

## Standardised “EN 733” centrifugal pumps

 Clean water

 Industrial use



### PERFORMANCE RANGE

- Flow rate up to **3000 l/min** (180 m<sup>3</sup>/h)
- Head up to **24 m**

### APPLICATION LIMITS

- Manometric suction lift up to **7 m**
- Liquid temperature between **-10 °C** and **+90 °C**
- Ambient temperature between **-10 °C** and **+40 °C**
- Max. pressure in pump body **10 bar** (PN10)
- Continuous service **S1**

### CONSTRUCTION AND SAFETY STANDARDS

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

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



Pump body dimensions in compliance with **EN 733**

**EU REGULATION N. 547/2012**

### INSTALLATION AND USE

- Water supply
- Pressure boosting
- Irrigation
- Water circulation in air-conditioning units
- Cleaning sets
- Firefighting sets
- Industrial applications
- Agricultural applications

The pump should be installed in an enclosed environment or sheltered from inclement weather.

### OPTIONS AVAILABLE ON REQUEST

- Counter flange KIT complete with bolts, nuts and washers
- Other voltages or 60 Hz frequency
- Compatibility with hotter or colder liquids
- Compatibility with hotter or colder environments

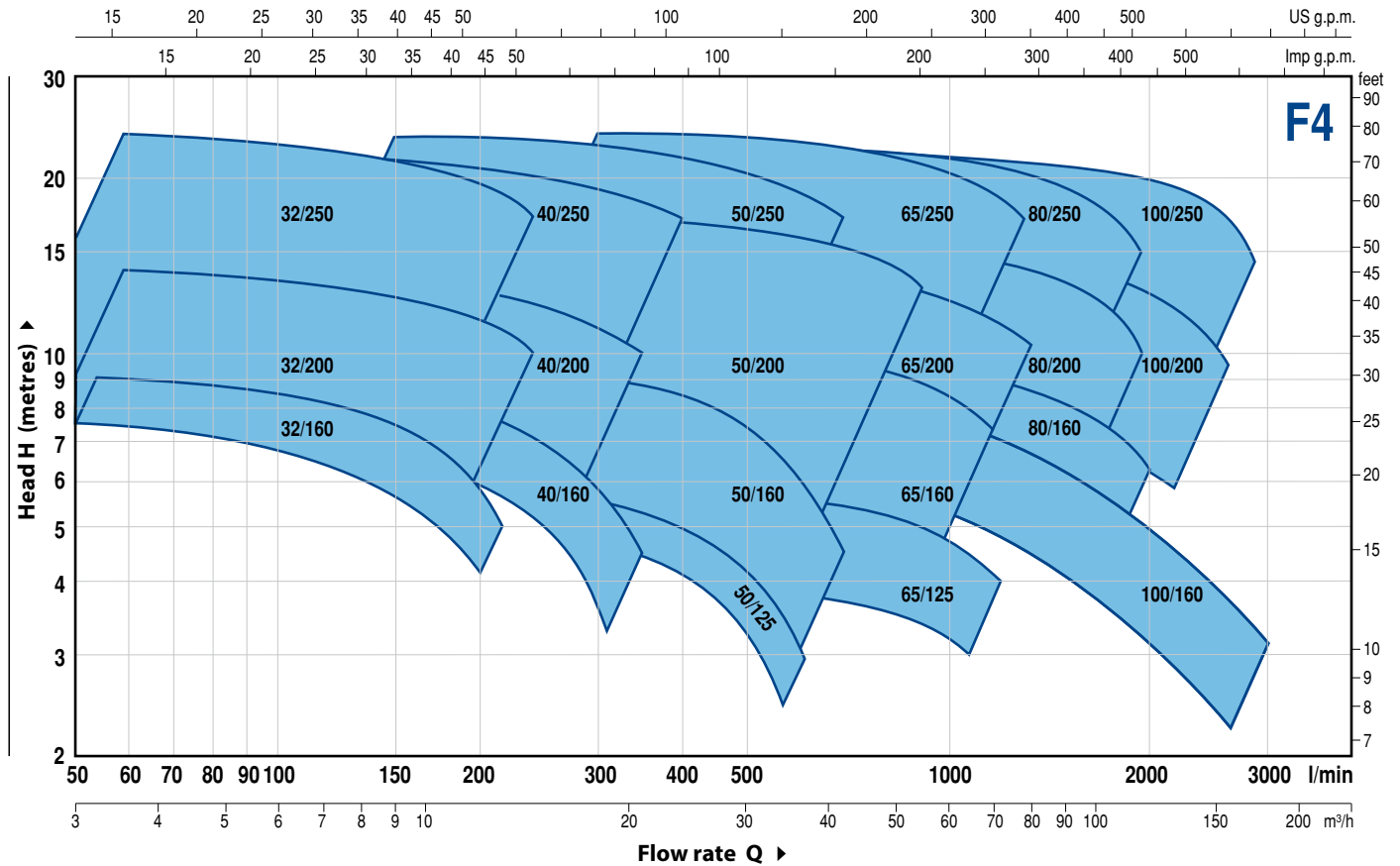
### CERTIFICATIONS

Company with management system certified DNV  
ISO 9001: QUALITY  
ISO 14001: ENVIRONMENT



## PERFORMANCE RANGE

50 Hz n = 1450 rpm



## PERFORMANCE DATA

50 Hz n = 1450 rpm

| MODEL       | POWER (P <sub>2</sub> ) |      |      | PERFORMANCE |             |
|-------------|-------------------------|------|------|-------------|-------------|
|             | Three-phase             | kW   | HP ▲ | Q l/min     | H metres    |
| 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    | IE3  | 50 ÷ 150    | 11.3 ÷ 9.2  |
| F4-32/200AH | 0.75                    | 1    |      | 50 ÷ 160    | 13.8 ÷ 11   |
| F4-32/250C  | 1.1                     | 1.5  | IE3  | 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  | IE3  | 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    | IE3  | 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    | IE3  | 200 ÷ 900   | 17 ÷ 13.2   |
| F4-50/250D  | 1.1                     | 1.5  |      | 150 ÷ 650   | 12.5 ÷ 5    |
| F4-50/250C  | 1.5                     | 2    |      | 150 ÷ 700   | 14 ÷ 5      |
| F4-50/250B  | 2.2                     | 3    | IE3  | 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         | POWER (P <sub>2</sub> ) |      |      | PERFORMANCE |             |
|---------------|-------------------------|------|------|-------------|-------------|
|               | Three-phase             | kW   | HP ▲ | Q l/min     | H metres    |
| 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  | IE3  | 300 ÷ 1100  | 8 ÷ 5.5     |
| F4-65/160B    | 1.5                     | 2    |      | 300 ÷ 1200  | 9.1 ÷ 5.7   |
| F4-65/160A    | 2.2                     | 3    | IE3  | 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  | IE3  | 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    | IE3  | 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  | IE3  | 300 ÷ 1800  | 19.5 ÷ 13.5 |
| F4-80/250A    | 7.5                     | 10   |      | 300 ÷ 1950  | 22 ÷ 15     |
| F4-100/160B-N | 2.2                     | 3    | IE3  | 400 ÷ 2750  | 8.1 ÷ 2.7   |
| F4-100/160A-N | 3                       | 4    |      | 400 ÷ 3000  | 9.2 ÷ 3.2   |
| F4-100/200C   | 4                       | 5.5  | IE3  | 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   | IE3  | 400 ÷ 2600  | 18.5 ÷ 11.5 |
| F4-100/250A   | 9.2                     | 12.5 |      | 400 ÷ 2900  | 22 ÷ 13.5   |

Q = Flow rate

H = Total manometric head

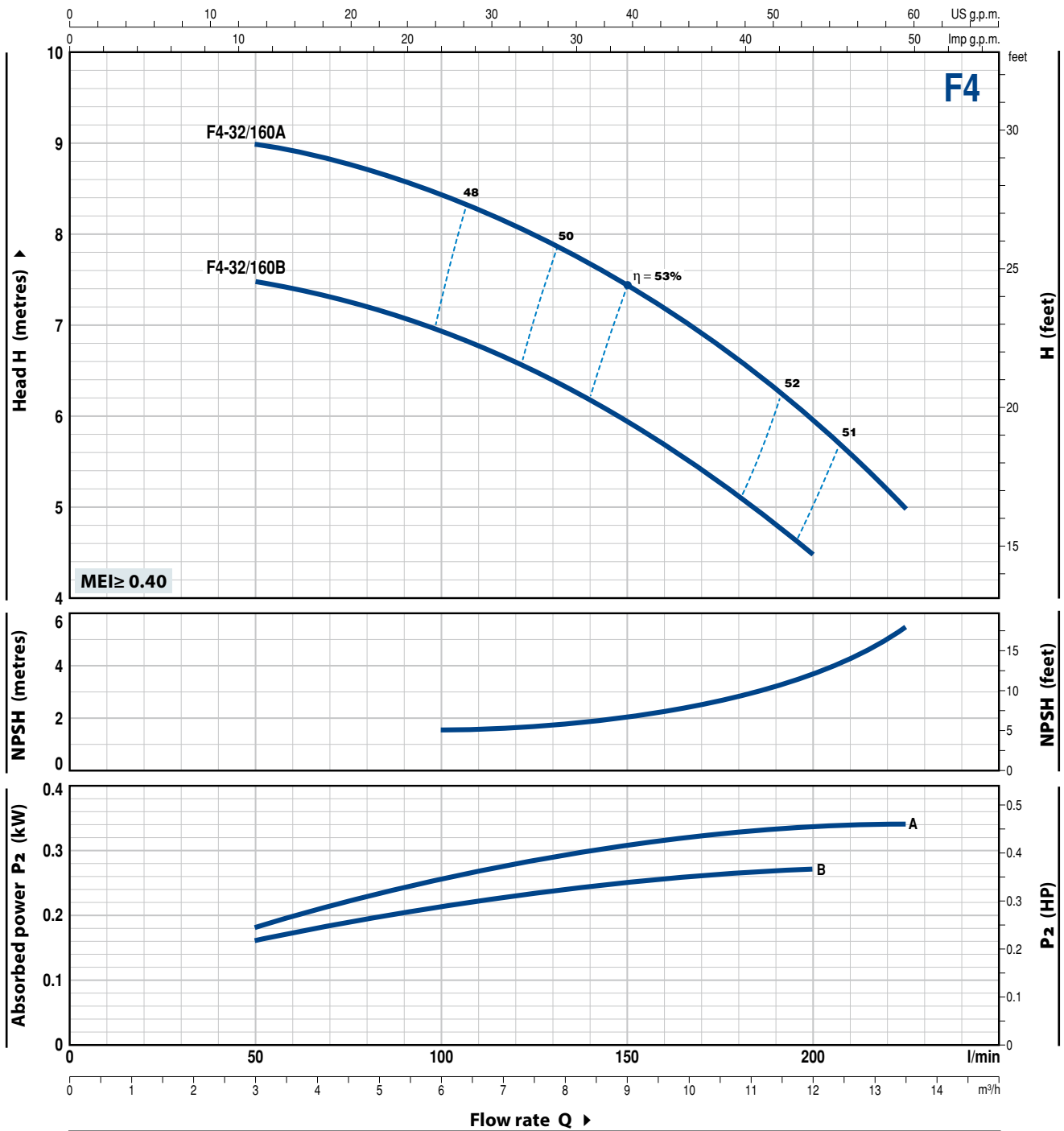
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

▲ Performance class of the three-phase motor (IEC-60034-30)

# F4-32/160

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



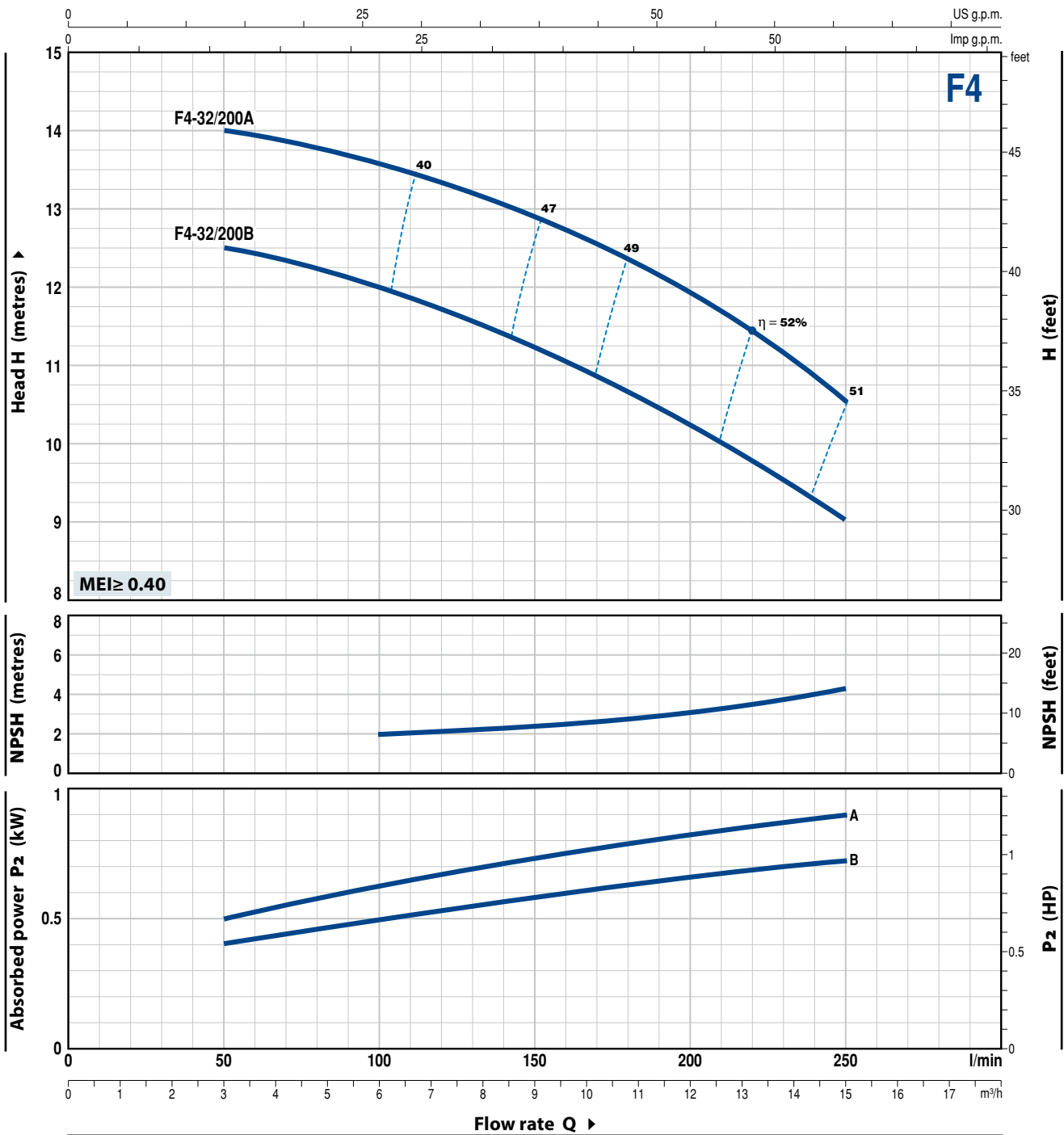
| MODEL       | POWER (P <sub>2</sub> ) |     | Q        | Flow rate         |     |     |     |     |     |      |     |      |
|-------------|-------------------------|-----|----------|-------------------|-----|-----|-----|-----|-----|------|-----|------|
|             | kW                      | HP  |          | m <sup>3</sup> /h | 3   | 4.5 | 6   | 7.5 | 9   | 10.8 | 12  | 13.5 |
| Three-phase |                         |     | l/min    | 50                | 75  | 100 | 125 | 150 | 180 | 200  | 225 |      |
| F4-32/160B  | 0.37                    | 0.5 | H metres | 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 = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



| MODEL       | POWER (P <sub>2</sub> ) |     | Q        | Flow rate         |       |       |       |       |
|-------------|-------------------------|-----|----------|-------------------|-------|-------|-------|-------|
|             | kW                      | HP  |          | m <sup>3</sup> /h | l/min | l/min | l/min | l/min |
| Three-phase |                         |     |          | 3                 | 6     | 9     | 12    | 15    |
|             |                         |     |          | 50                | 100   | 150   | 200   | 250   |
| F4-32/200B  | 0.75                    | 1   | H metres | 12.5              | 12    | 11.2  | 10.3  | 9     |
| F4-32/200A  | 1.1                     | 1.5 | H metres | 14                | 13,6  | 12.8  | 11.9  | 10.5  |

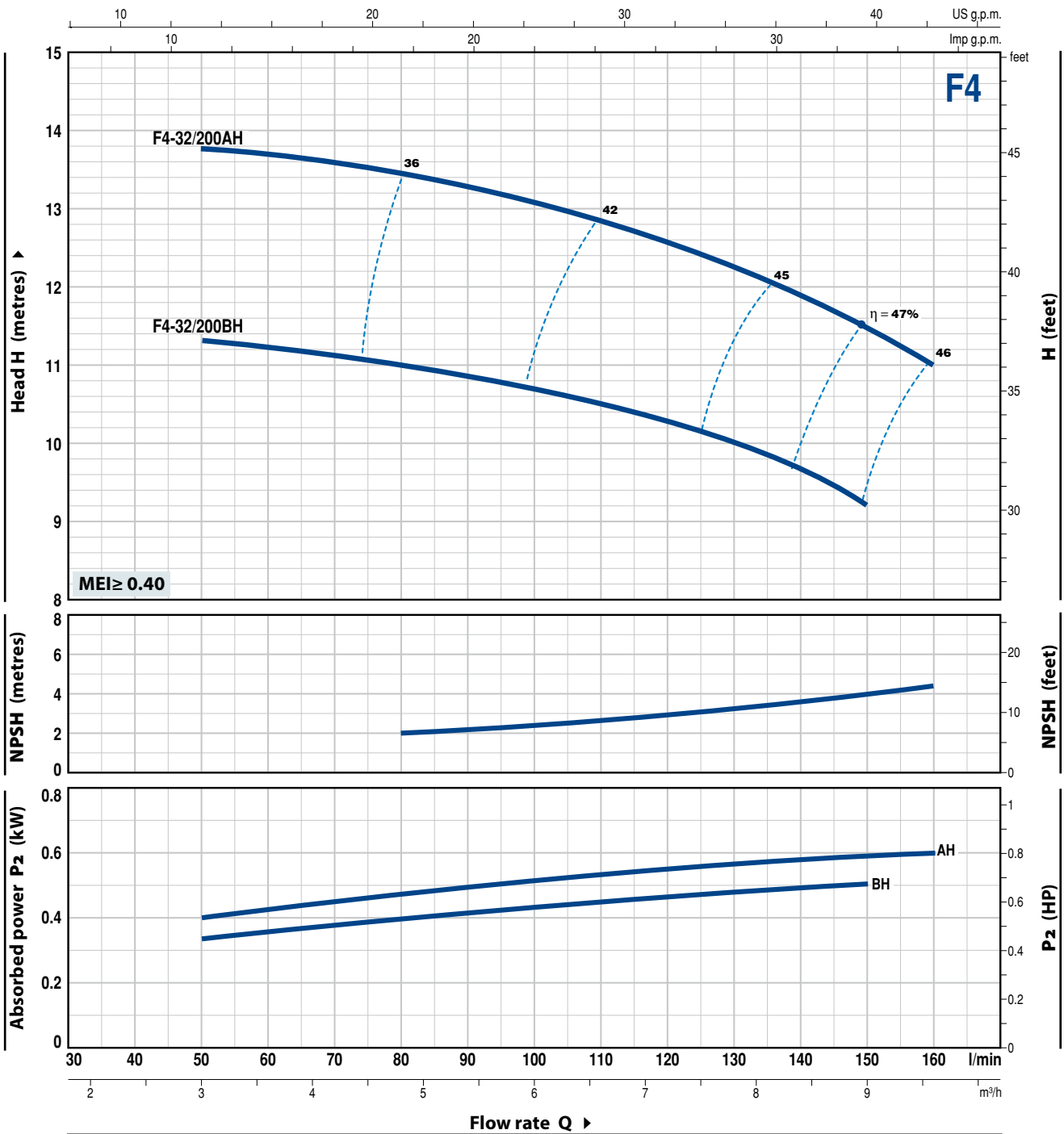
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

# F4-32/200H

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



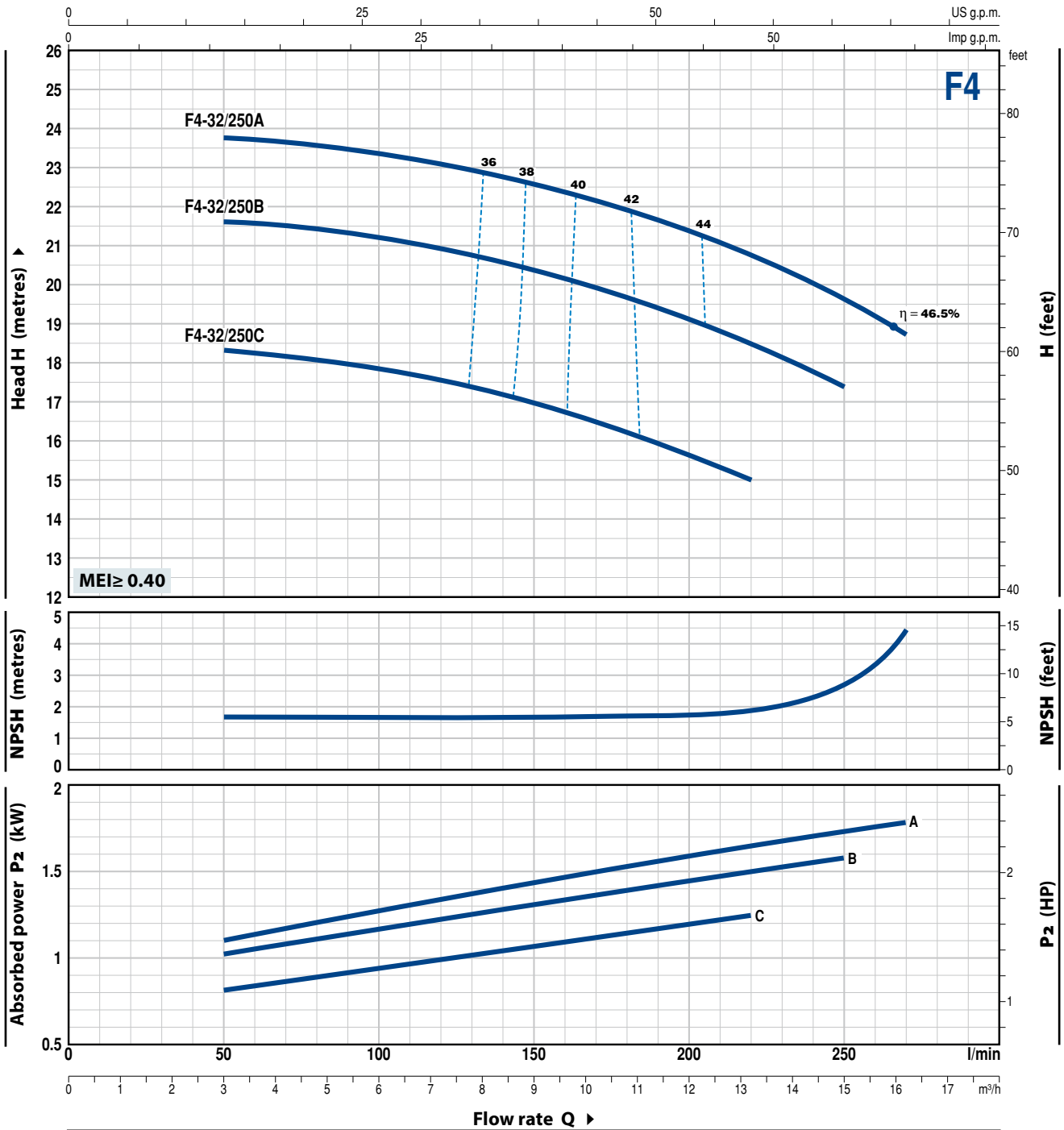
| MODEL       | POWER ( $P_2$ ) |    | Q        | Flow rate         |      |      |      |      |      |     |     |
|-------------|-----------------|----|----------|-------------------|------|------|------|------|------|-----|-----|
|             | kW              | HP |          | m <sup>3</sup> /h | 3    | 4.2  | 5.4  | 6.6  | 7.8  | 9   | 9.6 |
| Three-phase |                 |    |          | 50                | 70   | 90   | 110  | 130  | 150  | 160 |     |
| F4-32/200BH | 0.75            | 1  | H metres | 11.3              | 11.1 | 10.8 | 10.5 | 10   | 9.2  |     |     |
| F4-32/200AH | 0.75            | 1  | H metres | 13.8              | 13.6 | 13.3 | 12.8 | 12.2 | 11.5 | 11  |     |

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



| MODEL       | POWER (P <sub>2</sub> ) |     | Q        | Flow rate         |      |      |      |      |      |      |      |      |      |  |
|-------------|-------------------------|-----|----------|-------------------|------|------|------|------|------|------|------|------|------|--|
|             | kW                      | HP  |          | m <sup>3</sup> /h | 3    | 4.5  | 6    | 7.5  | 9    | 10.5 | 13.2 | 15   | 16.2 |  |
| Three-phase |                         |     | l/min    | 50                | 75   | 100  | 125  | 150  | 175  | 220  | 250  | 270  |      |  |
| F4-32/250C  | 1.1                     | 1.5 | H metres |                   | 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 |  |

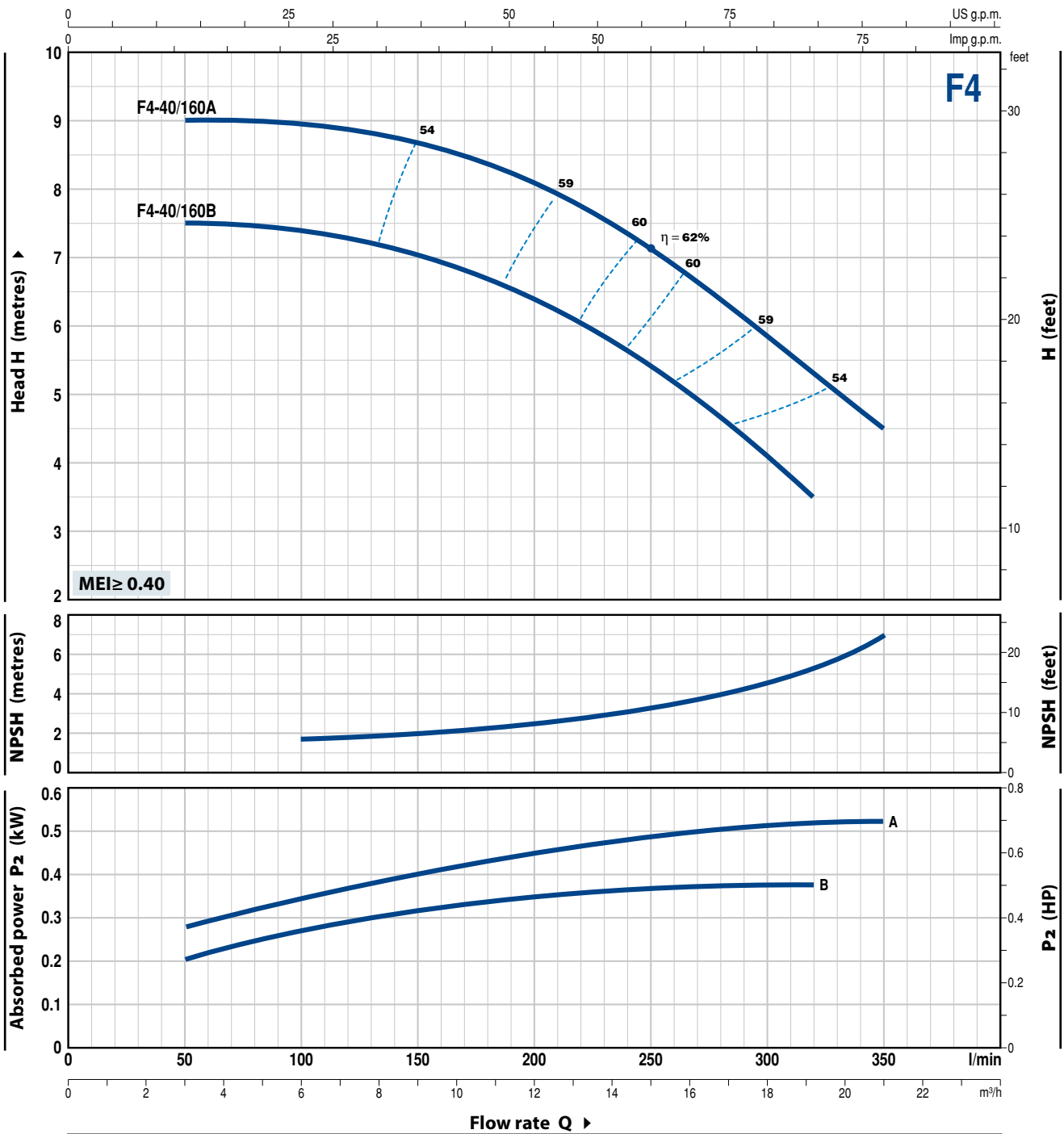
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

# F4-40/160

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



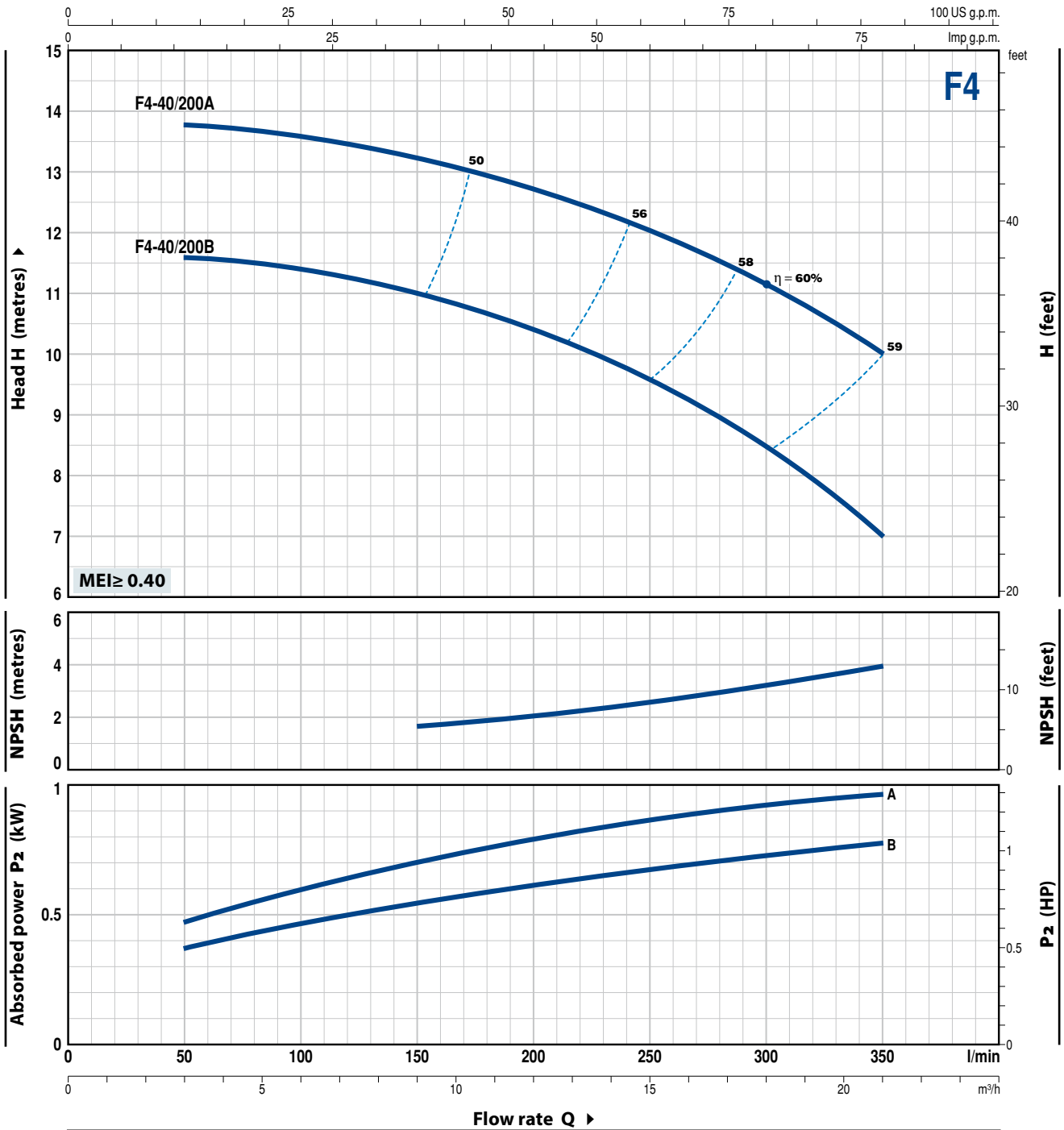
| MODEL       | POWER (P <sub>2</sub> ) |      | Q        | Flow rate         |     |     |     |     |     |     |      |    |
|-------------|-------------------------|------|----------|-------------------|-----|-----|-----|-----|-----|-----|------|----|
|             | kW                      | HP   |          | m <sup>3</sup> /h | 3   | 6   | 9   | 12  | 15  | 18  | 19.2 | 21 |
| Three-phase |                         |      | l/min    | 50                | 100 | 150 | 200 | 250 | 300 | 320 | 350  |    |
| F4-40/160B  | 0.37                    | 0.5  | H metres | 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 = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



| MODEL      | POWER (P <sub>2</sub> ) |     | Q        | 3     | 6    | 9    | 12   | 15  | 18   | 21  |
|------------|-------------------------|-----|----------|-------|------|------|------|-----|------|-----|
|            | kW                      | HP  |          | l/min | 50   | 100  | 150  | 200 | 250  | 300 |
| F4-40/200B | 0.75                    | 1   | H metres | 11.5  | 11.4 | 11   | 10.4 | 9.5 | 8.5  | 7   |
| F4-40/200A | 1.1                     | 1.5 | H metres | 13.8  | 13.6 | 13.2 | 12.7 | 12  | 11.1 | 10  |

Q = Flow rate H = Total manometric head HS = Suction height

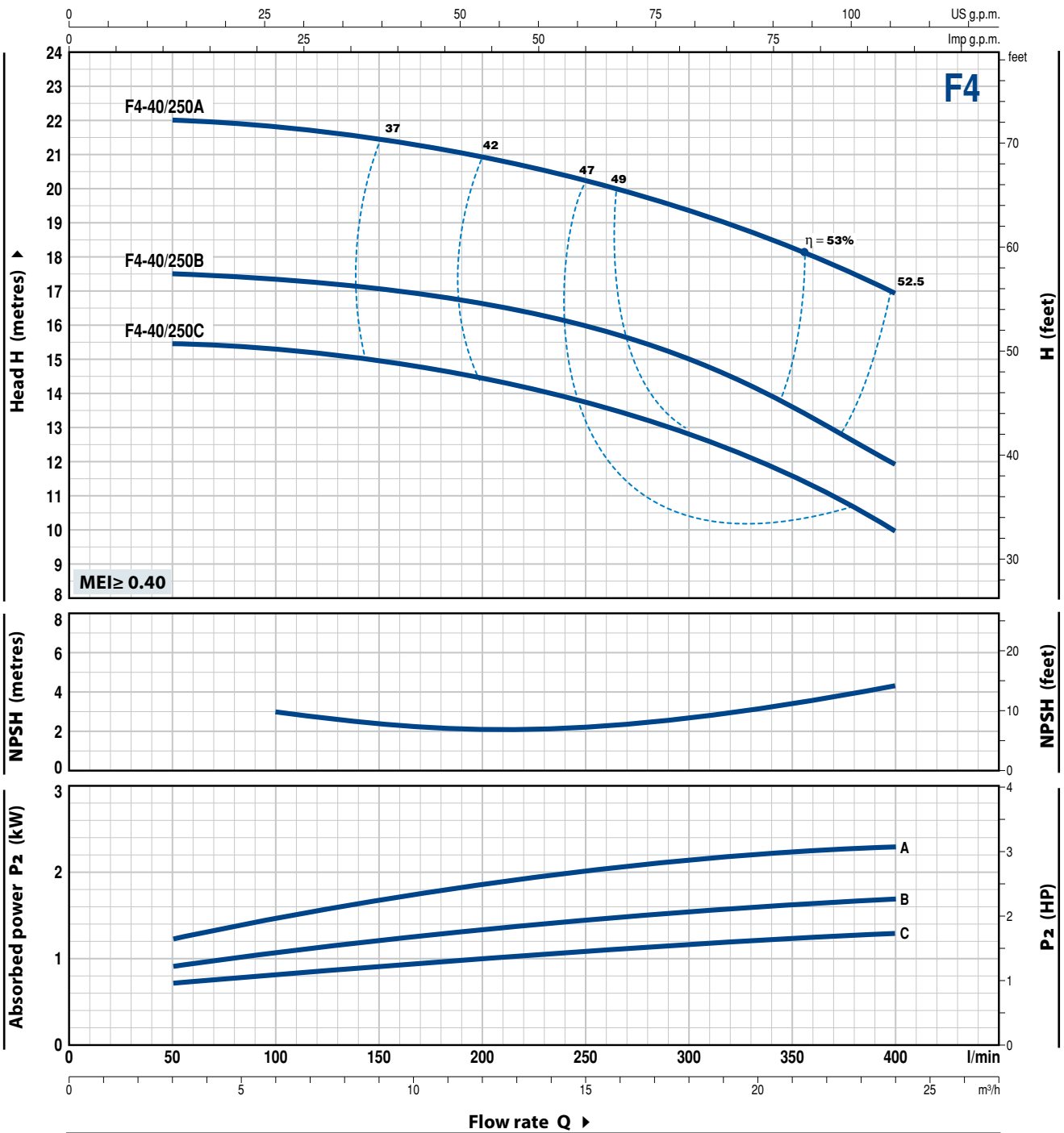
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.



# F4-40/250

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



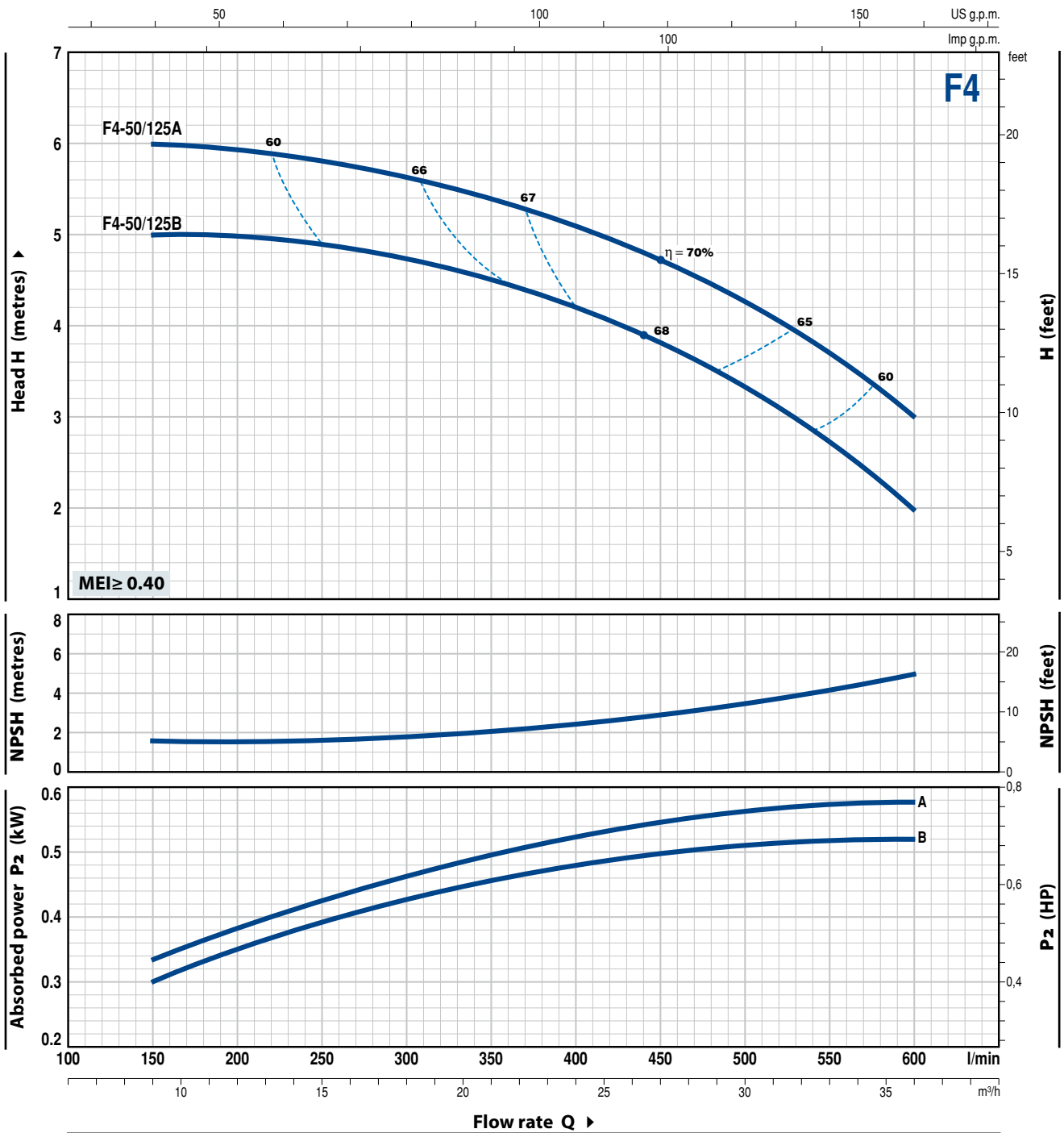
| MODEL       | POWER (P <sub>2</sub> ) |     | Q        | 3                 | 6     | 9     | 12    | 15    | 18    | 21    | 24    |
|-------------|-------------------------|-----|----------|-------------------|-------|-------|-------|-------|-------|-------|-------|
|             | kW                      | HP  |          | m <sup>3</sup> /h | l/min | l/min | l/min | l/min | l/min | l/min | l/min |
| Three-phase |                         |     |          | 50                | 100   | 150   | 200   | 250   | 300   | 350   | 400   |
| F4-40/250C  | 1.1                     | 1.5 | H metres | 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 = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n = 1450 rpm HS = 0 m



| MODEL       | POWER (P <sub>2</sub> ) |      | Q        | Flow rate         |     |     |     |     |     |     |     |     |     |    |  |
|-------------|-------------------------|------|----------|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|--|
|             | kW                      | HP   |          | m <sup>3</sup> /h | 9   | 12  | 15  | 17  | 21  | 24  | 27  | 30  | 33  | 36 |  |
| Three-phase |                         |      | l/min    | 150               | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 |    |  |
| F4-50/125B  | 0.55                    | 0.75 | H metres | 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   |    |  |

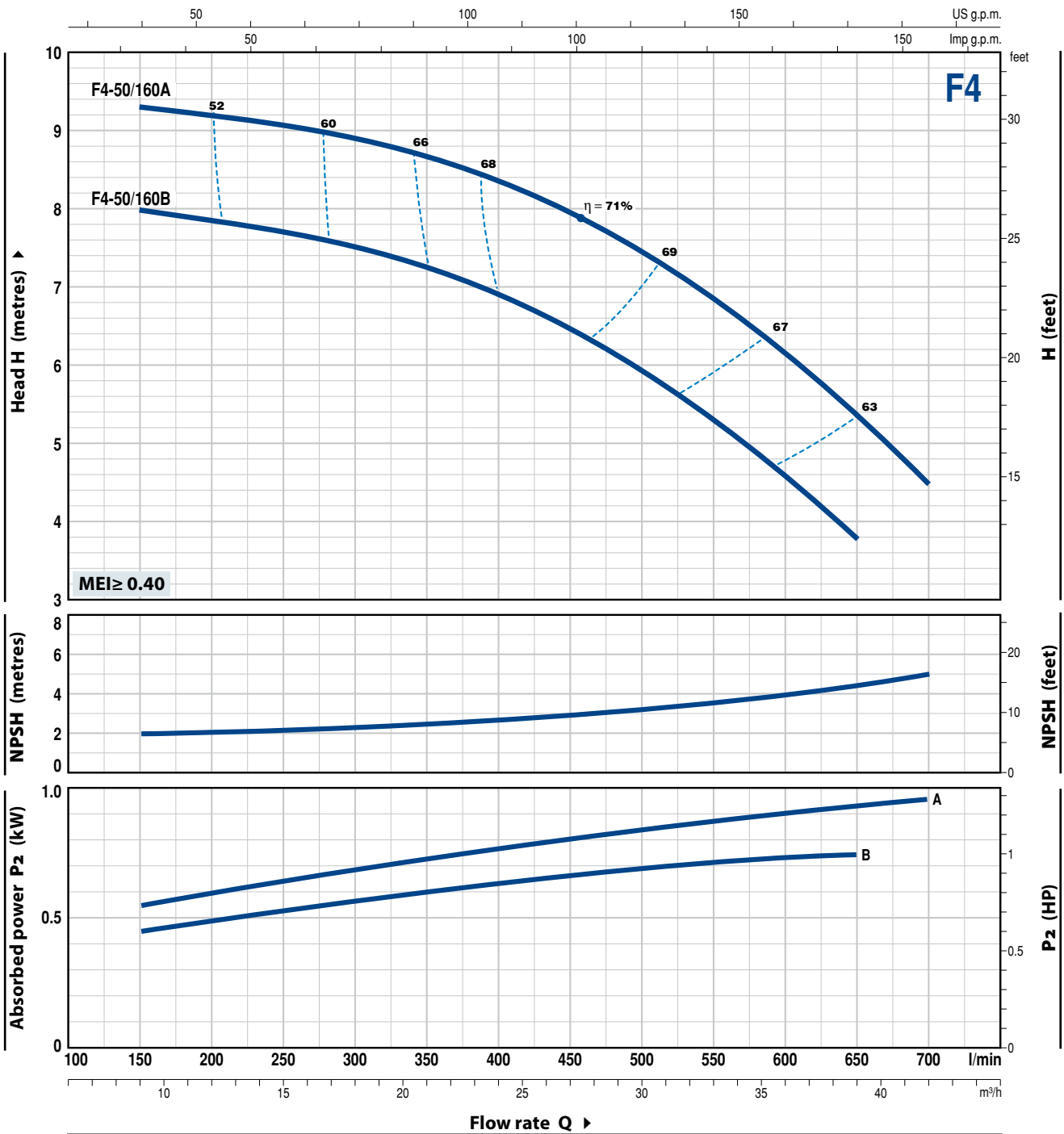
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

# F4-50/160

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



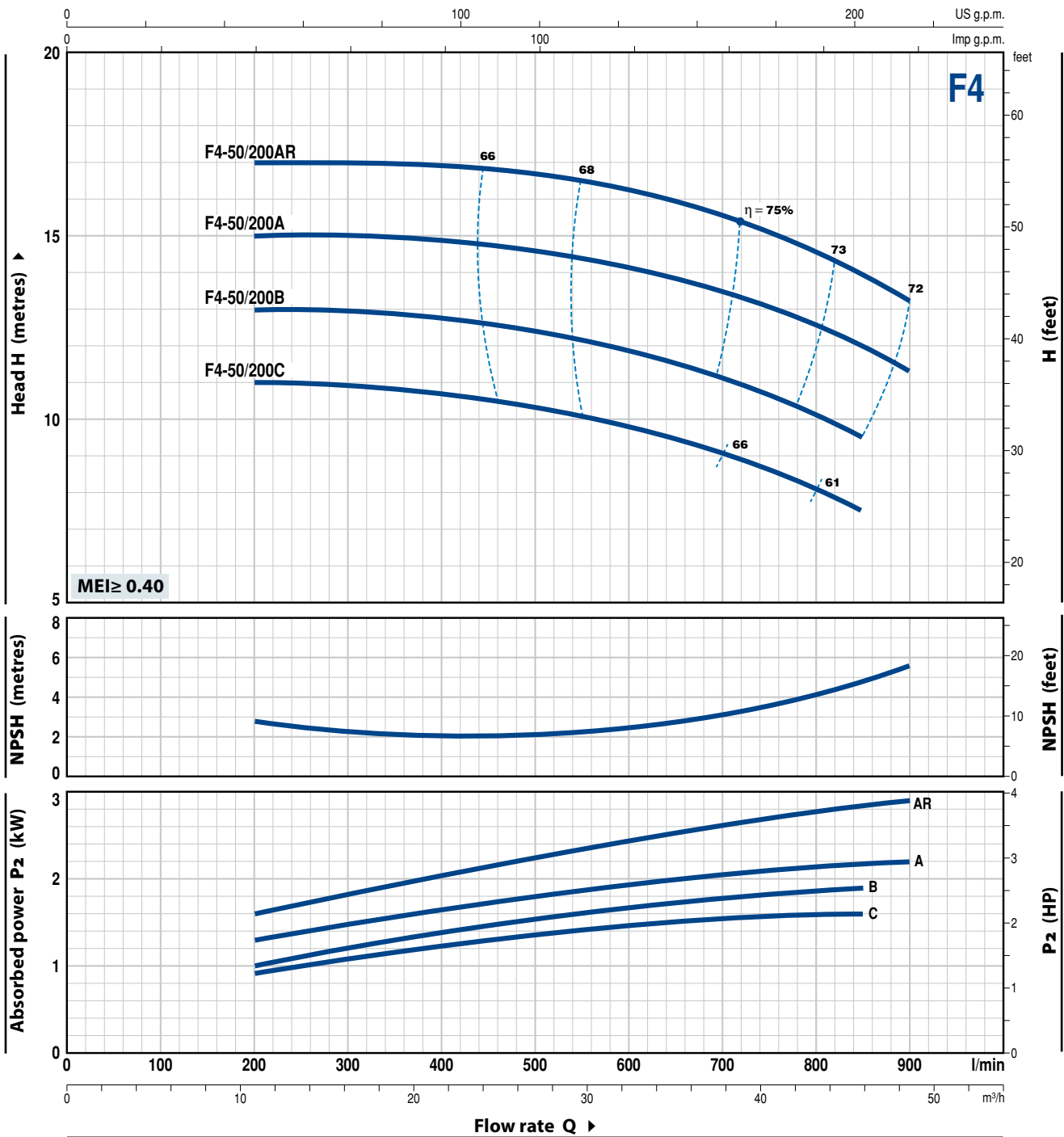
| MODEL       | POWER (P <sub>2</sub> ) |     | Q        | Flow rate         |     |     |     |     |     |     |     |     |     |     |     |    |  |
|-------------|-------------------------|-----|----------|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|--|
|             | kW                      | HP  |          | m <sup>3</sup> /h | 9   | 12  | 15  | 17  | 21  | 24  | 27  | 30  | 33  | 36  | 39  | 42 |  |
| Three-phase |                         |     | l/min    | 150               | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 |    |  |
| F4-50/160B  | 0.75                    | 1   | H metres | 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 | H metres | 9.3               | 9.2 | 9.1 | 8.9 | 8.7 | 8.4 | 8   | 7.4 | 6.8 | 6.2 | 5.4 | 4.5 |    |  |

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



| MODEL       | POWER (P <sub>2</sub> ) |    | Q        | Flow rate         |     |      |      |      |      |      |     |      |    |  |  |
|-------------|-------------------------|----|----------|-------------------|-----|------|------|------|------|------|-----|------|----|--|--|
|             | kW                      | HP |          | m <sup>3</sup> /h | 12  | 17   | 24   | 30   | 36   | 42   | 48  | 51   | 54 |  |  |
| Three-phase |                         |    | l/min    | 200               | 300 | 400  | 500  | 600  | 700  | 800  | 850 | 900  |    |  |  |
| F4-50/200C  | 1.5                     | 2  | H metres | 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 |    |  |  |

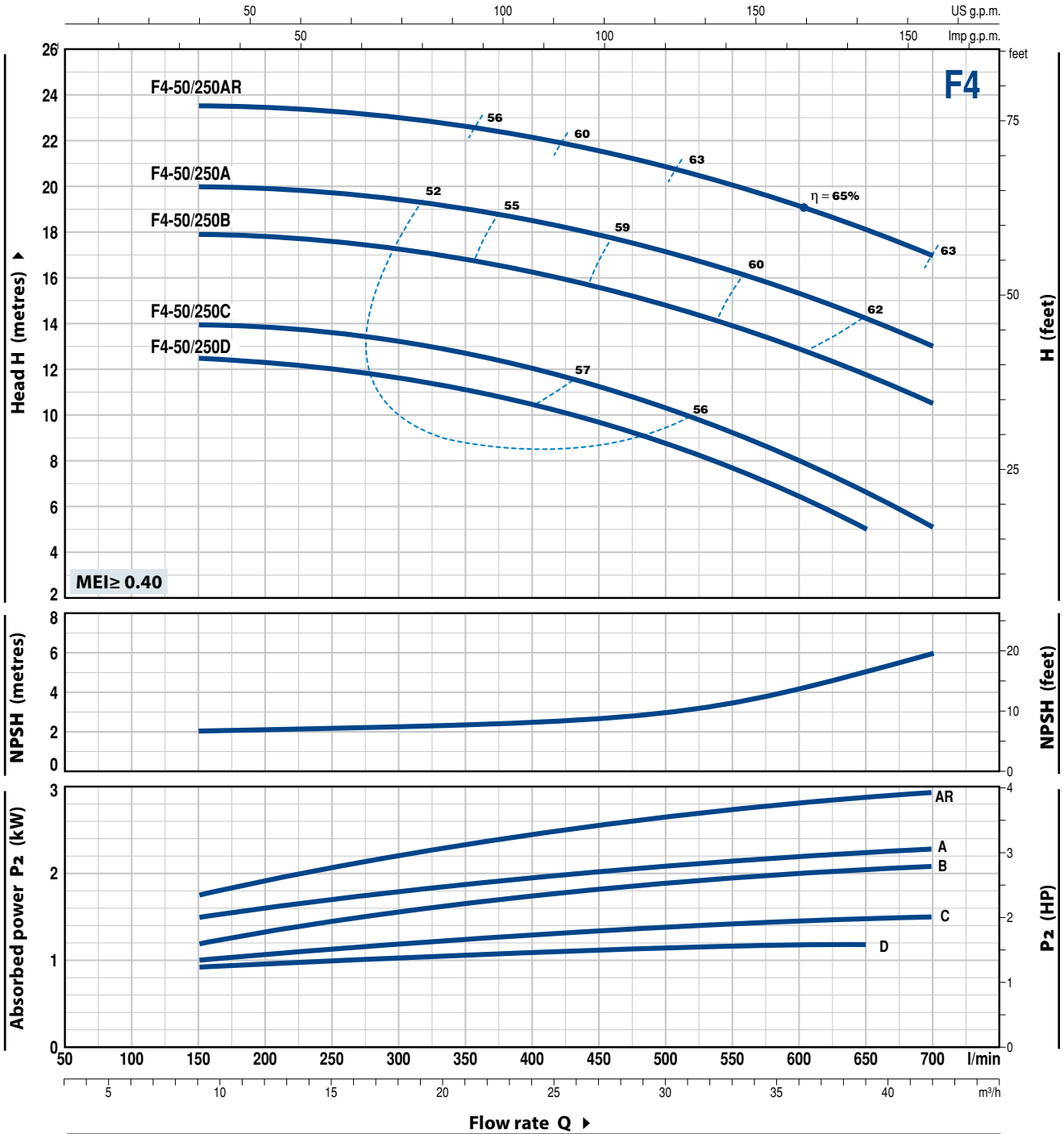
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

# F4-50/250

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



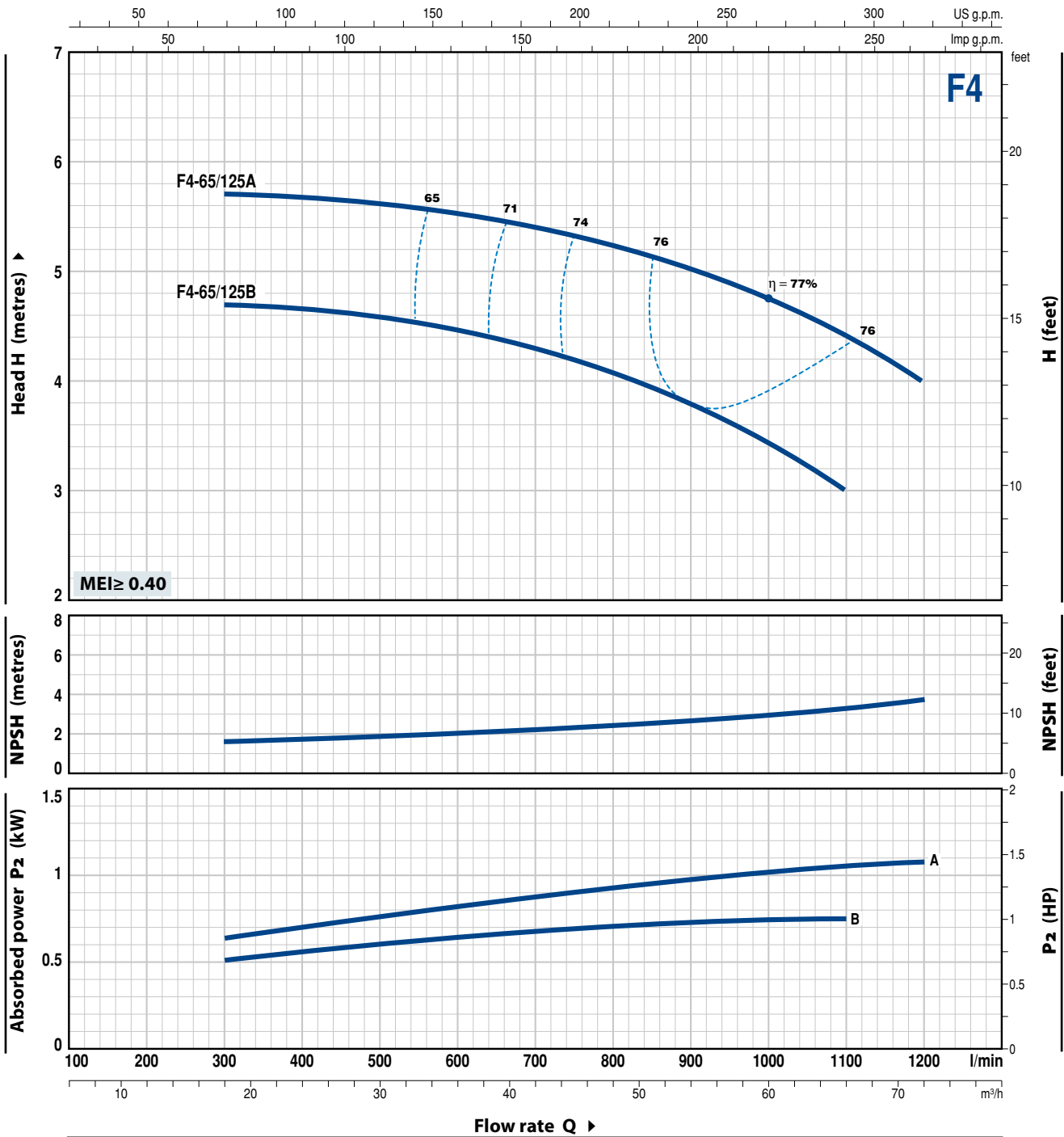
| MODEL       | POWER (P <sub>2</sub> ) |     | Q        | Flow rate         |      |      |      |      |      |      |      |      |      |      |      |    |  |
|-------------|-------------------------|-----|----------|-------------------|------|------|------|------|------|------|------|------|------|------|------|----|--|
|             | kW                      | HP  |          | m <sup>3</sup> /h | 9    | 12   | 15   | 18   | 21   | 24   | 27   | 30   | 33   | 36   | 39   | 42 |  |
| Three-phase |                         |     | l/min    | 150               | 200  | 250  | 300  | 350  | 400  | 450  | 500  | 550  | 600  | 650  | 700  |    |  |
| F4-50/250D  | 1.1                     | 1.5 | H metres | 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 = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



| MODEL       | POWER (P <sub>2</sub> ) |     | Q        | Flow rate         |     |     |     |     |     |     |      |      |      |    |  |  |
|-------------|-------------------------|-----|----------|-------------------|-----|-----|-----|-----|-----|-----|------|------|------|----|--|--|
|             | kW                      | HP  |          | m <sup>3</sup> /h | 18  | 24  | 30  | 36  | 42  | 48  | 54   | 60   | 66   | 72 |  |  |
| Three-phase |                         |     | l/min    | 300               | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 |    |  |  |
| F4-65/125B  | 0.75                    | 1   | H metres | 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    |    |  |  |

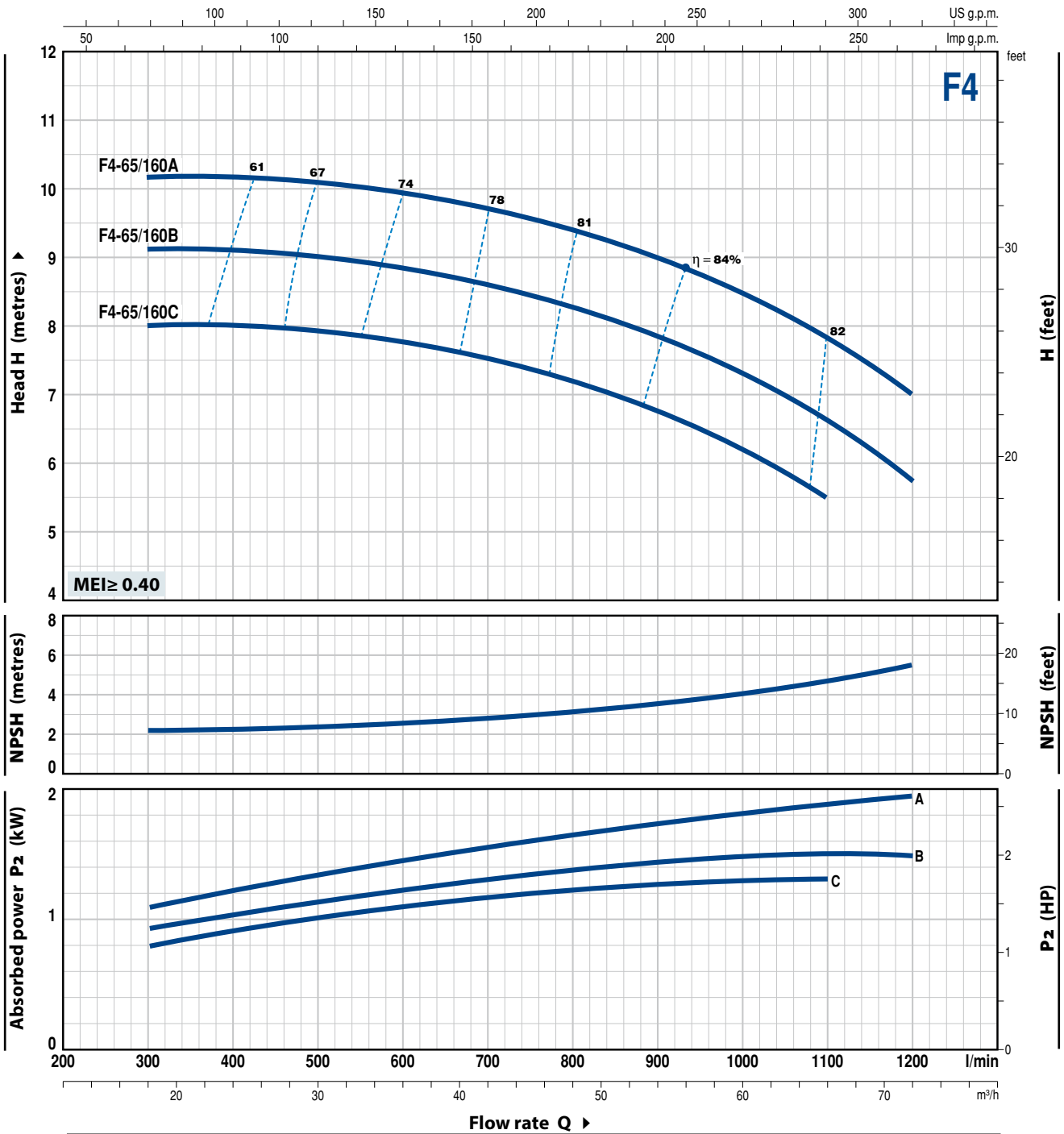
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

# F4-65/160

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



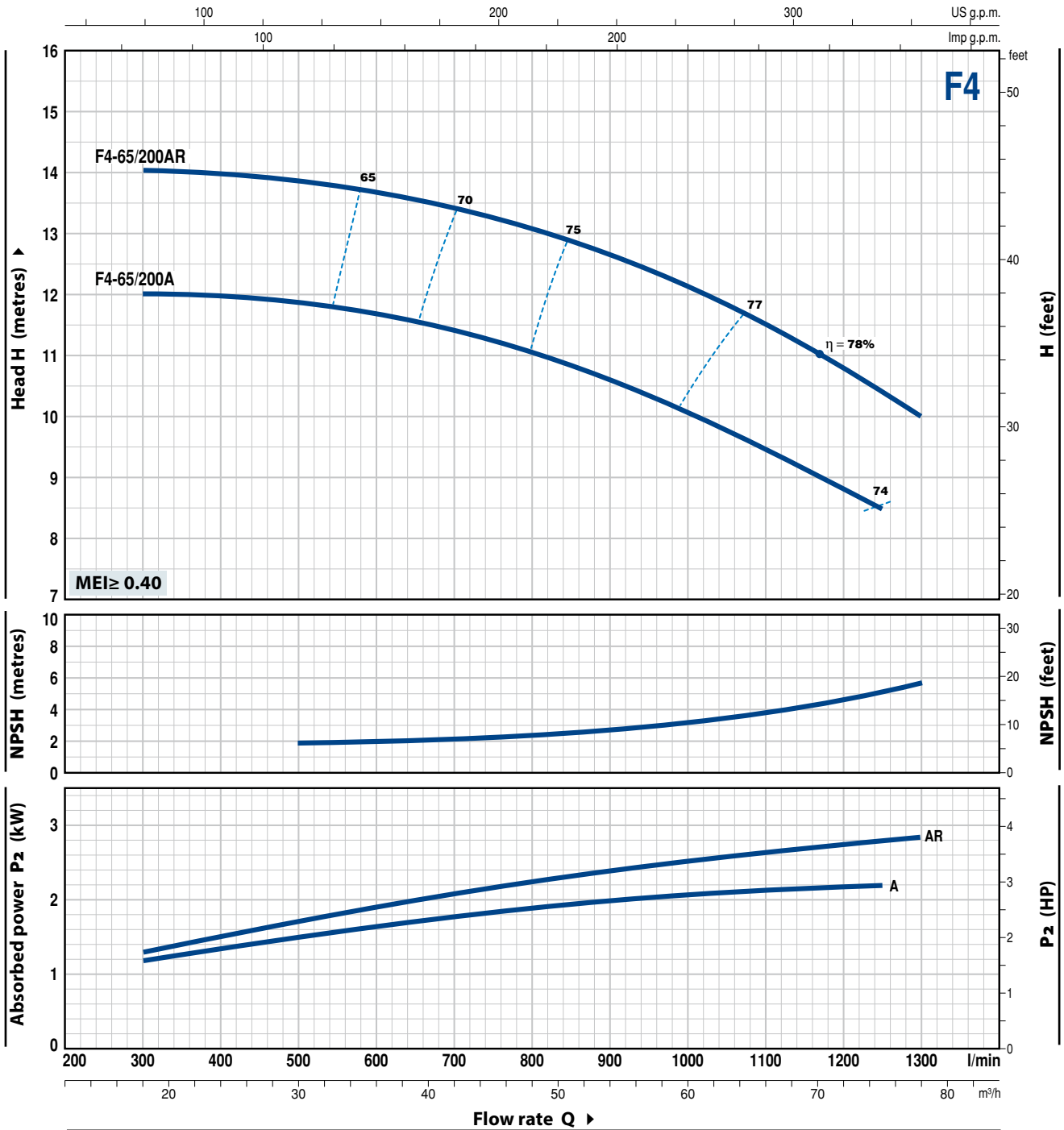
| MODEL      | POWER (P <sub>2</sub> ) |     | Q        | 18    | 24   | 30   | 36  | 42  | 48  | 54  | 60  | 66   | 72   |
|------------|-------------------------|-----|----------|-------|------|------|-----|-----|-----|-----|-----|------|------|
|            | kW                      | HP  |          | l/min | 300  | 400  | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 |
| F4-65/160C | 1.1                     | 1.5 | H metres | 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 = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



| MODEL       | POWER (P <sub>2</sub> ) |    | Q        | 18    | 24   | 30   | 36   | 42   | 48   | 54   | 60   | 66   | 72   | 75   | 78   |
|-------------|-------------------------|----|----------|-------|------|------|------|------|------|------|------|------|------|------|------|
|             | kW                      | HP |          | l/min | 300  | 400  | 500  | 600  | 700  | 800  | 900  | 1000 | 1100 | 1200 | 1250 |
| F4-65/200A  | 2.2                     | 3  | H metres | 12    | 12   | 11.9 | 11.6 | 11.4 | 11   | 10.6 | 10.1 | 9.5  | 8.8  | 8.5  |      |
| F4-65/200AR | 3                       | 4  | H metres | 14    | 13.9 | 13.8 | 13.6 | 13.4 | 13.1 | 12.7 | 12.1 | 11.5 | 10.8 | 10.3 | 10   |

Q = Flow rate H = Total manometric head HS = Suction height

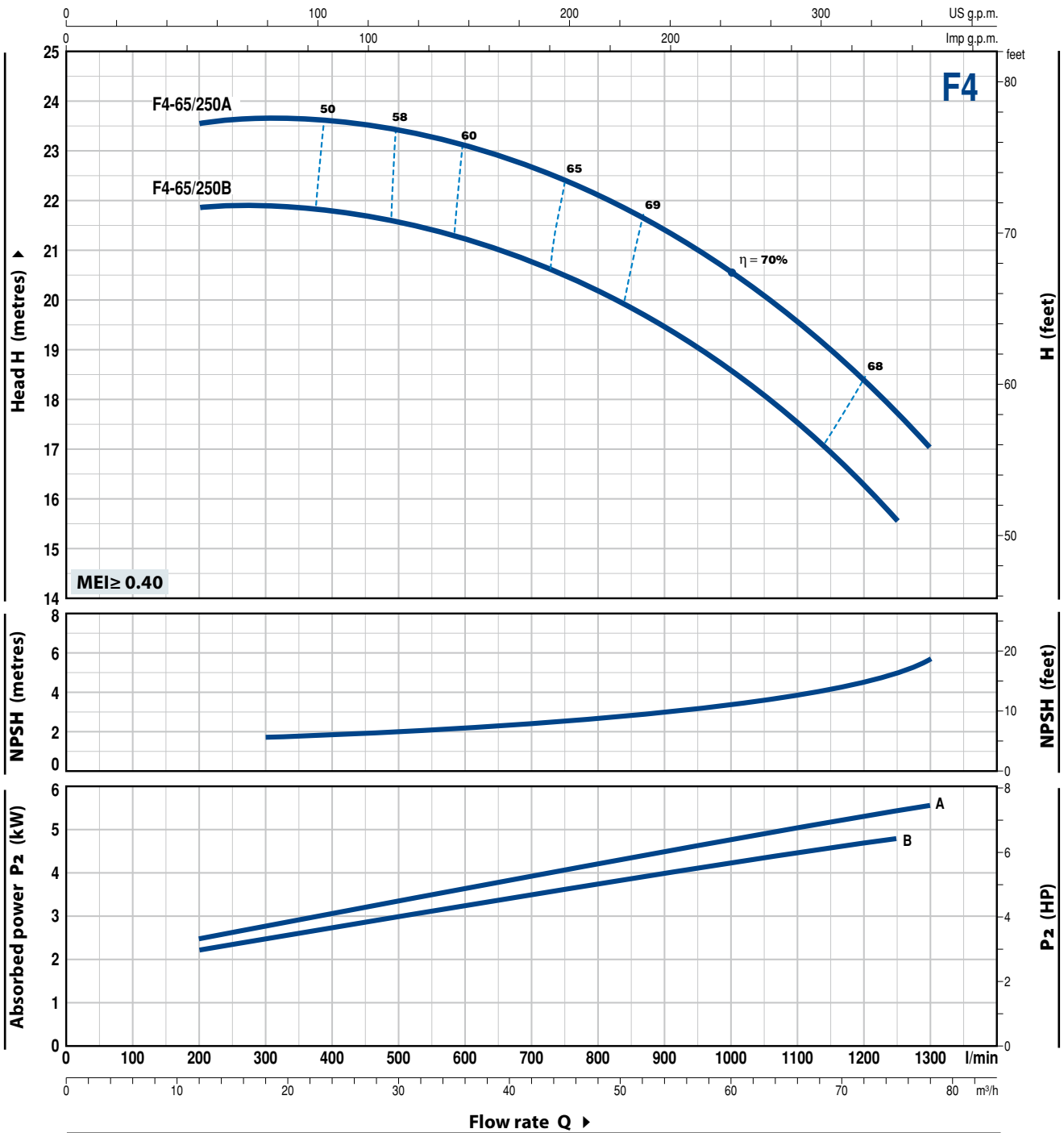
Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.



# F4-65/250

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



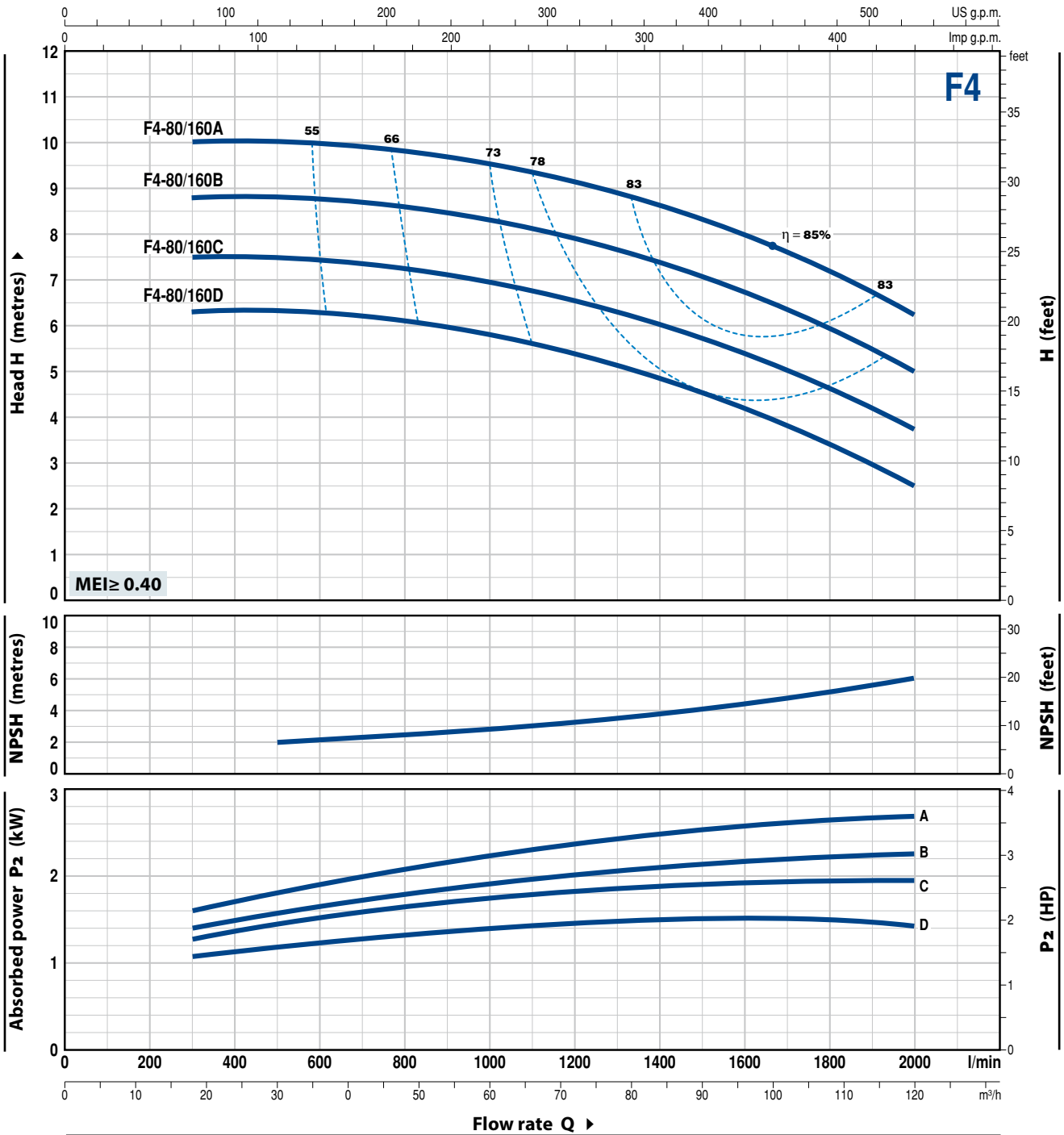
| MODEL      | POWER (P <sub>2</sub> ) |     | Q        | 12    | 18   | 24   | 30   | 36   | 42   | 48   | 54   | 60   | 66   | 72   | 75   | 78   |
|------------|-------------------------|-----|----------|-------|------|------|------|------|------|------|------|------|------|------|------|------|
|            | kW                      | HP  |          | l/min | 200  | 300  | 400  | 500  | 600  | 700  | 800  | 900  | 1000 | 1100 | 1200 | 1250 |
| F4-65/250B | 4                       | 5.5 | H metres | 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 = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



| MODEL       | POWER (P <sub>2</sub> ) |    | Q        | Flow rate         |     |     |     |      |      |      |      |      |      |     |  |
|-------------|-------------------------|----|----------|-------------------|-----|-----|-----|------|------|------|------|------|------|-----|--|
|             | kW                      | HP |          | m <sup>3</sup> /h | 18  | 24  | 36  | 48   | 60   | 72   | 84   | 96   | 108  | 120 |  |
| Three-phase |                         |    | l/min    | 300               | 400 | 600 | 800 | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 |     |  |
| F4-80/160D  | 1.5                     | 2  | H metres | 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  |     |  |

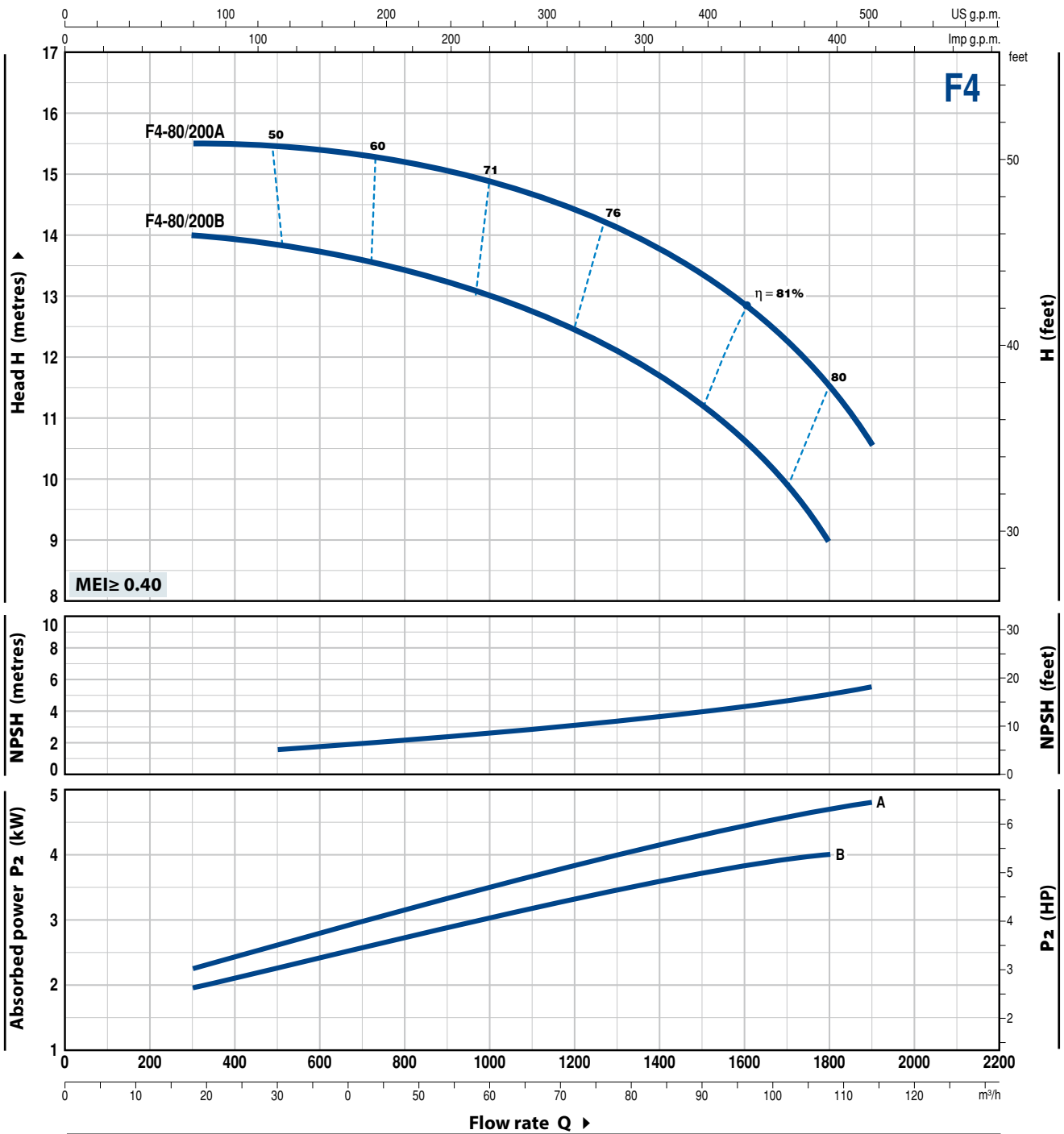
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

# F4-80/200

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



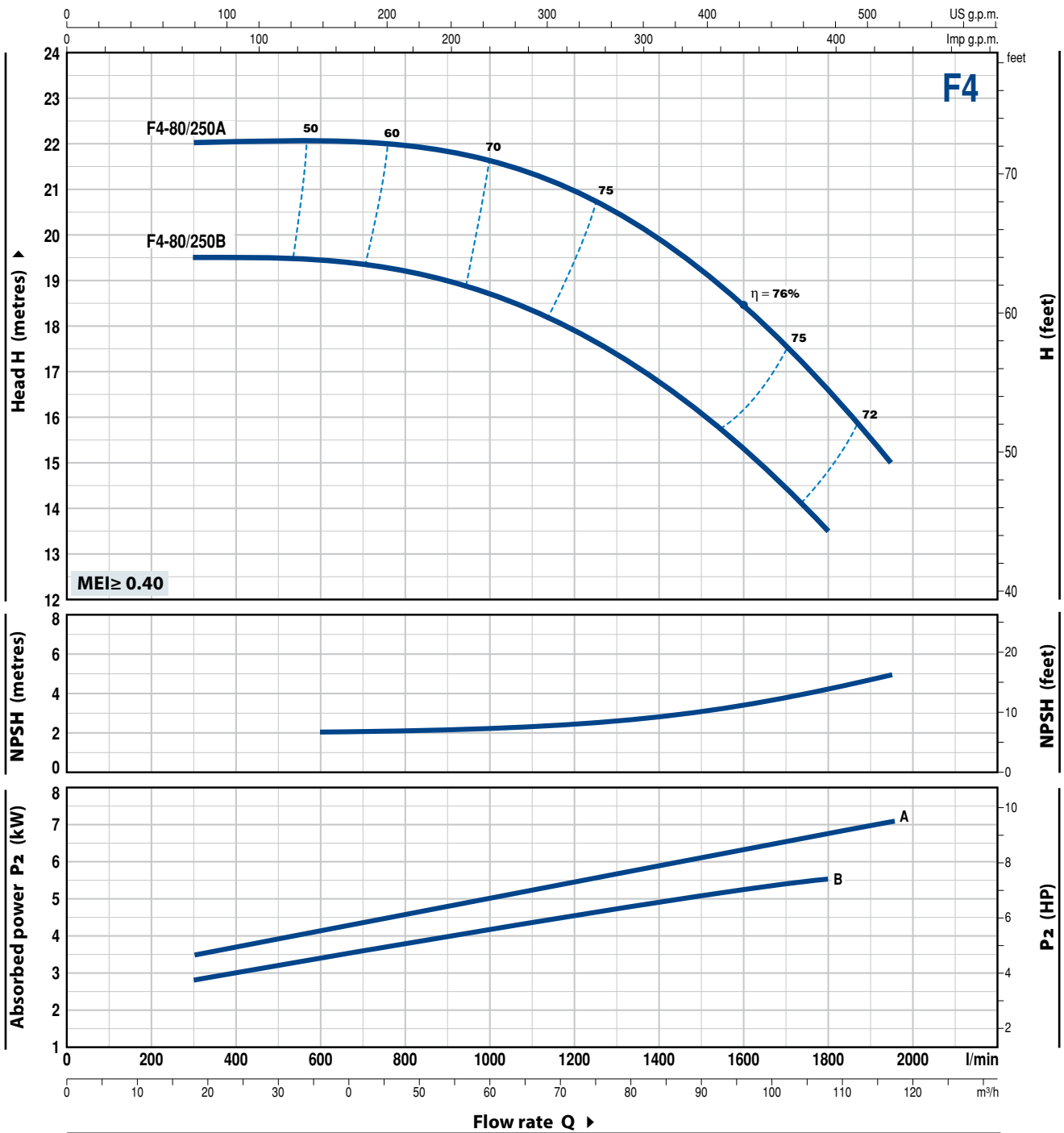
| MODEL       | POWER (P <sub>2</sub> ) |     | Q        | Flow rate         |       |      |      |      |      |      |      |      |      |     |     |
|-------------|-------------------------|-----|----------|-------------------|-------|------|------|------|------|------|------|------|------|-----|-----|
|             | kW                      | HP  |          | m <sup>3</sup> /h | l/min | 18   | 24   | 36   | 48   | 60   | 72   | 84   | 96   | 108 | 114 |
| Three-phase |                         |     |          | 300               | 400   | 600  | 800  | 1000 | 1200 | 1400 | 1600 | 1800 | 1900 |     |     |
| F4-80/200B  | 4                       | 5.5 | H metres | 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 = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



| MODEL       | POWER (P <sub>2</sub> ) |     | Q        | Flow rate         |      |      |      |      |      |      |      |      |      |     |  |
|-------------|-------------------------|-----|----------|-------------------|------|------|------|------|------|------|------|------|------|-----|--|
|             | kW                      | HP  |          | m <sup>3</sup> /h | 18   | 24   | 36   | 48   | 60   | 72   | 84   | 96   | 108  | 117 |  |
| Three-phase |                         |     | l/min    | 300               | 400  | 600  | 800  | 1000 | 1200 | 1400 | 1600 | 1800 | 1950 |     |  |
| F4-80/250B  | 5.5                     | 7.5 | H metres | 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   |     |  |

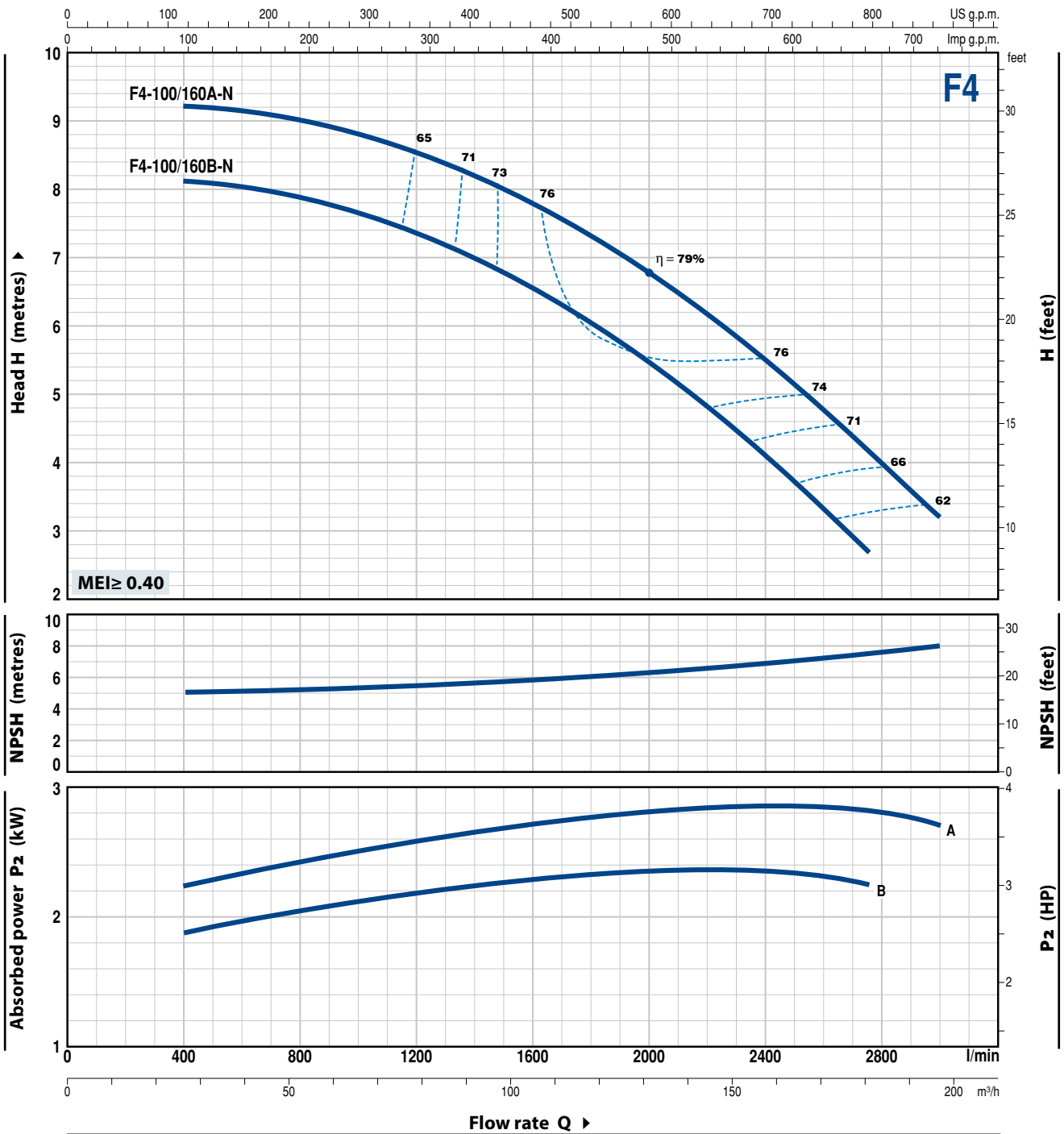
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

# F4-100/160

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



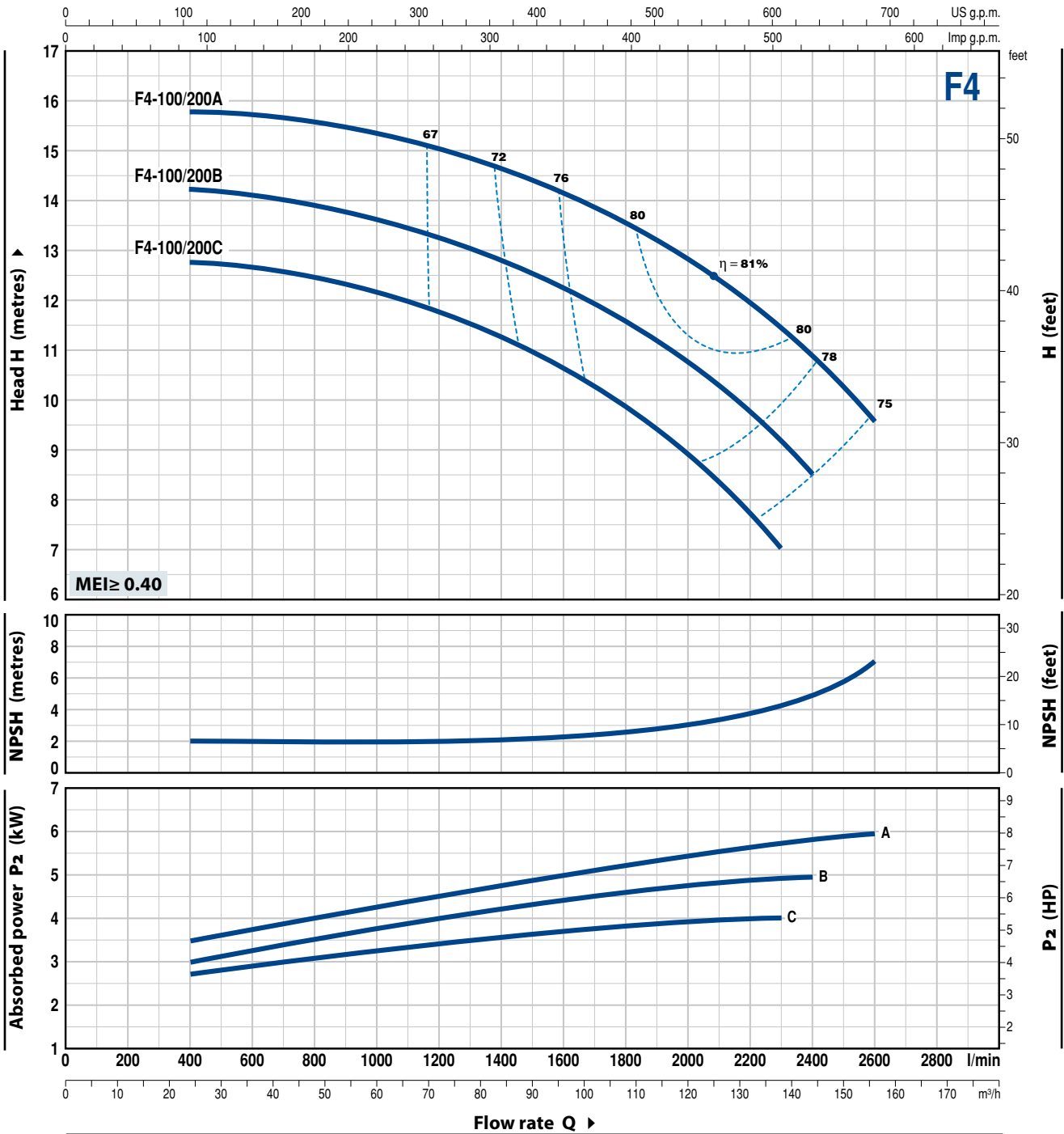
| MODEL         | POWER (P <sub>2</sub> ) |    | Q        | Flow rate         |     |      |      |      |      |      |      |     |
|---------------|-------------------------|----|----------|-------------------|-----|------|------|------|------|------|------|-----|
|               | kW                      | HP |          | m <sup>3</sup> /h | 24  | 48   | 72   | 96   | 120  | 144  | 165  | 180 |
| Three-phase   |                         |    | l/min    | 400               | 800 | 1200 | 1600 | 2000 | 2400 | 2750 | 3000 |     |
| F4-100/160B-N | 2.2                     | 3  | H metres | 8.1               | 7.9 | 7.3  | 6.5  | 5.5  | 4.1  | 2.7  |      |     |
| F4-100/160A-N | 3                       | 4  |          | 9.2               | 9   | 8.5  | 7.8  | 6.8  | 5.5  | 4.2  | 3.2  |     |

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



| MODEL       | POWER (P <sub>2</sub> ) |     | Q        | 24   | 36   | 48   | 60   | 72   | 84   | 96   | 108  | 120  | 138  | 144  | 156  |
|-------------|-------------------------|-----|----------|------|------|------|------|------|------|------|------|------|------|------|------|
|             | kW                      | HP  |          | 400  | 600  | 800  | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | 2300 | 2400 | 2600 |
| F4-100/200C | 4                       | 5.5 | H metres | 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  |

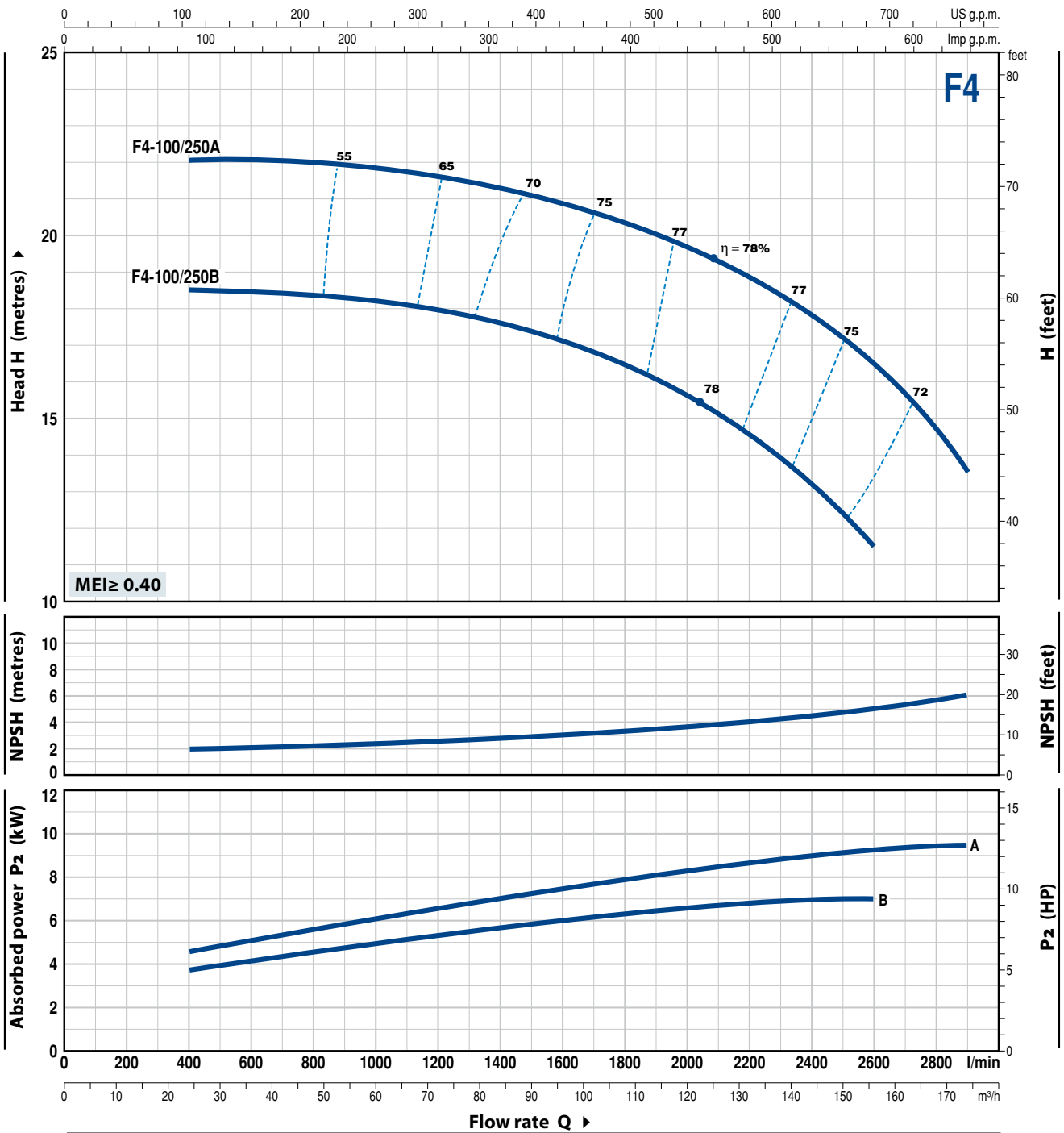
Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

# F4-100/250

## CHARACTERISTIC CURVES AND PERFORMANCE DATA

50 Hz n= 1450 rpm HS= 0 m



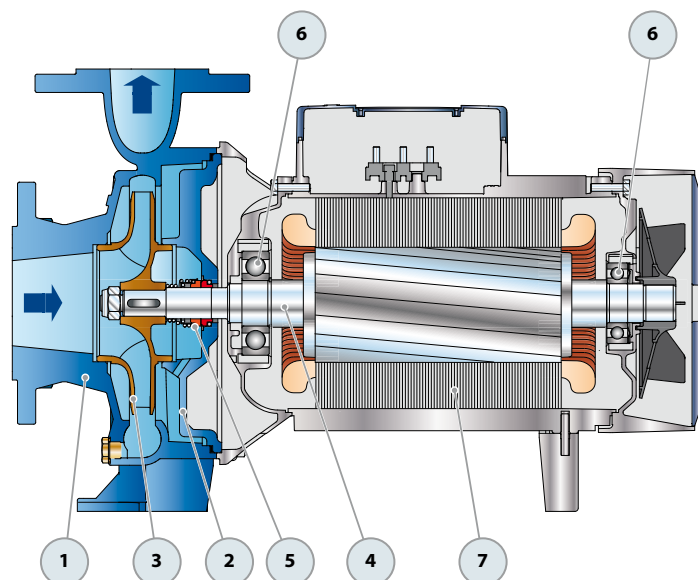
| MODEL       | POWER (P <sub>2</sub> ) |      | Q        | Flow rate         |      |      |      |      |      |      |      |      |      |      |      |      |     |  |  |
|-------------|-------------------------|------|----------|-------------------|------|------|------|------|------|------|------|------|------|------|------|------|-----|--|--|
|             | kW                      | HP   |          | m <sup>3</sup> /h | 24   | 36   | 48   | 60   | 72   | 84   | 96   | 108  | 120  | 132  | 144  | 156  | 174 |  |  |
| Three-phase |                         |      | l/min    | 400               | 600  | 800  | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2900 |     |  |  |
| F4-100/250B | 7.5                     | 10   | H metres | 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 | H metres | 22                | 22   | 22   | 21.8 | 21.6 | 21.2 | 20.9 | 20.3 | 19.7 | 18.9 | 17.9 | 16.5 | 13.5 |     |  |  |

Q = Flow rate H = Total manometric head HS = Suction height

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

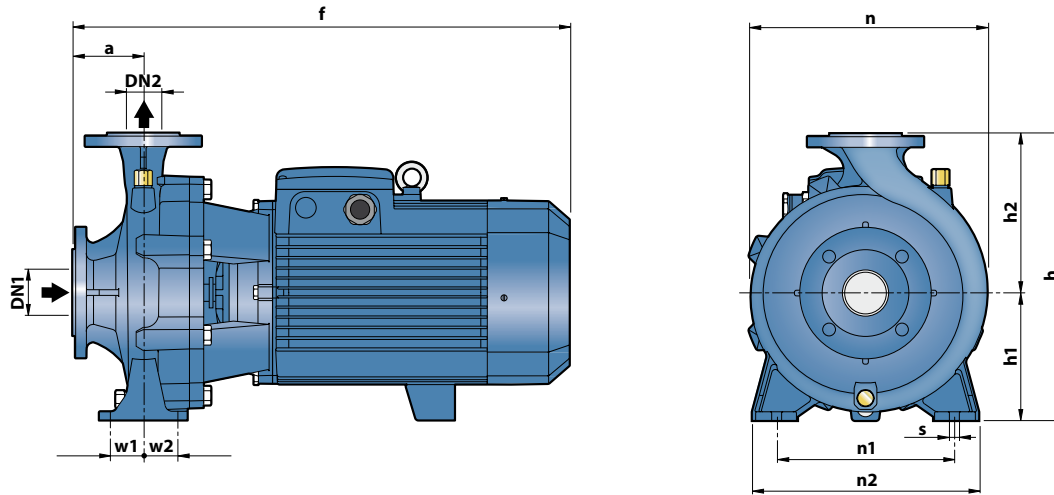
## POS. COMPONENT CONSTRUCTION CHARACTERISTICS

|                          |   |                                |   |                                |                        |                  |
|--------------------------|---|--------------------------------|---|--------------------------------|------------------------|------------------|
| <b>1 PUMP BODY</b>       | Cast iron, complete with flanged suction and delivery ports   |                                |   |                                |                        |                  |
| <b>2 BODY BACKPLATE</b>  | Cast iron   |                                |   |                                |                        |                  |
| <b>3 IMPELLER</b>        | Brass for F4-32/160, 32/200, 40/160, 40/200, 50/125, 50/160   |                                |   |                                |                        |                  |
| <b>4 MOTOR SHAFT</b>     | Stainless steel EN 10088-3 - 1.4104   |                                |   |                                |                        |                  |
| <b>5 MECHANICAL SEAL</b> | <b>Pump Model</b>   | <b>Seal Model</b>              | <b>Shaft Diameter</b>   | <b>Stationary ring</b>         | <b>Rotational ring</b> | <b>Elastomer</b> |
|                          | F4-32/160<br>F4-40/160  | F4-50/125                      | <b>FN-20</b>  | <b>Ø 20 mm</b>                 | Graphite               | Ceramic<br>NBR   |
|                          | F4-32/200<br>F4-40/200  | F4-50/160<br>F4-65/125         | <b>FN-24</b>  | <b>Ø 24 mm</b>                 | Graphite               | Ceramic<br>NBR   |
|                          | F4-50/200<br>F4-65/200<br>F4-65/160   | F4-80/160<br>F4-100/160        | <b>FN-32 NU</b>   | <b>Ø 32 mm</b>                 | Graphite               | Ceramic<br>NBR   |
|                          | F4-32/250<br>F4-40/250  | F4-50/250                      | <b>FN-38</b>  | <b>Ø 38 mm</b>                 | Graphite               | Ceramic<br>NBR   |
|                          | F4-65/250<br>F4-80/200  | F4-100/200                     | <b>FN-40 NU</b>   | <b>Ø 40 mm</b>                 | Graphite               | Ceramic<br>NBR   |
|                          | F4-80/250   | F4-100/250                     | <b>FN-45 NU</b>   | <b>Ø 45 mm</b>                 | Graphite               | Ceramic<br>NBR   |
| <b>6 BEARINGS</b>        | <b>Pump Model</b>   | <b>Model</b>                   | <b>Pump Model</b>   | <b>Model</b>                   |                        |                  |
|                          | F4-32/160<br>F4-40/160<br>F4-50/125   | <b>6206 ZZ-C3 / 6204 ZZ</b>    | 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 | <b>6208 ZZ-C3 / 6206 ZZ-C3</b> |                        |                  |
|                          | F4-32/200<br>F4-40/200<br>F4-50/160<br>F4-65/125  | <b>6307 ZZ-C3 / 6206 ZZ-C3</b> | F4-65/250<br>F4-80/200<br>F4-80/250<br>F4-100/200<br>F4-100/250                                       | <b>6310 ZZ-C3 / 6308 ZZ-C3</b> |                        |                  |
| <b>7 ELECTRIC MOTOR</b>  | <b>F4:</b> with 4 poles three-phase 230/400 V - 50 Hz<br><b>► The three-phase pumps are fitted with high performance motors up to P<sub>2</sub>=1.1 kW in class IE2 and from P<sub>2</sub>=1.5 kW in class IE3 (IEC 60034-30)</b><br>– Insulation: class F<br>– Protection: IP 55 |                                |   |                                |                        |                  |



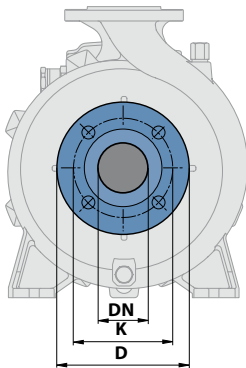


## DIMENSIONS AND WEIGHT



| MODEL              | DIMENSIONS mm |     |     |     |     |     |     |     |     |     |     |      |       | kg    |       |       |      |      |       |      |
|--------------------|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-------|-------|-------|-------|------|------|-------|------|
|                    | DN1           | DN2 | a   | f   | h   | h1  | h2  | n   | n1  | n2  | w1  | w2   | s     |       |       |       |      |      |       |      |
| <b>Three-phase</b> |               |     |     |     |     |     |     |     |     |     |     |      |       |       |       |       |      |      |       |      |
| F4-32/160B         | 50            | 32  | 80  | 412 | 292 | 132 | 160 | 242 | 190 | 240 | 35  | 35   | 14    | 31.2  |       |       |      |      |       |      |
| F4-32/160A         |               |     |     |     |     |     |     |     |     |     |     |      |       |       | 31.3  |       |      |      |       |      |
| F4-32/200B         |               |     |     |     |     |     |     |     |     |     |     |      |       |       |       | 43.4  |      |      |       |      |
| F4-32/200A         |               |     |     |     |     |     |     |     |     |     |     |      |       |       |       | 43.5  |      |      |       |      |
| F4-32/200BH        |               |     |     |     | 100 | 469 | 340 | 160 | 180 | 270 |     |      |       |       |       |       | 42.3 |      |       |      |
| F4-32/200AH        |               |     |     |     |     |     |     |     |     |     |     |      |       |       |       |       | 42.4 |      |       |      |
| F4-32/250C         |               |     |     |     |     | 522 | 405 | 180 | 225 | 330 | 250 | 320  |       | 405   | 47.5  |       | 59.7 |      |       |      |
| F4-32/250B         |               |     |     |     |     | 568 |     |     |     |     |     |      |       |       |       |       | 63.1 |      |       |      |
| F4-32/250A         |               |     |     |     |     |     |     |     |     |     |     |      | 68.7  |       |       |       |      |      |       |      |
| F4-40/160B         | 65            | 40  | 80  | 412 | 292 | 132 | 160 | 240 | 190 | 240 | 35  | 35   | 14    | 32.5  |       |       |      |      |       |      |
| F4-40/160A         |               |     |     |     |     |     |     |     |     |     |     |      |       |       |       | 32.9  |      |      |       |      |
| F4-40/200B         |               |     |     |     | 100 | 489 | 340 | 160 | 180 | 275 | 212 | 265  |       |       |       | 46.0  |      |      |       |      |
| F4-40/200A         |               |     |     |     |     | 522 | 405 | 180 | 225 | 328 | 250 | 320  |       | 47.5  | 47.5  | 63.1  |      |      |       |      |
| F4-40/250C         |               |     |     |     |     | 568 |     |     |     |     |     |      |       |       |       |       | 68.7 |      |       |      |
| F4-40/250B         |               |     |     |     |     |     |     |     |     |     |     |      |       |       |       |       | 63.1 |      |       |      |
| F4-40/250A         |               |     |     |     |     |     |     |     |     |     |     |      | 68.7  |       |       |       |      |      |       |      |
| F4-50/125B         | 65            | 50  | 100 | 431 | 292 | 132 | 160 | 242 | 190 | 240 | 35  | 35   | 14    | 32.2  |       |       |      |      |       |      |
| F4-50/125A         |               |     |     |     |     |     |     |     |     |     |     |      |       |       |       |       |      | 32.3 |       |      |
| F4-50/160B         |               |     |     |     |     | 489 | 340 | 160 | 180 | 269 |     |      |       | 212   | 265   |       |      | 44.4 |       |      |
| F4-50/160A         |               |     |     |     |     |     |     |     | 529 |     |     |      |       |       |       |       |      |      | 44.5  |      |
| F4-50/200C         |               |     |     |     | 576 | 360 | 160 | 200 | 316 | 250 | 320 | 47.5 |       | 47.5  | 64.4  |       |      |      |       |      |
| F4-50/200B         |               |     |     |     |     |     |     | 576 |     |     |     |      |       |       |       |       |      | 64.7 |       |      |
| F4-50/200A         |               |     |     |     | 522 | 405 | 180 | 225 | 337 | 250 | 320 | 47.5 |       | 47.5  | 68.8  |       |      |      |       |      |
| F4-50/200AR        |               |     |     |     |     |     |     |     |     |     |     |      |       |       | 522   |       |      |      |       | 59.9 |
| F4-50/250D         |               |     |     |     | 568 | 405 | 180 | 225 | 337 | 250 | 320 | 47.5 |       | 47.5  | 63.3  |       |      |      |       |      |
| F4-50/250C         |               |     |     |     |     |     |     |     |     |     |     |      |       |       | 568   |       |      |      |       | 68.7 |
| F4-50/250B         |               |     |     |     |     |     |     |     |     |     |     |      |       |       |       |       |      |      |       | 69.1 |
| F4-50/250A         |               |     |     |     |     |     |     |     |     |     |     |      |       |       |       |       |      |      |       | 73.2 |
| F4-50/250AR        |               |     |     |     |     |     |     |     |     |     |     |      |       |       |       | 51.0  |      |      |       |      |
| F4-65/125B         |               |     | 80  | 65  | 100 | 511 | 340 | 160 | 180 | 291 | 212 | 280  |       | 47.5  | 47.5  | 14    | 51.1 |      |       |      |
| F4-65/125A         |               |     |     |     |     |     |     |     |     |     |     |      |       |       |       |       |      |      |       |      |
| F4-65/160C         |               |     |     |     |     | 533 | 360 | 160 | 200 | 300 | 250 | 320  | 60    | 60    | 63.7  |       |      |      |       |      |
| F4-65/160B         |               |     |     |     |     |     |     |     | 579 |     |     |      |       |       |       |       |      |      | 69.0  |      |
| F4-65/160A         |               |     |     |     |     | 582 | 405 | 180 | 225 | 340 | 250 | 320  | 60    | 60    | 73.0  |       |      |      |       |      |
| F4-65/200A         |               |     |     |     |     |     |     |     |     |     |     |      |       |       | 627   |       |      |      |       |      |
| F4-65/200AR        |               |     |     |     |     | 722 | 450 | 200 | 250 | 373 | 280 | 360  | 60    | 60    | 139.6 |       |      |      |       |      |
| F4-65/250B         |               |     |     |     |     |     |     |     |     |     |     |      |       |       | 565   |       |      |      |       |      |
| F4-65/250A         |               |     |     |     |     |     |     |     |     |     |     |      |       |       |       |       | 62.1 |      |       |      |
| F4-80/160D         | 100           | 80  |     |     |     | 125 | 611 | 405 | 180 | 225 | 330 | 250  | 320   | 47.5  | 47.5  |       | 14   | 67.3 |       |      |
| F4-80/160C         |               |     |     |     |     |     |     |     |     |     |     |      |       |       |       |       |      |      | 67.5  |      |
| F4-80/160B         |               |     |     |     | 655 |     | 430 | 160 | 250 | 360 | 280 | 345  |       |       | 114.4 |       |      |      |       |      |
| F4-80/160A         |               |     |     |     |     |     |     |     | 750 |     |     |      |       |       |       | 130.2 |      |      |       |      |
| F4-80/200B         |               |     |     |     | 768 | 480 | 200 | 280 | 405 | 315 | 400 | 60   | 60    | 149.5 |       |       |      |      |       |      |
| F4-80/200A         |               |     |     |     |     |     |     |     |     |     |     |      |       | 768   |       |       |      |      | 166.0 |      |
| F4-80/250B         |               |     |     |     | 140 | 789 | 505 | 225 | 280 | 391 | 280 | 360  | 60    | 60    | 173.5 |       |      |      |       |      |
| F4-80/250A         |               |     |     |     |     |     |     |     |     |     |     |      |       |       | 821   |       |      |      |       |      |
| F4-100/160B-N      | 125           | 100 | 125 | 622 | 480 | 200 |     | 362 |     |     |     |      |       | 70.7  |       |       |      |      |       |      |
| F4-100/160A-N      |               |     |     |     |     | 657 |     |     |     |     | 280 | 360  |       |       | 78.1  |       |      |      |       |      |
| F4-100/200C        |               |     |     |     |     | 752 |     |     |     |     |     |      | 60    | 60    | 18    | 124.1 |      |      |       |      |
| F4-100/200B        |               |     |     |     | 789 | 505 | 225 | 280 | 422 | 315 | 400 | 60   | 60    | 18    | 139.8 |       |      |      |       |      |
| F4-100/200A        |               |     |     |     |     |     |     |     |     |     |     |      |       |       | 821   |       |      |      |       |      |
| F4-100/250B        |               |     |     |     |     |     |     |     |     |     |     |      |       |       | 173.5 |       |      |      |       |      |
| F4-100/250A        |               |     |     |     |     |     |     |     |     |     |     |      | 182.9 |       |       |       |      |      |       |      |

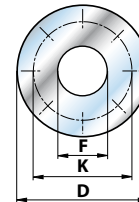
## FLANGED PORTS



| DN FLANGES<br>mm | D<br>mm | K<br>mm | HOLES |        |
|------------------|---------|---------|-------|--------|
|                  |         |         | 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     |       |        |

## COUNTER FLANGES

(CAN BE ORDERED SEPARATELY)



| DN FLANGES<br>mm | F<br>COUNTER FLANGES | D<br>mm | K<br>mm | HOLES |        |
|------------------|----------------------|---------|---------|-------|--------|
|                  |                      |         |         | 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     |       |        |

## ABSORPTION

| MODEL              | VOLTAGE   |           |
|--------------------|-----------|-----------|
|                    | 230÷240 V | 400÷415 V |
| <b>Three-phase</b> |           |           |
| F4-32/160B         | 1.9 A     | 1.1 A     |
| F4-32/160A         | 2.3 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        | 3.1 A     | 1.8 A     |
| F4-32/200AH        | 3.5 A     | 2.0 A     |
| F4-32/250C         | 4.5 A     | 2.6 A     |
| F4-32/250B         | 5.7 A     | 3.3 A     |
| F4-32/250A         | 9.0 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         | 4.5 A     | 2.6 A     |
| F4-40/250B         | 6.1 A     | 3.5 A     |
| F4-40/250A         | 9.0 A     | 5.2 A     |
| F4-50/125B         | 2.4 A     | 1.4 A     |
| F4-50/125A         | 2.6 A     | 1.5 A     |
| F4-50/160B         | 3.6 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        | 11.8 A    | 6.8 A     |
| F4-50/250D         | 4.5 A     | 2.6 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              | VOLTAGE   |           |
|--------------------|-----------|-----------|
|                    | 230÷240 V | 400÷415 V |
| <b>Three-phase</b> |           |           |
| F4-65/125B         | 3.6 A     | 2.1 A     |
| F4-65/125A         | 4.5 A     | 2.6 A     |
| F4-65/160C         | 4.7 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         | 16.4 A    | 9.5 A     |
| F4-65/250A         | 23.4 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         | 11.8 A    | 6.8 A     |
| F4-80/200B         | 16.4 A    | 9.5 A     |
| F4-80/200A         | 22.2 A    | 12.8 A    |
| F4-80/250B         | 23.4 A    | 13.5 A    |
| F4-80/250A         | 25.6 A    | 14.8 A    |
| F4-100/160B-N      | 9.0 A     | 5.2 A     |
| F4-100/160A-N      | 11.8 A    | 6.8 A     |
| F4-100/200C        | 16.4 A    | 9.5 A     |
| F4-100/200B        | 21.0 A    | 12.1 A    |
| F4-100/200A        | 23.4 A    | 13.5 A    |
| F4-100/250B        | 27.5 A    | 15.9 A    |
| F4-100/250A        | 34.1 A    | 19.7 A    |