

# Submersible Pumps

## 7RPM 250A, 7RPM 350A, 7RPM 500A, 7RPM 600A, 7RPM 660, 7RPM 680 SERIES PUMP DESIGN

### Product advantages and specification

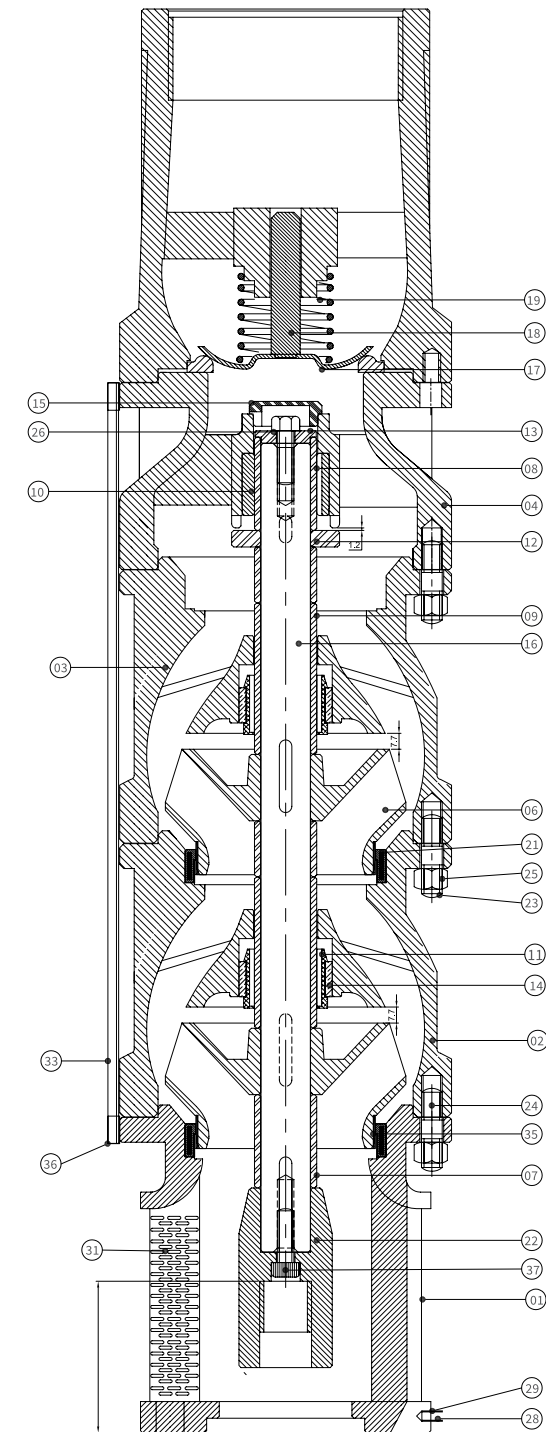
Raindrop 7" Submersible Pumps are results of many years of field experience, R&D designing and excellence in engineering resulting into a product, which gives widerange of solution to most complicated and critical applications. These pumps are available in mixed flow design suitable to wide range of heads and flow rate.

### SPECIFICATIONS & ADVANTAGES:

1. Suction, stage casing and discharge outlets are made of cast iron and also available in Stainless Steel on request.
2. Impellers of mixed flow pumps are available in bronze or Stainless Steel.
3. Sleeves are made of Stainless Steel reinforced with chromium to increase wear resistance against sand.
4. Pump shaft is of Stainless Steel
5. Bearing bush for shaft is made of anti friction rubber to withstand wear resistance.
6. Non return valve is of Stainless Steel Cast Iron.
7. Cable guard and strainer are of Stainless Steel
8. Pump motor coupling is according to NEMA standard.
9. Minimum of water on aspiration one meter.
10. Complete Stainless Steel pump is available on request
11. Operating range:  
 Head range : 8 mtr to 89 mtr  
 Flow rate : 462 lpm to 1750 lpm  
 Immersion : 1 meter minimum
12. Minimum level of sand content: 50 gm /m3
13. Application: These pumps are for domestic, agriculture & industrial usage.

### Material Specification

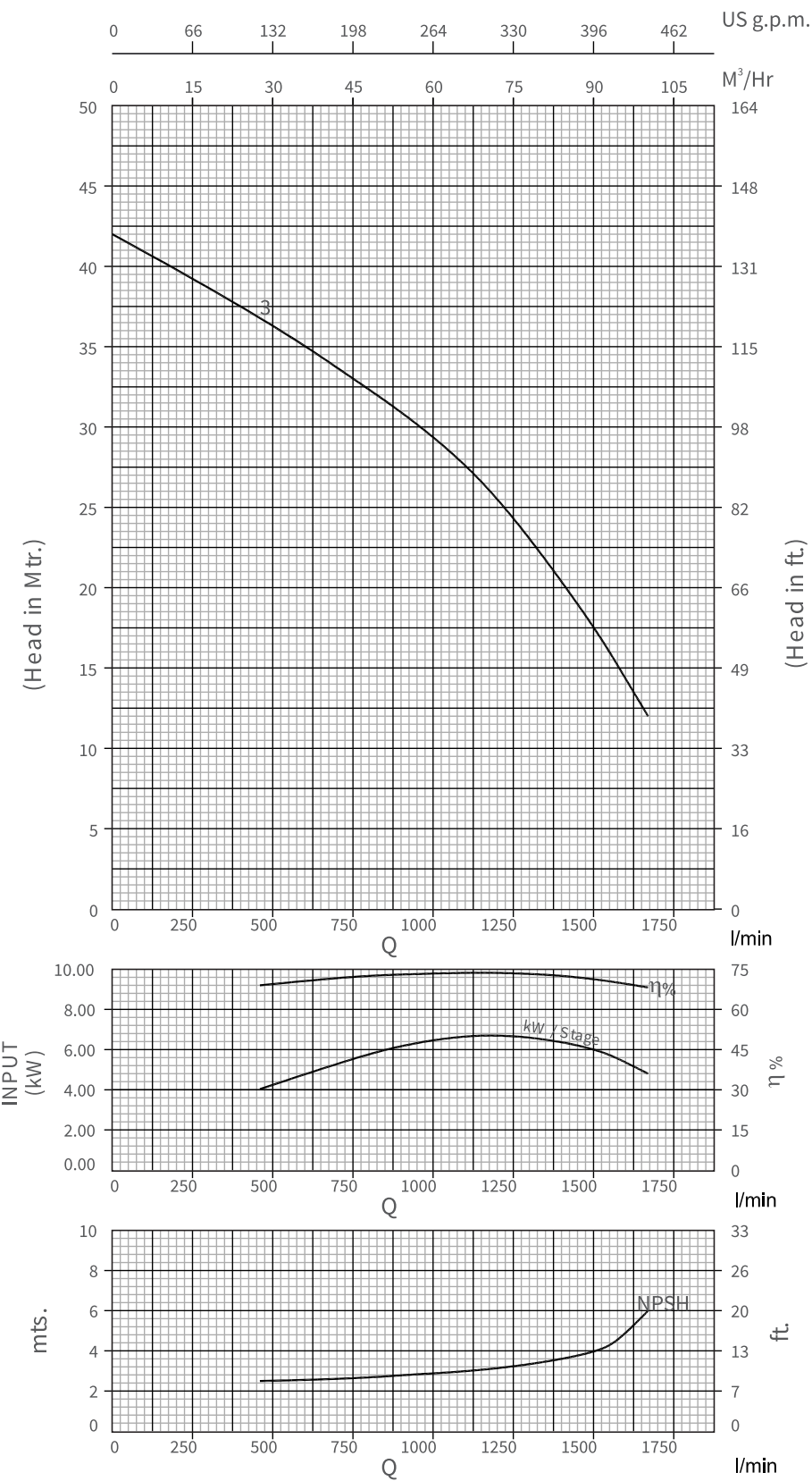
| NO | PART NAME             | MATERIAL          | QTY    |
|----|-----------------------|-------------------|--------|
| 1  | SUCTION (DOMESTIC)    | C.I.(F.G. 200)    | 01     |
| 2  | BOWL (REGULAR)        | C.I.(F.G. 200)    | REQ.   |
| 3  | BOWL (TOP)            | C.I.(F.G. 200)    | 01     |
| 4  | DOL                   | C.I.(F.G. 200)    | 01     |
| 5  | N.R.V.                | C.I.(F.G. 200)    | 01     |
| 6  | IMPELLER (G.M.)       | G.M./C.I./S.S.410 | REQ.   |
| 7  | SLEEVE (DIST.)        | S.S. 410          | 01     |
| 8  | SLEEVE (TOP)          | S.S. 410          | 01     |
| 9  | SLEEVE (BOWL)         | S.S. 410          | REQ.   |
| 10 | BEARING BUSH          | L.T.B 4 (2% NI)   | 01     |
| 11 | BOWL BUSH             | N.B.R.            | REQ.   |
| 12 | THRUST COLLAR         | S.S. 410          | 01     |
| 13 | TOP COLLAR            | S.S. 410          | 01     |
| 14 | BUSH COLLAR           | P.P.( ) (20% GF)  | REQ.   |
| 15 | DOL CAP               | P.P.O, (20% GE)   | 01     |
| 16 | SHAFT                 | S.S. 410          | 01     |
| 17 | N.R.V. CONE PLATE     | S.S. 202          | 01     |
| 18 | N.R.V. CONE ROD       | S.S. 410          | 01     |
| 19 | N.R.V. CONE SPRING    | S.S. 304          | 01     |
| 20 | N.R.V. NECKRING       | M.S. /N.B.R.      | 01     |
| 21 | BOWL NECKRING         | M.S./N.B.R.       | REQ.   |
| 22 | COUPLING(DOMESTIC)    | S.S.410           | 01     |
| 23 | STUD(BOWL & DOL)      | S.S. 410          | 8/ST+8 |
| 24 | STUD (SUCTION)        | S.S. 410          | 08     |
| 25 | HEX NUT               | S.S. 202          | REQ.   |
| 26 | HEX BOLT              | S.S. 304          | 01     |
| 27 | KEY                   | S.S. 410          | REQ    |
| 28 | SCREW(CABLE GUARD)    | BRASS             | REQ    |
| 29 | SCREW(STRAINER)       | BRASS             | 02     |
| 30 | SCREW WASHER          | BRASS             | 10     |
| 31 | STRAINER              | S.S.202           | 01     |
| 32 | PAPER GASKET          | PAPER             | REQ.   |
| 33 | CABLE GUARD           | S.S. 202          | REQ.   |
| 34 | IMPELLER NECKRING     | S.S. 202          |        |
| 35 | GRUB SCREW (DOMESTIC) | S.S. 304          | 01     |
| 36 | CABLE CLIP            | S.S. 202          | 02     |
| 37 | ALLEN BOLT            | S.S.304           | 01     |



# Performance Curves

## 7RPM 250A, 50Hz

ISO 9906 Annexure A



# Performance Chart

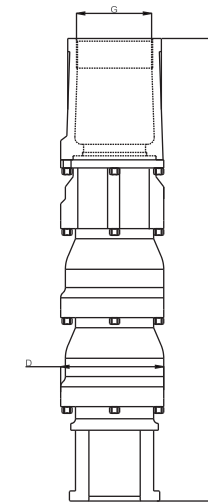
## 7RPM 250A, 50Hz

ISO 9906 Annexure A

| Model Name  |       | Rating |    | Discharge                  |   |      |      |      |      |      |      |      |       |
|-------------|-------|--------|----|----------------------------|---|------|------|------|------|------|------|------|-------|
| Three Phase | Stage | kW     | HP | l/min<br>m <sup>3</sup> /h | 0 | 460  | 750  | 900  | 1150 | 1380 | 1520 | 1580 | 1670  |
|             |       |        |    |                            | 0 | 27.6 | 45.0 | 54.0 | 69.0 | 82.8 | 91.2 | 94.8 | 100.2 |

|              |   |      |       |              |    |    |    |    |    |    |    |    |    |
|--------------|---|------|-------|--------------|----|----|----|----|----|----|----|----|----|
| 7RPM 250A-03 | 3 | 7.50 | 10.00 | HEAD IN MET. | 42 | 37 | 33 | 31 | 27 | 21 | 17 | 15 | 12 |
|--------------|---|------|-------|--------------|----|----|----|----|----|----|----|----|----|

## Dimensions & Weights

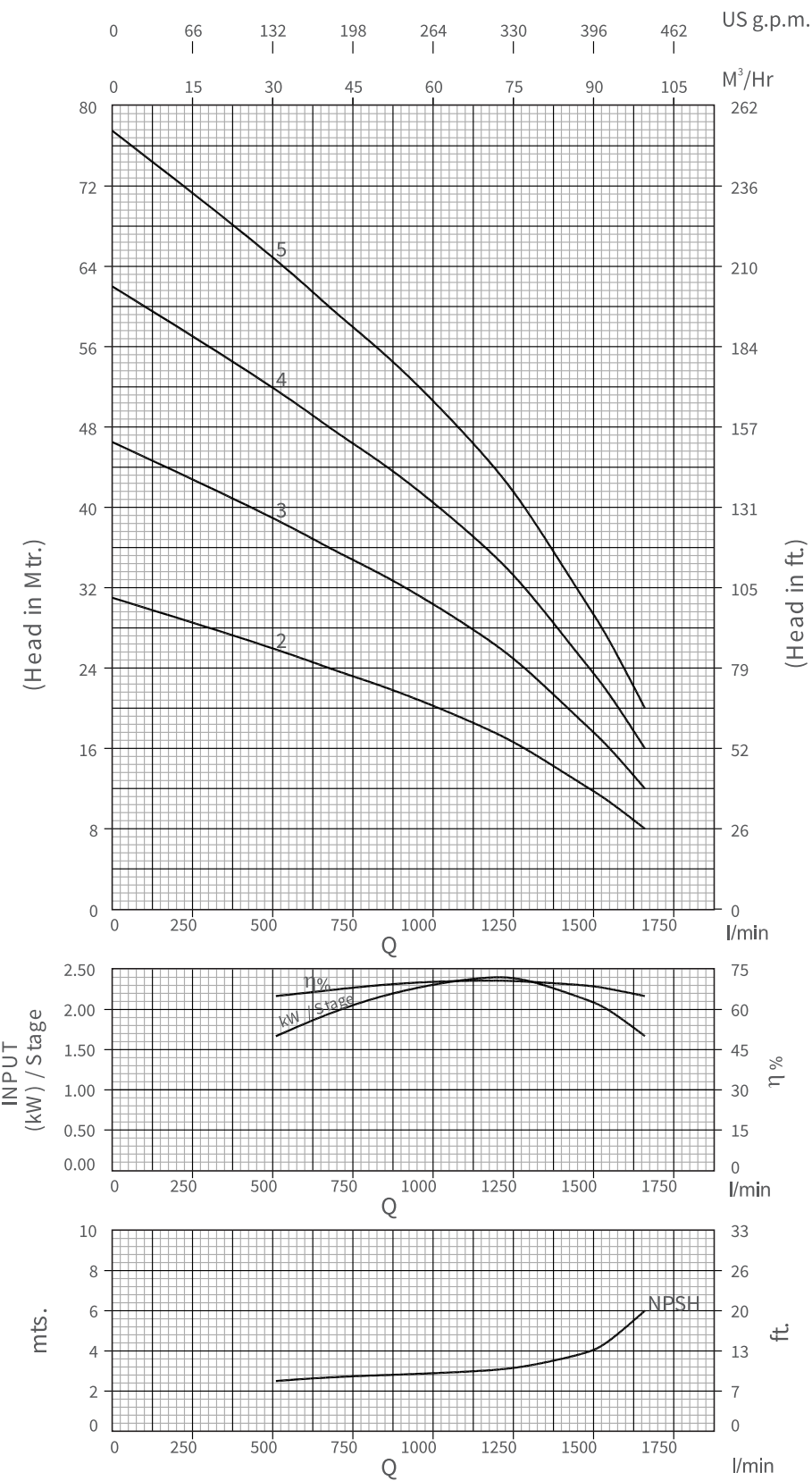


| Model name   | Specification |     |     |     |
|--------------|---------------|-----|-----|-----|
|              | STAGE         | D   | L   | G   |
| 7RPM 250A-03 | 3             | 160 | 818 | 100 |

# Performance Curves

## 7RPM 350A, 50Hz

ISO 9906 Annexure A



# Performance Chart

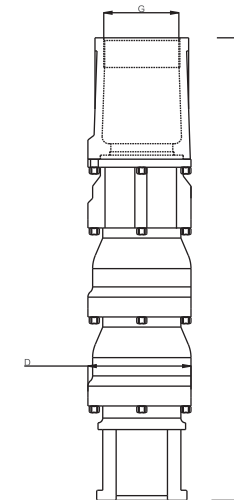
## 7RPM 350A, 50Hz

ISO 9906 Annexure A

| Model Name  |       | Rating |    | Discharge                  |   |      |      |      |      |      |      |      |      |
|-------------|-------|--------|----|----------------------------|---|------|------|------|------|------|------|------|------|
| Three Phase | Stage | kW     | HP | l/min<br>m <sup>3</sup> /h | 0 | 510  | 665  | 870  | 1170 | 1290 | 1485 | 1540 | 1660 |
|             |       |        |    |                            | 0 | 30.6 | 39.9 | 52.2 | 70.2 | 77.4 | 89.1 | 92.4 | 99.6 |

| 7RPM 350A-02 | 2 | 5.50  | 7.50  | HEAD IN Mtrs. | 31 | 26 | 24 | 22 | 18 | 16 | 12 | 11 | 8  |    |
|--------------|---|-------|-------|---------------|----|----|----|----|----|----|----|----|----|----|
| 7RPM 350A-03 | 3 | 9.30  | 12.50 |               | 46 | 39 | 36 | 33 | 27 | 24 | 18 | 16 | 12 | 12 |
| 7RPM 350A-04 | 4 | 11.00 | 15.00 |               | 62 | 52 | 48 | 44 | 36 | 32 | 24 | 22 | 16 | 16 |
| 7RPM 350A-05 | 5 | 15.00 | 20.00 |               | 78 | 65 | 60 | 55 | 45 | 40 | 30 | 28 | 22 | 20 |

## Dimensions & Weights

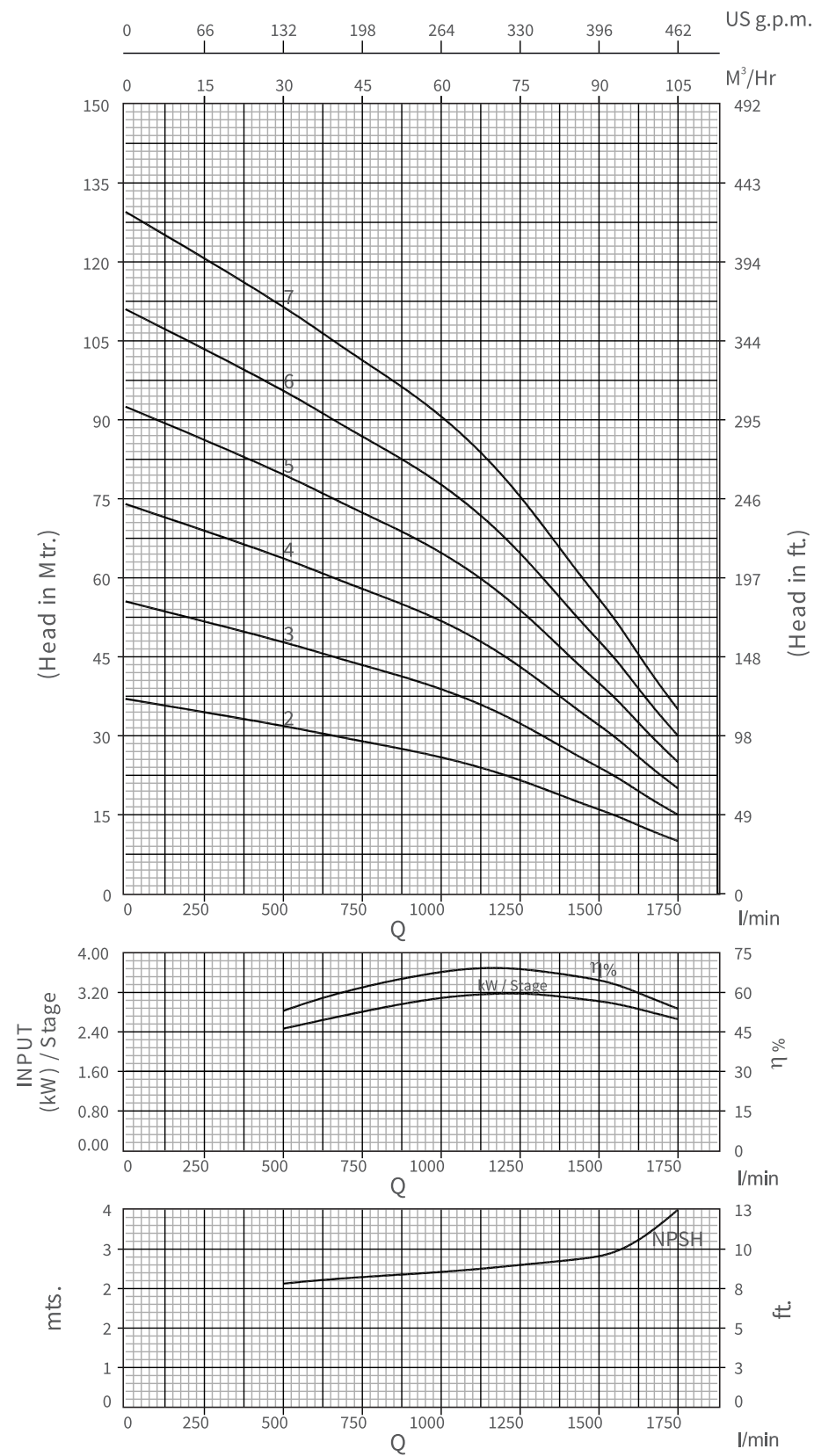


| Model name   | Specification |     |      |     |
|--------------|---------------|-----|------|-----|
|              | STAGE         | D   | L    | G   |
| 7RPM 350A-02 | 2             | 160 | 686  | 100 |
| 7RPM 350A-03 | 3             | 160 | 818  | 100 |
| 7RPM 350A-04 | 4             | 160 | 950  | 100 |
| 7RPM 350A-05 | 5             | 160 | 1082 | 100 |

# Performance Curves

## 7RPM 500A, 50Hz

ISO 9906 Annexure A



# Performance Chart

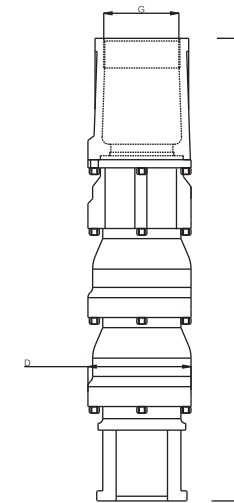
## 7RPM 500A, 50Hz

ISO 9906 Annexure A

| Model Name  | Stage | Rating |    | l/min<br>m <sup>3</sup> /h | Discharge |      |      |      |      |      |      |      |      |      |
|-------------|-------|--------|----|----------------------------|-----------|------|------|------|------|------|------|------|------|------|
|             |       | kW     | HP |                            | 0         | 500  | 650  | 930  | 1130 | 1280 | 1450 | 1550 | 1660 | 1750 |
| Three Phase |       |        |    |                            | 0         | 30.0 | 39.0 | 55.8 | 67.8 | 76.8 | 87.0 | 93.0 | 99.6 | 105  |

| 7RPM 500A-02 | 2 | 7.50  | 10.00 | HEAD IN Mtrs. | 37           | 32  | 30    | 27    | 24 | 21 | 17 | 15 | 12 | 10 |
|--------------|---|-------|-------|---------------|--------------|-----|-------|-------|----|----|----|----|----|----|
|              |   |       |       |               | 7RPM 500A-03 | 3   | 11.00 | 15.00 | 56 | 48 | 45 | 40 | 36 | 32 |
| 7RPM 500A-04 | 4 | 15.00 | 20.00 | 74            | 64           | 60  | 54    | 48    | 42 | 34 | 30 | 24 | 20 |    |
| 7RPM 500A-05 | 5 | 18.50 | 25.00 | 92            | 80           | 75  | 68    | 60    | 52 | 42 | 38 | 30 | 25 |    |
| 7RPM 500A-06 | 6 | 22.00 | 30.00 | 111           | 96           | 90  | 81    | 72    | 63 | 51 | 45 | 36 | 30 |    |
| 7RPM 500A-07 | 7 | 26.00 | 35.00 | 130           | 112          | 105 | 94    | 84    | 74 | 60 | 52 | 42 | 35 |    |

## Dimensions & Weights

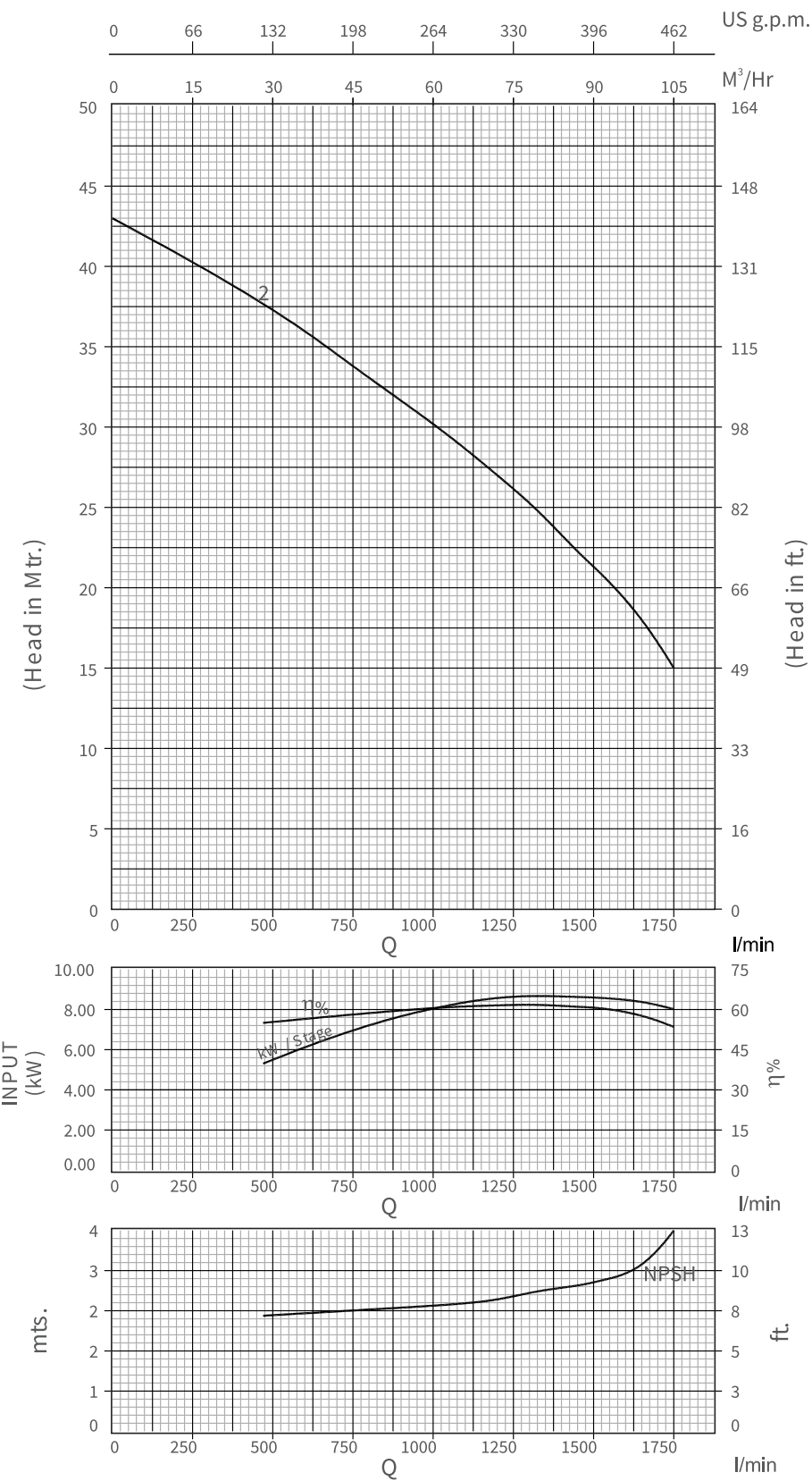


| Model name   | Specification |     |      |     |
|--------------|---------------|-----|------|-----|
|              | stage         | D   | L    | G   |
| 7RPM 500A-02 | 02            | 160 | 686  | 100 |
| 7RPM 500A-03 | 03            | 160 | 818  | 100 |
| 7RPM 500A-04 | 04            | 160 | 950  | 100 |
| 7RPM 500A-05 | 05            | 160 | 1082 | 100 |
| 7RPM 500A-06 | 06            | 160 | 1214 | 100 |
| 7RPM 500A-07 | 07            | 160 | 1346 | 100 |

# Performance Curves

## 7RPM 600A, 50Hz

ISO 9906 Annexure A



# Performance Chart

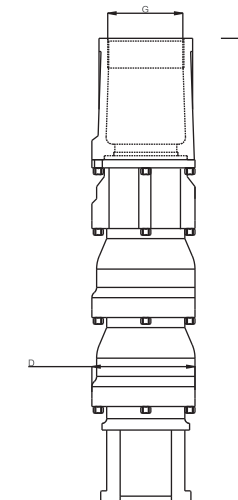
## 7RPM 600A, 50Hz

ISO 9906 Annexure A

| Model Name  |       | Rating |    | Discharge     |   |      |      |      |      |      |      |      |      |      |
|-------------|-------|--------|----|---------------|---|------|------|------|------|------|------|------|------|------|
| Three Phase | Stage | kW     | HP | l/min<br>m³/h | 0 | 470  | 730  | 1020 | 1200 | 1320 | 1460 | 1520 | 1660 | 1750 |
|             |       |        |    |               | 0 | 28.2 | 43.8 | 61.2 | 72.0 | 79.2 | 87.6 | 91.2 | 99.6 | 105  |

|              |   |      |       |                |    |    |    |    |    |    |    |    |    |    |
|--------------|---|------|-------|----------------|----|----|----|----|----|----|----|----|----|----|
| 7RPM 600A-02 | 2 | 9.30 | 12.50 | HEAD<br>Meters | 43 | 38 | 34 | 30 | 27 | 25 | 22 | 21 | 18 | 15 |
|--------------|---|------|-------|----------------|----|----|----|----|----|----|----|----|----|----|

## Dimensions & Weights

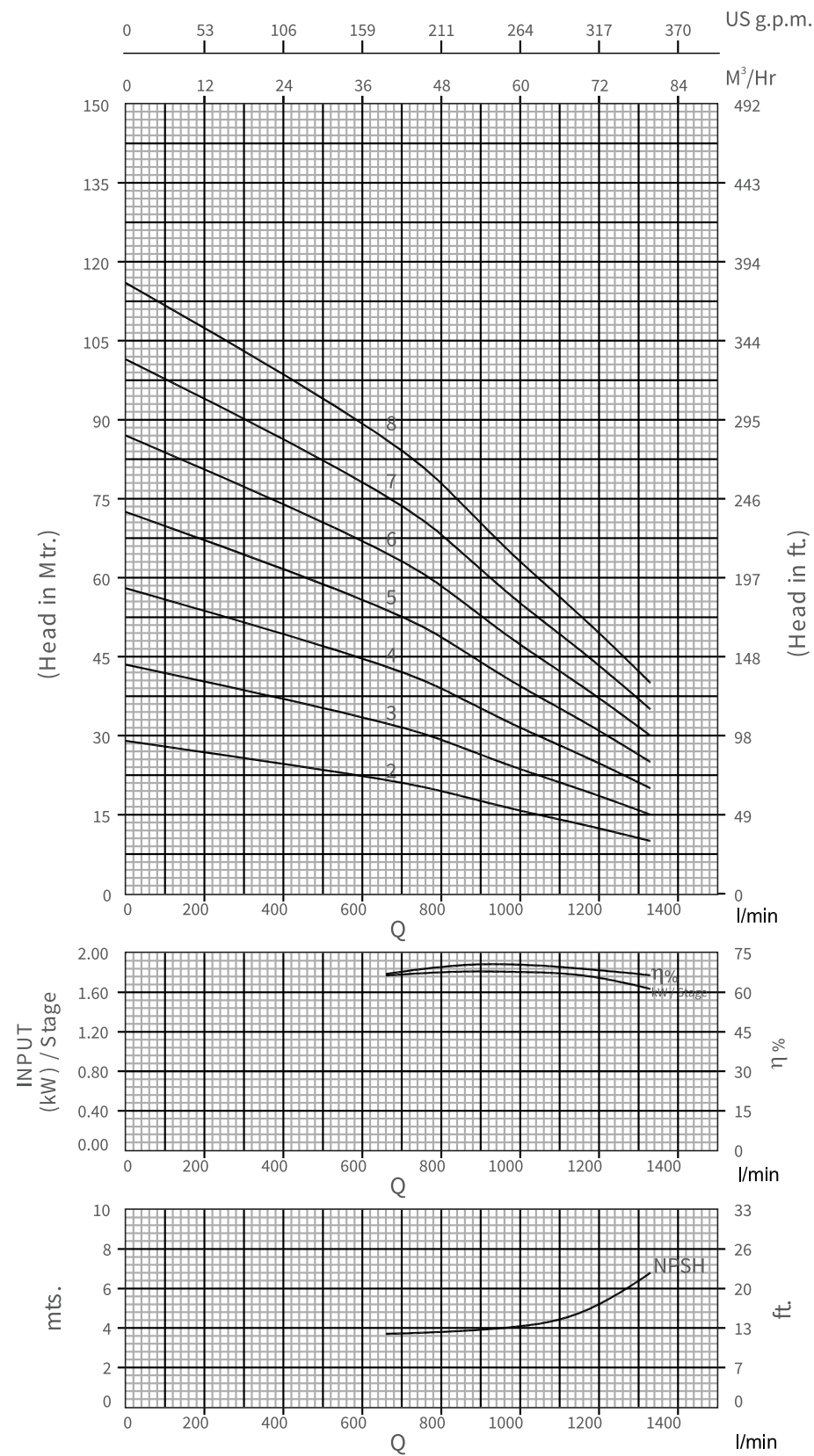


| Model name   | Specification |     |     |     |
|--------------|---------------|-----|-----|-----|
|              | STAGE         | D   | L   | G   |
| 7RPM 600A-02 | 02            | 160 | 686 | 100 |

# Performance Curves

## 7RPM 660, 50Hz

ISO 9906 Annexure A



# Performance Chart

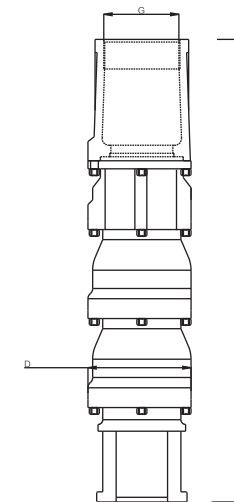
## 7RPM 660, 50Hz

ISO 9906 Annexure A

| Model Name  | Stage | Rating |    | l/min<br>m³/h | Discharge |      |      |      |      |      |
|-------------|-------|--------|----|---------------|-----------|------|------|------|------|------|
|             |       | kW     | HP |               | 0         | 660  | 830  | 980  | 1170 | 1330 |
| Three Phase |       |        |    |               | 0         | 660  | 830  | 980  | 1170 | 1330 |
|             |       |        |    |               | 0         | 39.6 | 49.8 | 58.8 | 70.2 | 79.8 |

| Model Name  | Stage | kW    | HP    | HEAD IN Mtrs. | 29          | 22 | 19   | 16   | 13 | 10 |
|-------------|-------|-------|-------|---------------|-------------|----|------|------|----|----|
|             |       |       |       |               | 7RPM 660-02 | 2  | 4.50 | 6.00 | 29 | 22 |
| 7RPM 660-03 | 3     | 5.50  | 7.50  | 44            | 33          | 28 | 24   | 20   | 15 |    |
| 7RPM 660-04 | 4     | 7.50  | 10.00 | 58            | 44          | 38 | 32   | 26   | 20 |    |
| 7RPM 660-05 | 5     | 9.30  | 12.50 | 72            | 55          | 48 | 40   | 32   | 25 |    |
| 7RPM 660-06 | 6     | 11.00 | 15.00 | 87            | 66          | 57 | 48   | 39   | 30 |    |
| 7RPM 660-07 | 7     | 13.00 | 17.50 | 102           | 77          | 66 | 56   | 46   | 35 |    |
| 7RPM 660-08 | 8     | 15.00 | 20.00 | 116           | 88          | 76 | 64   | 52   | 40 |    |

## Dimensions & Weights

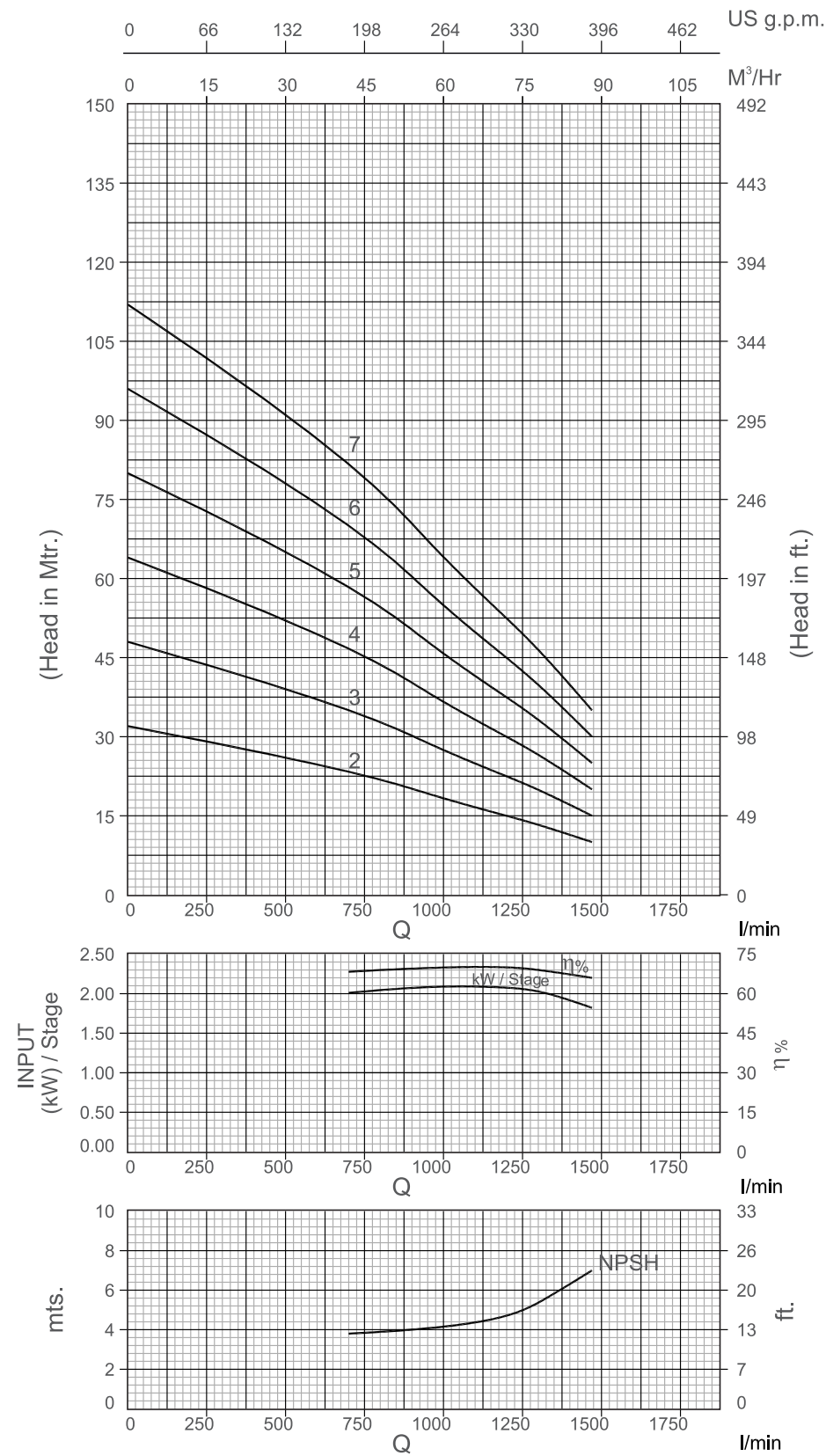


| Model name  | Specification |     |      |     |
|-------------|---------------|-----|------|-----|
|             | STAGE         | D   | L    | G   |
| 7RPM 660-02 | 02            | 160 | 686  | 100 |
| 7RPM 660-03 | 03            | 160 | 818  | 100 |
| 7RPM 660-04 | 04            | 160 | 950  | 100 |
| 7RPM 660-05 | 05            | 160 | 1082 | 100 |
| 7RPM 660-06 | 06            | 160 | 1214 | 100 |
| 7RPM 660-07 | 07            | 160 | 1346 | 100 |
| 7RPM 660-08 | 08            | 160 | 1478 | 100 |

# Performance Curves

## 7RPM 680, 50Hz

ISO 9906 Annexure A



# Performance Chart

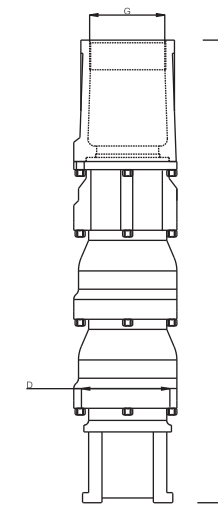
## 7RPM 680, 50Hz

ISO 9906 Annexure A

| Model Name | Three Phase | Stage | Rating |    | Discharge                  |      |      |      |      |      |
|------------|-------------|-------|--------|----|----------------------------|------|------|------|------|------|
|            |             |       | kW     | HP | l/min<br>m <sup>3</sup> /h | 0    | 700  | 950  | 1200 | 1320 |
|            |             |       |        |    | 0                          | 42.0 | 57.0 | 72.0 | 79.2 | 88.2 |

| Model Name  | Stage | kW    | HP    | HEAD IN Mtrs. | 32  | 24 | 19 | 15 | 13 | 10 |
|-------------|-------|-------|-------|---------------|-----|----|----|----|----|----|
|             |       |       |       |               | 48  | 36 | 28 | 22 | 20 | 15 |
| 7RPM 680-02 | 2     | 5.50  | 7.50  |               | 64  | 48 | 38 | 30 | 26 | 20 |
| 7RPM 680-03 | 3     | 7.50  | 10.00 |               | 80  | 60 | 48 | 38 | 32 | 25 |
| 7RPM 680-04 | 4     | 9.30  | 12.50 |               | 96  | 72 | 57 | 45 | 39 | 30 |
| 7RPM 680-05 | 5     | 11.00 | 15.00 |               | 112 | 84 | 66 | 52 | 46 | 35 |

## Dimensions & Weights



| Model name  | Specification |     |      |     |
|-------------|---------------|-----|------|-----|
|             | STAGE         | D   | L    | G   |
| 7RPM 680-02 | 02            | 160 | 686  | 100 |
| 7RPM 680-03 | 03            | 160 | 818  | 100 |
| 7RPM 680-04 | 04            | 160 | 950  | 100 |
| 7RPM 680-05 | 05            | 160 | 1082 | 100 |
| 7RPM 680-06 | 06            | 160 | 1214 | 100 |
| 7RPM 680-07 | 07            | 160 | 1346 | 100 |