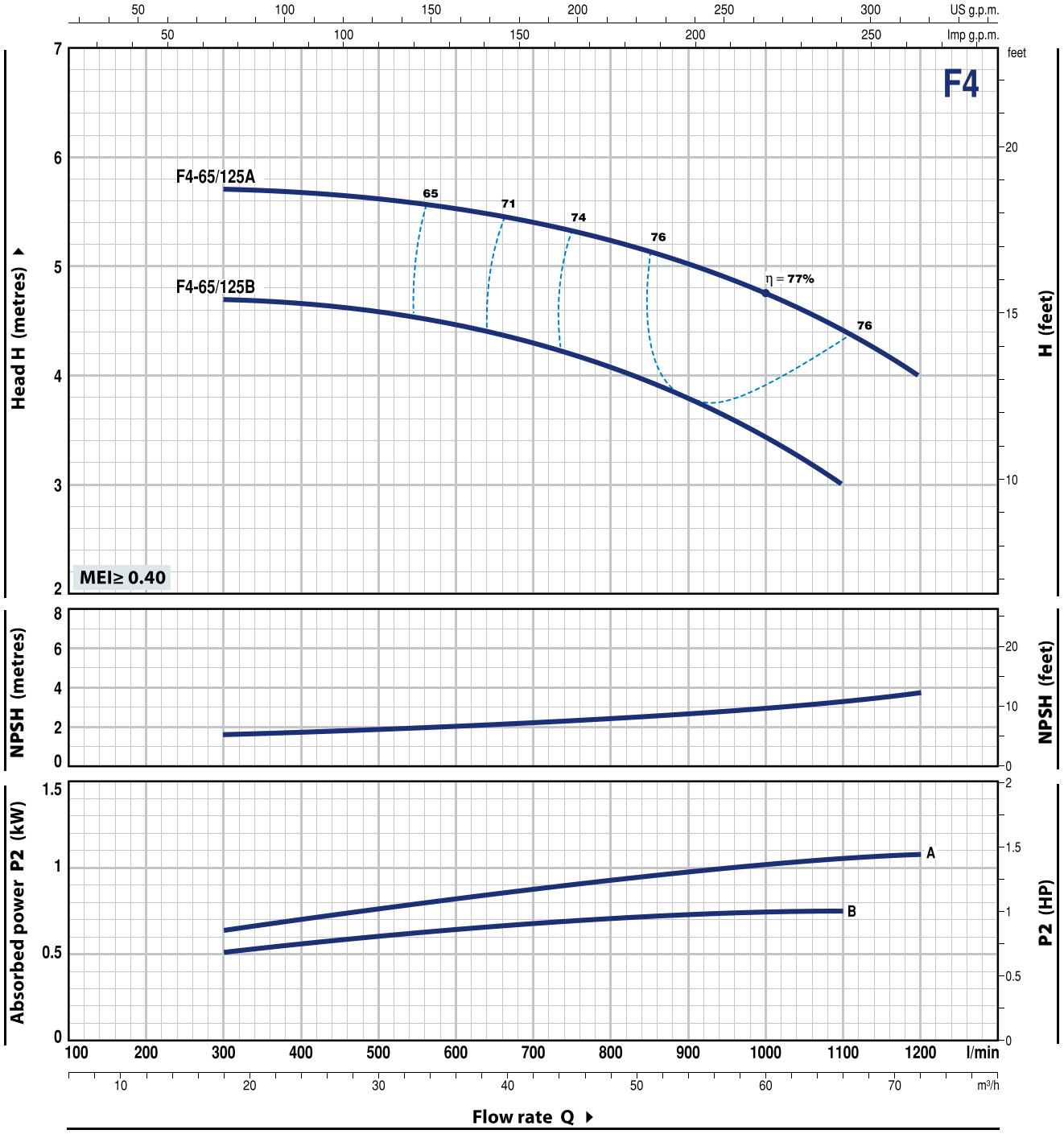
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-65/125

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q m³/h | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | l/min | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 |
| F4-65/125B | 0.75 | 1 | H metry | 4.7 | 4.7 | 4.6 | 4.5 | 4.3 | 4.1 | 3.8 | 3.4 | 3 | |
| F4-65/125A | 1.1 | 1.5 | | 5.7 | 5.7 | 5.6 | 5.5 | 5.4 | 5.2 | 5 | 4.7 | 4.4 | 4 |

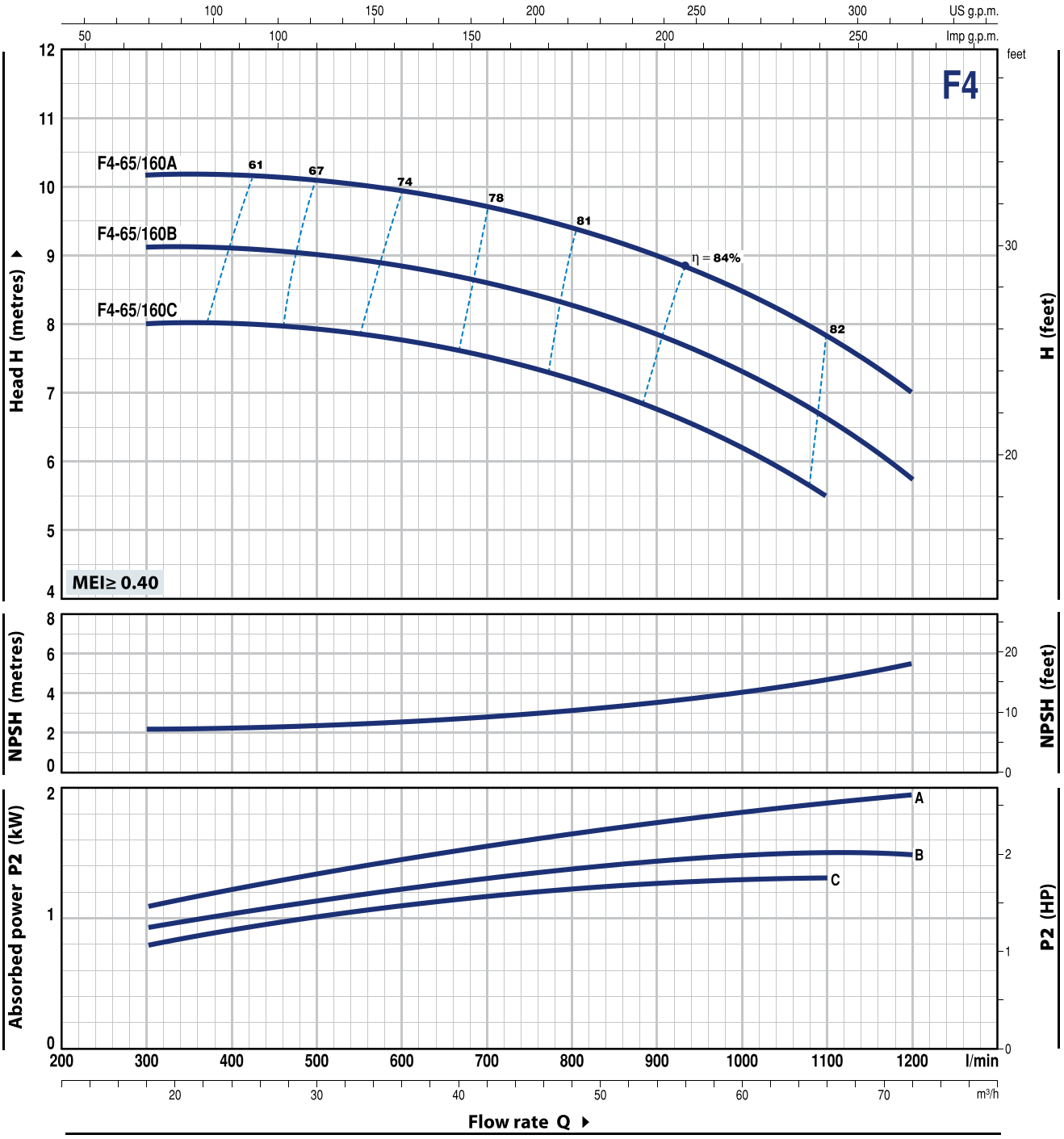
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-65/160

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q | m³/h | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | | l/min | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 |
| F4-65/160C | 1.1 | 1.5 | H | metry | 8 | 8 | 7.9 | 7.7 | 7.5 | 7.2 | 6.7 | 6.2 | 5.5 | |
| F4-65/160B | 1.5 | 2 | | | 9.1 | 9.1 | 9 | 8.8 | 8.6 | 8.3 | 7.8 | 7.3 | 6.6 | 5.7 |
| F4-65/160A | 2.2 | 3 | | | 10.1 | 10.1 | 10.1 | 9.9 | 9.7 | 9.4 | 9 | 8.5 | 7.8 | 7 |

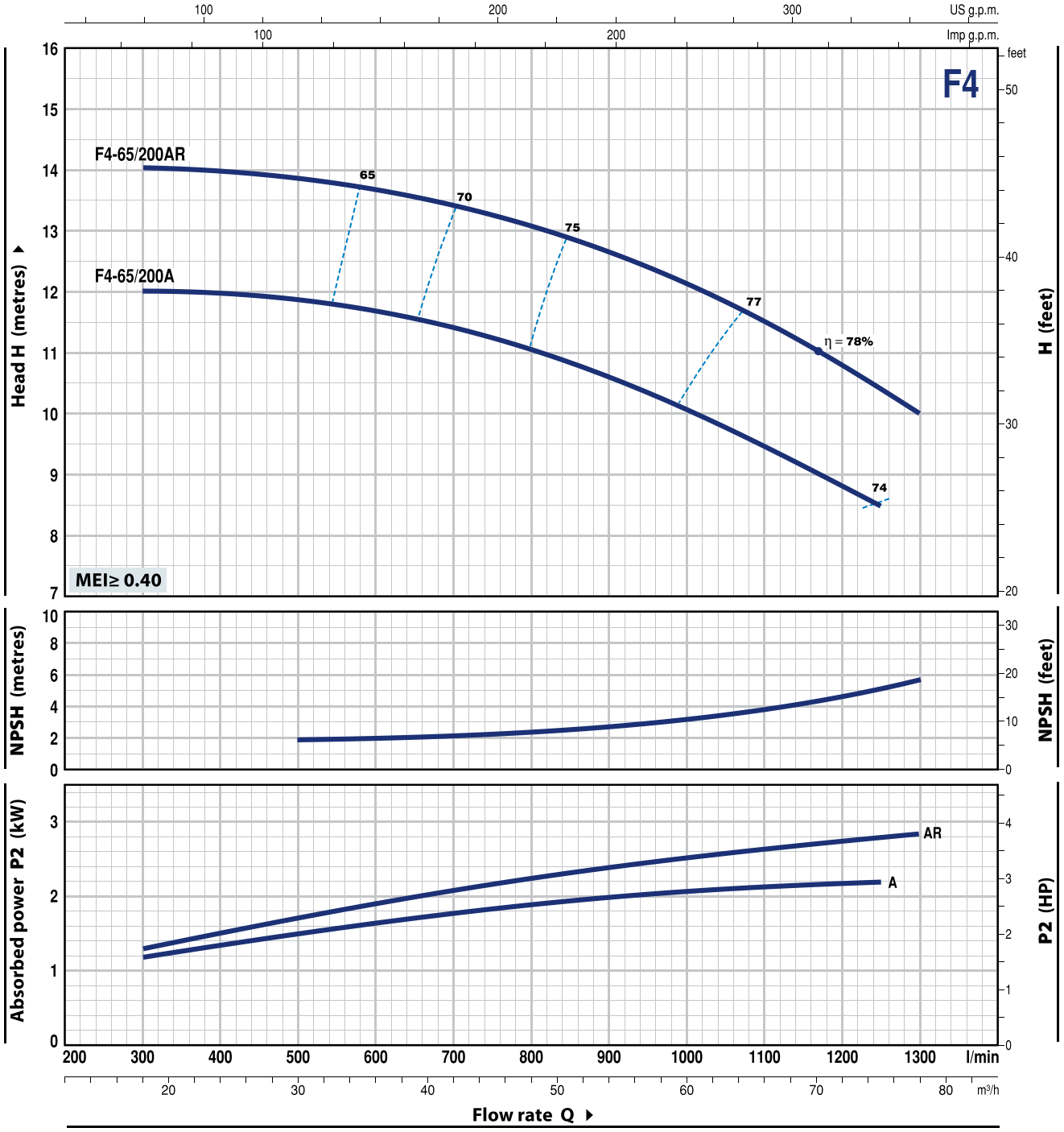
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-65/200

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q | m³/h | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 75 | 78 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | | l/min | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1250 | 1300 |
| F4-65/200A | 2.2 | 3 | H | metry | 12 | 12 | 11.9 | 11.6 | 11.4 | 11 | 10.6 | 10.1 | 9.5 | 8.8 | 8.5 | |
| F4-65/200AR | 3 | 4 | | | 14 | 13.9 | 13.8 | 13.6 | 13.4 | 13.1 | 12.7 | 12.1 | 11.5 | 10.8 | 10.3 | 10 |

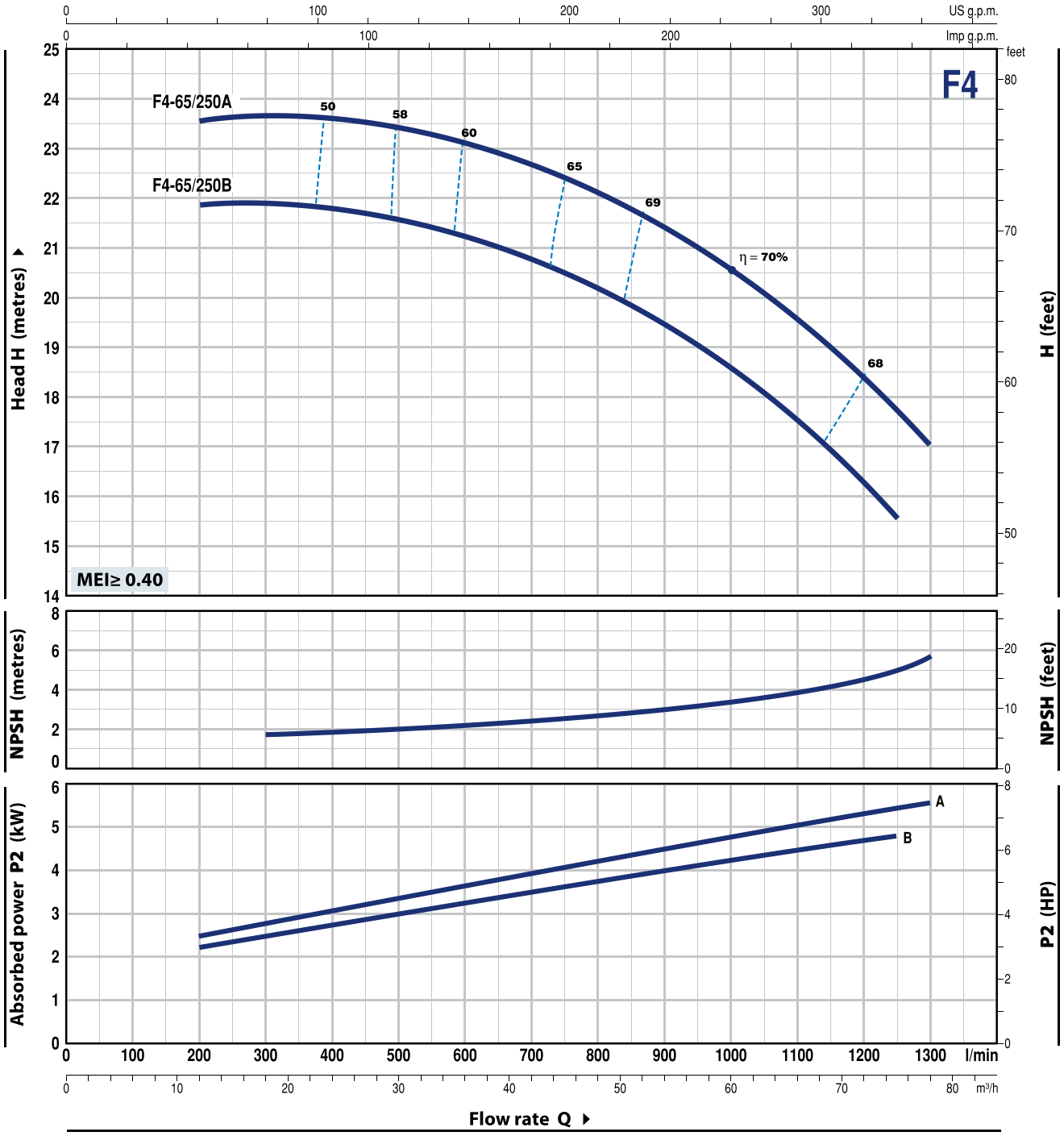
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-65/250

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q m³/h | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 75 | 78 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | l/min | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1250 | 1300 |
| F4-65/250B | 4 | 5.5 | H metry | 21.8 | 21.8 | 21.7 | 21.5 | 21.2 | 20.7 | 20.2 | 19.5 | 18.6 | 17.5 | 16.2 | 15.5 | |
| F4-65/250A | 5.5 | 7.5 | | 23.5 | 23.5 | 23.5 | 23.4 | 23.1 | 22.6 | 22.1 | 21.5 | 20.5 | 19.6 | 18.5 | 17.8 | 17 |

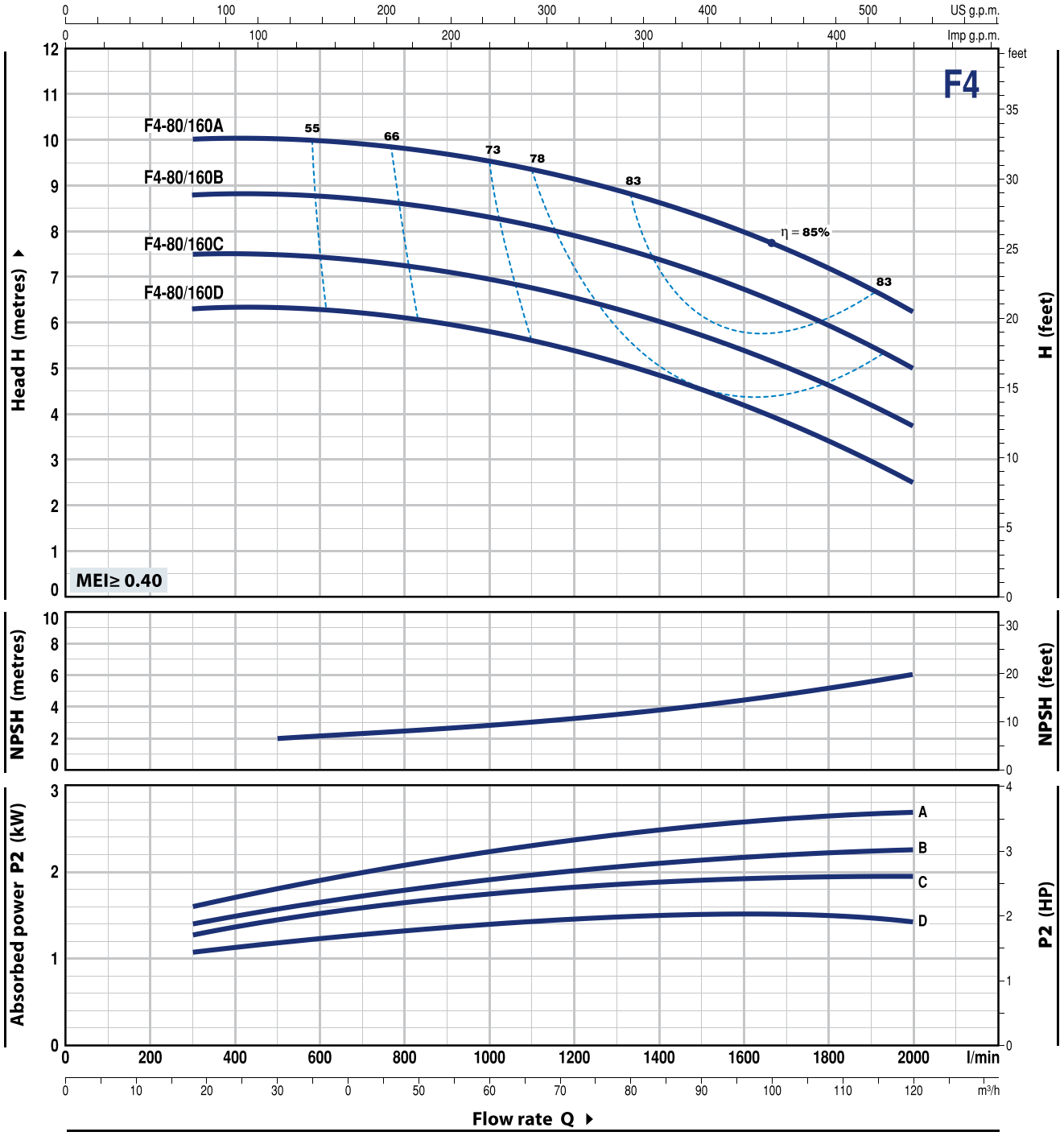
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-80/160

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q m³/h | 18 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | l/min | 300 | 400 | 600 | 800 | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 |
| F4-80/160D | 1.5 | 2 | H metry | 6.3 | 6.3 | 6.3 | 6.1 | 5.8 | 5.4 | 4.8 | 4.2 | 3.4 | 2.5 |
| F4-80/160C | 2.2 | 3 | | 7.5 | 7.5 | 7.4 | 7.3 | 6.9 | 6.5 | 6 | 5.4 | 4.6 | 3.8 |
| F4-80/160B | 2.2 | 3 | | 8.8 | 8.8 | 8.8 | 8.6 | 8.3 | 7.9 | 7.4 | 6.7 | 5.9 | 5 |
| F4-80/160A | 3 | 4 | | 10 | 10 | 10 | 9.8 | 9.5 | 9.1 | 8.6 | 8 | 7.2 | 6.2 |

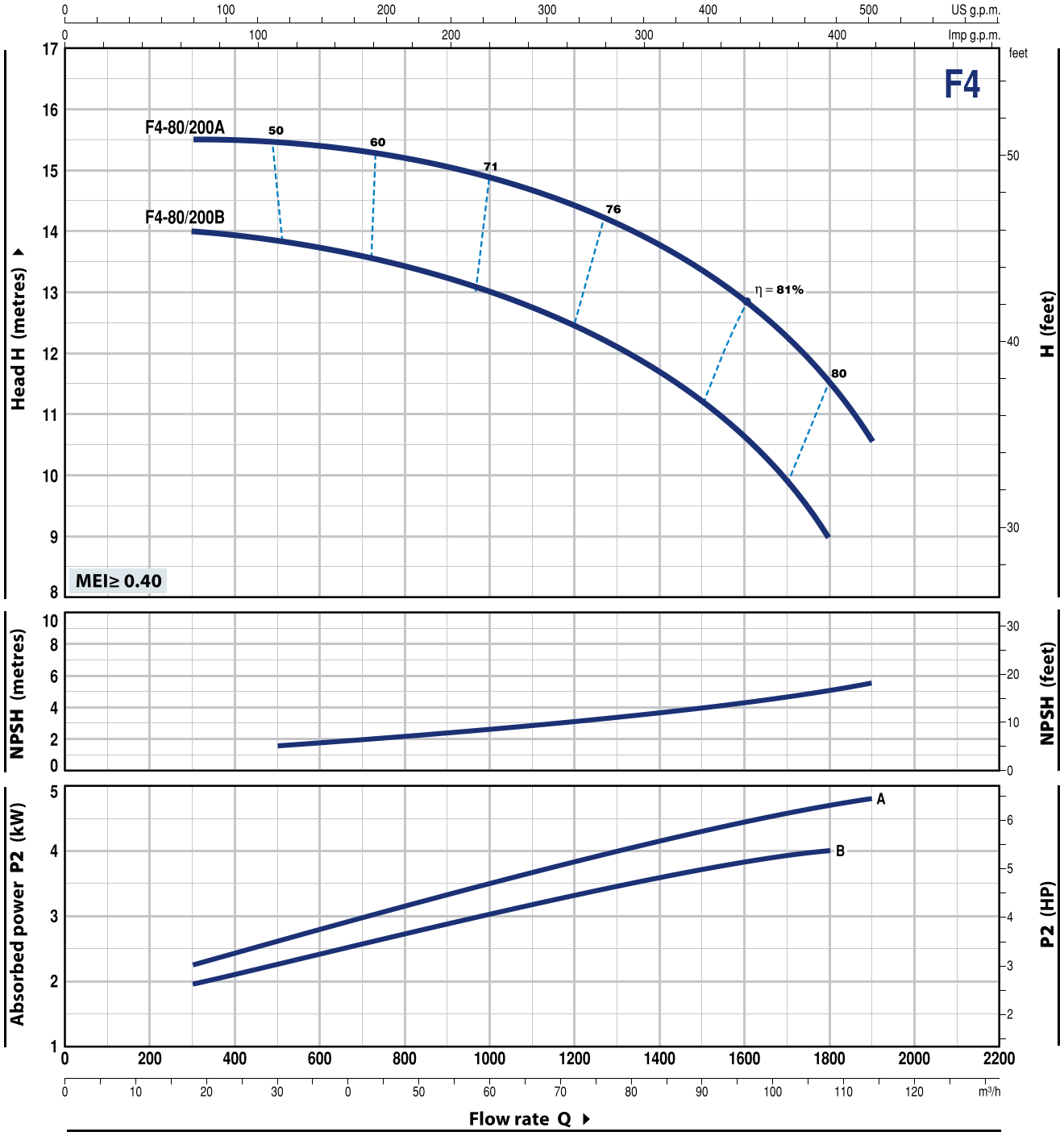
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-80/200

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q | m³/h | 18 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 114 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | | l/min | 300 | 400 | 600 | 800 | 1000 | 1200 | 1400 | 1600 | 1800 | 1900 |
| F4-80/200B | 4 | 5.5 | H | metry | 14 | 13.9 | 13.7 | 13.4 | 13 | 12.5 | 11.7 | 10.6 | 9 | |
| F4-80/200A | 5.5 | 7.5 | | | 15.5 | 15.5 | 15.4 | 15.2 | 14.8 | 14.5 | 13.7 | 12.8 | 11.5 | 10.5 |

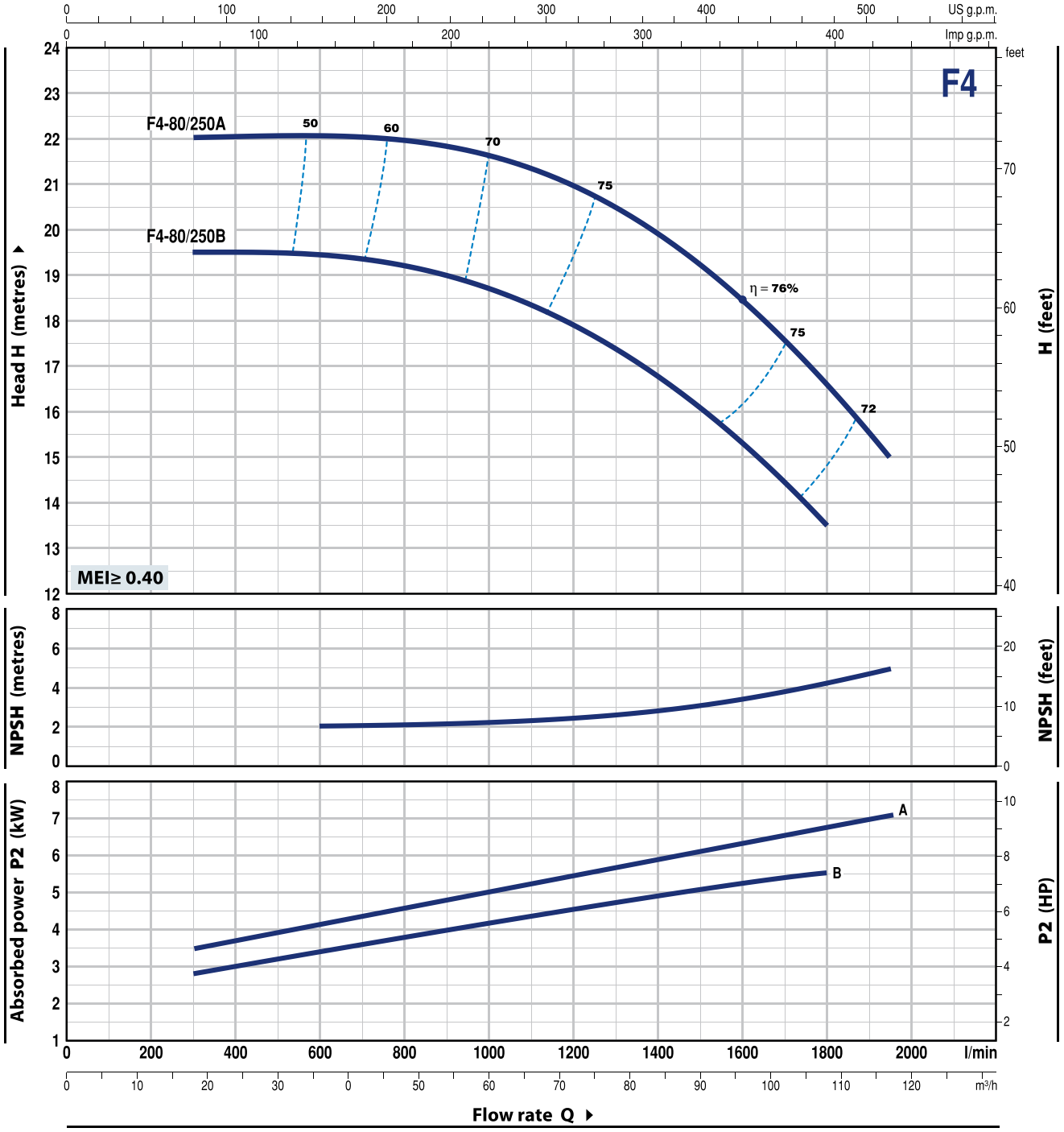
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-80/250

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q | m³/h | 18 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 117 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | | l/min | 300 | 400 | 600 | 800 | 1000 | 1200 | 1400 | 1600 | 1800 | 1950 |
| F4-80/250B | 5.5 | 7.5 | H | metry | 19.5 | 19.5 | 19.5 | 19.2 | 18.7 | 17.9 | 16.7 | 15.3 | 13.5 | |
| F4-80/250A | 7.5 | 10 | | | 22 | 22 | 22 | 21.9 | 21.6 | 21 | 20 | 18.5 | 16.5 | 15 |

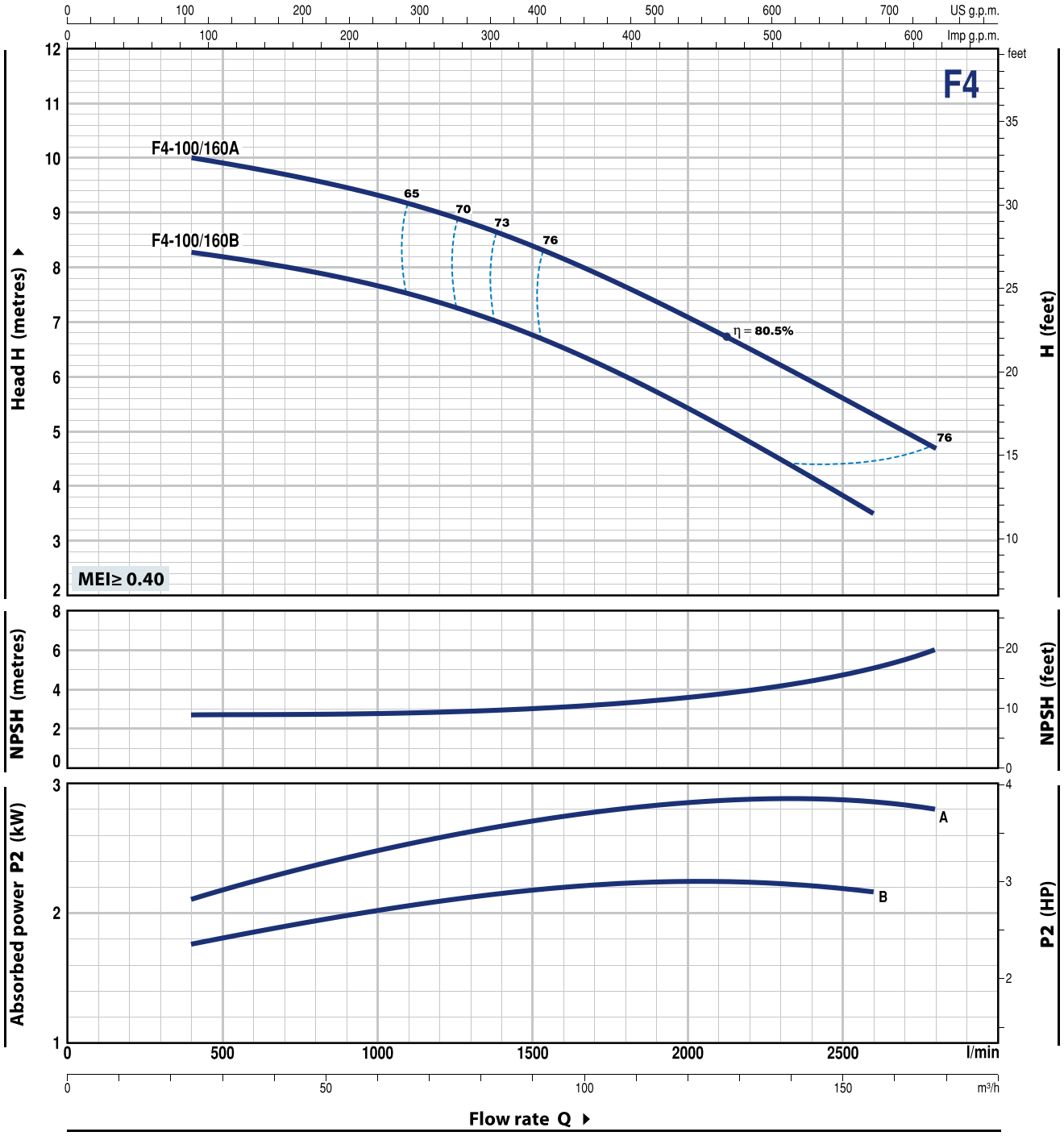
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-100/160

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q | m³/h | 24 | 48 | 72 | 96 | 120 | 144 | 156 | 168 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | | l/min | 400 | 800 | 1200 | 1600 | 2000 | 2400 | 2600 | 2800 |
| F4-100/160B | 2.2 | 3 | H | metry | 8.3 | 8 | 7.5 | 6.5 | 5.5 | 4.2 | 3.5 | |
| F4-100/160A | 3 | 4 | | | 10 | 9.5 | 9 | 8 | 7 | 6 | 5.2 | 4.7 |

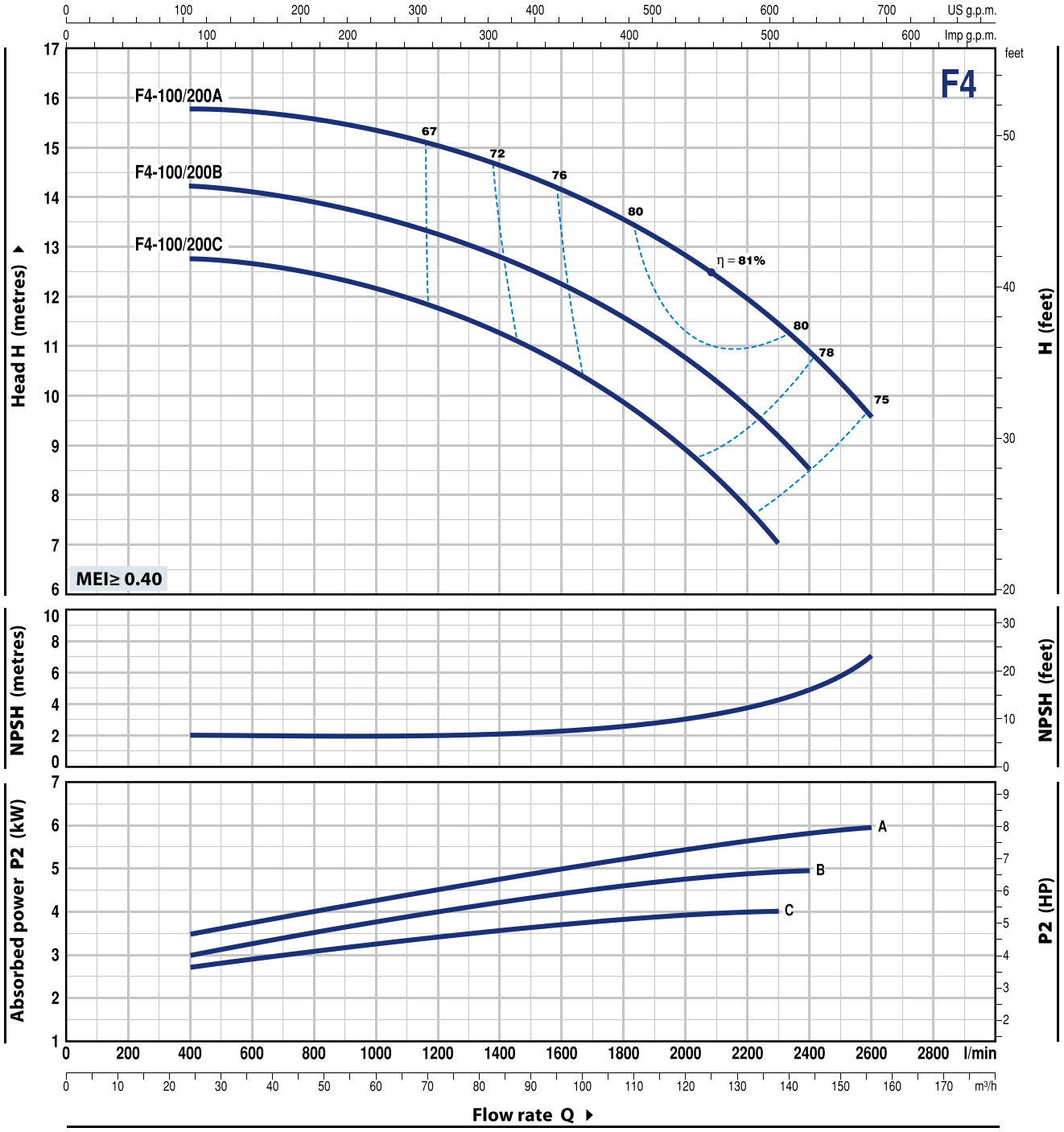
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-100/200

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q m³/h | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 138 | 144 | 156 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | l/min | 400 | 600 | 800 | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | 2300 | 2400 | 2600 |
| F4-100/200C | 4 | 5.5 | H metry | 12.7 | 12.6 | 12.5 | 12.2 | 11.8 | 11.3 | 10.6 | 9.9 | 8.9 | 7 | | |
| F4-100/200B | 5.5 | 7.5 | | 14.2 | 14.1 | 13.9 | 13.6 | 13.3 | 12.8 | 12.2 | 11.6 | 10.7 | 9.2 | 8.5 | |
| F4-100/200A | 5.5 | 7.5 | | 15.8 | 15.7 | 15.6 | 15.4 | 15 | 14.6 | 14.2 | 13.5 | 12.8 | 12 | 11.4 | 9.5 |

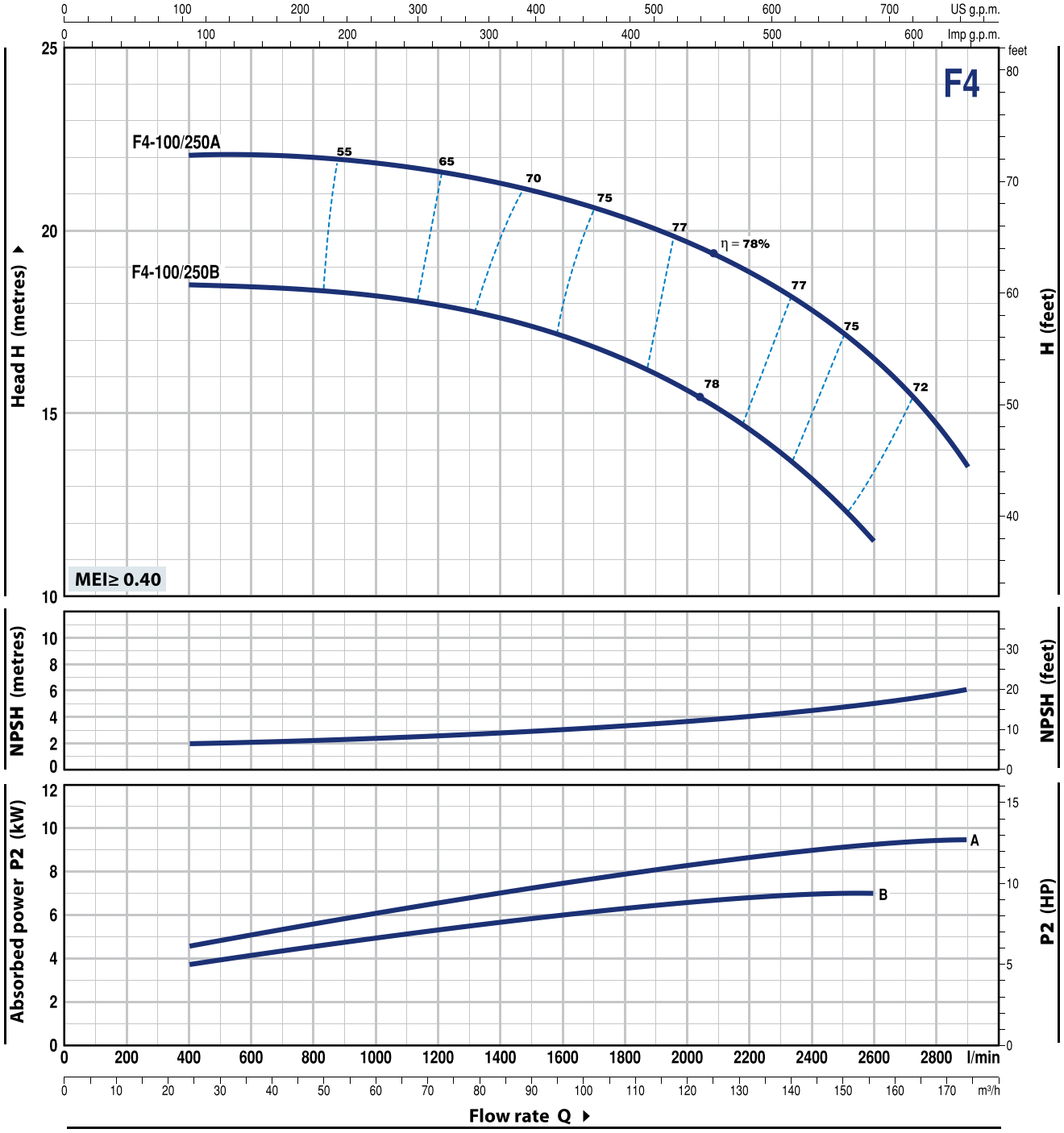
**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

# F4-100/250

## CHARAKTERYSTYKA POMP

**50 Hz** **n= 1450 min-1** HS= 0 m




| MODEL | MOC (P2) | | Q | m³/h | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 | 156 | 174 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | kW | HP | | l/min | 400 | 600 | 800 | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2900 |
| F4-100/250B | 7.5 | 10 | H | metry | 18.5 | 18.5 | 18.3 | 18.2 | 18 | 17.5 | 17.1 | 16.5 | 15.7 | 14.5 | 13.2 | 11.5 | |
| F4-100/250A | 9.2 | 12.5 | | | 22 | 22 | 22 | 21.8 | 21.6 | 21.2 | 20.9 | 20.3 | 19.7 | 18.9 | 17.9 | 16.5 | 13.5 |

**Q** =Wydajność **H** =Wysokość podnoszenia **HS** = Wysokość ssania

Tolerancja charakterystyk wg EN ISO 9906 Grade 3B.

| POZ. | ELEMENT | DANE KONSTRUKCYJNE |
|---|---|---|
| 1 | **OBUDOWA POMPY** | Żeliwo, w komplecie z kołnierzowymi króćcami ssącymi i tłocznymi |
| 2 | **TYLNA TARCZA** | Żeliwo |
| 3 | **WIRNIK** | Mosiądz dla F4-32/160, 32/200, 40/160, 40/200, 50/125, 50/160<br>Żeliwo dla F4-32/250, 40/250, 50/200, 50/250, 65/125, 65/160, 65/200, 65/250, F4-80/160, 80/200, 80/250, 100/160, 100/200, 100/250 |
| 4 | **WAŁEK SILNIKA** | Stal nierdzewna AISI 431 |

**5 USZCZELNIENIE MECHANICZNE**

| *Pompa* | | *Typy uszczelnienia* | | *Materiały* | | |
|---|---|---|---|---|---|---|
| *Model* | | *Model* | *Średnica* | *Pierścień stały* | *Pierścień obrotowy* | *Elastomer* |
| F4-32/160<br>F4-40/160 | F4-50/125 | **FN-20** | **Ø 20** mm | Graft | Ceramika | NBR |
| F4-32/200<br>F4-40/200 | F4-50/160<br>F4-65/125 | **FN-24** | **Ø 24** mm | Graft | Ceramika | NBR |
| F4-50/200<br>F4-65/200<br>F4-65/160 | F4-80/160<br>F4-100/160 | **FN-32 NU** | **Ø 32** mm | Graft | Ceramika | NBR |
| F4-32/250<br>F4-40/250 | F4-50/250 | **FN-38** | **Ø 38** mm | Graft | Ceramika | NBR |
| F4-65/250<br>F4-80/200 | F4-100/200 | **FN-40 NU** | **Ø 40** mm | Graft | Ceramika | NBR |
| F4-80/250 | F4-100/250 | **FH-45 NU** | **Ø 45** mm | Graft | Ceramika | NBR |

**6 ŁOŻYSKA**

| *Pompa* | *Model* |
|---|---|
| F4-32/160<br>F4-40/160<br>F4-50/125 | **6206 ZZ-C3 / 6204 ZZ** |
| F4-32/200<br>F4-40/200<br>F4-50/160<br>F4-65/125 | **6307 ZZ-C3 / 6206 ZZ-C3** |

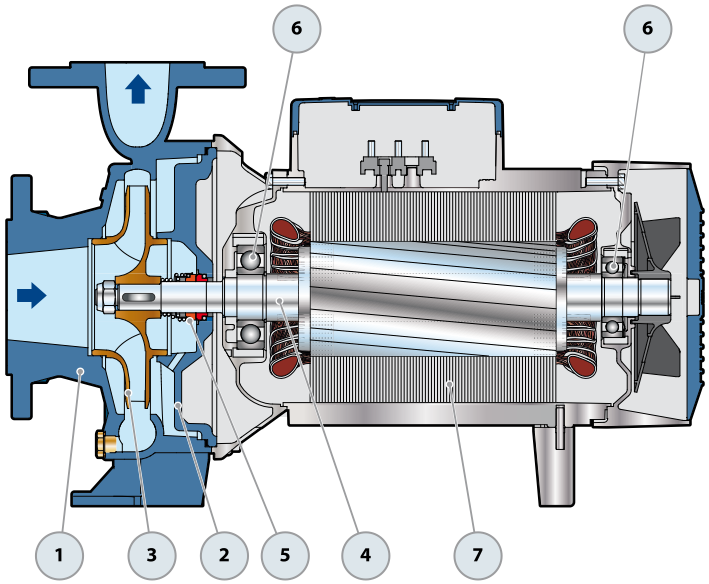
| *Pompa* | *Model* |
|---|---|
| F4-32/250<br>F4-40/250<br>F4-50/200<br>F4-50/250<br>F4-65/160<br>F4-65/200<br>F4-80/160<br>F4-100/160 | **6208 ZZ-C3 / 6206 ZZ-C3** |
| F4-65/250<br>F4-80/200<br>F4-80/250<br>F4-100/200<br>F4-100/250 | **6310 ZZ-C3 / 6308 ZZ-C3** |

**7 SILNIK ELEKTRYCZNY**

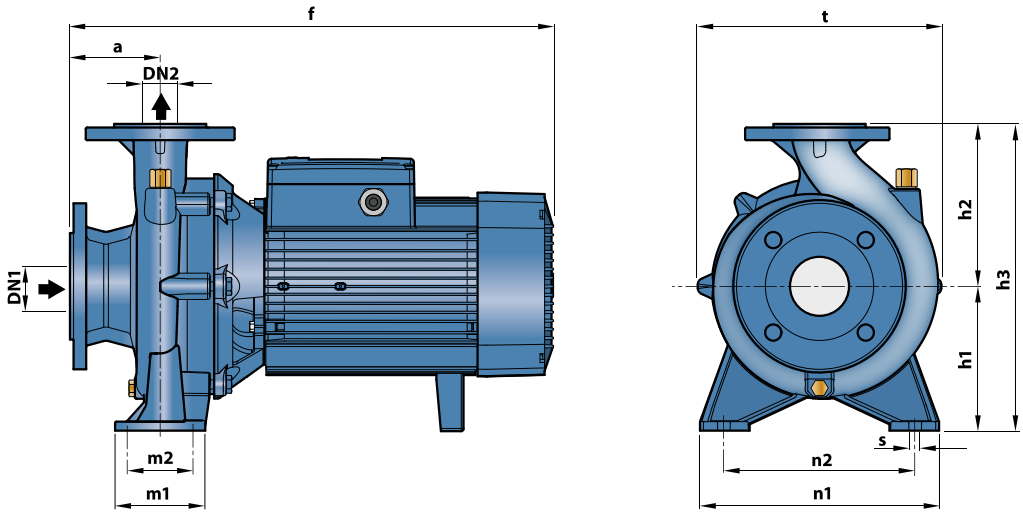
**F4**: z 4 biegunami trójfazowymi 230/400 V - 50 Hz

➠ **Pompy trójfazowe są wyposażone w silniki o wysokiej wydajności P2=0.37 kW w klasie IE2 i od P2=0.75 kW w klasie IE3 (IEC 60034-30-1)**

– Klasa izolacji F
– Stopień ochrony: IP 55

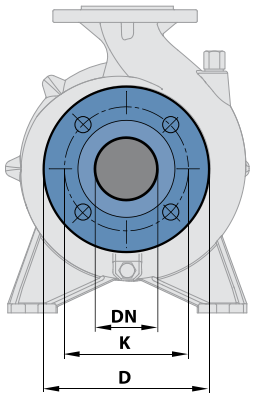


## WYMIARY I WAGA




| MODEL | WYMIARY mm | | | | | | | | | | | | kg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trójfazowa | DN1 | DN2 | a | f | h3 | h1 | h2 | t | n2 | n1 | m1 | m2 | s | |
| F4-32/160B | 50 | 32 | 80 | 412 | 292 | 132 | 160 | 242 | 190 | 240 | 100 | 70 | 14 | 31.2 |
| F4-32/160A | | | | | | | | | | | | | | 31.2 |
| F4-32/200B | | | | 469 | 340 | 160 | 180 | 270 | | | 95 | | | 43.4 |
| F4-32/200A | | | | | | | | | | | | | | 43.5 |
| F4-32/200BH | | | | | | | | | | | | | | 42.3 |
| F4-32/200AH | | | | | | | | | | | | | | 42.4 |
| F4-32/250C | | | 100 | 522 | 405 | 180 | 225 | 330 | 250 | 320 | 125 | 95 | | 64.1 |
| F4-32/250B | | | | | | | | | | | | | | 63.1 |
| F4-32/250A | | | | 568 | | | | | | | | | | 68.7 |
| F4-40/160B | 65 | 40 | 80 | 412 | 292 | 132 | 160 | 240 | 190 | 240 | 100 | 70 | 14 | 32.5 |
| F4-40/160A | | | | | | | | | | | | | | 32.9 |
| F4-40/200B | | | 100 | 489 | 340 | 160 | 180 | 275 | 212 | 265 | | | | 46.0 |
| F4-40/200A | | | | | | | | | | | | | | 46.2 |
| F4-40/250C | | | | 522 | 405 | 180 | 225 | 328 | 250 | 320 | 125 | 95 | | 59.7 |
| F4-40/250B | | | | | | | | | | | | | | 60.1 |
| F4-40/250A | | | | 568 | | | | | | | | | | 72.4 |
| F4-50/125B | 65 | 50 | 100 | 431 | 292 | 132 | 160 | 242 | 190 | 240 | 100 | 70 | 14 | 32.2 |
| F4-50/125A | | | | | | | | | | | | | | 32.2 |
| F4-50/160B | | | | 489 | 340 | 160 | 180 | 269 | 212 | 265 | | | | 44.4 |
| F4-50/160A | | | | | | | | | | | | | | 44.6 |
| F4-50/200C | | | | 529 | 360 | | 200 | 316 | | | | | | 59.2 |
| F4-50/200B | | | | 576 | | | | | | | | | | 68.3 |
| F4-50/200A | | | | | | | | | | | | | | 68.5 |
| F4-50/200AR | | | | | | | | | | | | | | 68.8 |
| F4-50/250D | | | | 522 | 405 | 180 | 225 | 337 | 250 | 320 | 125 | 95 | | 59.9 |
| F4-50/250C | | | | | | | | | | | | | | 63.3 |
| F4-50/250B | | | | 568 | | | | | | | | | | 68.7 |
| F4-50/250A | | | | | | | | | | | | | | 69.1 |
| F4-50/250AR | | | | | | | | | | | | | | 78.0 |
| F4-65/125B | 80 | 65 | 100 | 511 | 340 | 160 | 180 | 291 | 212 | 280 | 125 | 95 | 14 | 50.2 |
| F4-65/125A | | | | | | | | | | | | | | 50.4 |
| F4-65/160C | | | | 533 | 360 | | 200 | 300 | | | | | | 55.0 |
| F4-65/160B | | | | | | | | | | | | | | 58.7 |
| F4-65/160A | | | | 579 | | | | | | | | | | 65.0 |
| F4-65/200A | | | | 582 | 405 | 180 | 225 | 340 | 250 | 320 | | | | 72.0 |
| F4-65/200AR | | | | | | | | | | | | | | 78.4 |
| F4-65/250B | | | | 627 | 450 | 200 | 250 | 373 | 280 | 360 | 160 | 120 | 18 | 111.2 |
| F4-65/250A | | | | | | | | | | | | | | 139.6 |
| F4-80/160D | 100 | 80 | 125 | 565 | 405 | 180 | 225 | 330 | 250 | 320 | 125 | 95 | 14 | 65.8 |
| F4-80/160C | | | | 611 | | | | | | | | | | 67.3 |
| F4-80/160B | | | | | | | | | | | | | | 70.0 |
| F4-80/160A | | | | | | | | | | | | | | 76.4 |
| F4-80/200B | | | | 655 | 430 | | 250 | 360 | 280 | 345 | | | | 100.0 |
| F4-80/200A | | | | | | | | | | | | | | 130.2 |
| F4-80/250B | | | | 673 | 480 | 200 | 280 | 405 | 315 | 400 | 160 | 120 | 18 | 149.5 |
| F4-80/250A | | | | | | | | | | | | | | 137.6 |
| F4-100/160B | 125 | 100 | 125 | 622 | 480 | 200 | 280 | 362 | 280 | 360 | 160 | 120 | 18 | 91.0 |
| F4-100/160A | | | | | | | | | | | | | | 97.0 |
| F4-100/200C | | | | 657 | | | | 391 | | | | | | 122.0 |
| F4-100/200B | | | | | | | | | | | | | | 116.0 |
| F4-100/200A | | | | | | | | | | | | | | 124.1 |
| F4-100/250B | | | 140 | 694 | 505 | 225 | | 422 | 315 | 400 | | | | 143.0 |
| F4-100/250A | | | | 789 | | | | | | | | | | 159.3 |

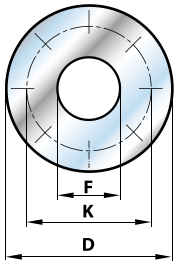
## KRÓĆCE FLANSZOWE




| DN FLANSZY | D | K | HOLES | |
|---|---|---|---|---|
| mm | mm | mm | N° | Ø (mm) |
| **32** | 140 | 100 | 4 | 18 |
| **40** | 150 | 110 | | |
| **50** | 165 | 125 | | |
| **65** | 185 | 145 | | |
| **80** | 200 | 160 | 8 | |
| **100** | 220 | 180 | | |
| **125** | 250 | 210 | | |

## PRZECIWFLANSZE

(Opcja dodatkowa)




| DN FLANSZy | F | D | K | OTWÓR | |
|---|---|---|---|---|---|
| mm | GWINT | mm | mm | N° | Ø (mm) |
| 32 | **1¼"** | 140 | 100 | 4 | 18 |
| 40 | **1½"** | 150 | 110 | | |
| 50 | **2"** | 165 | 125 | | |
| 65 | **2½"** | 185 | 145 | | |
| 80 | **3"** | 200 | 160 | 8 | |
| 100 | **4"** | 220 | 180 | | |
| 125 | **5"** | 250 | 210 | | |

## POBÓR PRĄDU

| MODEL | NAPIĘCIE | |
|---|---|---|
| **Trójfazowa** | 230–240 V | 400–415 V |
| **F4-32/160B** | **1.9** A | **1.1** A |
| **F4-32/160A** | **1.9** A | **1.3** A |
| **F4-32/200B** | **3.6** A | **2.1** A |
| **F4-32/200A** | **4.0** A | **2.3** A |
| **F4-32/200BH** | **3.3** A | **1.9** A |
| **F4-32/200AH** | **3.5** A | **2.0** A |
| **F4-32/250C** | **5.7** A | **2.6** A |
| **F4-32/250B** | **7.3** A | **3.3** A |
| **F4-32/250A** | **7.8** A | **5.2** A |
| **F4-40/160B** | **2.1** A | **1.2** A |
| **F4-40/160A** | **2.8** A | **1.6** A |
| **F4-40/200B** | **3.6** A | **2.1** A |
| **F4-40/200A** | **4.2** A | **2.4** A |
| **F4-40/250C** | **5.5** A | **2.6** A |
| **F4-40/250B** | **6.1** A | **3.5** A |
| **F4-40/250A** | **8.5** A | **5.2** A |
| **F4-50/125B** | **2.3** A | **1.4** A |
| **F4-50/125A** | **2.6** A | **1.5** A |
| **F4-50/160B** | **3.3** A | **2.1** A |
| **F4-50/160A** | **4.2** A | **2.4** A |
| **F4-50/200C** | **6.1** A | **3.5** A |
| **F4-50/200B** | **8.0** A | **4.6** A |
| **F4-50/200A** | **9.0** A | **5.2** A |
| **F4-50/200AR** | **10.6** A | **6.8** A |
| **F4-50/250D** | **4.9** A | **2.8** A |
| **F4-50/250C** | **5.9** A | **3.4** A |
| **F4-50/250B** | **8.5** A | **4.9** A |
| **F4-50/250A** | **9.9** A | **5.7** A |
| **F4-50/250AR** | **11.8** A | **6.8** A |

| MODEL | NAPIĘCIE | |
|---|---|---|
| **Trójfazowa** | 230–240 V | 400–415 V |
| **F4-65/125B** | **3.6** A | **2.1** A |
| **F4-65/125A** | **4.5** A | **2.6** A |
| **F4-65/160C** | **5.2** A | **2.7** A |
| **F4-65/160B** | **5.9** A | **3.4** A |
| **F4-65/160A** | **7.8** A | **4.5** A |
| **F4-65/200A** | **9.0** A | **5.2** A |
| **F4-65/200AR** | **11.8** A | **6.8** A |
| **F4-65/250B** | **17.3** A | **9.5** A |
| **F4-65/250A** | **21.7** A | **13.5** A |
| **F4-80/160D** | **5.9** A | **3.4** A |
| **F4-80/160C** | **8.1** A | **4.7** A |
| **F4-80/160B** | **9.2** A | **5.3** A |
| **F4-80/160A** | **10.6** A | **6.8** A |
| **F4-80/200B** | **13.8** A | **9.5** A |
| **F4-80/200A** | **18.2** A | **12.8** A |
| **F4-80/250B** | **20.8** A | **13.5** A |
| **F4-80/250A** | **25.6** A | **14.8** A |
| **F4-100/160B** | **9.0** A | **5.2** A |
| **F4-100/160A** | **11.2** A | **6.5** A |
| **F4-100/200C** | **14.2** A | **9.5** A |
| **F4-100/200B** | **17.8** A | **12.1** A |
| **F4-100/200A** | **20.8** A | **13.5** A |
| **F4-100/250B** | **26.8** A | **15.9** A |
| **F4-100/250A** | **34.1** A | **19.7** A |