



## **BOREHOLE RANGE**









**BOREHOLE RANGE**  
**3SDM**

# 3 SDM BOREHOLE RANGE

3"



## Applications

For water supply from boreholes, wells or reservoirs  
Continuous duty rated products for use in domestic, farming and irrigation applications.

## Operating Conditions

Maximum fluid temperature up to + 35 °C  
Maximum sand content: 0.25%  
Minimum well diameter: 4"

## Motor and Pump

Replaceable Pump and Motor.  
Single-Phase: 220 - 240V/50Hz  
Equipped with start control box  
Curve tolerance according to ISO 9906

## Warranty: 1 year

(according to our general sales conditions)

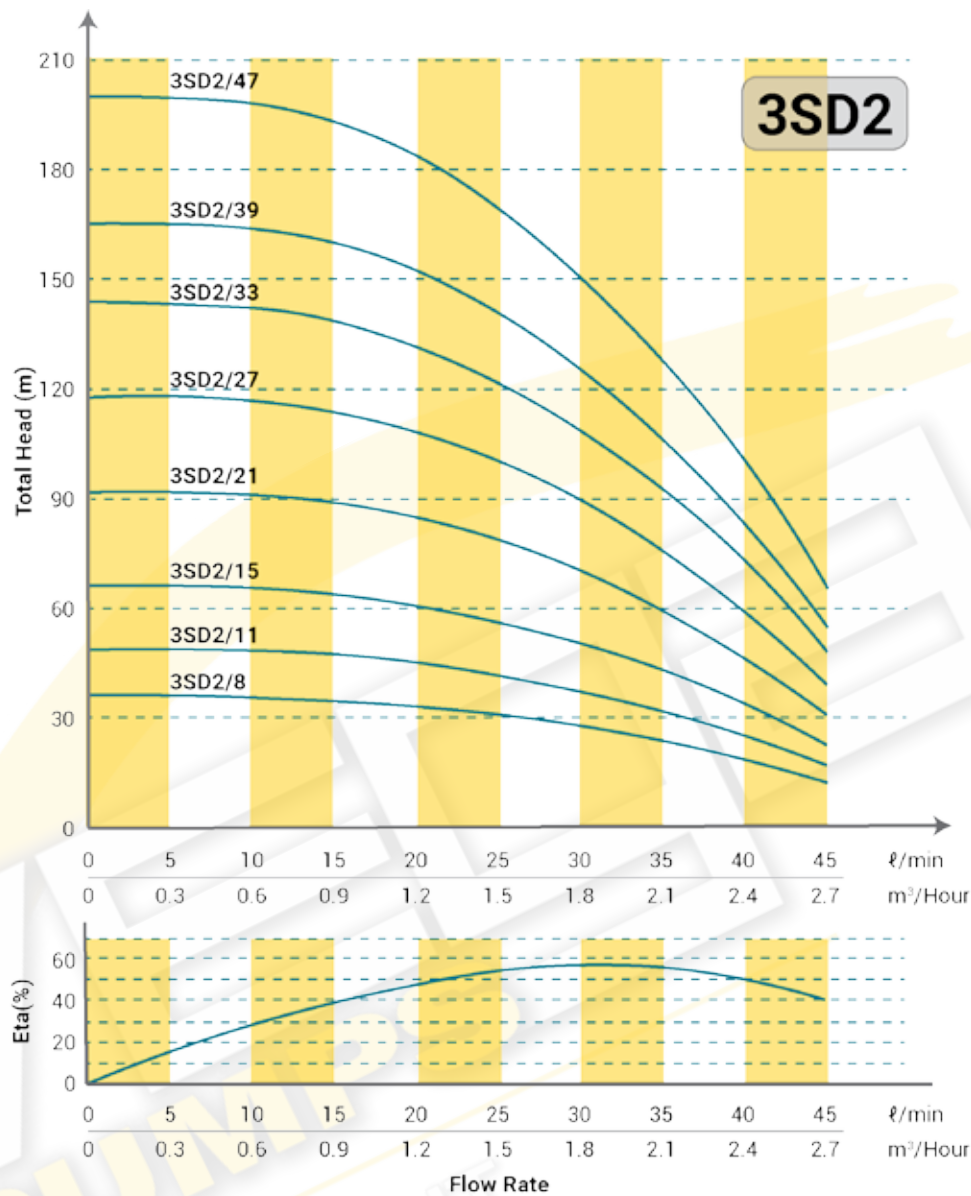
## Materials of Construction

| Components            | Material                |
|-----------------------|-------------------------|
| <b>Wet End</b>        |                         |
| Pump external casing  | AISI 304 SS             |
| Delivery casing       | Cast-Cu ASTM C85500     |
| Suction lantern       | Cast-Cu ASTM C85500     |
| Diffuser              | Plastic.PC              |
| Impeller              | Plastic.POM             |
| Shaft                 | AISI 304 SS             |
| Shaft coupling        | AISI 304 SS             |
| Wear ring             | AISI 304 SS             |
| <b>Motor</b>          |                         |
| Motor external casing | AISI 304 SS             |
| Top chock             | Cast-Cu ASTM C85500     |
|                       | Cast-Iron ASTM No.30    |
| Bottom support        | AISI 304 SS             |
| Mechanical seal       | Graphite - Ceramic      |
| Shaft                 | AISI 304 SS - ASTM 5140 |
| Bearing               | NSK                     |
| Seal lubricant oil    | Food grade oil          |



**3SD(M) 2 / 8(N)**

Build-in capacitor  
Number of impellers  
Capacity (m<sup>3</sup>/h)  
Single phase  
Pump model name  
Well Size 3"



## Performance Data 50 Hz

| VERSION |     | MODEL           | P2   |      | CAP<br>µf | DELIVERY    |     |     |     |     |     |     |     |     |     |     |
|---------|-----|-----------------|------|------|-----------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1*      | 2** | 3 ~<br>380-415V | kW   | HP   |           | m3/h        | 0   | 0.3 | 0.6 | 0.9 | 1.2 | 1.5 | 1.8 | 2.1 | 2.4 | 2.7 |
|         |     |                 |      |      |           | l/min       | 0   | 5   | 10  | 15  | 20  | 25  | 30  | 35  | 40  | 45  |
| ✓       | ✓   | 3SDM2/8         | 0.18 | 0.25 | 16        | Head<br>(m) | 35  | 34  | 34  | 33  | 32  | 29  | 26  | 22  | 17  | 11  |
| ✓       | ✓   | 3SDM2/11        | 0.25 | 0.39 | 16        |             | 48  | 47  | 47  | 46  | 44  | 40  | 36  | 30  | 24  | 15  |
| ✓       | ✓   | 3SDM2/15        | 0.37 | 0.5  | 20        |             | 65  | 64  | 64  | 63  | 60  | 55  | 49  | 41  | 33  | 21  |
| ✓       | ✓   | 3SDM2/21        | 0.55 | 0.75 | 25        |             | 91  | 90  | 90  | 88  | 84  | 77  | 68  | 58  | 46  | 29  |
| ✓       | ✓   | 3SDM2/27        | 0.75 | 1    | 35        |             | 117 | 116 | 115 | 113 | 107 | 99  | 88  | 75  | 59  | 38  |
| ✓       |     | 3SDM2/33        | 1.1  | 1.5  | 45        |             | 143 | 142 | 141 | 138 | 131 | 121 | 107 | 91  | 72  | 46  |
| ✓       |     | 3SDM2/39        | 1.1  | 1.5  | 45        |             | 168 | 167 | 166 | 163 | 155 | 143 | 127 | 108 | 85  | 55  |
| ✓       |     | 3SDM2/47        | 1.5  | 2    | 55        |             | 203 | 202 | 201 | 196 | 187 | 172 | 153 | 130 | 102 | 66  |

\* Version 1 Pump, Motor & Control Box

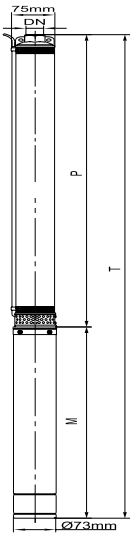
\*\* Version 2 Pump, Motor, Control Box, Base plate, Cable (length - refer price list), Joint & Rope.

Note: Unit c/w maximum 1.5mm 4 core cable.

However, it is not recommended for use for lengths longer than 60m.

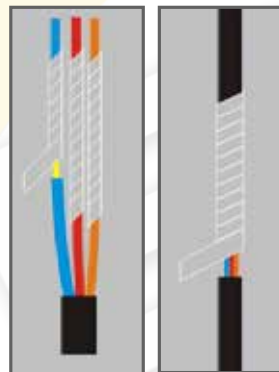
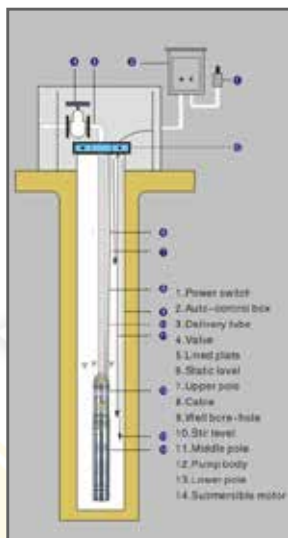
For applications where longer distances are required it is advised to purchase the Version 1 kit. Refer to the 3" & 4" Borehole Catalogue (p.7) for the cable length chart to ensure correct cable size is purchased.

## Dimensions and weights



| MODEL        | DN | DIMENSIONS(mm) |     |      | WEIGHTS (kg) |      |      |
|--------------|----|----------------|-----|------|--------------|------|------|
| 1 ~220-240   |    | P              | M   | T    | P            | M    | T    |
| 3 SDM 2 / 8  | 1" | 377            | 288 | 665  | 1.8          | 4.0  | 5.8  |
| 3 SDM 2 / 11 | 1" | 444            | 308 | 752  | 2.1          | 4.8  | 6.9  |
| 3 SDM 2 / 15 | 1" | 535            | 338 | 873  | 2.4          | 5.6  | 8.0  |
| 3 SDM 2 / 21 | 1" | 694            | 368 | 1062 | 3.2          | 6.4  | 9.6  |
| 3 SDM 2 / 27 | 1" | 830            | 408 | 1238 | 3.5          | 7.5  | 11.0 |
| 3 SDM 2 / 33 | 1" | 966            | 448 | 1414 | 4.3          | 8.7  | 13.0 |
| 3 SDM 2 / 39 | 1" | 1101           | 493 | 1594 | 4.9          | 10.0 | 14.9 |
| 3 SDM 2 / 47 | 1" | 1306           | 543 | 1849 | 5.8          | 11.3 | 17.1 |

## Installing a borehole pump and motor



| SINGLE PHASE 3" OIL FILLED BOREHOLE MOTOR CAPACITOR RATINGS |                |              |
|-------------------------------------------------------------|----------------|--------------|
| kW                                                          | Capacitor (mF) | Running Amps |
| 0.18                                                        | 12             | 2.2          |
| 0.25                                                        | 16             | 3.9          |
| 0.37                                                        | 20             | 4.2          |
| 0.55                                                        | 25             | 4.5          |
| 0.75                                                        | 35             | 6            |
| 1.1                                                         | 45             | 9            |
| 1.5                                                         | 55             | 10.3         |

## MAXIMUM CABLE LENGTH FROM PUMP TO STARTER

| TYPE      | kW   | i <sub>n</sub> (A) | 1.5 mm <sup>2</sup> | 2.5 mm <sup>2</sup> | 4 mm <sup>2</sup> | 6 mm <sup>2</sup> | 10 mm <sup>2</sup> |
|-----------|------|--------------------|---------------------|---------------------|-------------------|-------------------|--------------------|
| 220V~/50H | 0.18 | 2.2                | 171                 | 290                 |                   |                   |                    |
|           | 0.25 | 3.9                | 122                 | 207                 |                   |                   |                    |
|           | 0.37 | 4.2                | 111                 | 185                 | 295               |                   |                    |
|           | 0.55 | 4.5                | 80                  | 133                 | 211               | 315               |                    |
|           | 0.75 | 6                  | 58                  | 96                  | 153               | 229               | 377                |
|           | 1.1  | 9                  | 48                  | 79                  | 153               | 190               | 316                |
|           | 1.5  | 10.3               | 34                  | 57                  | 92                | 137               | 228                |

Note: Unit c/w maximum 1.5mm 4 core cable.

However, it is not recommended for use for lengths longer than 60m.

For applications where longer distances are required it is advised to purchase the Version 1 kit. Refer to the 3" & 4" Borehole Catalogue (p.7) for the cable length chart to ensure correct cable size is purchased.



## MA CONTROL BOX SINGLE PHASE

### Technical data

This single phase control box is equipped with a capacitor and thermal over-load protector.

### Application range

Type of motor: Single phase motor  
 Motor power: 0.18-1.5kW  
 Voltage: 220V ~240V  
 Frequency: 50Hz



### Product functions

Provides basic protection against short circuiting and over current.

### Operating method

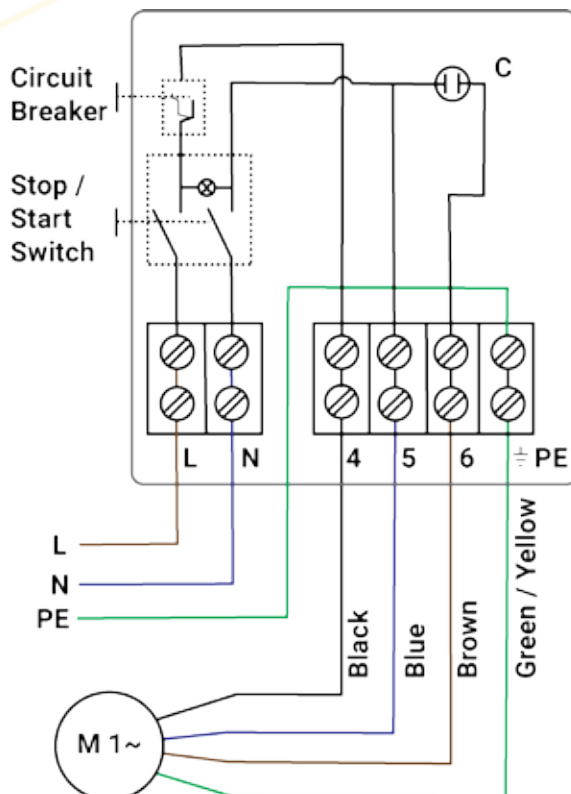
Manual control.

### Installation environment index

Grade protection: IP44  
 Environment temperature: -25°C to 55°C  
 Environment humidity: (20-90)%RH

### Specifications

| POWER |      | RUNNING CAPACITOR | MCB |
|-------|------|-------------------|-----|
| kW    | HP   | Microfarad (μF)   | Amp |
| 0.18  | 0.25 | 12                | 8   |
| 0.25  | 0.39 | 16                | 8   |
| 0.37  | 0.50 | 20                | 8   |
| 0.55  | 0.75 | 25                | 10  |
| 0.75  | 1.00 | 35                | 15  |
| 1.1   | 1.50 | 45                | 15  |
| 1.5   | 2.00 | 55                | 20  |





**BOREHOLE RANGE**  
**4ST & 4SD**



This Slimline submersible borehole pump is suitable for 4" or larger boreholes, wells or reservoirs. Manufactured from corrosion & abrasion resistant materials. This range is manufactured to NEMA standard for submersible motors. Designed for flow rates up to 1.5m<sup>3</sup>/h and heads of up to 325 meters.

## Application

Groundwater supply to reservoirs.  
Irrigation in horticulture and agriculture.  
Groundwater Lowering.  
Pressure boosting.  
Solar applications.

## Specification

|                 |                                                                         |
|-----------------|-------------------------------------------------------------------------|
| Capacity:       | 0.5m <sup>3</sup> /h to 1.5m <sup>3</sup> /h at 2850rpm, 50Hz           |
| Head:           | up to 325m at 2850rpm, 50Hz                                             |
| Power:          | 0.37kW to 1.5kW                                                         |
| Power Supply:   | Single-phase 220 ~ 240V<br>Three-phase 380 ~ 415V<br>Solar 220v -3phase |
| Water Temp:     | up to 35°C                                                              |
| Solid Handling: | less than 0.02%                                                         |
| Water PH:       | 6.5-8.0                                                                 |

## Construction characteristics

Abrasion-resistant construction. The front wear plate, combined with the floating impellers, ensure optimum resistance to abrasion.

The upper and lower support brackets are cast 304 SS and offer a sturdy platform for connection to motor and discharge pipe. Offers resistance to corrosion and abrasion.

The hexagonal pump shaft guarantees effective impeller rotation.

A Stainless Steel non-return valve is fitted in the discharge and prevents back flow of water.

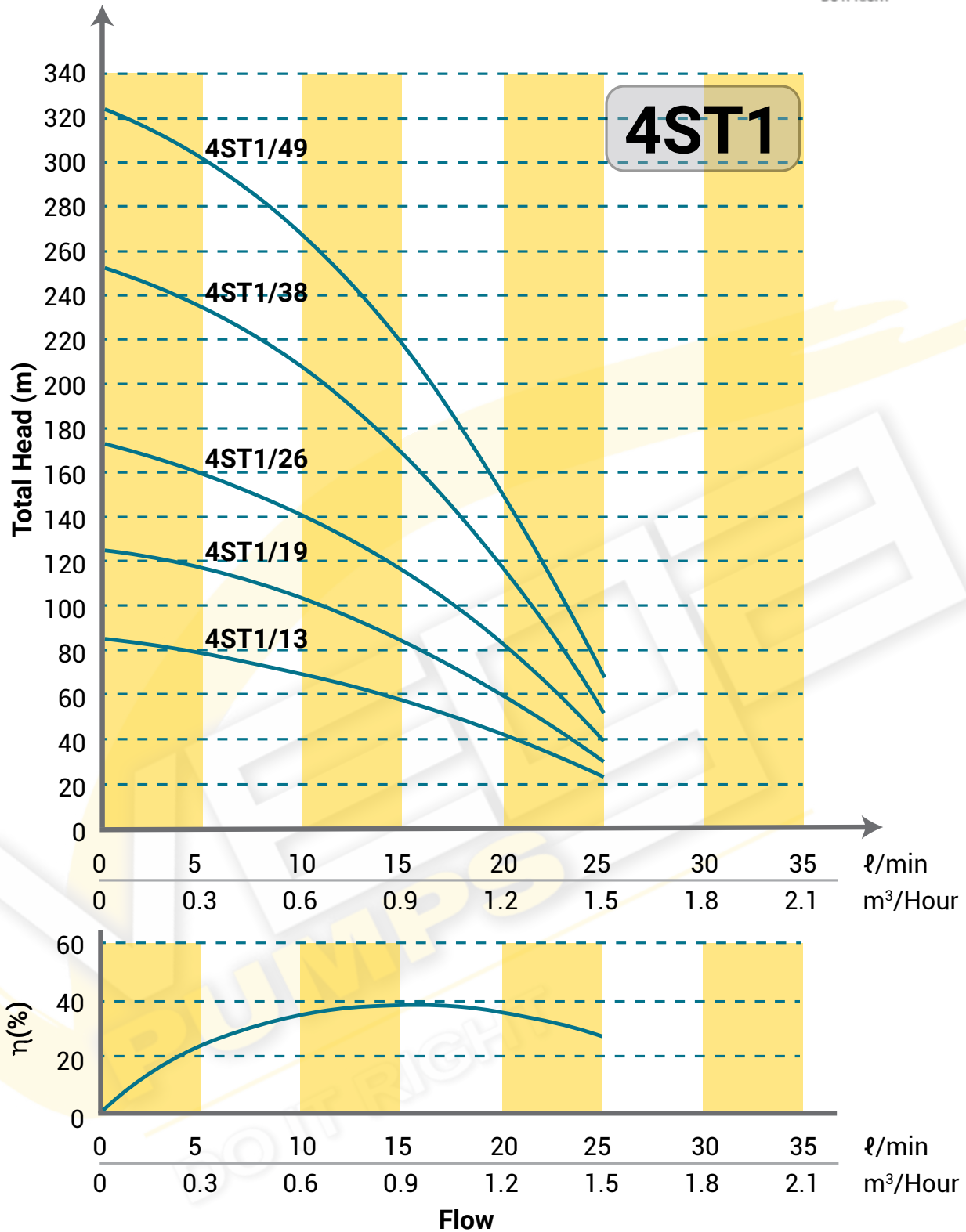
**4 ST 1 / 7**

NO. OF IMPELLERS

RATED CAPACITY (M<sup>3</sup>/H) @ HIGHEST EFFICIENCY

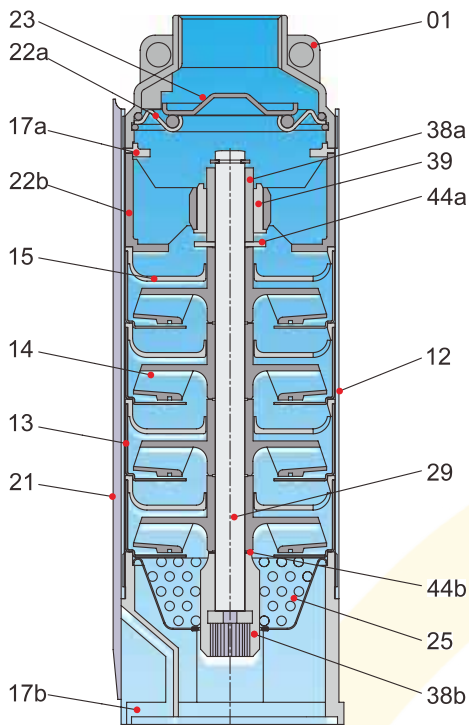
SERIES NAME

# PERFORMANCE DATA

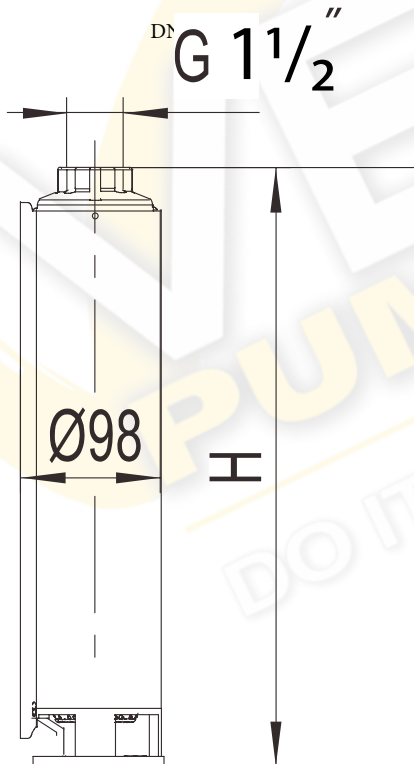


| MODEL (50Hz) | P2   |      | Delivery     |     |     |     |     |     |     |
|--------------|------|------|--------------|-----|-----|-----|-----|-----|-----|
|              |      |      | n≈2850 1/min |     |     |     |     |     |     |
|              | kW   | HP   | m³/h         | 0   | 0.3 | 0.6 | 0.9 | 1.2 | 1.5 |
|              |      |      | l/min        | 0   | 5   | 10  | 15  | 20  | 25  |
| 4ST1/13      | 0.37 | 0.5  | HEAD (m)     | 86  | 78  | 70  | 56  | 42  | 23  |
| 4ST1/19      | 0.55 | 0.75 |              | 126 | 110 | 105 | 86  | 60  | 30  |
| 4ST1/26      | 0.75 | 1    |              | 173 | 160 | 141 | 117 | 81  | 39  |
| 4ST1/38      | 1.1  | 1.5  |              | 253 | 234 | 208 | 169 | 117 | 52  |
| 4ST1/49      | 1.5  | 2    |              | 325 | 302 | 268 | 219 | 151 | 68  |





| ITEM No. | PART NAME        | MATERIAL  |
|----------|------------------|-----------|
| 1        | Discharge head   | AISI304SS |
| 12       | Outer Casing     | AISI304SS |
| 13       | Bowl             | AISI304SS |
| 14       | Impeller         | PPO       |
| 15       | Diffuser         | PC        |
| 17a      | Coupling ring    | PC        |
| 17b      | Motor adapter    | AISI304SS |
| 21       | Cable tube       | AISI304SS |
| 22a      | Valve seat       | AISI304SS |
| 22b      | Seat assembly    | PC        |
| 23       | Valve            | AISI304SS |
| 25       | Strainer         | AISI304SS |
| 29       | Shaft            | AISI304SS |
| 38a      | Shaft sleeve     | AISI304SS |
| 38b      | Coupling spline  | AISI304SS |
| 39       | Bush bearing     | PU        |
| 44a      | Washer           | AISI304SS |
| 44b      | Adjusting washer | AISI304SS |



| MODEL<br>(50Hz) | MOTOR POWER |      | DIMENSIONS & WEIGHTS |        | DN     |
|-----------------|-------------|------|----------------------|--------|--------|
|                 | kW          | HP   | LENGTH<br>(mm)       | N.W kg |        |
| 4ST1/13         | 0.37        | 0.5  | 382                  | 3.7    | 1 1/2" |
| 4ST1/19         | 0.55        | 0.75 | 481                  | 4.7    | 1 1/2" |
| 4ST1/26         | 0.75        | 1    | 596                  | 5.8    | 1 1/2" |
| 4ST1/38         | 1.1         | 1.5  | 832                  | 8.1    | 1 1/2" |
| 4ST1/49         | 1.5         | 2    | 1052                 | 10.45  | 1 1/2" |

## 4 SD BOREHOLE RANGE (4")



## Applications

For water supply from boreholes, wells or reservoirs  
For domestic use, for civil and industrial applications  
For garden use and irrigation

## Operating conditions

Maximum fluid temperature: up to 35 °C  
Maximum sand content: 0.25%  
Minimum well diameter: 4"

## Motor and Pump

Single-phase: 220 ~240V/50Hz  
Three-phase: 380 ~415V/50Hz  
**Solar:** 220v-3phase  
Equipped with start control box or digital auto-control box  
NEMA dimension standards  
Curve tolerance according to ISO 9906

## Warranty: 1year

(according to our general sales conditions).

## Materials of Construction

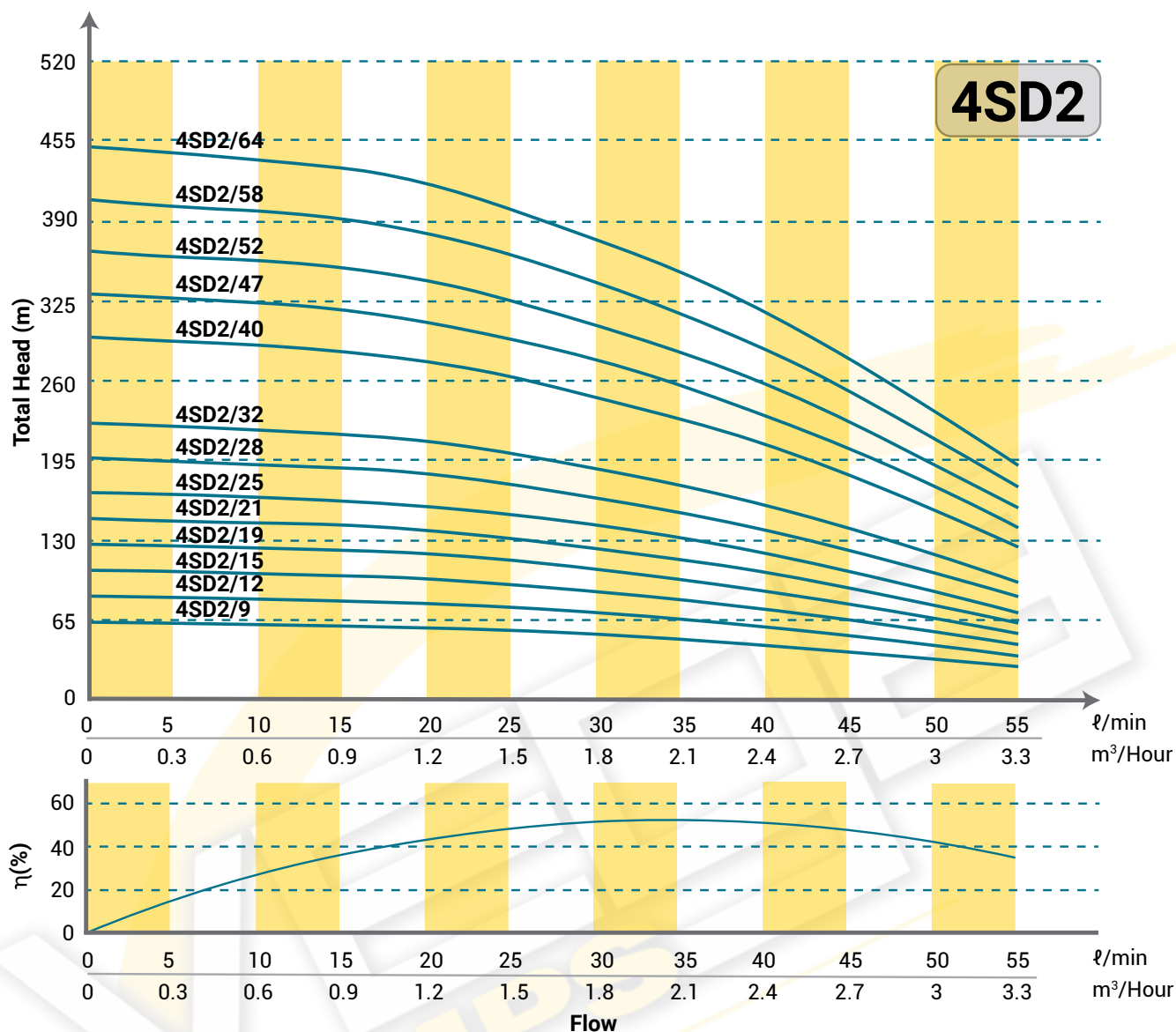
| Components            | Material                |
|-----------------------|-------------------------|
| <b>Wet End</b>        |                         |
| Pump external casing  | AISI 304 SS             |
| Delivery casing       | Cast-Cu ASTM C85500     |
| Suction lantern       | Cast-Cu ASTM C85500     |
| Diffuser              | Plastic.PC              |
| Impeller              | Plastic.POM             |
| Shaft                 | AISI 304 SS             |
| Shaft coupling        | AISI 304 SS             |
| Wear ring             | AISI 304 SS             |
| <b>Motor</b>          |                         |
| Motor external casing | AISI 304 SS             |
| Top chock             | Cast-Cu ASTM C85500     |
|                       | Cast-Iron ASTM No.30    |
| Bottom support        | AISI 304 SS             |
| Mechanical seal       | Graphite - Ceramic      |
| Shaft                 | AISI 304 SS - ASTM 5140 |
| Bearing               | NSK                     |
| Seal lubricant oil    | Food grade oil          |



**4SD(M) 3 / 5(N)**

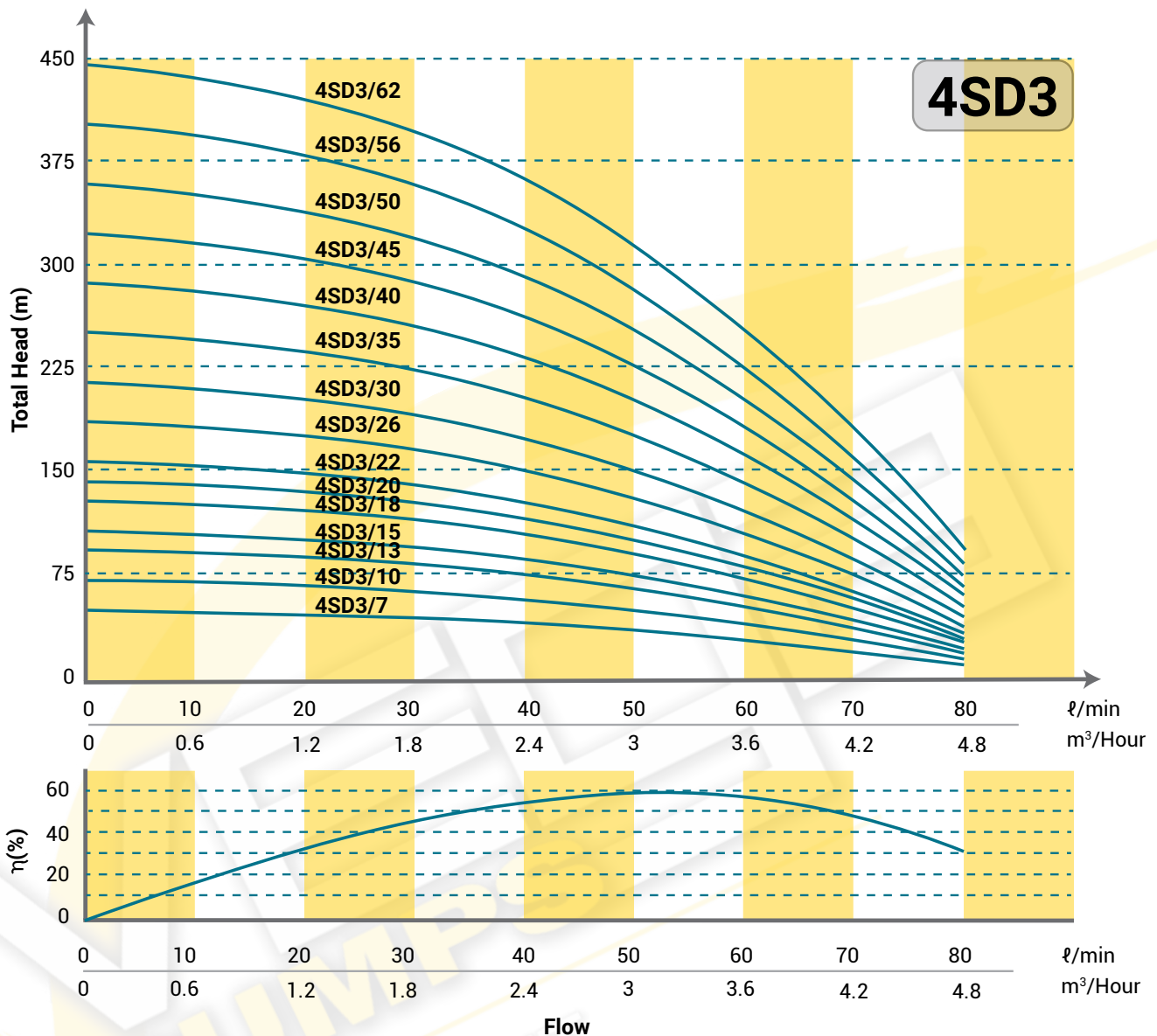
Build-in capacitor  
Number of impellers  
Capacity (m<sup>3</sup>/h)  
Single phase  
Pump model name  
Well Size 4"





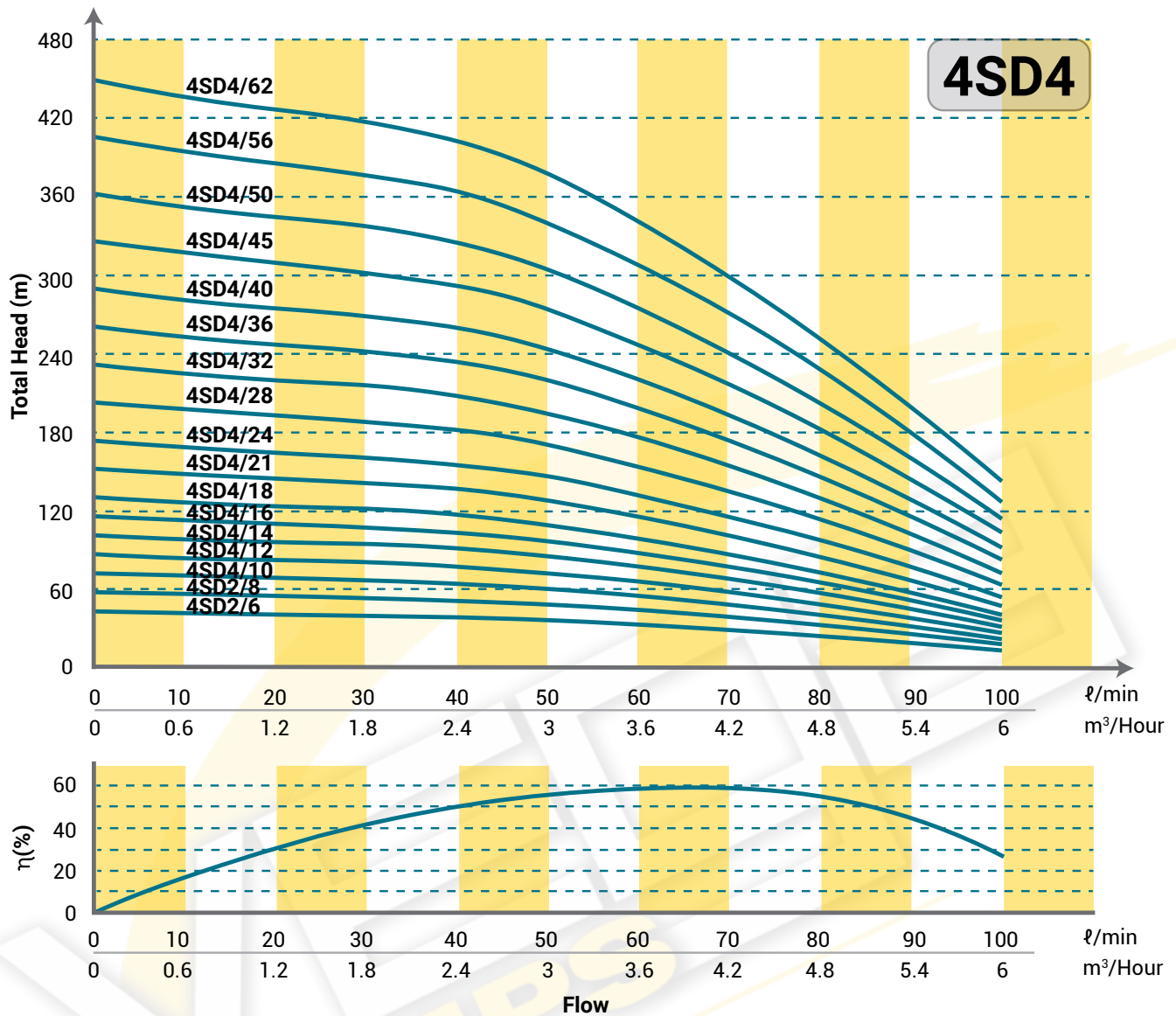
## Performance Data 50Hz

| MODEL (50Hz) |                | P2   |      | Delivery n=2850 1/min |     |     |     |     |     |     |     |     |     |     |     |     |
|--------------|----------------|------|------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 - 220-240V | 3 - 380 - 415V | kW   | HP   | m³/h                  | 0   | 0.3 | 0.6 | 0.9 | 1.2 | 1.5 | 1.8 | 2.1 | 2.4 | 2.7 | 3.0 | 3.3 |
|              |                |      |      | l/min                 | 0   | 5   | 10  | 15  | 20  | 25  | 30  | 35  | 40  | 45  | 50  | 55  |
| 4SDM2/9      | 4SD2/9         | 0.37 | 0.5  | HEAD (m)              | 63  | 63  | 63  | 62  | 59  | 56  | 52  | 47  | 42  | 35  | 27  | 17  |
| 4SDM2/12     | 4SD2/12        | 0.55 | 0.75 |                       | 84  | 84  | 84  | 82  | 79  | 75  | 69  | 63  | 56  | 47  | 36  | 23  |
| 4SDM2/15     | 4SD2/15        | 0.75 | 1    |                       | 98  | 98  | 98  | 96  | 92  | 87  | 81  | 73  | 65  | 54  | 42  | 27  |
| 4SDM2/19     | 4SD2/19        | 1.1  | 1.5  |                       | 134 | 134 | 132 | 130 | 125 | 118 | 109 | 100 | 88  | 74  | 57  | 36  |
| 4SDM2/21     | 4SD2/21        | 1.1  | 1.5  |                       | 155 | 155 | 153 | 151 | 145 | 137 | 127 | 115 | 102 | 85  | 66  | 42  |
| 4SDM2/25     | 4SD2/25        | 1.5  | 2    |                       | 176 | 176 | 174 | 171 | 164 | 155 | 144 | 131 | 116 | 97  | 75  | 48  |
| 4SDM2/28     | 4SD2/28        | 1.5  | 2    |                       | 197 | 197 | 195 | 192 | 184 | 174 | 161 | 147 | 130 | 109 | 84  | 53  |
| 4SDM2/32     | 4SD2/32        | 2.2  | 3    |                       | 239 | 239 | 237 | 233 | 223 | 211 | 196 | 178 | 157 | 132 | 102 | 65  |
| 4SDM2/40     | 4SD2/40        | 2.2  | 3    |                       | 281 | 281 | 279 | 274 | 263 | 249 | 230 | 210 | 185 | 155 | 120 | 76  |
| -            | 4SD2/47        | 3    | 4    |                       | 323 | 323 | 321 | 315 | 302 | 286 | 265 | 241 | 213 | 178 | 138 | 88  |
| -            | 4SD2/52        | 3    | 4    |                       | 366 | 366 | 362 | 356 | 342 | 323 | 299 | 273 | 241 | 202 | 156 | 99  |
| -            | 4SD2/58        | 4    | 5.5  |                       | 408 | 408 | 404 | 397 | 381 | 360 | 334 | 304 | 269 | 225 | 174 | 111 |
| -            | 4SD2/64        | 4    | 5.5  |                       | 457 | 457 | 453 | 445 | 427 | 404 | 374 | 341 | 301 | 252 | 195 | 124 |



## Performance Data 50Hz

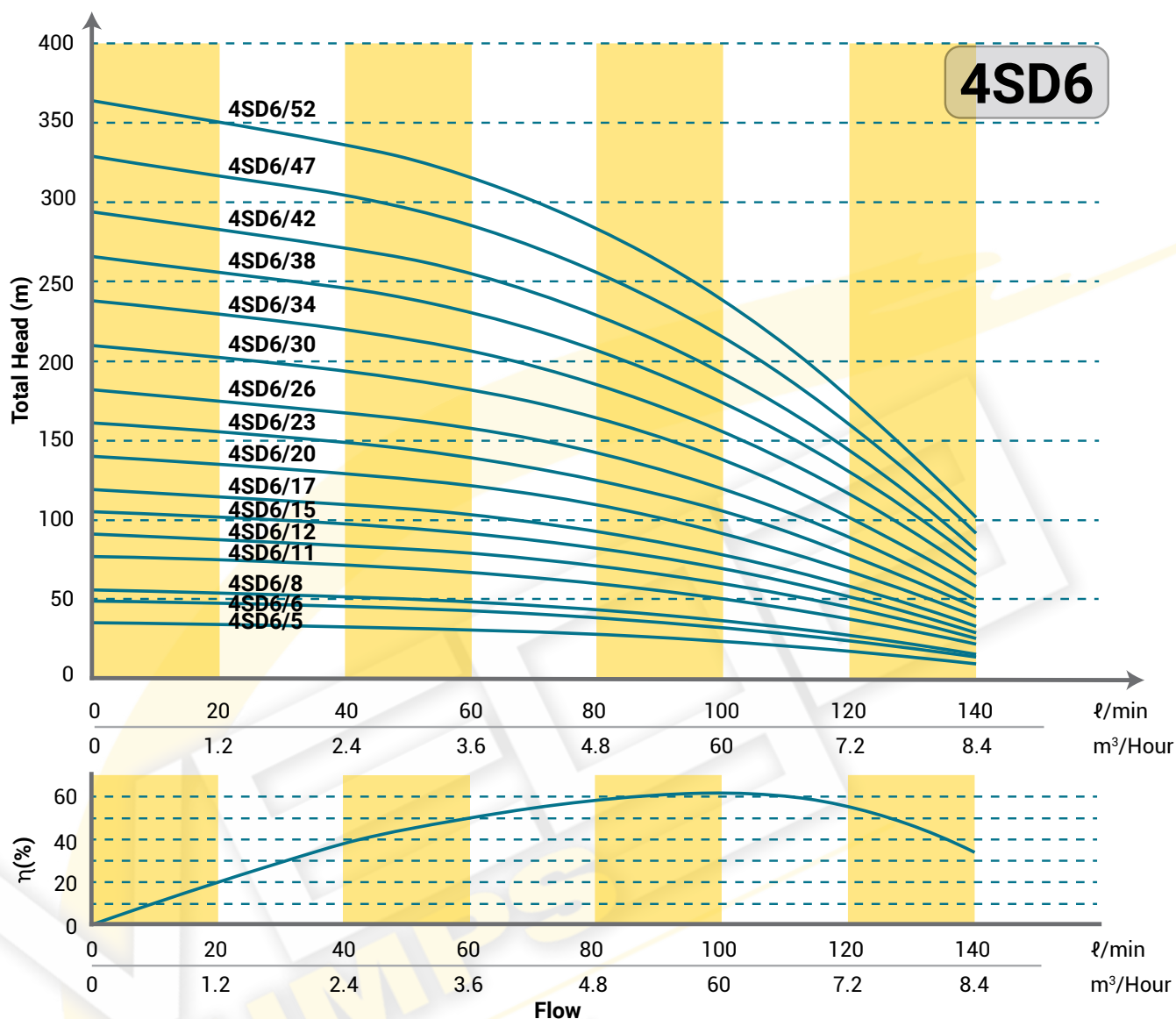
| MODEL (50Hz) |                | P2   |      | Delivery n≈2850 1/min |     |     |     |     |     |     |     |     |     |
|--------------|----------------|------|------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 - 220-240V | 3 - 380 - 415V | kW   | HP   | m³/h                  | 0   | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 |
|              |                |      |      | l/min                 | 0   | 10  | 20  | 30  | 40  | 50  | 60  | 70  | 80  |
| 4SDM3/7      | 4SD3/7         | 0.37 | 0.5  | HEAD (m)              | 50  | 49  | 47  | 45  | 41  | 35  | 28  | 20  | 10  |
| 4SDM3/10     | 4SD3/10        | 0.55 | 0.75 |                       | 72  | 70  | 68  | 64  | 58  | 50  | 40  | 29  | 15  |
| 4SDM3/13     | 4SD3/13        | 0.75 | 1    |                       | 93  | 91  | 88  | 83  | 76  | 66  | 53  | 38  | 19  |
| 4SDM3/15     | 4SD3/15        | 1.1  | 1.5  |                       | 108 | 105 | 102 | 96  | 88  | 76  | 61  | 43  | 22  |
| 4SDM3/18     | 4SD3/18        | 1.1  | 1.5  |                       | 129 | 126 | 122 | 115 | 105 | 91  | 73  | 52  | 27  |
| 4SDM3/20     | 4SD3/20        | 1.5  | 2    |                       | 144 | 140 | 135 | 128 | 117 | 101 | 81  | 58  | 30  |
| 4SDM3/22     | 4SD3/22        | 1.5  | 2    |                       | 158 | 154 | 149 | 141 | 128 | 111 | 89  | 64  | 33  |
| 4SDM3/26     | 4SD3/26        | 2.2  | 3    |                       | 187 | 182 | 176 | 166 | 152 | 131 | 105 | 75  | 39  |
| 4SDM3/30     | 4SD3/30        | 2.2  | 3    |                       | 215 | 210 | 203 | 192 | 175 | 151 | 121 | 87  | 45  |
| -            | 4SD3/35        | 3    | 4    |                       | 251 | 245 | 237 | 224 | 204 | 177 | 142 | 101 | 52  |
| -            | 4SD3/40        | 3    | 4    |                       | 287 | 280 | 271 | 255 | 234 | 202 | 162 | 115 | 60  |
| -            | 4SD3/45        | 4    | 5.5  |                       | 323 | 315 | 305 | 287 | 263 | 227 | 182 | 130 | 67  |
| -            | 4SD3/50        | 4    | 5.5  |                       | 359 | 350 | 339 | 319 | 292 | 252 | 202 | 144 | 75  |
| -            | 4SD3/56        | 5.5  | 7.5  |                       | 402 | 392 | 379 | 358 | 327 | 283 | 227 | 162 | 84  |
| -            | 4SD3/62        | 5.5  | 7.5  |                       | 445 | 434 | 420 | 396 | 362 | 313 | 251 | 179 | 93  |



## Performance Data 50Hz

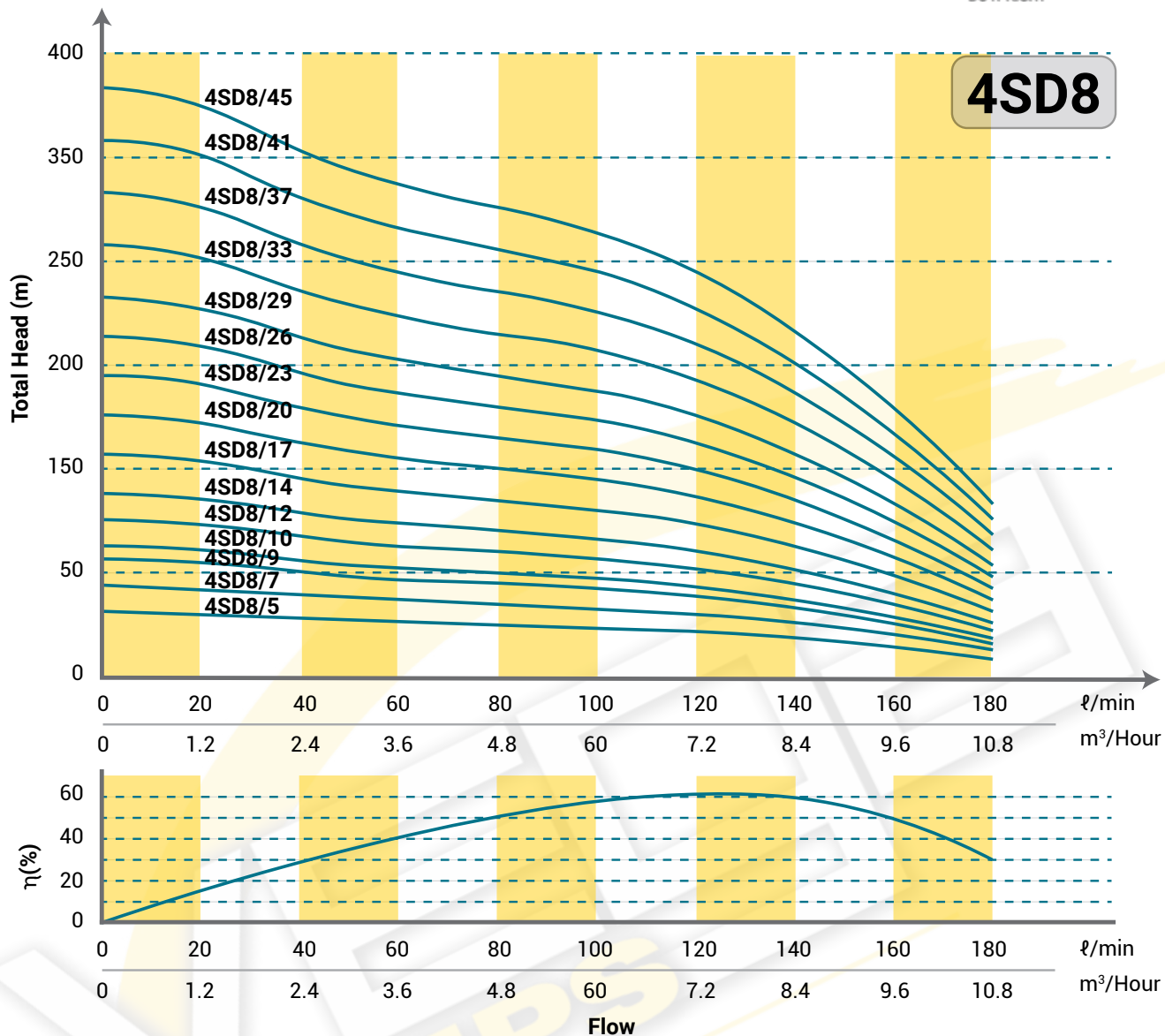
| MODEL (50Hz)    |                   | P2   |      | Delivery n≈2850 1/min |     |     |     |     |     |     |     |     |     |     |     |
|-----------------|-------------------|------|------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                 |                   |      |      | m³/h                  | 0   | 0.6 | 1.2 | 1.8 | 2.4 | 3.0 | 3.6 | 4.2 | 4.8 | 5.4 | 6.0 |
| 1 -<br>220-240V | 3 -<br>380 - 415V | kW   | HP   | l/min                 | 0   | 10  | 20  | 30  | 40  | 50  | 60  | 70  | 80  | 90  | 100 |
| 4SDM4/6         | 4SD4/6            | 0.37 | 0.5  | HEAD (m)              | 44  | 42  | 41  | 40  | 39  | 36  | 33  | 29  | 24  | 19  | 14  |
| 4SDM4/8         | 4SD4/8            | 0.55 | 0.75 |                       | 58  | 56  | 55  | 54  | 52  | 49  | 44  | 39  | 33  | 26  | 18  |
| 4SDM4/10        | 4SD4/10           | 0.75 | 1    |                       | 73  | 70  | 69  | 67  | 65  | 61  | 55  | 48  | 41  | 32  | 23  |
| 4SDM4/12        | 4SD4/12           | 1.1  | 1.5  |                       | 87  | 84  | 82  | 81  | 78  | 73  | 66  | 58  | 49  | 39  | 27  |
| 4SDM4/14        | 4SD4/14           | 1.1  | 1.5  |                       | 102 | 98  | 96  | 94  | 91  | 85  | 77  | 68  | 57  | 45  | 32  |
| 4SDM4/16        | 4SD4/16           | 1.5  | 2    |                       | 116 | 113 | 110 | 107 | 104 | 97  | 88  | 77  | 65  | 51  | 37  |
| 4SDM4/18        | 4SD4/18           | 1.5  | 2    |                       | 131 | 127 | 124 | 121 | 117 | 109 | 99  | 87  | 73  | 58  | 41  |
| 4SDM4/21        | 4SD4/21           | 2.2  | 3    |                       | 152 | 148 | 144 | 141 | 136 | 128 | 115 | 102 | 85  | 67  | 48  |
| 4SDM4/24        | 4SD4/24           | 2.2  | 3    |                       | 174 | 169 | 165 | 161 | 156 | 146 | 132 | 116 | 98  | 77  | 55  |
| -               | 4SD4/28           | 3    | 4    |                       | 203 | 197 | 192 | 188 | 182 | 170 | 154 | 135 | 114 | 90  | 64  |
| -               | 4SD4/32           | 3    | 4    |                       | 232 | 225 | 220 | 215 | 208 | 195 | 176 | 155 | 130 | 103 | 73  |
| -               | 4SD4/36           | 4    | 5.5  |                       | 261 | 253 | 247 | 242 | 234 | 219 | 198 | 174 | 146 | 116 | 82  |
| -               | 4SD4/40           | 4    | 5.5  |                       | 290 | 281 | 275 | 268 | 260 | 243 | 220 | 194 | 163 | 128 | 92  |
| -               | 4SD4/45           | 5.5  | 7.5  |                       | 327 | 316 | 309 | 302 | 293 | 274 | 248 | 218 | 183 | 144 | 103 |
| -               | 4SD4/50           | 5.5  | 7.5  |                       | 363 | 352 | 344 | 335 | 325 | 304 | 275 | 242 | 203 | 160 | 115 |
| -               | 4SD4/56           | 7.5  | 10   |                       | 406 | 394 | 385 | 376 | 364 | 341 | 308 | 271 | 228 | 180 | 128 |
| -               | 4SD4/62           | 7.5  | 10   |                       | 450 | 436 | 426 | 416 | 403 | 377 | 341 | 300 | 252 | 199 | 142 |





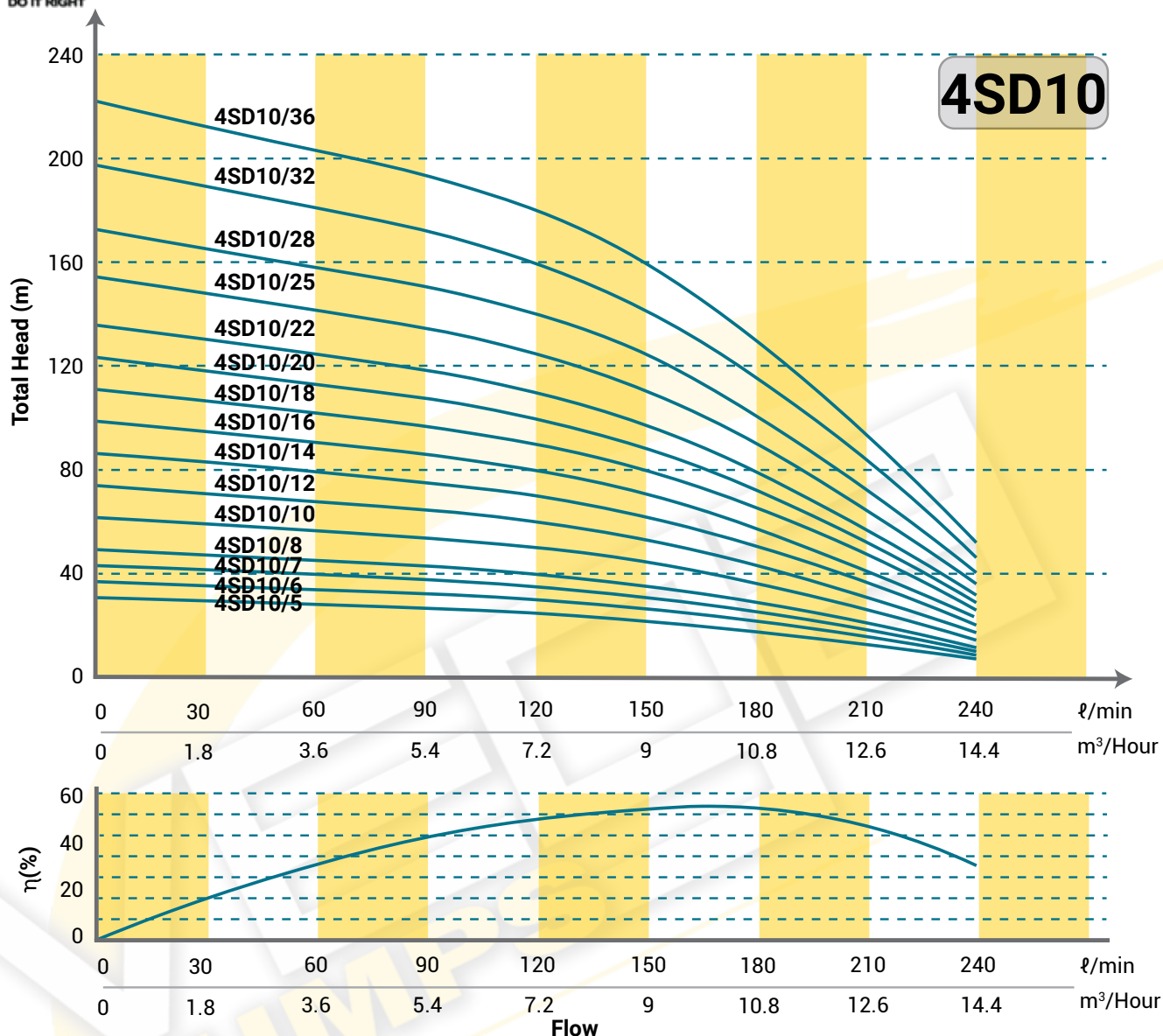
## Performance Data 50Hz

| MODEL (50Hz)    |                   | P2   |      | Delivery      |              |     |     |     |     |     |     |     |
|-----------------|-------------------|------|------|---------------|--------------|-----|-----|-----|-----|-----|-----|-----|
| 1 -<br>220-240V | 3 -<br>380 - 415V | kW   | HP   | m³/h<br>l/min | n≈2850 1/min |     |     |     |     |     |     |     |
|                 |                   |      |      |               | 0            | 1.2 | 2.4 | 3.6 | 4.8 | 6.0 | 7.2 | 8.4 |
|                 |                   |      |      |               | 0            | 20  | 40  | 60  | 80  | 100 | 120 | 140 |
| 4SDM6/5         | 4SD6/5            | 0.37 | 0.5  | HEAD (m)      | 36           | 34  | 33  | 31  | 28  | 24  | 19  | 12  |
| 4SDM6/6         | 4SD6/6            | 0.55 | 0.75 |               | 43           | 41  | 39  | 37  | 34  | 29  | 23  | 15  |
| 4SDM6/8         | 4SD6/8            | 0.75 | 1    |               | 58           | 54  | 52  | 50  | 45  | 38  | 30  | 20  |
| 4SDM6/11        | 4SD6/11           | 1.1  | 1.5  |               | 80           | 74  | 72  | 69  | 62  | 52  | 41  | 27  |
| 4SDM6/12        | 4SD6/12           | 1.5  | 2    |               | 87           | 81  | 79  | 75  | 68  | 57  | 45  | 29  |
| 4SDM6/15        | 4SD6/15           | 1.5  | 2    |               | 101          | 95  | 92  | 87  | 79  | 67  | 53  | 34  |
| 4SDM6/17        | 4SD6/17           | 2.2  | 3    |               | 123          | 115 | 111 | 106 | 96  | 81  | 64  | 42  |
| 4SDM6/20        | 4SD6/20           | 2.2  | 3    |               | 145          | 135 | 131 | 125 | 113 | 95  | 75  | 49  |
| -               | 4SD6/23           | 3    | 4    |               | 166          | 156 | 151 | 143 | 130 | 110 | 87  | 56  |
| -               | 4SD6/26           | 3    | 4    |               | 188          | 176 | 171 | 162 | 147 | 124 | 98  | 63  |
| -               | 4SD6/30           | 4    | 5.5  |               | 217          | 203 | 197 | 187 | 170 | 143 | 113 | 73  |
| -               | 4SD6/34           | 4    | 5.5  |               | 246          | 230 | 223 | 212 | 193 | 162 | 128 | 83  |
| -               | 4SD6/38           | 5.5  | 7.5  |               | 275          | 257 | 249 | 237 | 216 | 181 | 143 | 93  |
| -               | 4SD6/42           | 5.5  | 7.5  |               | 304          | 284 | 275 | 262 | 238 | 200 | 158 | 103 |
| -               | 4SD6/47           | 7.5  | 10   |               | 340          | 318 | 308 | 293 | 267 | 224 | 177 | 115 |
| -               | 4SD6/52           | 7.5  | 10   |               | 376          | 352 | 341 | 324 | 295 | 248 | 196 | 127 |



## Performance Data 50Hz

| MODEL (50Hz) |                | P2   |      | Delivery n≈2850 1/min |     |     |     |     |     |     |     |     |     |      |  |
|--------------|----------------|------|------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|--|
| 1 - 220-240V | 3 - 380 - 415V | kW   | HP   | m³/h                  | 0   | 1.2 | 2.4 | 3.6 | 4.8 | 6.0 | 7.2 | 8.4 | 9.6 | 10.8 |  |
|              |                |      |      | l/min                 | 0   | 20  | 40  | 60  | 80  | 100 | 120 | 140 | 160 | 180  |  |
| 4SDM8/5      | 4SD8/5         | 0.55 | 0.75 | HEAD (m)              | 32  | 31  | 28  | 26  | 25  | 24  | 22  | 18  | 14  | 9    |  |
| 4SDM8/7      | 4SD8/7         | 0.75 | 1    |                       | 44  | 43  | 39  | 37  | 35  | 33  | 30  | 26  | 20  | 13   |  |
| 4SDM8/9      | 4SD8/9         | 1.1  | 1.5  |                       | 57  | 55  | 51  | 47  | 45  | 43  | 39  | 33  | 26  | 17   |  |
| 4SDM8/10     | 4SD8/10        | 1.5  | 2    |                       | 63  | 61  | 56  | 53  | 50  | 48  | 43  | 37  | 28  | 18   |  |
| 4SDM8/12     | 4SD8/12        | 1.5  | 2    |                       | 76  | 73  | 67  | 63  | 60  | 57  | 52  | 44  | 34  | 22   |  |
| 4SDM8/14     | 4SD8/14        | 2.2  | 3    |                       | 88  | 86  | 79  | 74  | 70  | 67  | 61  | 52  | 40  | 26   |  |
| 4SDM8/17     | 4SD8/17        | 2.2  | 3    |                       | 107 | 104 | 96  | 90  | 85  | 81  | 74  | 63  | 48  | 31   |  |
| 4SDM8/20     | 4SD8/20        | 3    | 4    |                       | 126 | 122 | 112 | 105 | 100 | 95  | 87  | 74  | 57  | 37   |  |
| -            | 4SD8/23        | 3    | 4    |                       | 145 | 141 | 129 | 121 | 115 | 109 | 100 | 85  | 65  | 42   |  |
| -            | 4SD8/26        | 4    | 5.5  |                       | 164 | 159 | 146 | 137 | 130 | 124 | 113 | 96  | 74  | 48   |  |
| -            | 4SD8/29        | 4    | 5.5  |                       | 183 | 177 | 163 | 153 | 145 | 138 | 126 | 107 | 82  | 53   |  |
| -            | 4SD8/33        | 5.5  | 7.5  |                       | 208 | 202 | 186 | 174 | 165 | 157 | 143 | 122 | 94  | 61   |  |
| -            | 4SD8/37        | 5.5  | 7.5  |                       | 234 | 226 | 208 | 195 | 185 | 176 | 160 | 136 | 105 | 68   |  |
| -            | 4SD8/41        | 7.5  | 10   |                       | 259 | 251 | 231 | 216 | 205 | 195 | 178 | 151 | 117 | 76   |  |
| -            | 4SD8/45        | 7.5  | 10   |                       | 284 | 275 | 253 | 237 | 225 | 214 | 195 | 166 | 128 | 83   |  |

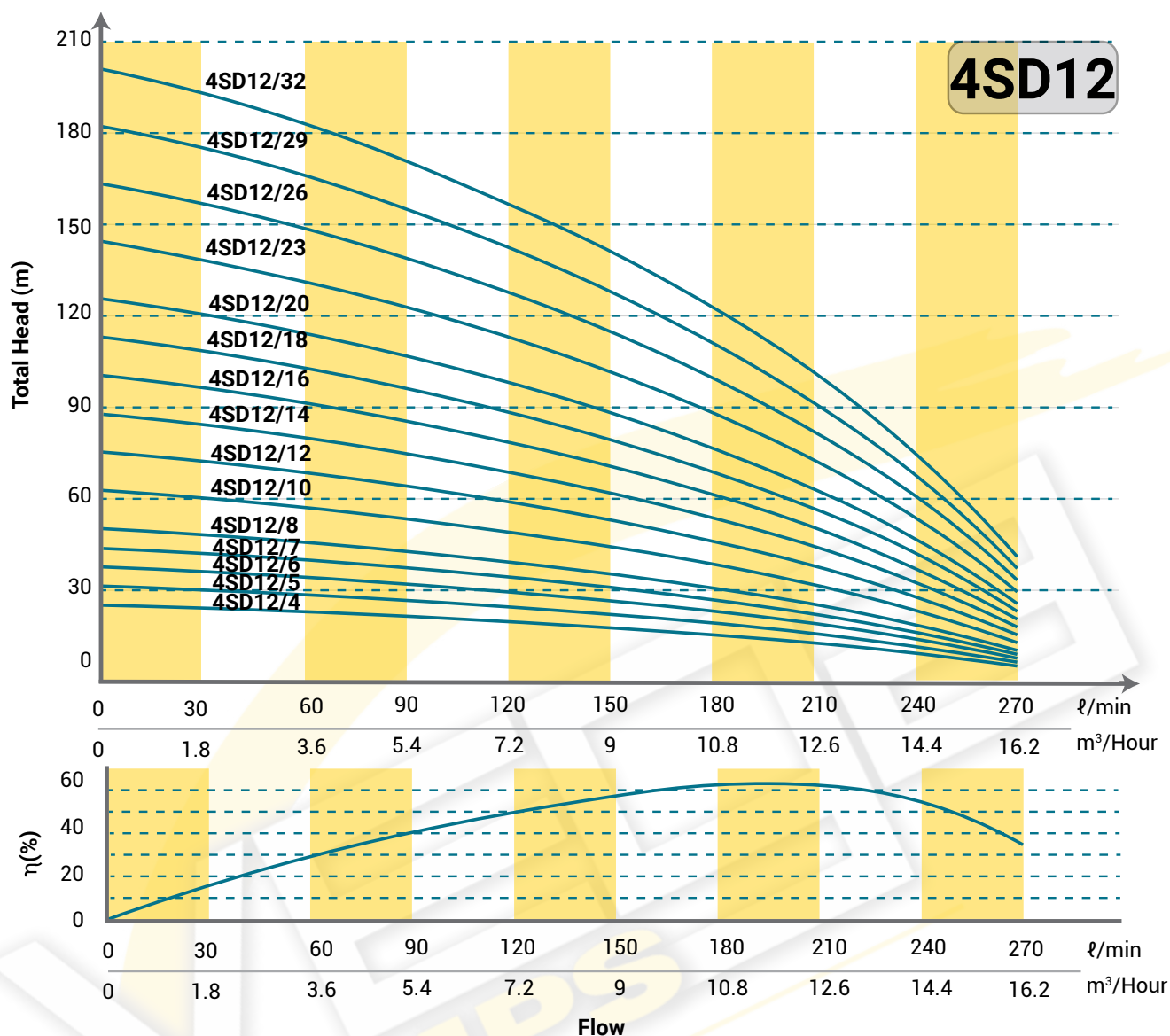


## Performance Data 50Hz

| MODEL (50Hz) |                | P2   |     | Delivery n≈2850 1/min |     |     |     |     |     |     |      |      |      |
|--------------|----------------|------|-----|-----------------------|-----|-----|-----|-----|-----|-----|------|------|------|
| 1 - 220-240V | 3 - 380 - 415V | kW   | HP  | m³/h                  | 0   | 1.8 | 3.6 | 5.4 | 7.2 | 9.0 | 10.8 | 12.6 | 14.4 |
|              |                |      |     | l/min                 | 0   | 30  | 60  | 90  | 120 | 150 | 180  | 210  | 240  |
| 4SDM10/5     | 4SD10/5        | 0.75 | 1   | HEAD (m)              | 31  | 30  | 28  | 27  | 25  | 22  | 18   | 13   | 7    |
| 4SDM10/6     | 4SD10/6        | 1.1  | 1.5 |                       | 37  | 36  | 34  | 32  | 30  | 26  | 22   | 15   | 9    |
| 4SDM10/7     | 4SDM10/7       | 1.1  | 1.5 |                       | 43  | 42  | 39  | 38  | 35  | 31  | 25   | 18   | 10   |
| 4SDM10/8     | 4SD10/8        | 1.5  | 2   |                       | 49  | 48  | 45  | 43  | 40  | 35  | 29   | 21   | 12   |
| 4SDM10/10    | 4SD10/10       | 1.5  | 2   |                       | 62  | 59  | 56  | 54  | 50  | 44  | 36   | 26   | 14   |
| 4SDM10/12    | 4SD10/12       | 2.2  | 3   |                       | 74  | 71  | 68  | 64  | 60  | 53  | 43   | 31   | 17   |
| 4SDM10/14    | 4SD10/14       | 2.2  | 3   |                       | 86  | 83  | 79  | 75  | 70  | 62  | 51   | 36   | 20   |
| -            | 4SD10/16       | 3    | 4   |                       | 99  | 95  | 90  | 86  | 80  | 71  | 58   | 41   | 23   |
| -            | 4SD10/18       | 3    | 4   |                       | 111 | 107 | 101 | 96  | 90  | 79  | 65   | 46   | 26   |
| -            | 4SD10/20       | 4    | 5.5 |                       | 123 | 119 | 113 | 107 | 100 | 88  | 72   | 52   | 29   |
| -            | 4SD10/22       | 4    | 5.5 |                       | 136 | 131 | 124 | 118 | 110 | 97  | 79   | 57   | 32   |
| -            | 4SD10/25       | 5.5  | 7.5 |                       | 154 | 149 | 141 | 134 | 125 | 110 | 90   | 65   | 36   |
| -            | 4SD10/28       | 5.5  | 7.5 |                       | 176 | 166 | 158 | 150 | 140 | 124 | 101  | 72   | 40   |
| -            | 4SD10/32       | 7.5  | 10  |                       | 197 | 190 | 180 | 172 | 160 | 141 | 116  | 83   | 46   |
| -            | 4SD10/36       | 7.5  | 10  |                       | 222 | 214 | 203 | 193 | 180 | 159 | 130  | 93   | 52   |

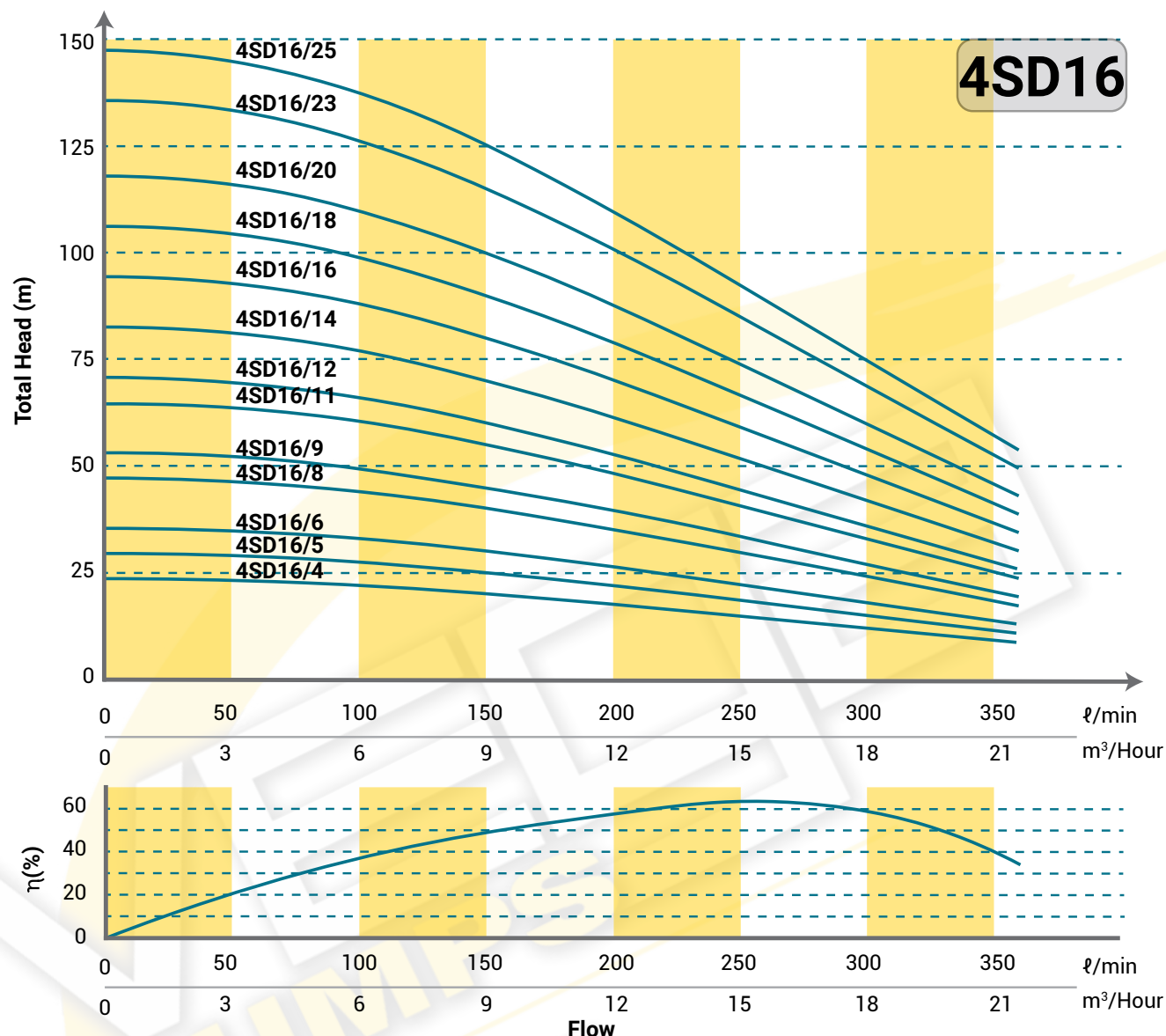


# 4 SD 12



## Performance Data 50Hz

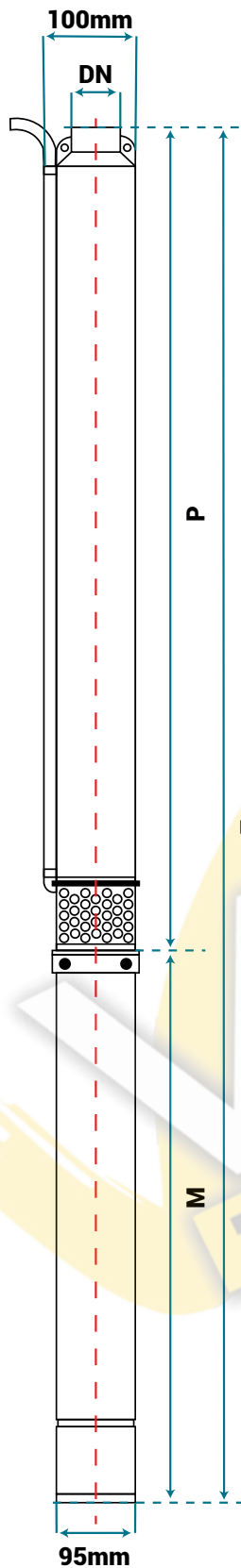
| MODEL (50Hz) |                | P2   |     | Delivery $n \approx 2850$ 1/min |     |     |     |     |     |     |      |      |      |      |  |
|--------------|----------------|------|-----|---------------------------------|-----|-----|-----|-----|-----|-----|------|------|------|------|--|
|              |                |      |     | m³/h                            | 0   | 1.8 | 3.6 | 5.4 | 7.2 | 9.0 | 10.8 | 12.6 | 14.4 | 16.2 |  |
| 1 - 220-240V | 3 - 380 - 415V | kW   | HP  | l/min                           | 0   | 30  | 60  | 90  | 120 | 150 | 180  | 210  | 240  | 270  |  |
| 4SDM12/4     | 4SD12/4        | 0.75 | 1   | HEAD (m)                        | 25  | 24  | 23  | 21  | 20  | 18  | 15   | 13   | 9    | 5    |  |
| 4SDM12/5     | 4SD12/5        | 1.1  | 1.5 |                                 | 31  | 30  | 29  | 27  | 25  | 22  | 19   | 16   | 12   | 6    |  |
| 4SDM12/6     | 4SD12/6        | 1.1  | 1.5 |                                 | 38  | 36  | 34  | 32  | 29  | 26  | 23   | 19   | 14   | 8    |  |
| 4SDM12/7     | 4SD12/7        | 1.5  | 2   |                                 | 44  | 42  | 40  | 37  | 34  | 31  | 27   | 22   | 16   | 9    |  |
| 4SDM12/8     | 4SD12/8        | 1.5  | 2   |                                 | 50  | 48  | 46  | 43  | 39  | 35  | 31   | 25   | 19   | 10   |  |
| 4SDM12/10    | 4SD12/10       | 2.2  | 3   |                                 | 63  | 60  | 57  | 53  | 49  | 44  | 38   | 32   | 23   | 13   |  |
| 4SDM12/12    | 4SD12/12       | 2.2  | 3   |                                 | 75  | 72  | 69  | 64  | 59  | 53  | 46   | 38   | 28   | 15   |  |
| -            | 4SD12/14       | 3    | 4   |                                 | 88  | 84  | 80  | 75  | 69  | 62  | 54   | 44   | 33   | 18   |  |
| -            | 4SD12/16       | 3    | 4   |                                 | 101 | 96  | 92  | 86  | 79  | 71  | 62   | 51   | 38   | 21   |  |
| -            | 4SD12/18       | 4    | 5.5 |                                 | 113 | 108 | 103 | 96  | 88  | 79  | 69   | 57   | 42   | 23   |  |
| -            | 4SD12/20       | 4    | 5.5 |                                 | 126 | 120 | 114 | 107 | 98  | 88  | 77   | 63   | 47   | 26   |  |
| -            | 4SD12/23       | 5.5  | 7.5 |                                 | 144 | 138 | 132 | 123 | 113 | 101 | 88   | 73   | 54   | 29   |  |
| -            | 4SD12/26       | 5.5  | 7.5 |                                 | 163 | 156 | 149 | 139 | 128 | 115 | 100  | 82   | 61   | 33   |  |
| -            | 4SD12/29       | 7.5  | 10  |                                 | 182 | 174 | 166 | 155 | 142 | 128 | 111  | 92   | 68   | 37   |  |
| -            | 4SD12/32       | 7.5  | 10  |                                 | 201 | 192 | 183 | 171 | 157 | 141 | 123  | 101  | 75   | 41   |  |



## Performance Data 50Hz

| MODEL (50Hz) |                | P2  |     | Delivery n≈2850 1/min |     |     |     |     |     |     |     |     |
|--------------|----------------|-----|-----|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|              |                |     |     | m³/h                  | 0   | 3   | 6   | 9   | 12  | 15  | 18  | 21  |
| 1 - 220-240V | 3 - 380 - 415V | kW  | HP  | l/min                 | 0   | 50  | 100 | 150 | 200 | 250 | 300 | 350 |
| 4SDM16/4     | 4SD16/4        | 1.1 | 1.5 | HEAD (m)              | 24  | 23  | 22  | 20  | 18  | 15  | 12  | 9   |
| 4SDM16/5     | 4SD16/5        | 1.5 | 2   |                       | 30  | 29  | 28  | 25  | 22  | 19  | 15  | 11  |
| 4SDM16/6     | 4SD16/6        | 1.5 | 2   |                       | 36  | 35  | 33  | 30  | 26  | 22  | 18  | 13  |
| 4SDM16/8     | 4SD16/8        | 2.2 | 3   |                       | 47  | 46  | 44  | 40  | 35  | 30  | 24  | 17  |
| 4SDM16/9     | 4SD16/9        | 2.2 | 3   |                       | 53  | 52  | 50  | 45  | 40  | 33  | 27  | 19  |
| -            | 4SD16/11       | 3   | 4   |                       | 65  | 64  | 61  | 55  | 48  | 41  | 33  | 24  |
| -            | 4SD16/12       | 3   | 4   |                       | 71  | 70  | 66  | 60  | 53  | 45  | 36  | 26  |
| -            | 4SD16/14       | 4   | 5.5 |                       | 83  | 81  | 77  | 70  | 62  | 52  | 42  | 30  |
| -            | 4SD16/16       | 4   | 5.5 |                       | 95  | 93  | 88  | 80  | 70  | 60  | 48  | 35  |
| -            | 4SD16/18       | 5.5 | 7.5 |                       | 107 | 104 | 99  | 90  | 79  | 67  | 54  | 39  |
| -            | 4SD16/20       | 5.5 | 7.5 |                       | 118 | 116 | 110 | 100 | 88  | 74  | 60  | 43  |
| -            | 4SD16/23       | 7.5 | 10  |                       | 136 | 133 | 127 | 115 | 101 | 86  | 69  | 50  |
| -            | 4SD16/25       | 7.5 | 10  |                       | 148 | 145 | 138 | 125 | 110 | 93  | 75  | 54  |

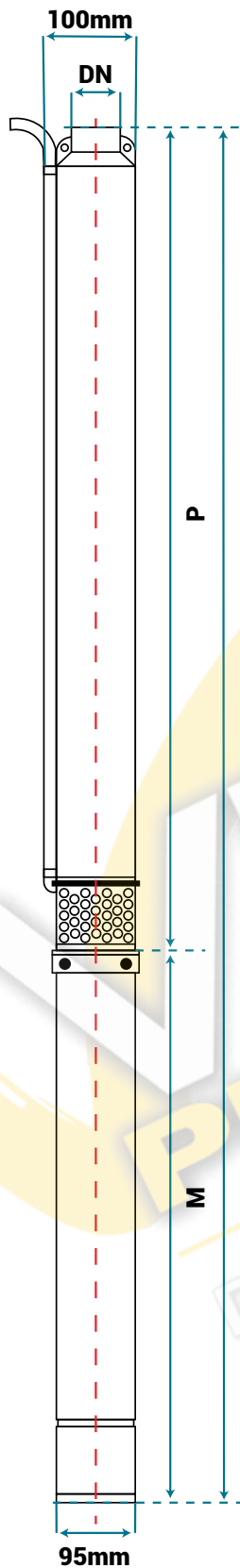
# DIMENSIONS AND WEIGHTS



| MODEL        |                | DN  | DIMENSIONS (mm) |      |      |      |      | WEIGHTS (kg) |      |      |      |      |
|--------------|----------------|-----|-----------------|------|------|------|------|--------------|------|------|------|------|
|              |                |     | P               | M(S) | M(T) | T(S) | T(T) | P            | M(S) | M(T) | T(S) | T(T) |
| 1 - 220-240V | 3 - 380 - 415V |     |                 |      |      |      |      |              |      |      |      |      |
| 4SDM2/7      | 4SD2/7         | 1½" | 392             | 299  | 299  | 691  | 691  | 3.3          | 5.5  | 5.8  | 8.8  | 9.1  |
| 4SDM2/9      | 4SD2/9         | 1½" | 440             | 314  | 314  | 754  | 754  | 3.8          | 6.7  | 6.7  | 10.5 | 10.5 |
| 4SDM2/12     | 4SD2/12        | 1½" | 514             | 329  | 329  | 843  | 843  | 4.6          | 7.3  | 7.3  | 11.9 | 11.9 |
| 4SDM2/14     | 4SD2/14        | 1½" | 562             | 344  | 344  | 906  | 906  | 5.0          | 8.0  | 8.0  | 13.0 | 13.0 |
| 4SDM2/16     | 4SD2/16        | 1½" | 611             | 359  | 344  | 970  | 955  | 5.5          | 8.7  | 8.0  | 14.2 | 13.5 |
| 4SDM2/19     | 4SD2/19        | 1½" | 684             | 379  | 379  | 1063 | 1063 | 6.2          | 9.8  | 9.8  | 16.0 | 16.0 |
| 4SDM2/22     | 4SD2/22        | 1½" | 789             | 399  | 379  | 1188 | 1168 | 7.0          | 10.6 | 9.8  | 17.6 | 16.8 |
| 4SDM2/25     | 4SD2/25        | 1½" | 862             | 424  | 424  | 1286 | 1286 | 7.7          | 11.7 | 11.7 | 19.4 | 19.4 |
| 4SDM2/28     | 4SD2/28        | 1½" | 936             | 449  | 424  | 1385 | 1360 | 8.4          | 12.9 | 11.7 | 21.3 | 20.1 |
| 4SDM2/34     | 4SD2/34        | 1½" | 1082            | 502  | 514  | 1584 | 1596 | 9.7          | 15.7 | 15.7 | 25.4 | 25.4 |
| 4SDM2/40     | 4SD2/40        | 1½" | 1228            | 542  | 514  | 1770 | 1742 | 10.9         | 17.7 | 15.7 | 28.6 | 26.6 |
| 4SDM2/46     | 4SD2/46        | 1½" | 1406            | 594  | 554  | 2000 | 1960 | 12.4         | 19.8 | 17.7 | 32.2 | 30.1 |
| -            | 4SD2/52        | 1½" | 1553            | -    | 594  | -    | 2147 | 13.9         | -    | 19.8 | -    | 33.7 |
| -            | 4SD2/58        | 1½" | 1699            | -    | 658  | -    | 2357 | 15.8         | -    | 21.4 | -    | 37.2 |
| -            | 4SD2/65        | 1½" | 1901            | -    | 698  | -    | 2599 | 17.5         | -    | 23.7 | -    | 41.2 |
|              |                |     |                 |      |      |      |      |              |      |      |      |      |
| 4SDM3/5      | 4SD3/5         | 1½" | 355             | 299  | 299  | 654  | 654  | 2.8          | 5.5  | 5.8  | 8.3  | 8.6  |
| 4SDM3/7      | 4SD3/7         | 1½" | 409             | 314  | 314  | 723  | 723  | 3.4          | 6.7  | 6.7  | 10.1 | 10.1 |
| 4SDM3/10     | 4SD3/10        | 1½" | 490             | 329  | 329  | 814  | 819  | 4.1          | 7.3  | 7.3  | 11.4 | 11.4 |
| 4SDM3/11     | 4SD3/11        | 1½" | 517             | 344  | 344  | 861  | 861  | 4.4          | 8.0  | 8.0  | 12.4 | 12.4 |
| 4SDM3/13     | 4SD3/13        | 1½" | 571             | 359  | 344  | 930  | 915  | 4.9          | 8.7  | 8.0  | 13.6 | 12.9 |
| 4SDM3/15     | 4SD3/15        | 1½" | 624             | 379  | 379  | 1003 | 1003 | 5.4          | 9.8  | 9.8  | 15.2 | 15.2 |
| 4SDM3/18     | 4SD3/18        | 1½" | 737             | 399  | 379  | 1136 | 1116 | 6.2          | 10.6 | 9.8  | 16.8 | 16.0 |
| 4SDM3/20     | 4SD3/20        | 1½" | 790             | 424  | 424  | 1214 | 1214 | 6.7          | 11.7 | 11.7 | 18.4 | 18.4 |
| 4SDM3/22     | 4SD3/22        | 1½" | 844             | 449  | 424  | 1293 | 1268 | 7.3          | 12.9 | 11.7 | 20.2 | 19.0 |
| 4SDM3/26     | 4SD3/26        | 1½" | 952             | 502  | 514  | 1454 | 1466 | 8.3          | 15.7 | 15.7 | 24.0 | 24.0 |
| 4SDM3/30     | 4SD3/30        | 1½" | 1059            | 542  | 514  | 1601 | 1573 | 9.3          | 17.7 | 15.7 | 27.0 | 25.0 |
| 4SDM3/35     | 4SD3/34        | 1½" | 1194            | 594  | 554  | 1664 | 1748 | 10.6         | 19.8 | 17.7 | 30.4 | 28.3 |
| -            | 4SD3/40        | 1½" | 1360            | -    | 594  | -    | 1954 | 11.9         | -    | 19.8 | -    | 31.7 |
| -            | 4SD3/45        | 1½" | 1494            | -    | 658  | -    | 2152 | 13.2         | -    | 21.4 | -    | 34.6 |
| -            | 4SD3/50        | 1½" | 1629            | -    | 698  | -    | 2327 | 14.5         | -    | 23.7 | -    | 38.2 |
| -            | 4SD3/56        | 1½" | 1790            | -    | 738  | -    | 2528 | 16.1         | -    | 25.5 | -    | 41.6 |
| -            | 4SD3/62        | 1½" | 1983            | -    | 788  | -    | 2771 | 17.6         | -    | 28.0 | -    | 45.6 |
|              |                |     |                 |      |      |      |      |              |      |      |      |      |
| 4SDM4/6      | 4SD4/6         | 1½" | 396             | 314  | 314  | 710  | 710  | 3.2          | 6.7  | 6.7  | 9.9  | 9.9  |
| 4SDM4/8      | 4SD4/8         | 1½" | 454             | 329  | 329  | 783  | 783  | 3.7          | 7.3  | 7.3  | 11.0 | 11.0 |
| 4SDM4/9      | 4SD4/9         | 1½" | 484             | 344  | 344  | 828  | 828  | 4.0          | 8.0  | 8.0  | 12.0 | 12.0 |
| 4SDM4/10     | 4SD4/10        | 1½" | 513             | 359  | 344  | 872  | 857  | 4.3          | 8.7  | 8.0  | 13.0 | 12.3 |
| 4SDM4/12     | 4SD4/12        | 1½" | 571             | 379  | 379  | 950  | 950  | 4.8          | 9.8  | 9.8  | 14.6 | 14.6 |
| 4SDM4/14     | 4SD4/14        | 1½" | 630             | 399  | 379  | 1029 | 1009 | 5.3          | 10.6 | 9.8  | 15.9 | 15.1 |
| 4SDM4/16     | 4SD4/16        | 1½" | 688             | 424  | 424  | 1112 | 1112 | 5.9          | 11.7 | 11.7 | 17.6 | 17.6 |
| 4SDM4/18     | 4SD4/18        | 1½" | 778             | 449  | 424  | 1227 | 1202 | 6.4          | 12.9 | 11.7 | 19.3 | 18.1 |
| 4SDM4/21     | 4SD4/21        | 1½" | 866             | 502  | 514  | 1368 | 1380 | 7.2          | 15.7 | 15.7 | 22.9 | 22.9 |
| 4SDM4/24     | 4SD4/24        | 1½" | 953             | 542  | 514  | 1495 | 1467 | 8.1          | 17.7 | 15.7 | 25.8 | 23.8 |
| 4SDM4/28     | 4SD4/28        | 1½" | 1070            | 594  | 554  | 1664 | 1624 | 9.1          | 19.8 | 17.7 | 28.9 | 25.8 |
| -            | 4SD4/32        | 1½" | 1167            | -    | 594  | -    | 1781 | 10.2         | -    | 19.8 | -    | 30.0 |
| -            | 4SD4/36        | 1½" | 1335            | -    | 658  | -    | 1993 | 11.3         | -    | 21.4 | -    | 32.7 |
| -            | 4SD4/40        | 1½" | 1452            | -    | 698  | -    | 2150 | 12.4         | -    | 23.7 | -    | 36.1 |
| -            | 4SD4/45        | 1½" | 1598            | -    | 738  | -    | 2336 | 13.7         | -    | 25.5 | -    | 39.2 |
| -            | 4SD4/50        | 1½" | 1744            | -    | 788  | -    | 2532 | 15.1         | -    | 26.0 | -    | 43.1 |
| -            | 4SD4/56        | 1½" | 1951            | -    | 848  | -    | 2799 | 16.7         | -    | 30.0 | -    | 46.7 |
| -            | 4SD4/62        | 1½" | 2126            | -    | 908  | -    | 3034 | 18.4         | -    | 34.0 | -    | 52.4 |

\* M(S) is single phase motor, M(T) is three phase motor.

\* T(S) is single phase motor, T(T) is three phase motor.



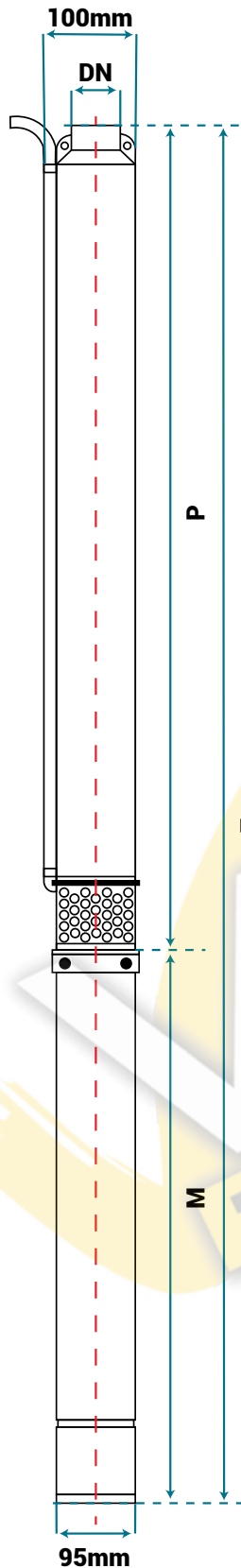
| MODEL        |                | DN     | DIMENSIONS (mm) |      |      |      |      | WEIGHTS (kg) |      |      |      |      |
|--------------|----------------|--------|-----------------|------|------|------|------|--------------|------|------|------|------|
| 1 - 220-240V | 3 - 380 - 415V |        | P               | M(S) | M(T) | T(S) | T(T) | P            | M(S) | M(T) | T(S) | T(T) |
| 4SDM6/5      | 4SD6/5         | 1 1/4" | 400             | 314  | 314  | 714  | 714  | 3.0          | 6.7  | 6.7  | 9.7  | 9.7  |
| 4SDM6/6      | 4SD6/6         | 1 1/4" | 435             | 329  | 329  | 764  | 764  | 3.3          | 7.3  | 7.3  | 10.6 | 10.6 |
| 4SDM6/7      | 4SD6/7         | 1 1/4" | 469             | 344  | 344  | 813  | 813  | 3.6          | 8.0  | 8.0  | 11.6 | 11.6 |
| 4SDM6/8      | 4SD6/8         | 1 1/4" | 504             | 359  | 344  | 863  | 848  | 3.8          | 8.7  | 8.0  | 12.5 | 11.8 |
| 4SDM6/9      | 4SD6/9         | 1 1/4" | 538             | 379  | 379  | 917  | 917  | 4.1          | 9.8  | 9.8  | 13.9 | 13.9 |
| 4SDM6/11     | 4SD6/11        | 1 1/4" | 607             | 399  | 379  | 1006 | 986  | 4.7          | 10.6 | 9.8  | 15.3 | 14.5 |
| 4SDM6/12     | 4SD6/12        | 1 1/4" | 642             | 424  | 424  | 1066 | 1066 | 5.0          | 11.7 | 11.7 | 16.7 | 16.7 |
| 4SDM6/14     | 4SD6/14        | 1 1/4" | 742             | 449  | 424  | 1191 | 1166 | 5.6          | 12.9 | 11.7 | 18.5 | 17.3 |
| 4SDM6/17     | 4SD6/7         | 1 1/4" | 846             | 502  | 514  | 1348 | 1360 | 6.4          | 15.7 | 15.7 | 22.1 | 22.1 |
| 4SDM6/20     | 4SD6/20        | 1 1/4" | 949             | 542  | 514  | 1491 | 1463 | 7.3          | 17.7 | 15.7 | 25.0 | 23.0 |
| 4SDM6/23     | 4SD6/23        | 1 1/4" | 1053            | 594  | 554  | 1647 | 1607 | 8.1          | 19.8 | 17.7 | 27.9 | 25.8 |
| -            | 4SD6/26        | 1 1/4" | 1156            | -    | 594  | -    | 1750 | 9.0          | -    | 19.8 | -    | 28.8 |
| -            | 4SD6/30        | 1 1/4" | 1326            | -    | 658  | -    | 1984 | 1.01         | -    | 21.4 | -    | 31.5 |
| -            | 4SD6/34        | 1 1/4" | 1464            | -    | 698  | -    | 2162 | 11.3         | -    | 23.7 | -    | 35.0 |
| -            | 4SD6/38        | 1 1/4" | 1602            | -    | 738  | -    | 2340 | 12.4         | -    | 25.5 | -    | 37.9 |
| -            | 4SD6/42        | 1 1/4" | 1740            | -    | 788  | -    | 2528 | 13.6         | -    | 28.0 | -    | 41.6 |
| -            | 4SD6/47        | 1 1/4" | 1944            | -    | 848  | -    | 2792 | 15.0         | -    | 30.0 | -    | 45   |
| -            | 4SD6/52        | 1 1/4" | 2116            | -    | 908  | -    | 3024 | 16.4         | -    | 34.0 | -    | 50.4 |
| 4SDM8/5      | 4SD8/5         | 1 1/4" | 418             | 329  | 329  | 747  | 747  | 3.0          | 7.3  | 7.3  | 10.3 | 10.3 |
| 4SDM8/6      | 4SD8/6         | 1 1/4" | 456             | 344  | 344  | 800  | 800  | 3.2          | 8.0  | 8.0  | 11.2 | 11.2 |
| 4SDM8/7      | 4SD8/7         | 1 1/4" | 494             | 359  | 344  | 853  | 838  | 3.6          | 8.7  | 8.0  | 12.3 | 11.6 |
| 4SDM8/8      | 4SD8/8         | 1 1/4" | 532             | 379  | 379  | 911  | 911  | 3.9          | 9.8  | 9.8  | 13.7 | 13.7 |
| 4SDM8/9      | 4SD8/9         | 1 1/4" | 570             | 399  | 379  | 969  | 949  | 4.2          | 10.6 | 9.8  | 14.8 | 14.0 |
| 4SDM8/10     | 4SD8/10        | 1 1/4" | 609             | 424  | 424  | 1033 | 1033 | 4.5          | 11.7 | 11.7 | 16.2 | 16.2 |
| 4SDM8/12     | 4SD8/12        | 1 1/4" | 717             | 449  | 424  | 1165 | 1141 | 5.1          | 12.9 | 11.7 | 18.0 | 16.8 |
| 4SDM8/14     | 4SD8/14        | 1 1/4" | 793             | 502  | 514  | 1295 | 1307 | 5.7          | 15.7 | 15.7 | 21.4 | 21.4 |
| 4SDM8/17     | 4SD8/17        | 1 1/4" | 907             | 542  | 514  | 1449 | 1421 | 6.6          | 17.7 | 15.7 | 24.3 | 22.3 |
| 4SDM8/20     | 4SD8/20        | 1 1/4" | 1021            | 594  | 554  | 1615 | 1575 | 7.5          | 19.8 | 17.7 | 27.3 | 25.2 |
| -            | 4SD8/23        | 1 1/4" | 1136            | -    | 594  | -    | 1730 | 8.4          | -    | 19.8 | -    | 28.2 |
| -            | 4SD8/26        | 1 1/4" | 1250            | -    | 658  | -    | 1908 | 9.2          | -    | 21.4 | -    | 30.6 |
| -            | 4SD8/29        | 1 1/4" | 1396            | -    | 698  | -    | 2094 | 10.1         | -    | 23.7 | -    | 33.8 |
| -            | 4SD8/33        | 1 1/4" | 1548            | -    | 738  | -    | 2286 | 11.3         | -    | 25.5 | -    | 36.8 |
| -            | 4SD8/37        | 1 1/4" | 1701            | -    | 788  | -    | 2489 | 12.5         | -    | 28.0 | -    | 40.5 |
| -            | 4SD8/41        | 1 1/4" | 1884            | -    | 848  | -    | 2732 | 13.7         | -    | 30.0 | -    | 43.7 |
| -            | 4SD8/45        | 1 1/4" | 2037            | -    | 908  | -    | 2945 | 14.9         | -    | 34.0 | -    | 48.9 |

\* M(S) is single phase motor, M(T) is three phase motor.

\* T(S) is single phase motor, T(T) is three phase motor.



# DIMENSIONS AND WEIGHTS

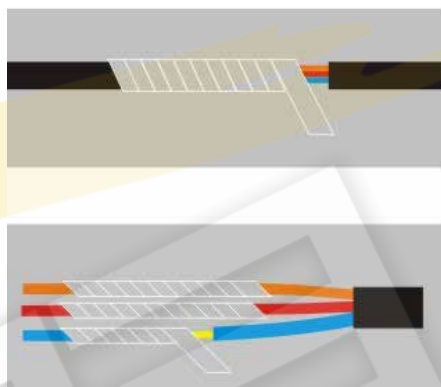
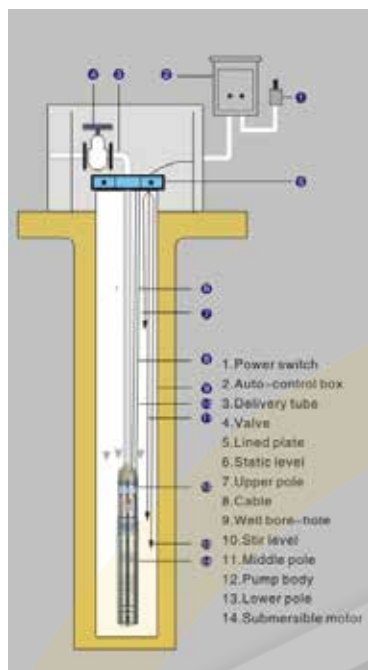


| MODEL        |                | DN | DIMENSIONS (mm) |      |      |      |      | WEIGHTS (kg) |      |      |      |      |
|--------------|----------------|----|-----------------|------|------|------|------|--------------|------|------|------|------|
| 1 - 220-240V | 3 - 380 - 415V |    | P               | M(s) | M(T) | T(s) | T(T) | P            | M(s) | M(T) | T(s) | T(T) |
| 4SDM10/5     | 4SD10/5        | 2" | 418             | 359  | 344  | 777  | 762  | 3.0          | 8.7  | 8.0  | 11.7 | 11.0 |
| 4SDM10/6     | 4SD10/6        | 2" | 456             | 379  | 379  | 835  | 835  | 3.3          | 9.8  | 9.8  | 13.1 | 13.1 |
| 4SDM10/7     | 4SD10/7        | 2" | 494             | 399  | 379  | 893  | 873  | 3.6          | 10.6 | 9.8  | 14.2 | 13.4 |
| 4SDM10/8     | 4SD10/8        | 2" | 532             | 424  | 424  | 956  | 956  | 3.9          | 11.7 | 11.7 | 15.6 | 15.6 |
| 4SDM10/10    | 4SD10/10       | 2" | 609             | 449  | 424  | 1058 | 1033 | 4.5          | 12.9 | 11.7 | 17.4 | 16.2 |
| 4SDM10/12    | 4SD10/12       | 2" | 716             | 502  | 514  | 1218 | 1231 | 5.1          | 15.7 | 15.7 | 20.8 | 20.8 |
| 4SDM10/14    | 4SD10/14       | 2" | 793             | 542  | 514  | 1335 | 1307 | 5.7          | 17.7 | 15.7 | 23.4 | 21.4 |
| 4SDM10/16    | 4SD10/16       | 2" | 869             | 594  | 554  | 1463 | 1423 | 6.3          | 19.8 | 17.7 | 26.1 | 24.0 |
| -            | 4SD10/18       | 2" | 945             | -    | 594  | -    | 1539 | 6.9          | -    | 19.8 | -    | 26.7 |
| -            | 4SD10/20       | 2" | 1021            | -    | 658  | -    | 1679 | 7.5          | -    | 21.4 | -    | 28.9 |
| -            | 4SD10/22       | 2" | 1097            | -    | 698  | -    | 1796 | 8.1          | -    | 23.7 | -    | 31.8 |
| -            | 4SD10/25       | 2" | 1212            | -    | 738  | -    | 1950 | 9.0          | -    | 25.5 | -    | 34.5 |
| -            | 4SD10/28       | 2" | 1357            | -    | 788  | -    | 2146 | 9.8          | -    | 28.0 | -    | 37.8 |
| -            | 4SD10/32       | 2" | 1510            | -    | 848  | -    | 2358 | 11.0         | -    | 30.0 | -    | 41.0 |
| -            | 4SD10/36       | 2" | 1662            | -    | 908  | -    | 2570 | 12.2         | -    | 34.0 | -    | 46.2 |
| 4SDM12/4     | 4SD12/4        | 2" | 452             | 359  | 344  | 811  | 796  | 3.1          | 8.7  | 8.0  | 11.8 | 11.1 |
| 4SDM12/5     | 4SD12/5        | 2" | 508             | 379  | 379  | 887  | 887  | 3.5          | 9.8  | 9.8  | 13.3 | 13.3 |
| 4SDM12/6     | 4SD12/6        | 2" | 564             | 399  | 379  | 963  | 943  | 3.8          | 10.6 | 9.8  | 14.4 | 13.6 |
| 4SDM12/7     | 4SD12/7        | 2" | 620             | 424  | 424  | 1044 | 1044 | 4.2          | 11.7 | 11.7 | 15.9 | 15.9 |
| 4SDM12/8     | 4SD12/8        | 2" | 676             | 449  | 424  | 1125 | 1100 | 4.6          | 12.9 | 11.7 | 17.5 | 16.3 |
| 4SDM12/10    | 4SD12/10       | 2" | 819             | 502  | 514  | 1321 | 1334 | 5.4          | 15.7 | 15.7 | 21.1 | 21.1 |
| 4SDM12/12    | 4SD12/12       | 2" | 931             | 542  | 514  | 1473 | 1445 | 6.1          | 17.7 | 15.7 | 23.8 | 21.8 |
| 4SDM12/14    | 4SD12/14       | 2" | 1043            | 594  | 554  | 1637 | 1597 | 6.9          | 19.8 | 17.7 | 26.7 | 24.6 |
| -            | 4SD12/16       | 2" | 1155            | -    | 594  | -    | 1749 | 7.6          | -    | 19.8 | -    | 27.4 |
| -            | 4SD12/18       | 2" | 1298            | -    | 658  | -    | 1956 | 8.4          | -    | 21.4 | -    | 29.8 |
| -            | 4SD12/20       | 2" | 1410            | -    | 698  | -    | 2108 | 9.2          | -    | 23.7 | -    | 32.9 |
| -            | 4SD12/23       | 2" | 1578            | -    | 738  | -    | 2316 | 10.3         | -    | 25.5 | -    | 35.8 |
| -            | 4SD12/26       | 2" | 1745            | -    | 788  | -    | 2533 | 11.4         | -    | 28.0 | -    | 39.4 |
| -            | 4SD12/29       | 2" | 1944            | -    | 848  | -    | 2793 | 12.6         | -    | 30.0 | -    | 42.6 |
| -            | 4SD12/32       | 2" | 2143            | -    | 908  | -    | 3020 | 13.7         | -    | 34.0 | -    | 47.7 |
| 4SDM16/4     | 4SD16/4        | 2" | 502             | 399  | 379  | 907  | 881  | 3.4          | 10.6 | 9.8  | 14.0 | 13.2 |
| 4SDM16/5     | 4SD16/5        | 2" | 570             | 424  | 424  | 994  | 995  | 3.8          | 11.7 | 11.7 | 15.5 | 15.5 |
| 4SDM16/6     | 4SD16/6        | 2" | 639             | 449  | 424  | 1088 | 1063 | 4.3          | 12.9 | 11.7 | 17.2 | 16.0 |
| 4SDM16/8     | 4SD16/8        | 2" | 807             | 502  | 514  | 1309 | 1322 | 5.2          | 15.7 | 15.7 | 20.9 | 20.9 |
| 4SDM16/9     | 4SD16/9        | 2" | 876             | 542  | 514  | 1418 | 1390 | 5.6          | 17.7 | 15.7 | 23.3 | 21.3 |
| 4SDM16/11    | 4SD16/11       | 2" | 1013            | 594  | 554  | 1607 | 1567 | 6.5          | 19.8 | 17.7 | 26.3 | 24.2 |
| -            | 4SD16/12       | 2" | 1081            | -    | 594  | -    | 1675 | 7.0          | -    | 19.8 | -    | 26.8 |
| -            | 4SD16/14       | 2" | 1218            | -    | 658  | -    | 1876 | 7.9          | -    | 21.4 | -    | 29.3 |
| -            | 4SD16/16       | 2" | 1386            | -    | 698  | -    | 2084 | 8.8          | -    | 23.7 | -    | 32.5 |
| -            | 4SD16/18       | 2" | 1523            | -    | 738  | -    | 2261 | 9.7          | -    | 25.5 | -    | 35.2 |
| -            | 4SD16/20       | 2" | 1660            | -    | 788  | -    | 2448 | 10.6         | -    | 28.0 | -    | 38.6 |
| -            | 4SD16/23       | 2" | 1897            | -    | 848  | -    | 2745 | 11.9         | -    | 30.0 | -    | 41.9 |
| -            | 4SD16/25       | 2" | 2034            | -    | 908  | -    | 2942 | 12.8         | -    | 34.0 | -    | 46.8 |

\* M(s) is single phase motor, M(T) is three phase motor.

\* T(s) is single phase motor, T(T) is three phase motor.

## INSTALLING A BOREHOLE PUMP AND MOTOR



## MAXIMUM CABLE LENGTH FROM PUMP TO STARTER

| Type      | kW   | $i_n$ (A) | 1.5 mm <sup>2</sup> | 2.5 mm <sup>2</sup> | 4 mm <sup>2</sup> | 6 mm <sup>2</sup> | 10 mm <sup>2</sup> | 16 mm <sup>2</sup> | 25 mm <sup>2</sup> |
|-----------|------|-----------|---------------------|---------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| 220V~/50H | 0.37 | 4.2       | 111                 | 185                 | 295               |                   |                    |                    |                    |
|           | 0.55 | 4.5       | 80                  | 133                 | 211               | 315               |                    |                    |                    |
|           | 0.75 | 6         | 58                  | 96                  | 153               | 229               | 377                |                    |                    |
|           | 1.1  | 9         | 48                  | 79                  | 153               | 190               | 316                |                    |                    |
|           | 1.5  | 10.3      | 34                  | 57                  | 92                | 137               | 228                |                    |                    |
|           | 2.2  | 14.6      |                     | 43                  | 68                | 102               | 169                |                    |                    |
| 380V~/50H | 0.37 | 1.4       | 768                 |                     |                   |                   |                    |                    |                    |
|           | 0.55 | 2.2       | 489                 | 811                 |                   |                   |                    |                    |                    |
|           | 0.75 | 2.3       | 416                 | 691                 |                   |                   |                    |                    |                    |
|           | 1.1  | 3.4       | 281                 | 467                 | 744               |                   |                    |                    |                    |
|           | 1.5  | 4.2       | 219                 | 363                 | 579               | 862               |                    |                    |                    |
|           | 2.2  | 5.5       | 153                 | 254                 | 405               | 605               | 997                |                    |                    |
|           | 3    | 7.9       | 113                 | 188                 | 300               | 447               | 736                |                    |                    |
|           | 4    | 9.6       | 89                  | 147                 | 235               | 350               | 578                | 909                |                    |
|           | 5.5  | 13.6      | 66                  | 109                 | 174               | 260               | 427                | 671                |                    |
|           | 7.5  | 17.6      | 49                  | 81                  | 130               | 193               | 319                | 501                | 746                |

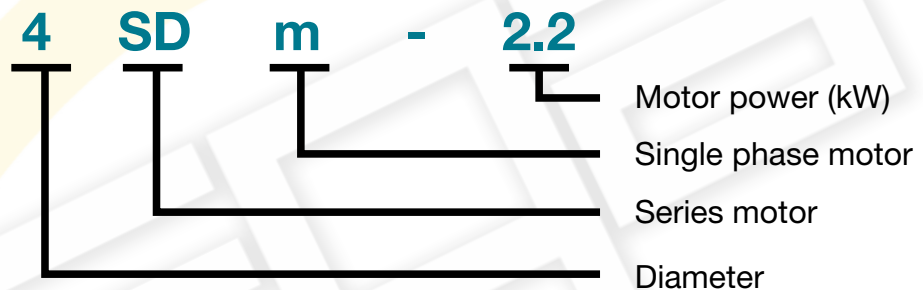
# 4" OIL FILLED MOTOR

## 20 Bar Single phase

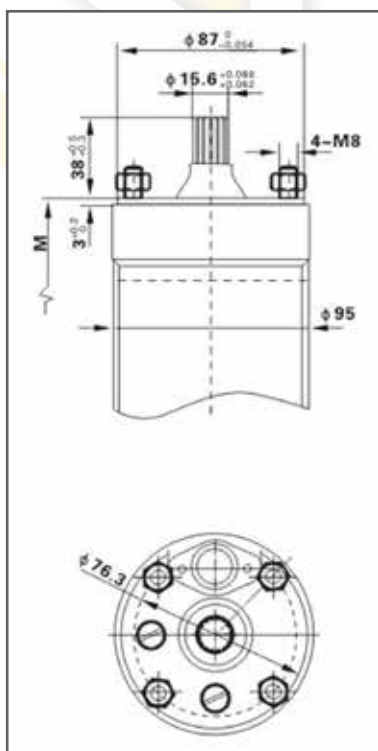


### Motor technical data

|                                                                                       |                    |
|---------------------------------------------------------------------------------------|--------------------|
| Single phase power:                                                                   | 0.37 to 2.2 kW     |
| Speed:                                                                                | 2850rpm            |
| Voltage:                                                                              | 220 ~ 240V/50Hz    |
| Insulation class:                                                                     | B                  |
| Protection grade:                                                                     | IP 68              |
| Highest temperature of Liquid:                                                        | 35°C               |
| Maximum solid handling:                                                               | 40g/m <sup>3</sup> |
| Motor casing:                                                                         | stainless steel    |
| Maximum diameter:                                                                     | Φ 95 mm            |
| With sand proof cover/pressure balance membrane/mechanical seal for high performance. |                    |
| Flange and coupling according to NEMA standard.                                       |                    |

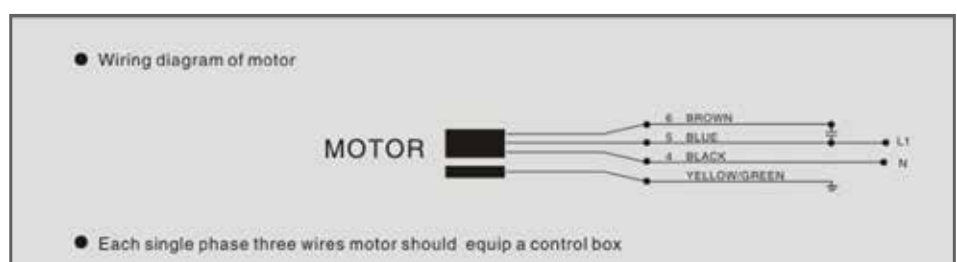


### Motor dimensions



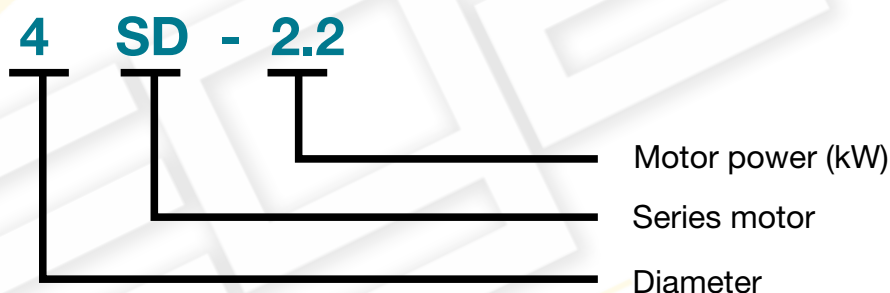
| TYPE                    | MOTOR POWER |      | CAP | RUNNING | DIMENSIONS  |             |
|-------------------------|-------------|------|-----|---------|-------------|-------------|
|                         | kW          | HP   |     | Amps    | Length (mm) | Weight (kg) |
| Single Phase 220V~/50HZ |             |      |     |         |             |             |
| 4SDm-0.37               | 0.37        | 0.5  | 20  | 3.7     | 314         | 6.7         |
| 4SDm-0.55               | 0.55        | 0.75 | 25  | 4.7     | 329         | 7.3         |
| 4SDm-0.75               | 0.75        | 1.0  | 35  | 6.2     | 344         | 8.0         |
| 4SDm-1.1                | 1.1         | 1.5  | 45  | 8.0     | 399         | 10.6        |
| 4SDm-1.5                | 1.5         | 2.0  | 55  | 10.5    | 424         | 11.7        |
| 4SDm-2.2                | 2.2         | 3.0  | 60  | 15      | 502         | 15.7        |

### Motor wiring



### Motor technical data

|                                                                                       |                    |
|---------------------------------------------------------------------------------------|--------------------|
| Three phase power:                                                                    | 0.37 to 7.5kW      |
| Speed:                                                                                | 2850rpm            |
| Voltage:                                                                              | 380 ~ 415V/50Hz    |
| Insulation class:                                                                     | B                  |
| Protection grade:                                                                     | IP 68              |
| Highest temperature of liquid:                                                        | 35°C               |
| Maximum solid handling:                                                               | 40g/m <sup>3</sup> |
| Motor casing:                                                                         | stainless steel    |
| Maximum diameter:                                                                     | Φ 95 mm            |
| With sand proof cover/pressure balance membrane/mechanical seal for high performance. |                    |
| Flange and coupling according to NEMA standard.                                       |                    |



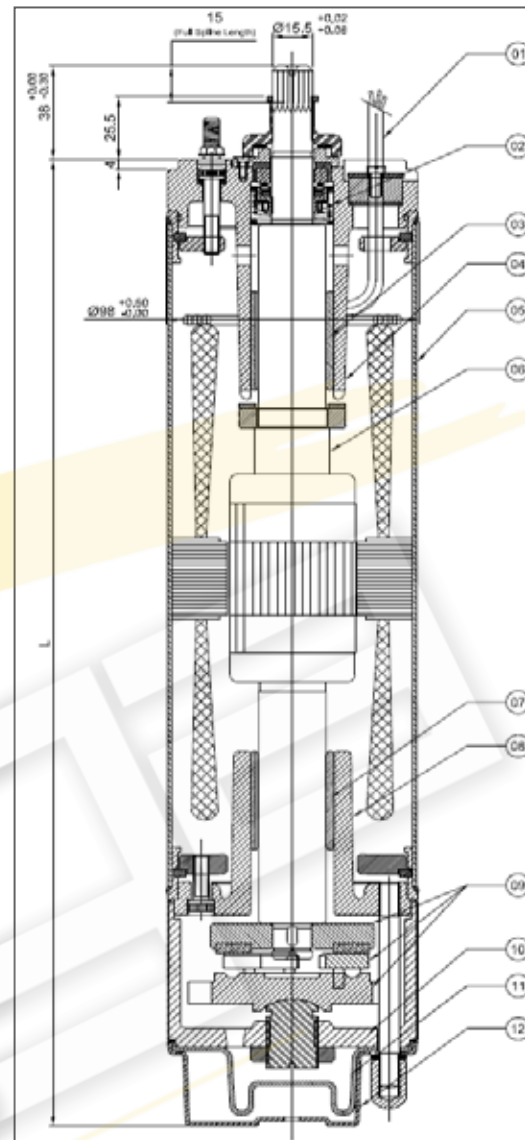
### Motor dimensions

| TYPE<br>Three Phase<br>380V~/50HZ | MOTOR POWER |      |              | DIMENSIONS  |             |
|-----------------------------------|-------------|------|--------------|-------------|-------------|
|                                   | kW          | HP   | RUNNING AMPS | Length (mm) | Weight (kg) |
| 4SD - 0.37                        | 0.37        | 0.5  | 1.5          | 314         | 6.7         |
| 4SD - 0.55                        | 0.55        | 0.75 | 1.8          | 329         | 7.3         |
| 4SD - 0.75                        | 0.75        | 1.0  | 2.5          | 344         | 8           |
| 4SD - 1.1                         | 1.1         | 1.5  | 3.2          | 379         | 9.8         |
| 4SD - 1.5                         | 1.5         | 2.0  | 4.3          | 424         | 11.7        |
| 4SD - 2.2                         | 2.2         | 3.0  | 6.0          | 514         | 15.7        |
| 4SD - 3                           | 3.0         | 4.0  | 8.0          | 594         | 19.8        |
| 4SD - 4                           | 4.0         | 5.5  | 10.0         | 698         | 23.7        |
| 4SD - 5.5                         | 5.5         | 7.5  | 13.0         | 788         | 28          |
| 4SD - 7.5                         | 7.5         | 10.0 | 17.0         | 908         | 34          |

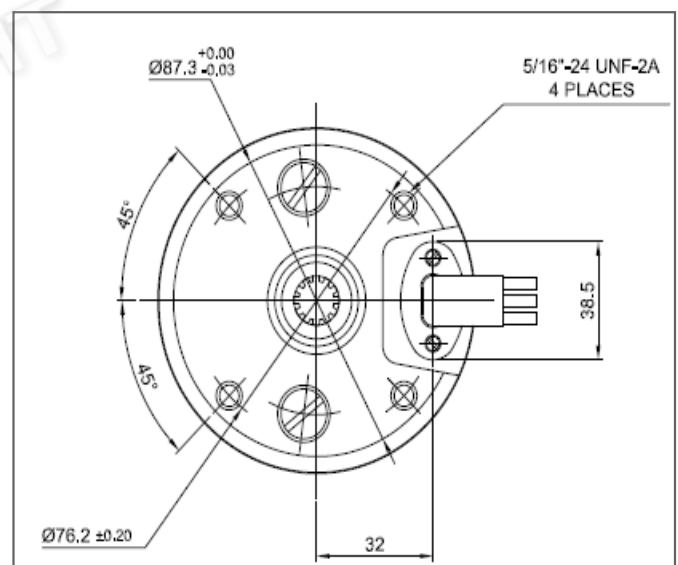
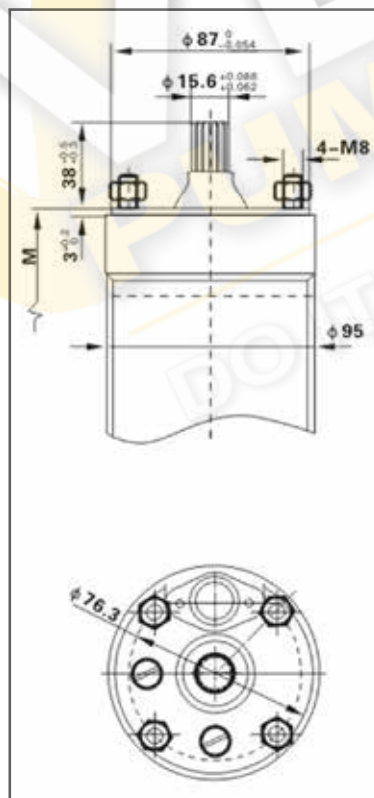


## Motor parts

| SERIAL NO. | PART NAME               | MATERIAL            |
|------------|-------------------------|---------------------|
| 01         | Cable 3 Core/<br>4 Core | EPR                 |
| 02         | Mechanical Seal         | Ceramic/Carbon      |
| 03         | Bearing Bush            | Carbon              |
| 04         | Upper Housing           | CI (FG-200)/S.S.304 |
| 05         | Motor Pipe              | Stainless Steel     |
| 06         | Rotor shaft             | S.S.420             |
| 07         | Bearing Bush            | Carbon              |
| 08         | Lower Housing           | CI (FG-200)         |
| 09         | Thrust Bearing set      | Carbon/S.S. 420     |
| 10         | Lower Part - 2          | CI (FG-200)         |
| 11         | Pressure Cup            | N.B.R.              |
| 12         | Motor Base              | S.S.304             |
| 13         | All Hardware            | S.S.316             |



## Dimensional drawings



## CSR PERFORMANCE DATA OF THREE PHASE MOTORS (380VOLT/50HZ)

| P <sub>N</sub> |      | THRUST<br>LOAD | U <sub>N</sub> | n <sub>N</sub> | I <sub>N</sub> | I <sub>A</sub> | η (%) |    |     | COSφ |      |      | T <sub>N</sub> | T <sub>A</sub> |
|----------------|------|----------------|----------------|----------------|----------------|----------------|-------|----|-----|------|------|------|----------------|----------------|
| (kW)           | (HP) | (N)            | (V)            | (min-1)        | (A)            | (A)            | 50    | 75 | 100 | 50   | 75   | 100  | (Nm)           | (Nm)           |
| 0.55           | 0.75 | 1500           | 380            | 2830           | 1.60           | 6.00           | 61    | 67 | 67  | 0.59 | 0.72 | 0.80 | 1.90           | 3.10           |
| 0.75           | 1    | 1500           | 380            | 2850           | 2.10           | 8.90           | 63    | 68 | 70  | 0.57 | 0.70 | 0.79 | 2.50           | 4.80           |
| 1.1            | 1.5  | 3000           | 380            | 2820           | 3.00           | 13.80          | 69    | 72 | 72  | 0.59 | 0.73 | 0.81 | 3.80           | 9.60           |
| 1.5            | 2    | 3000           | 380            | 2840           | 3.90           | 18.60          | 69    | 72 | 73  | 0.59 | 0.72 | 0.81 | 5.00           | 11.30          |
| 2.2            | 3    | 4000           | 380            | 2815           | 5.80           | 28.70          | 72    | 75 | 75  | 0.58 | 0.72 | 0.81 | 7.60           | 21.70          |
| 3              | 4    | 4000           | 380            | 2795           | 8.80           | 30.60          | 69    | 72 | 70  | 0.59 | 0.72 | 0.83 | 10.50          | 21.44          |
| 4              | 5.5  | 4000           | 380            | 2785           | 10.80          | 32.30          | 63    | 67 | 70  | 0.73 | 0.79 | 0.83 | 13.40          | 21.24          |
| 5.5            | 7.5  | 4000           | 380            | 2785           | 14.80          | 50.50          | 70    | 73 | 74  | 0.75 | 0.79 | 0.84 | 18.93          | 37.18          |
| 7.5            | 10   | 4000           | 380            | 2850           | 18.00          | 61.00          | 71    | 72 | 73  | 0.99 | 0.95 | 0.91 | 24.60          | 45.00          |

P<sub>N</sub> - Rated Output

U<sub>N</sub> - Rated Voltage

n<sub>N</sub> - RPM

I<sub>N</sub> - Full Load Current

I<sub>A</sub> - Starting Current

η - Motor Efficiency

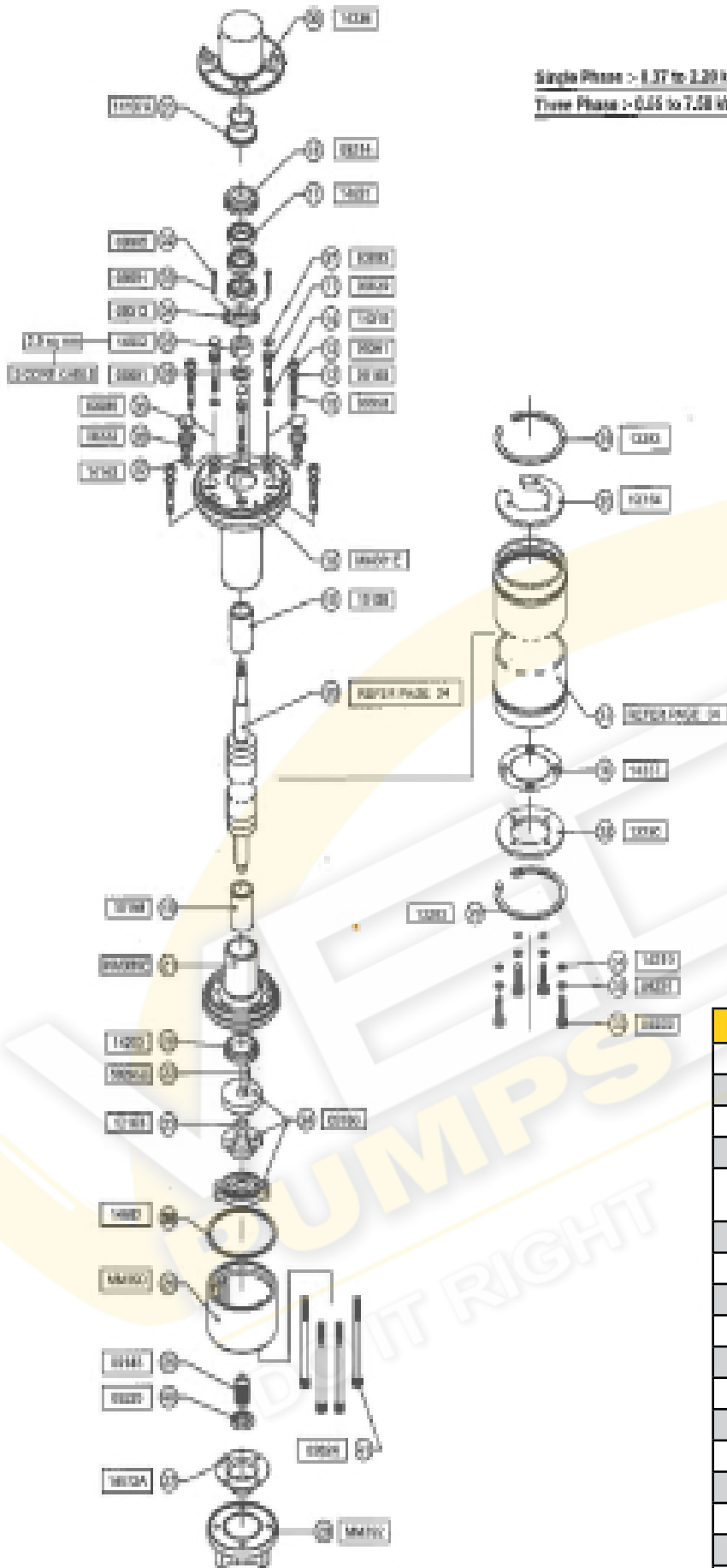
cosφ - Power Factor

T<sub>N</sub> - Full Load Torque

T<sub>A</sub> - Starting Torque

F<sub>[N]</sub> - Axial Thrust Load

Single Phase > 0.37 to 2.20 kW  
Three Phase > 0.55 to 7.50 kW



| No | Part Name         | No | Part Name           |
|----|-------------------|----|---------------------|
| 1  | Sand Guard        | 22 | Key                 |
| 2  | Cable clip screw  | 23 | Circlip (external)  |
| 3  | Cable washer      | 24 | Thrust bearing pad  |
| 4  | Cable clip        | 25 | Rocker              |
| 5  | Cable grommet     | 26 | Lower housing part2 |
| 6  | Drain plug        | 27 | Pressure cup        |
| 7  | Drain plug o-ring | 28 | Motor base          |
| 8  | Cable washer      | 29 | Circlip (internal)  |
| 9  | Couple cap        | 30 | Upper flange        |
| 10 | Winding cap       | 31 | Stator body         |
| 11 | Allen bolt        | 32 | Lower flange        |
| 12 | Hex nut           | 33 | Allen bolt          |
| 13 | Spring washer     | 34 | Stud o-ring         |
| 14 | Allen bolt o-ring | 35 | Stud washer         |
| 15 | Upper stud        | 36 | Drain plug cap      |
| 16 | Oil seal collar   | 37 | Allen bolt cap      |
| 17 | Oil Seal          | 38 | C. T. Bearing       |
| 18 | Upper housing     | 39 | Lower gasket        |
| 19 | Bearing bush      | 40 | Rocker nut          |
| 20 | Rotor shaft       | 41 | Allen bolt          |
| 21 | Lower housing     |    |                     |

# 4" OIL FILLED MOTOR 220V

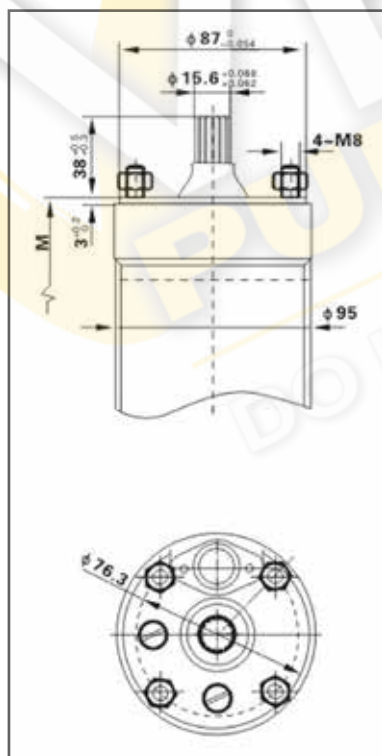
## 3 Phase - Solar Application



### Motor technical data

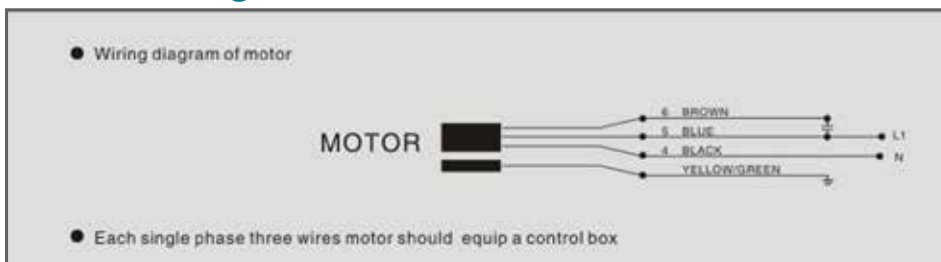
|                                                                                           |                    |
|-------------------------------------------------------------------------------------------|--------------------|
| Single phase power:                                                                       | 0.75 to 5.5 kW     |
| Speed:                                                                                    | 2850rpm            |
| Voltage:                                                                                  | 220 3 phase        |
| Insulation class:                                                                         | B                  |
| Protection grade:                                                                         | IP 68              |
| Highest temperature of liquid:                                                            | 35°C               |
| Maximum solid handling:                                                                   | 40g/m <sup>3</sup> |
| Motor casing:                                                                             | stainless steel    |
| Maximum diameter:                                                                         | Φ 95 mm            |
| With sand proof cover/pressure balance membrane/<br>mechanical seal for high performance. |                    |
| Flange and coupling according to NEMA standard.                                           |                    |

### Motor dimensions



| TYPE                       | MOTOR POWER |      | RUNNING | DIMENSIONS     |                |
|----------------------------|-------------|------|---------|----------------|----------------|
| Single Phase<br>220V~/50HZ | kW          | HP   | Amps    | Length<br>(mm) | Weight<br>(kg) |
| 4SD-0.37                   | 0.37        | 0.5  | 2.8     | 314            | 6.7            |
| 4SD-0.55                   | 0.55        | 0.75 | 3.6     | 329            | 7.3            |
| 4SD-0.75                   | 0.75        | 1.0  | 4       | 344            | 8.0            |
| 4SD-1.1                    | 1.1         | 1.5  | 5.9     | 399            | 10.6           |
| 4SD-1.5                    | 1.5         | 2.0  | 7.8     | 424            | 11.7           |
| 4SD-2.2                    | 2.2         | 3.0  | 11.6    | 344            | 8.0            |
| 4SD-4.0                    | 4           | 5.5  | 17      | 698            | 23.7           |
| 4SD-5.5                    | 5.5         | 7.5  | 21      | 788            | 28             |

### Motor wiring

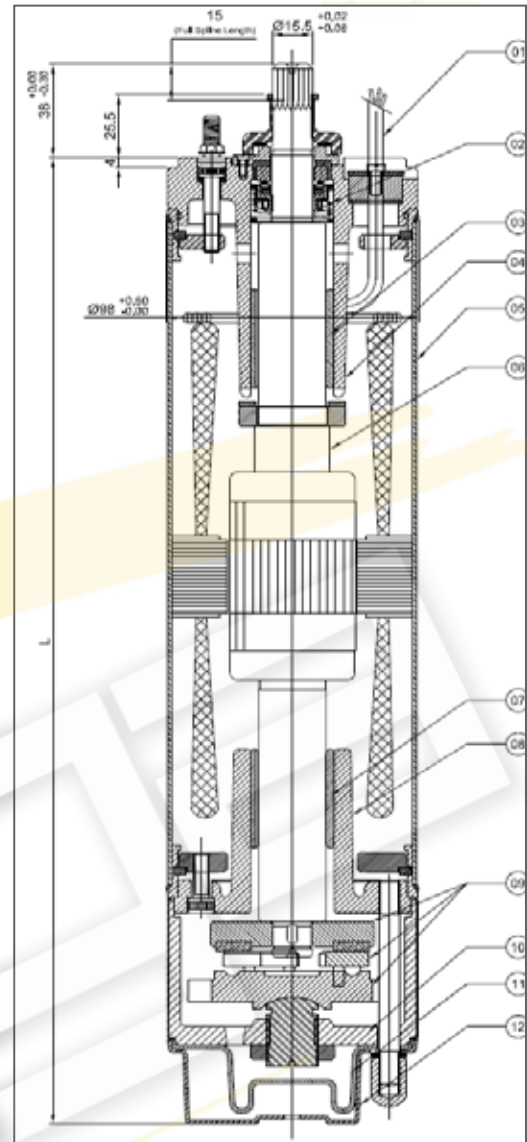


*Note: These motors make use of our AC-DC inverters  
For more information go to the Solar Inverter AC-DC Catalogue (Solar Products)*

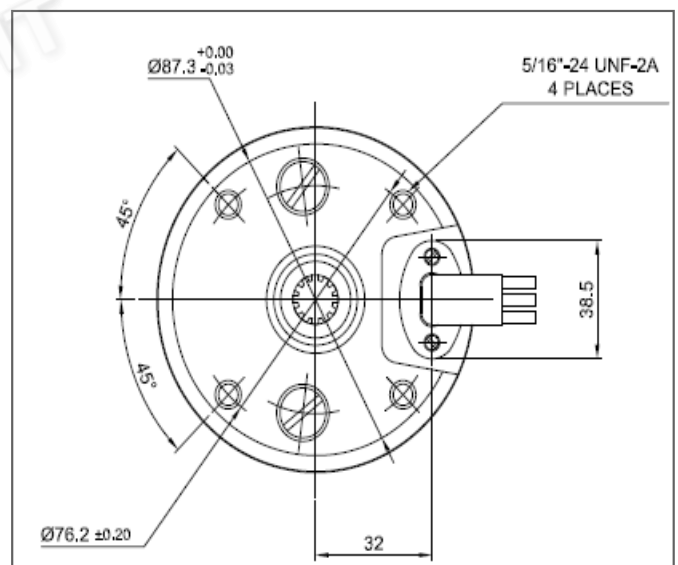
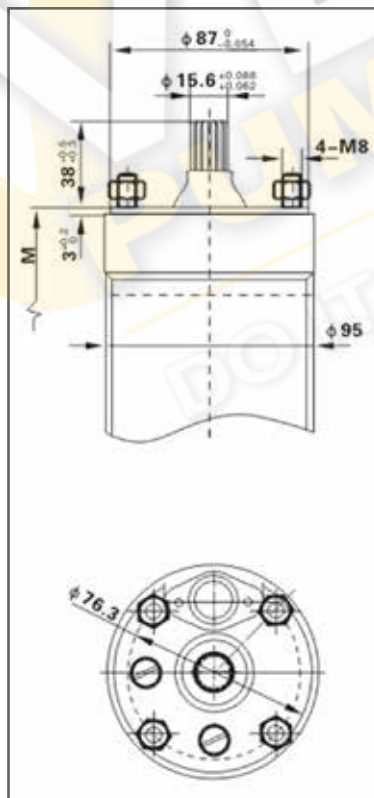


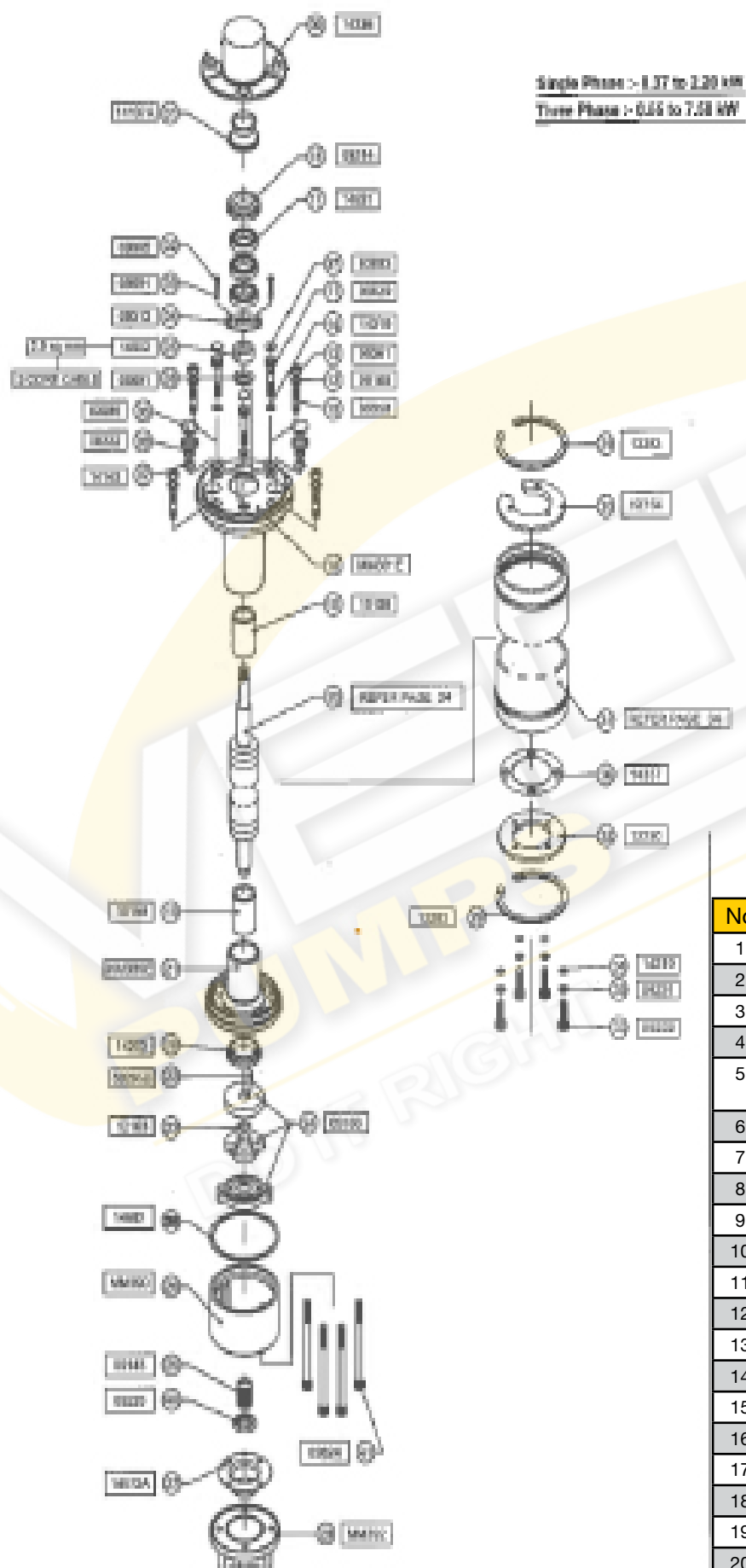
## Motor parts

| SERIAL NO. | PART NAME               | MATERIAL            |
|------------|-------------------------|---------------------|
| 01         | Cable 3 Core/<br>4 Core | EPR                 |
| 02         | Mechanical Seal         | Ceramic/Carbon      |
| 03         | Bearing Bush            | Carbon              |
| 04         | Upper Housing           | CI (FG-200)/S.S.304 |
| 05         | Motor Pipe              | Stainless Steel     |
| 06         | Rotor shaft             | S.S.420             |
| 07         | Bearing Bush            | Carbon              |
| 08         | Lower Housing           | CI (FG-200)         |
| 09         | Thrust Bearing set      | Carbon/S.S. 420     |
| 10         | Lower Part - 2          | CI (FG-200)         |
| 11         | Pressure Cup            | N.B.R.              |
| 12         | Motor Base              | S.S.304             |
| 13         | All Hardware            | S.S.316             |

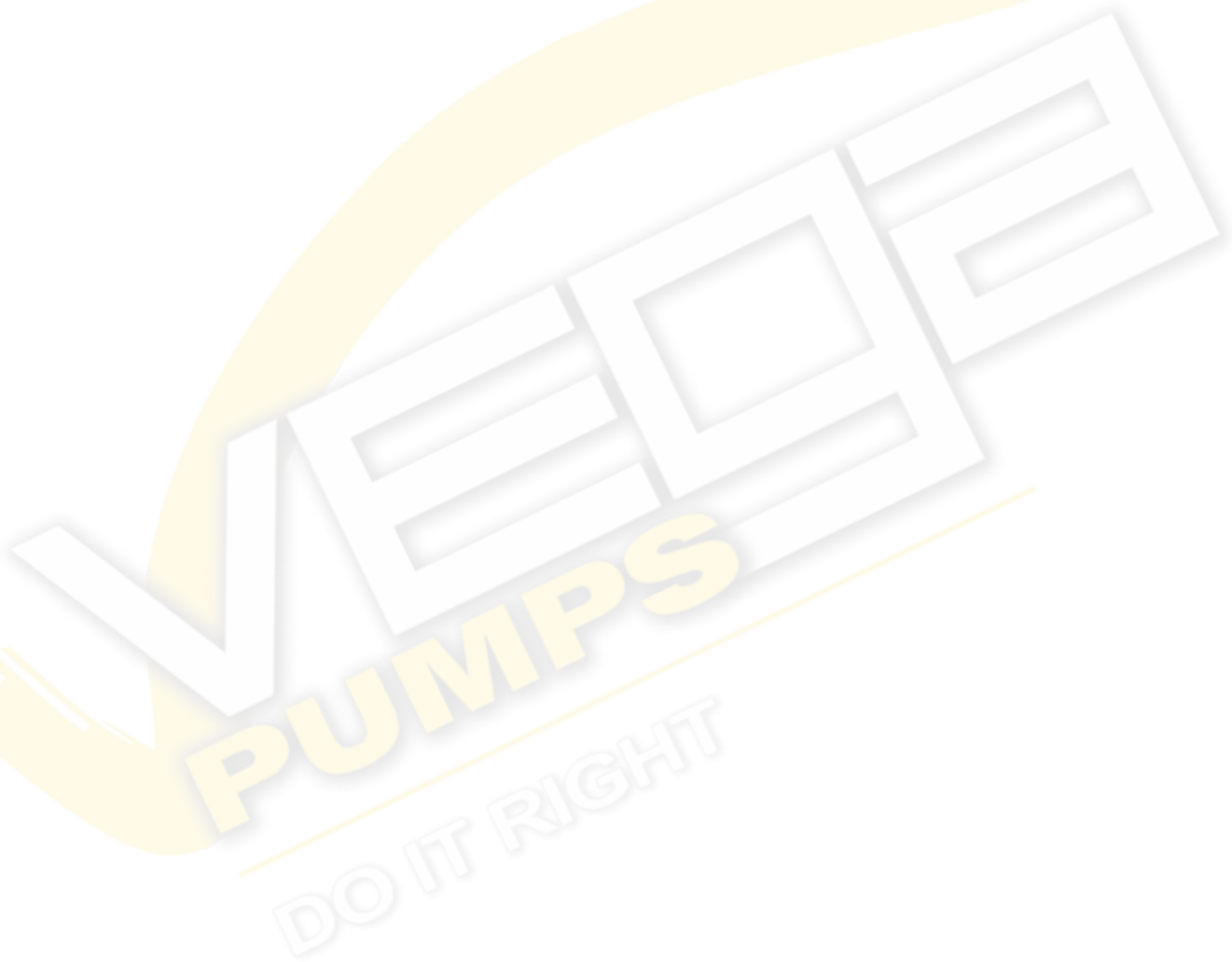


## Dimensional drawings





| No | Part Name         | No | Part Name           |
|----|-------------------|----|---------------------|
| 1  | Sand Guard        | 22 | Key                 |
| 2  | Cable clip screw  | 23 | Circlip (external)  |
| 3  | Cable washer      | 24 | Thrust bearing pad  |
| 4  | Cable clip        | 25 | Rocker              |
| 5  | Cable grommet     | 26 | Lower housing part2 |
| 6  | Drain plug        | 27 | Pressure cup        |
| 7  | Drain plug o-ring | 28 | Motor base          |
| 8  | Cable washer      | 29 | Circlip (internal)  |
| 9  | Couple cap        | 30 | Upper flange        |
| 10 | Winding cap       | 31 | Stator body         |
| 11 | Allen bolt        | 32 | Lower flange        |
| 12 | Hex nut           | 33 | Allen bolt          |
| 13 | Spring washer     | 34 | Stud o-ring         |
| 14 | Allen bolt o-ring | 35 | Stud washer         |
| 15 | Upper stud        | 36 | Drain plug cap      |
| 16 | Oil seal collar   | 37 | Allen bolt cap      |
| 17 | Oil Seal          | 38 | C. T. Bearing       |
| 18 | Upper housing     | 39 | Lower gasket        |
| 19 | Bearing bush      | 40 | Rocker nut          |
| 20 | Rotor shaft       | 41 | Allen bolt          |
| 21 | Lower housing     |    |                     |





**BOREHOLE RANGE**  
**6VP**



# 6VP BOREHOLE RANGE (6")



## Pump features

This borehole pump's key feature is its high pressure and delivery ratio.

The reduced stages ensure extended pump life and ease of operation.

## Operating range

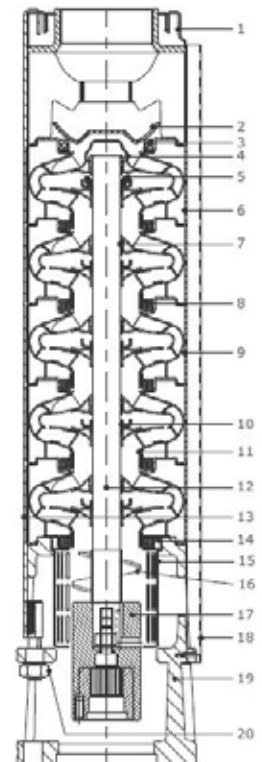
These pumps are for domestic, agricultural, mining and industrial use.

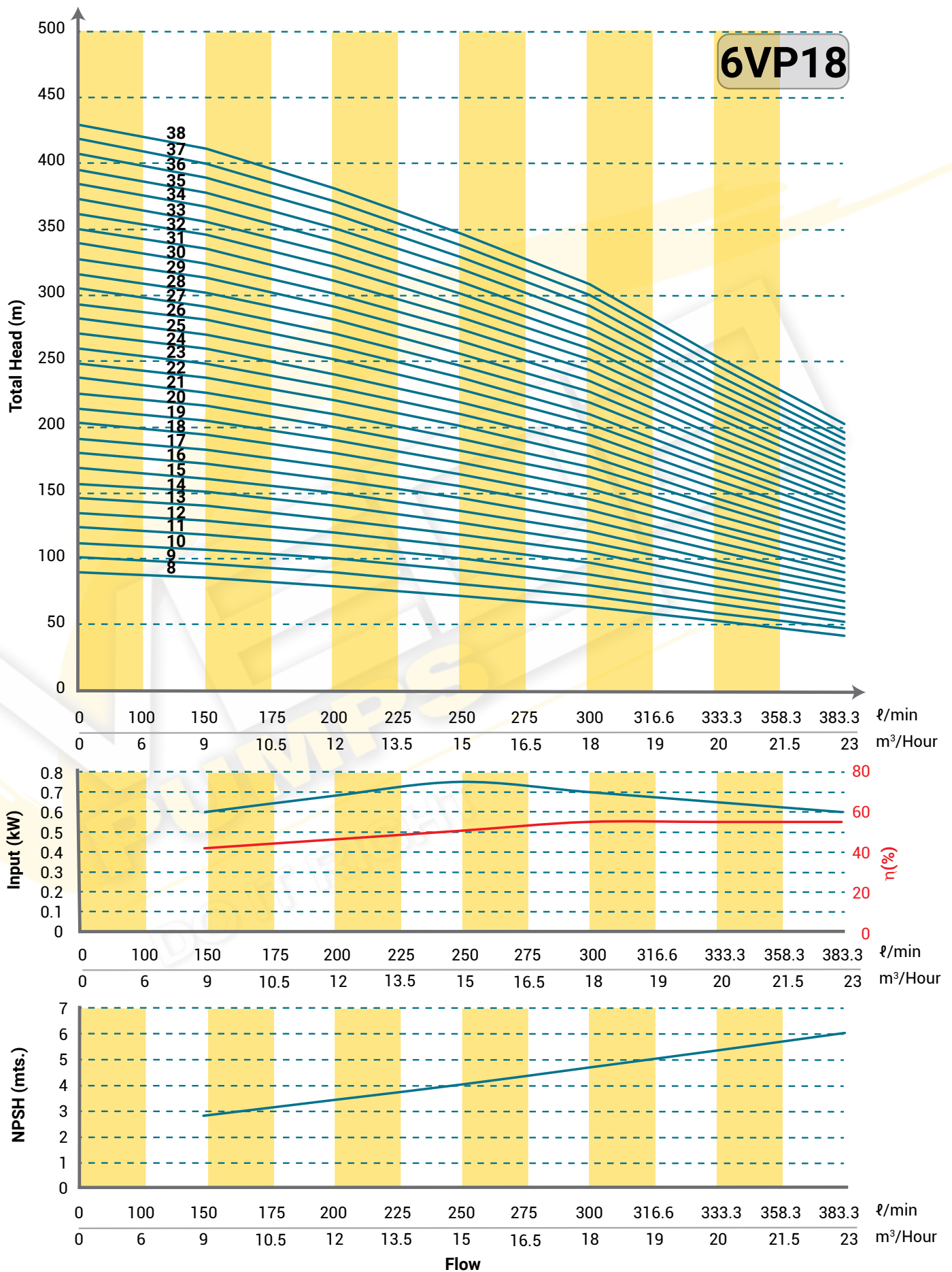
|                       |                    |
|-----------------------|--------------------|
| Head range:           | 4m - 489m          |
| Flow rate:            | 70 l/m - 1300 l/m  |
| Minimum immersion:    | 1m                 |
| Maximum sand content: | 50g/m <sup>3</sup> |

## Key materials

|                                                     |                      |
|-----------------------------------------------------|----------------------|
| Suction, stage casing and discharge outlets:        | stainless steel 304  |
| Impellers:                                          | stainless steel 304  |
| Pump shaft:                                         | SS AISI 431          |
| Bearing bush:                                       | anti friction rubber |
| Non return valve:                                   | stainless steel 304  |
| Cable guard and strainer:                           | stainless steel 304  |
| Pump and motor couplings are as per NEMA standards. |                      |

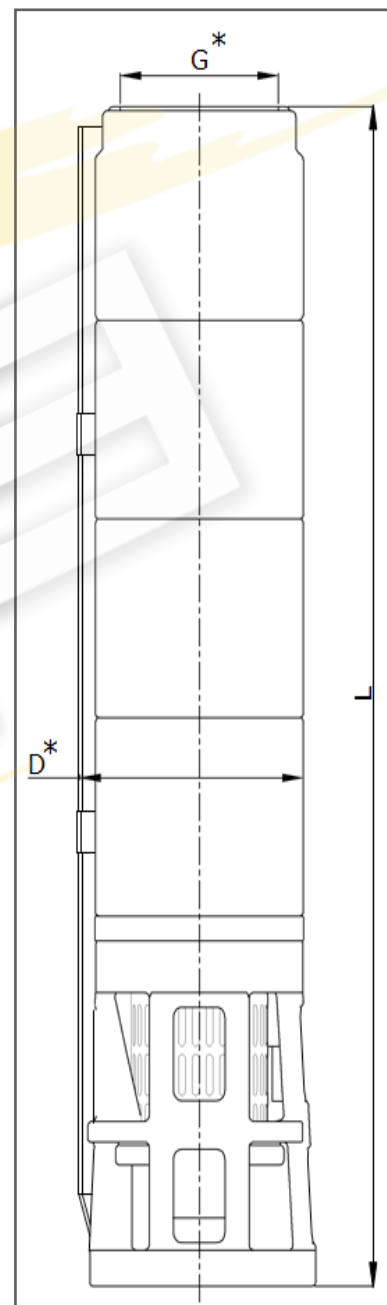
| NO. | PART NAME                | MATERIAL         |
|-----|--------------------------|------------------|
| 1   | N.R.V. 2.5"              | S.S.304          |
| 2   | Valve                    | S.S.304          |
| 3   | Valve Seat               | N.B.R. + S.S.304 |
| 4   | Top Cap                  | S.S.304          |
| 5   | Spacing Washer           | 25% CFT          |
| 6   | Intermediate Chamber Top | S.S.304          |
| 7   | Bearing Bush             | N.B.R.           |
| 8   | Neckring                 | N.B.R. + NYLON   |
| 9   | Intermediate chamber     | S.S.304          |
| 10  | Collet & Collet Nut      | S.S.304          |
| 11  | Impeller                 | S.S.304          |
| 12  | Pump Shaft               | S.S.431          |
| 13  | Clamping strip           | S.S.304          |
| 14  | Suction Connector        | S.S.304          |
| 15  | Strainer                 | S.S.304          |
| 16  | Priming Screw            | S.S.304          |
| 17  | NEMA Coupling            | S.S.304          |
| 18  | Cable Guard              | S.S.304          |
| 19  | Suction                  | S.S.304          |
| 20  | HEX Nut                  | S.S.316          |



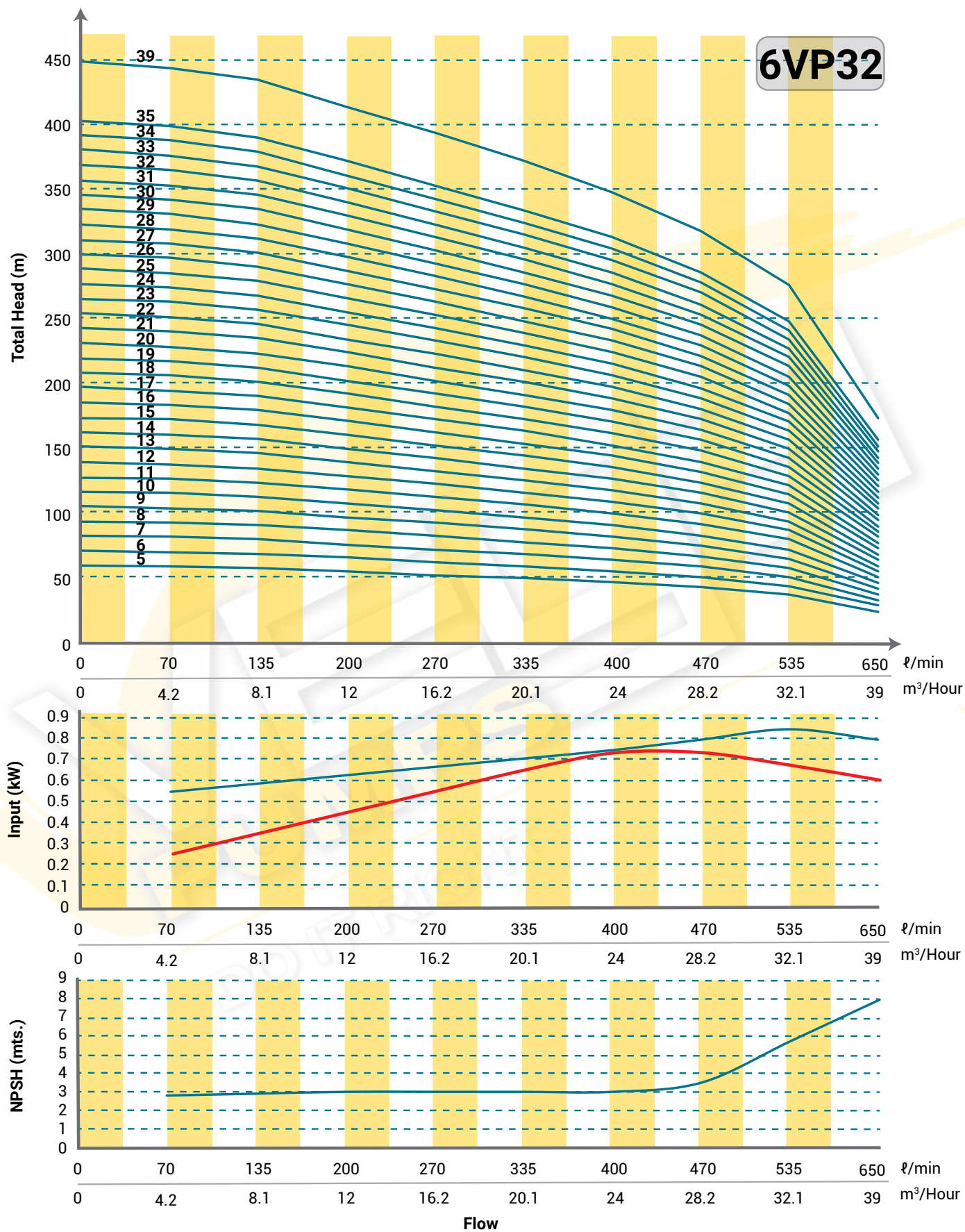


| MODELNAME   |       | RATING |      | DISCHARGE     |     |     |     |     |     |     |     |
|-------------|-------|--------|------|---------------|-----|-----|-----|-----|-----|-----|-----|
| Three-Phase | Stage | kW     | HP   | l/min<br>m³/h | 0   | 150 | 200 | 250 | 300 | 333 | 383 |
|             |       |        |      |               | 0   | 9   | 12  | 15  | 18  | 20  | 23  |
| VP-18 A 08  | 8     | 5.5    | 7.5  | Head<br>(m)   | 91  | 87  | 80  | 73  | 65  | 54  | 43  |
| VP-18 A 09  | 9     | 5.5    | 7.5  |               | 102 | 97  | 91  | 82  | 73  | 60  | 48  |
| VP-18 A 10  | 10    | 5.5    | 7.5  |               | 113 | 108 | 101 | 92  | 81  | 67  | 53  |
| VP-18 A 11  | 11    | 7.5    | 10   |               | 125 | 119 | 111 | 101 | 89  | 74  | 59  |
| VP-18 A 12  | 12    | 7.5    | 10   |               | 136 | 130 | 121 | 110 | 98  | 80  | 64  |
| VP-18 A 13  | 13    | 7.5    | 10   |               | 147 | 141 | 131 | 119 | 106 | 87  | 69  |
| VP-18 A 14  | 14    | 9.3    | 12.5 |               | 158 | 152 | 141 | 128 | 114 | 94  | 75  |
| VP-18 A 15  | 15    | 9.3    | 12.5 |               | 170 | 162 | 151 | 137 | 122 | 100 | 80  |
| VP-18 A 16  | 16    | 9.3    | 12.5 |               | 181 | 173 | 161 | 147 | 130 | 107 | 85  |
| VP-18 A 17  | 17    | 9.3    | 12.5 |               | 192 | 184 | 171 | 156 | 138 | 114 | 91  |
| VP-18 A 18  | 18    | 11     | 15   |               | 204 | 195 | 181 | 165 | 146 | 121 | 96  |
| VP-18 A 19  | 19    | 11     | 15   |               | 215 | 206 | 191 | 174 | 154 | 127 | 101 |
| VP-18 A 20  | 20    | 11     | 15   |               | 226 | 217 | 201 | 183 | 163 | 134 | 107 |
| VP-18 A 21  | 21    | 13     | 17.5 |               | 238 | 227 | 211 | 192 | 171 | 141 | 112 |
| VP-18 A 22  | 22    | 13     | 17.5 |               | 249 | 238 | 221 | 202 | 179 | 147 | 117 |
| VP-18 A 23  | 23    | 13     | 17.5 |               | 260 | 249 | 231 | 211 | 187 | 154 | 123 |
| VP-18 A 24  | 24    | 13     | 17.5 |               | 272 | 260 | 241 | 220 | 195 | 161 | 128 |
| VP-18 A 25  | 25    | 15     | 20   |               | 283 | 271 | 252 | 229 | 203 | 168 | 133 |
| VP-18 A 26  | 26    | 15     | 20   |               | 294 | 282 | 262 | 238 | 211 | 174 | 139 |
| VP-18 A 27  | 27    | 15     | 20   |               | 306 | 292 | 272 | 247 | 220 | 181 | 144 |
| VP-18 A 28  | 28    | 18.5   | 25   |               | 317 | 303 | 282 | 256 | 228 | 188 | 149 |
| VP-18 A 29  | 29    | 18.5   | 25   |               | 328 | 314 | 292 | 266 | 236 | 194 | 155 |
| VP-18 A 30  | 30    | 18.5   | 25   |               | 340 | 325 | 302 | 275 | 244 | 201 | 160 |
| VP-18 A 31  | 31    | 18.5   | 25   |               | 351 | 336 | 312 | 284 | 252 | 208 | 165 |
| VP-18 A 32  | 32    | 18.5   | 25   |               | 362 | 347 | 322 | 293 | 260 | 214 | 171 |
| VP-18 A 33  | 33    | 18.5   | 25   |               | 374 | 357 | 332 | 302 | 268 | 221 | 176 |
| VP-18 A 34  | 34    | 22     | 30   |               | 385 | 368 | 342 | 311 | 276 | 228 | 181 |
| VP-18 A 35  | 35    | 22     | 30   |               | 396 | 379 | 352 | 321 | 285 | 234 | 187 |
| VP-18 A 36  | 36    | 22     | 30   |               | 408 | 390 | 362 | 330 | 293 | 241 | 192 |
| VP-18 A 37  | 37    | 22     | 30   |               | 419 | 401 | 372 | 339 | 301 | 248 | 197 |
| VP-18 A 38  | 38    | 22     | 30   |               | 430 | 412 | 382 | 348 | 309 | 255 | 203 |

| SPECIFICATIONS |        |        |        |                  |                                    |
|----------------|--------|--------|--------|------------------|------------------------------------|
| MODEL NAME     | D (mm) | L (mm) | G (mm) | Pump Weight (kg) | Total Weight [incl packaging] (kg) |
| VP-18 A 08     | 142    | 755    | 63     | 17               | 19                                 |
| VP-18 A 09     | 142    | 815    | 63     | 18               | 20                                 |
| VP-18 A 10     | 142    | 876    | 63     | 19               | 22                                 |
| VP-18 A 11     | 142    | 936    | 63     | 21               | 23                                 |
| VP-18 A 12     | 142    | 997    | 63     | 22               | 24                                 |
| VP-18 A 13     | 142    | 1057   | 63     | 23               | 26                                 |
| VP-18 A 14     | 142    | 1118   | 63     | 24               | 27                                 |
| VP-18 A 15     | 142    | 1178   | 63     | 26               | 28                                 |
| VP-18 A 16     | 142    | 1239   | 63     | 27               | 30                                 |
| VP-18 A 17     | 142    | 1299   | 63     | 28               | 31                                 |
| VP-18 A 18     | 142    | 1360   | 63     | 29               | 32                                 |
| VP-18 A 19     | 142    | 1420   | 63     | 31               | 34                                 |
| VP-18 A 20     | 142    | 1481   | 63     | 32               | 35                                 |
| VP-18 A 21     | 142    | 1541   | 63     | 33               | 37                                 |
| VP-18 A 22     | 142    | 1602   | 63     | 34               | 38                                 |
| VP-18 A 23     | 142    | 1662   | 63     | 36               | 39                                 |
| VP-18 A 24     | 142    | 1723   | 63     | 37               | 40                                 |
| VP-18 A 25     | 142    | 1783   | 63     | 38               | 42                                 |
| VP-18 A 26     | 142    | 1844   | 63     | 39               | 43                                 |
| VP-18 A 27     | 142    | 1904   | 63     | 41               | 44                                 |
| VP-18 A 28     | 142    | 1965   | 63     | 42               | 45                                 |
| VP-18 A 29     | 142    | 2025   | 63     | 43               | 47                                 |
| VP-18 A 30     | 142    | 2086   | 63     | 44               | 48                                 |
| VP-18 A 31     | 142    | 2146   | 63     | 46               | 50                                 |
| VP-18 A 32     | 142    | 2207   | 63     | 47               | 51                                 |
| VP-18 A 33     | 142    | 2267   | 63     | 48               | 52                                 |
| VP-18 A 34     | 142    | 2328   | 63     | 49               | 53                                 |
| VP-18 A 35     | 142    | 2388   | 63     | 51               | 55                                 |
| VP-18 A 36     | 142    | 2449   | 63     | 52               | 56                                 |
| VP-18 A 37     | 142    | 2509   | 63     | 53               | 57                                 |
| VP-18 A 38     | 142    | 2570   | 63     | 54               | 58                                 |

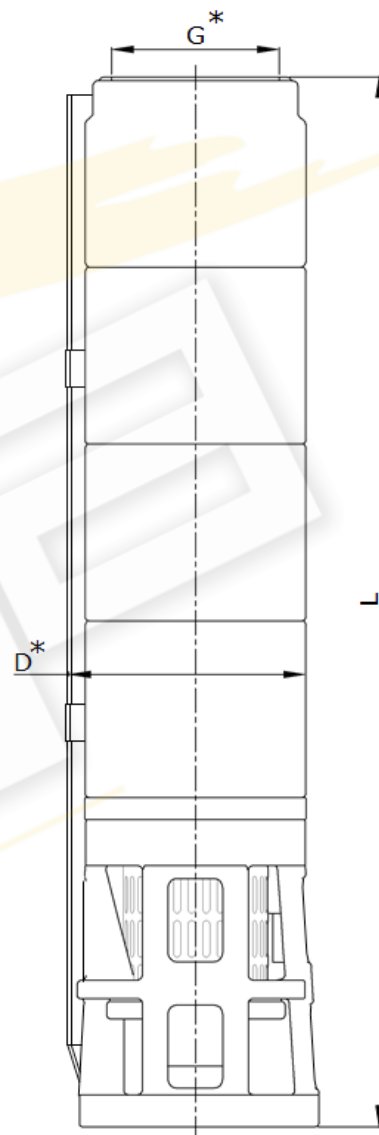


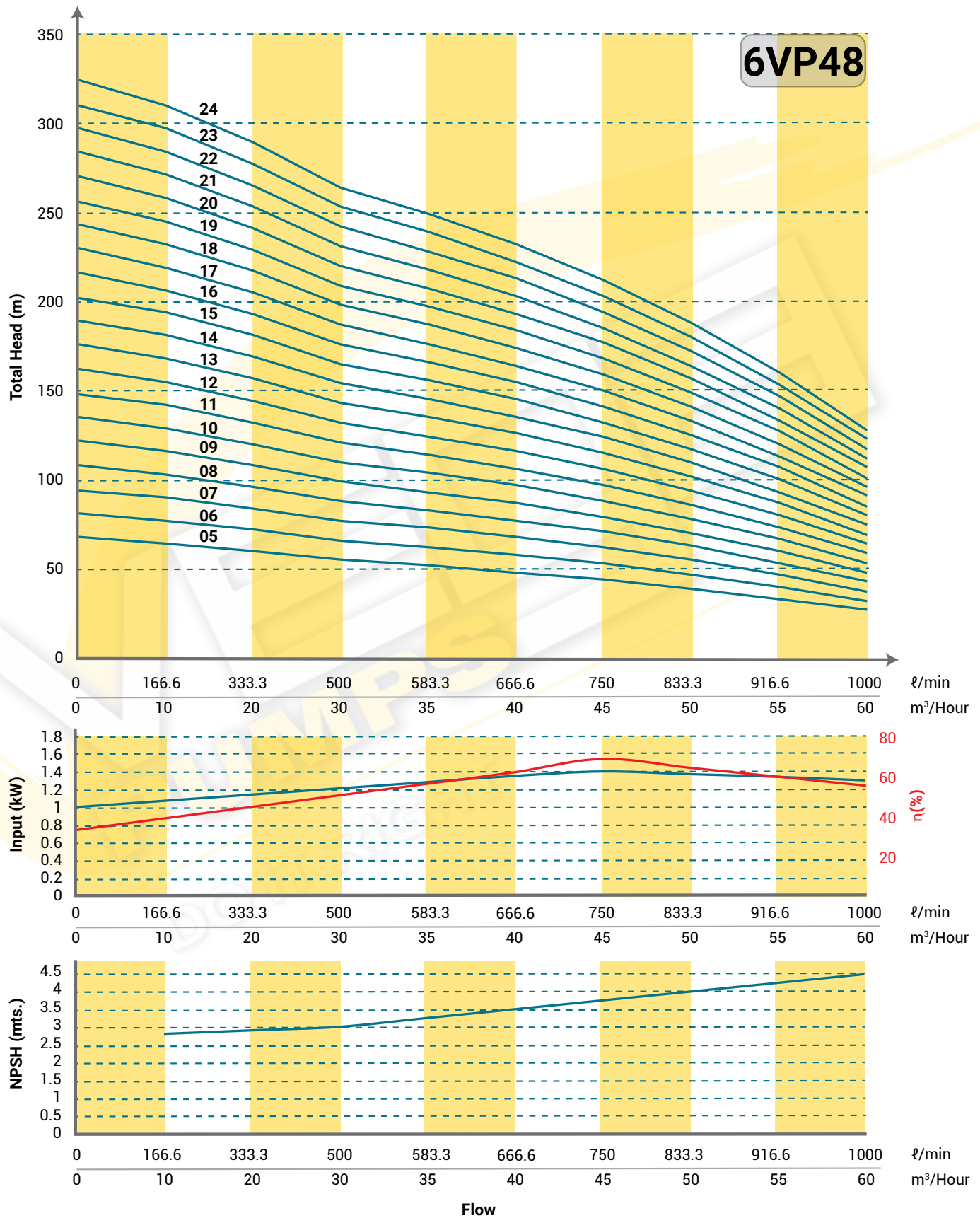




| MODEL NAME  |       | RATING |       | DISCHARGE     |      |     |     |      |      |      |      |      |      |      |
|-------------|-------|--------|-------|---------------|------|-----|-----|------|------|------|------|------|------|------|
| Three-Phase | Stage | kW     | HP    | l/min<br>m³/h | 0    | 70  | 135 | 200  | 270  | 335  | 400  | 470  | 535  | 650  |
|             |       |        |       |               | 0    | 4.2 | 8.1 | 12.0 | 16.2 | 20.1 | 24.0 | 28.2 | 32.1 | 39.0 |
| VP32A-05    | 5     | 5.50   | 7.50  | Head<br>(m)   | 58   | 57  | 56  | 53   | 50   | 48   | 45   | 41   | 35   | 22   |
| VP32A-06    | 6     | 5.50   | 7.50  |               | 69   | 68  | 67  | 64   | 60   | 57   | 53   | 49   | 42   | 27   |
| VP32A-07    | 7     | 7.50   | 10.00 |               | 80.5 | 80  | 78  | 74   | 70   | 67   | 62   | 57   | 49   | 31   |
| VP32A-08    | 8     | 7.50   | 10.00 |               | 92   | 91  | 89  | 85   | 81   | 76   | 71   | 65   | 56   | 35   |
| VP32A-09    | 9     | 9.30   | 12.50 |               | 104  | 102 | 100 | 95   | 91   | 86   | 80   | 73   | 63   | 40   |
| VP32A-10    | 10    | 9.30   | 12.50 |               | 115  | 114 | 111 | 106  | 101  | 95   | 89   | 81   | 70   | 44   |
| VP32A-11    | 11    | 9.30   | 12.50 |               | 126  | 125 | 122 | 117  | 111  | 105  | 98   | 90   | 78   | 49   |
| VP32A-12    | 12    | 11.00  | 15.00 |               | 138  | 136 | 133 | 127  | 121  | 114  | 107  | 98   | 85   | 53   |
| VP32A-13    | 13    | 11.00  | 15.00 |               | 150  | 148 | 145 | 138  | 131  | 124  | 116  | 106  | 92   | 57   |
| VP32A-14    | 14    | 13.00  | 17.50 |               | 161  | 159 | 156 | 148  | 141  | 133  | 125  | 114  | 99   | 62   |
| VP32A-15    | 15    | 13.00  | 17.50 |               | 172  | 171 | 167 | 159  | 151  | 143  | 134  | 122  | 106  | 66   |
| VP32A-16    | 16    | 15.00  | 20.00 |               | 184  | 182 | 178 | 170  | 161  | 152  | 143  | 130  | 113  | 71   |
| VP32A-17    | 17    | 15.00  | 20.00 |               | 196  | 193 | 189 | 180  | 171  | 162  | 151  | 138  | 120  | 75   |
| VP32A-18    | 18    | 18.50  | 25.00 |               | 207  | 205 | 200 | 191  | 181  | 171  | 160  | 147  | 127  | 80   |
| VP32A-19    | 19    | 18.50  | 25.00 |               | 218  | 216 | 211 | 201  | 191  | 181  | 169  | 155  | 134  | 84   |
| VP32A-20    | 20    | 18.50  | 25.00 |               | 230  | 227 | 222 | 212  | 201  | 190  | 178  | 163  | 141  | 88   |
| VP32A-21    | 21    | 18.50  | 25.00 |               | 242  | 239 | 234 | 223  | 211  | 200  | 187  | 171  | 148  | 93   |
| VP32A-22    | 22    | 22.00  | 30.00 |               | 253  | 250 | 245 | 233  | 222  | 209  | 196  | 179  | 155  | 97   |
| VP32A-23    | 23    | 22.00  | 30.00 |               | 264  | 262 | 256 | 244  | 232  | 219  | 205  | 187  | 162  | 102  |
| VP32A-24    | 24    | 22.00  | 30.00 |               | 276  | 273 | 267 | 254  | 242  | 228  | 214  | 195  | 169  | 106  |
| VP32A-25    | 25    | 22.00  | 30.00 |               | 288  | 284 | 278 | 265  | 252  | 238  | 223  | 204  | 176  | 110  |
| VP32A-26    | 26    | 22.00  | 30.00 |               | 299  | 296 | 289 | 276  | 262  | 247  | 232  | 212  | 183  | 115  |
| VP32A-27    | 27    | 26.00  | 35.00 |               | 310  | 307 | 300 | 286  | 272  | 257  | 241  | 220  | 190  | 119  |
| VP32A-28    | 28    | 26.00  | 35.00 |               | 322  | 318 | 311 | 297  | 282  | 266  | 249  | 228  | 197  | 124  |
| VP32A-29    | 29    | 26.00  | 35.00 |               | 334  | 330 | 322 | 307  | 292  | 276  | 258  | 236  | 204  | 128  |
| VP32A-30    | 30    | 26.00  | 35.00 |               | 345  | 341 | 334 | 318  | 302  | 285  | 267  | 244  | 212  | 133  |
| VP32A-31    | 31    | 26.00  | 35.00 |               | 356  | 352 | 345 | 329  | 312  | 295  | 276  | 252  | 219  | 137  |
| VP32A-32    | 32    | 30.00  | 40.00 |               | 368  | 364 | 356 | 339  | 322  | 304  | 285  | 260  | 226  | 141  |
| VP32A-33    | 33    | 30.00  | 40.00 |               | 380  | 375 | 367 | 350  | 332  | 314  | 294  | 269  | 233  | 146  |
| VP32A-34    | 34    | 30.00  | 40.00 |               | 391  | 387 | 378 | 360  | 342  | 323  | 303  | 277  | 240  | 150  |
| VP32A-35    | 35    | 30.00  | 40.00 |               | 402  | 398 | 389 | 371  | 352  | 333  | 312  | 285  | 247  | 155  |
| VP32A-39    | 39    | 37.00  | 50.00 |               | 448  | 443 | 434 | 413  | 393  | 371  | 347  | 317  | 275  | 172  |

| SPECIFICATIONS |        |        |        |                  |                                    |
|----------------|--------|--------|--------|------------------|------------------------------------|
| MODEL NAME     | D (mm) | L (mm) | G (mm) | Pump Weight (kg) | Total Weight [incl packaging] (kg) |
| VP32A-05       | 142    | 751    | 75     | 11               | 16                                 |
| VP32A-06       | 142    | 847    | 75     | 19               | 24                                 |
| VP32A-07       | 142    | 943    | 75     | 21               | 26                                 |
| VP32A-08       | 142    | 1039   | 75     | 23               | 28                                 |
| VP32A-09       | 142    | 1135   | 75     | 25               | 30                                 |
| VP32A-10       | 142    | 1231   | 75     | 27               | 32                                 |
| VP32A-11       | 142    | 1327   | 75     | 29               | 34                                 |
| VP32A-12       | 142    | 1423   | 75     | 31               | 36                                 |
| VP32A-13       | 142    | 1519   | 75     | 33               | 38                                 |
| VP32A-14       | 142    | 1615   | 75     | 35               | 40                                 |
| VP32A-15       | 142    | 1711   | 75     | 37               | 47                                 |
| VP32A-16       | 142    | 1807   | 75     | 39               | 49                                 |
| VP32A-17       | 142    | 1903   | 75     | 41               | 51                                 |
| VP32A-18       | 142    | 1999   | 75     | 43               | 53                                 |
| VP32A-19       | 142    | 1095   | 75     | 45               | 55                                 |
| VP32A-20       | 142    | 2191   | 75     | 47               | 57                                 |
| VP32A-21       | 142    | 2287   | 75     | 49               | 59                                 |
| VP32A-22       | 142    | 2383   | 75     | 51               | 63                                 |
| VP32A-23       | 142    | 2479   | 75     | 53               | 65                                 |
| VP32A-24       | 142    | 2575   | 75     | 55               | 67                                 |
| VP32A-25       | 142    | 2671   | 75     | 57               | 69                                 |
| VP32A-26       | 142    | 2767   | 75     | 59               | 71                                 |
| VP32A-27       | 142    | 2863   | 75     | 61               | 73                                 |
| VP32A-28       | 142    | 2959   | 75     | 63               | 75                                 |
| VP32A-29       | 142    | 3055   | 75     | 65               | 77                                 |
| VP32A-30       | 142    | 3151   | 75     | 67               | 79                                 |
| VP32A-31       | 142    | 3247   | 75     | 69               | 81                                 |
| VP32A-32       | 142    | 3343   | 75     | 71               | 83                                 |
| VP32A-33       | 142    | 3439   | 75     | 73               | 85                                 |
| VP32A-34       | 142    | 3535   | 75     | 75               | 87                                 |
| VP32A-35       | 142    | 3631   | 75     | 77               | 89                                 |
| VP32A-39       | 182    | 4450   | 75     | 105              | 117                                |

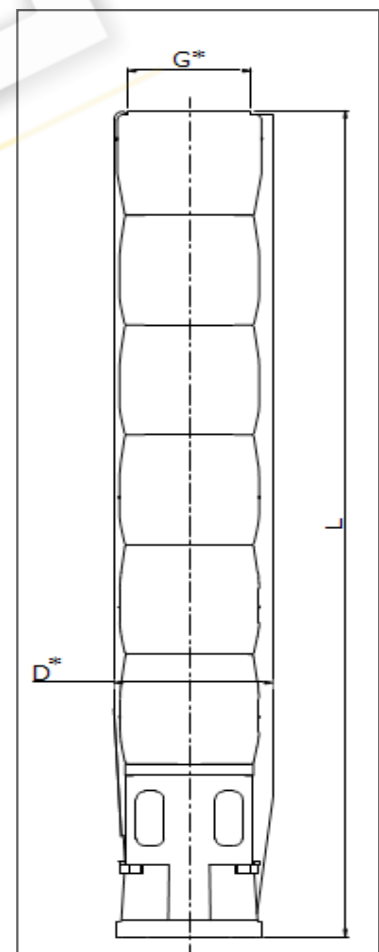


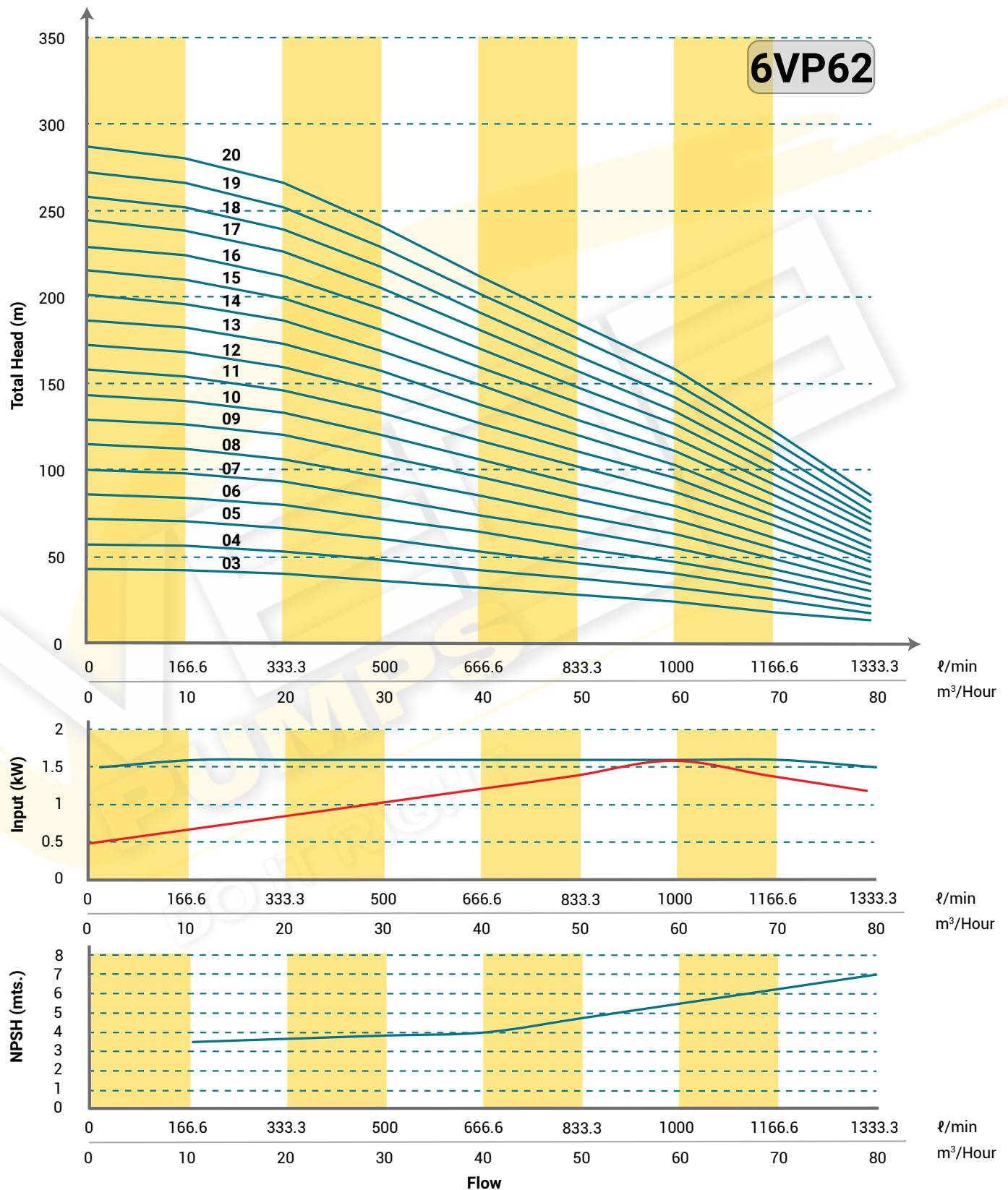




| MODEL NAME  |       | RATING |       | DISCHARGE     |     |      |      |      |      |      |      |      |      |      |
|-------------|-------|--------|-------|---------------|-----|------|------|------|------|------|------|------|------|------|
| Three-Phase | Stage | kW     | HP    | l/min<br>m³/h | 0   | 167  | 335  | 500  | 585  | 670  | 750  | 835  | 917  | 1000 |
|             |       |        |       |               | 0   | 10.0 | 20.1 | 30.0 | 35.1 | 40.2 | 45.0 | 50.1 | 55.0 | 60.0 |
| VP48A-05    | 5     | 7.50   | 10.00 | Head<br>(m)   | 68  | 64   | 60   | 55   | 52   | 48   | 44   | 39   | 33   | 27   |
| VP48A-06    | 6     | 9.30   | 12.50 |               | 81  | 77   | 72   | 66   | 62   | 58   | 53   | 47   | 40   | 32   |
| VP48A-07    | 7     | 11.00  | 15.00 |               | 94  | 90   | 84   | 77   | 73   | 68   | 62   | 55   | 47   | 37   |
| VP48A-08    | 8     | 13.00  | 17.50 |               | 108 | 103  | 96   | 88   | 83   | 77   | 71   | 63   | 53   | 43   |
| VP48A-09    | 9     | 15.00  | 17.50 |               | 122 | 116  | 108  | 99   | 93   | 87   | 79   | 70   | 60   | 48   |
| VP48A-10    | 10    | 15.00  | 17.50 |               | 135 | 129  | 120  | 110  | 104  | 97   | 88   | 78   | 67   | 53   |
| VP48A-11    | 11    | 18.50  | 25.00 |               | 148 | 142  | 132  | 121  | 114  | 106  | 97   | 86   | 73   | 59   |
| VP48A-12    | 12    | 18.50  | 25.00 |               | 162 | 155  | 144  | 132  | 124  | 116  | 106  | 94   | 80   | 64   |
| VP48A-13    | 13    | 22.00  | 30.00 |               | 176 | 168  | 157  | 143  | 135  | 126  | 115  | 102  | 87   | 69   |
| VP48A-14    | 14    | 22.00  | 30.00 |               | 189 | 181  | 169  | 154  | 145  | 135  | 124  | 110  | 93   | 75   |
| VP48A-15    | 15    | 22.00  | 30.00 |               | 202 | 194  | 181  | 165  | 156  | 145  | 132  | 117  | 100  | 80   |
| VP48A-16    | 16    | 26.00  | 35.00 |               | 216 | 206  | 193  | 176  | 166  | 155  | 141  | 125  | 107  | 85   |
| VP48A-17    | 17    | 26.00  | 35.00 |               | 230 | 219  | 205  | 187  | 176  | 164  | 150  | 133  | 113  | 91   |
| VP48A-18    | 18    | 30.00  | 40.00 |               | 243 | 232  | 217  | 198  | 187  | 174  | 159  | 141  | 120  | 96   |
| VP48A-19    | 19    | 30.00  | 40.00 |               | 256 | 245  | 229  | 209  | 197  | 184  | 168  | 149  | 127  | 101  |
| VP48A-20    | 20    | 30.00  | 40.00 |               | 270 | 258  | 241  | 220  | 207  | 193  | 177  | 157  | 133  | 107  |
| VP48A-21    | 21    | 37.00  | 50.00 |               | 284 | 271  | 253  | 231  | 218  | 203  | 185  | 164  | 140  | 112  |
| VP48A-22    | 22    | 37.00  | 50.00 |               | 297 | 284  | 265  | 242  | 228  | 213  | 194  | 172  | 147  | 117  |
| VP48A-23    | 23    | 37.00  | 50.00 |               | 310 | 297  | 277  | 253  | 239  | 222  | 203  | 180  | 153  | 123  |
| VP48A-24    | 24    | 37.00  | 50.00 |               | 324 | 310  | 289  | 264  | 249  | 232  | 212  | 188  | 160  | 128  |

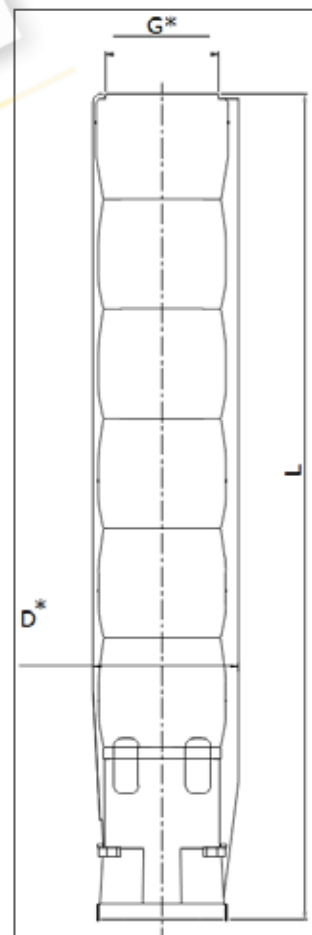
| MODEL NAME | SPECIFICATIONS |        |        |                  |                                    |
|------------|----------------|--------|--------|------------------|------------------------------------|
|            | D (mm)         | L (mm) | G (mm) | Pump Weight (kg) | Total Weight [incl packaging] (kg) |
| VP48A-05   | 147            | 848    | 100    | 20               | 24                                 |
| VP48A-06   | 147            | 961    | 100    | 18               | 23                                 |
| VP48A-07   | 147            | 1074   | 100    | 20               | 25                                 |
| VP48A-08   | 147            | 1187   | 100    | 22               | 28                                 |
| VP48A-09   | 147            | 1300   | 100    | 24               | 29                                 |
| VP48A-10   | 147            | 1413   | 100    | 26               | 34                                 |
| VP48A-11   | 147            | 1526   | 100    | 28               | 36                                 |
| VP48A-12   | 147            | 1639   | 100    | 32               | 42                                 |
| VP48A-13   | 147            | 1752   | 100    | 34               | 44                                 |
| VP48A-14   | 147            | 1865   | 100    | 36               | 46                                 |
| VP48A-15   | 147            | 1987   | 100    | 38               | 48                                 |
| VP48A-16   | 147            | 2091   | 100    | 40               | 50                                 |
| VP48A-17   | 147            | 2204   | 100    | 42               | 52                                 |
| VP48A-18   | 147            | 2317   | 100    | 44               | 54                                 |
| VP48A-19   | 147            | 2430   | 100    | 46               | 56                                 |
| VP48A-20   | 147            | 2543   | 100    | 48               | 58                                 |
| VP48A-21   | 147            | 2656   | 100    | 55               | 60                                 |
| VP48A-22   | 147            | 2769   | 100    | 57               | 62                                 |
| VP48A-23   | 147            | 2882   | 100    | 60               | 65                                 |
| VP48A-24   | 147            | 2995   | 100    | 62               | 67                                 |





| MODEL NAME  |       | RATING |       | DISCHARGE     |     |      |      |      |      |      |      |      |      |
|-------------|-------|--------|-------|---------------|-----|------|------|------|------|------|------|------|------|
| Three-Phase | Stage | kW     | HP    | l/min<br>m³/h | 0   | 170  | 335  | 500  | 670  | 835  | 1000 | 1167 | 1300 |
|             |       |        |       |               | 0   | 10.2 | 20.1 | 30.1 | 40.2 | 50.1 | 60.0 | 70.0 | 78.0 |
| VP62A-03    | 3     | 5.50   | 7.50  | Head (m)      | 43  | 42   | 40   | 36   | 32   | 28   | 24   | 18   | 13   |
| VP62A-04    | 4     | 7.50   | 10.00 |               | 57  | 56   | 53   | 48   | 42   | 37   | 32   | 25   | 17   |
| VP62A-05    | 5     | 9.30   | 12.50 |               | 72  | 70   | 66   | 60   | 53   | 46   | 40   | 31   | 21   |
| VP62A-06    | 6     | 11.00  | 15.00 |               | 86  | 84   | 80   | 72   | 64   | 55   | 47   | 37   | 25   |
| VP62A-07    | 7     | 13.00  | 17.50 |               | 100 | 98   | 93   | 84   | 74   | 65   | 55   | 43   | 30   |
| VP62A-08    | 8     | 15.00  | 20.00 |               | 115 | 112  | 106  | 96   | 85   | 74   | 63   | 49   | 34   |
| VP62A-09    | 9     | 18.50  | 25.00 |               | 129 | 126  | 120  | 108  | 96   | 83   | 71   | 55   | 38   |
| VP62A-10    | 10    | 18.50  | 25.00 |               | 143 | 140  | 133  | 120  | 106  | 92   | 79   | 61   | 42   |
| VP62A-11    | 11    | 22.00  | 30.00 |               | 158 | 154  | 146  | 133  | 117  | 102  | 87   | 68   | 47   |
| VP62A-12    | 12    | 22.00  | 30.00 |               | 172 | 168  | 159  | 145  | 127  | 111  | 95   | 74   | 51   |
| VP62A-13    | 13    | 26.00  | 35.00 |               | 186 | 182  | 173  | 157  | 138  | 120  | 103  | 80   | 55   |
| VP62A-14    | 14    | 26.00  | 35.00 |               | 201 | 196  | 186  | 169  | 149  | 129  | 111  | 86   | 59   |
| VP62A-15    | 15    | 26.00  | 35.00 |               | 215 | 210  | 199  | 181  | 159  | 139  | 118  | 92   | 64   |
| VP62A-16    | 16    | 30.00  | 40.00 |               | 229 | 224  | 212  | 193  | 170  | 148  | 126  | 98   | 68   |
| VP62A-17    | 17    | 30.00  | 40.00 |               | 244 | 238  | 226  | 205  | 181  | 157  | 134  | 104  | 72   |
| VP62A-18    | 18    | 37.00  | 50.00 |               | 258 | 252  | 239  | 217  | 191  | 166  | 142  | 111  | 76   |
| VP62A-19    | 19    | 37.00  | 50.00 |               | 272 | 266  | 252  | 229  | 202  | 176  | 150  | 117  | 81   |
| VP62A-20    | 20    | 37.00  | 50.00 |               | 287 | 280  | 266  | 241  | 212  | 185  | 158  | 123  | 85   |
| VP62A-21    | 21    | 37.00  | 50.00 |               | 301 | 294  | 279  | 253  | 223  | 194  | 166  | 129  | 89   |

| MODEL NAME | SPECIFICATIONS |        |        |                  |                                    |
|------------|----------------|--------|--------|------------------|------------------------------------|
|            | D (mm)         | L (mm) | G (mm) | Pump Weight (kg) | Total Weight [incl packaging] (kg) |
| VP62A-03   | 147            | 622    | 100    | 16               | 14                                 |
| VP62A-04   | 147            | 735    | 100    | 18               | 21                                 |
| VP62A-05   | 147            | 848    | 100    | 20               | 24                                 |
| VP62A-06   | 147            | 961    | 100    | 18               | 23                                 |
| VP62A-07   | 147            | 1074   | 100    | 20               | 25                                 |
| VP62A-08   | 147            | 1187   | 100    | 22               | 28                                 |
| VP62A-09   | 147            | 1300   | 100    | 24               | 29                                 |
| VP62A-10   | 147            | 1413   | 100    | 26               | 34                                 |
| VP62A-11   | 147            | 1526   | 100    | 28               | 36                                 |
| VP62A-12   | 147            | 1639   | 100    | 32               | 42                                 |
| VP62A-13   | 147            | 1752   | 100    | 34               | 44                                 |
| VP62A-14   | 147            | 1865   | 100    | 36               | 46                                 |
| VP62A-15   | 147            | 1978   | 100    | 38               | 48                                 |
| VP62A-16   | 147            | 2091   | 100    | 40               | 50                                 |
| VP62A-17   | 147            | 2204   | 100    | 42               | 52                                 |
| VP62A-18   | 147            | 2317   | 100    | 44               | 54                                 |
| VP62A-19   | 147            | 2430   | 100    | 46               | 56                                 |
| VP62A-20   | 147            | 2543   | 100    | 48               | 58                                 |
| VP62A-21   | 147            | 2656   | 100    | 50               | 60                                 |



### Motor range

Three phase 5.5 to 30kW (7.5~ 40HP) 380V ~ 415V

### Applications

This motor is designed for reliable operation in wells, dams, canals, rivers and boreholes (with a minimum diameter of 6 inches).

### Basic features



IEC34-1 standard squirrel motor - hermetically sealed  
All stainless steel support and double flange design

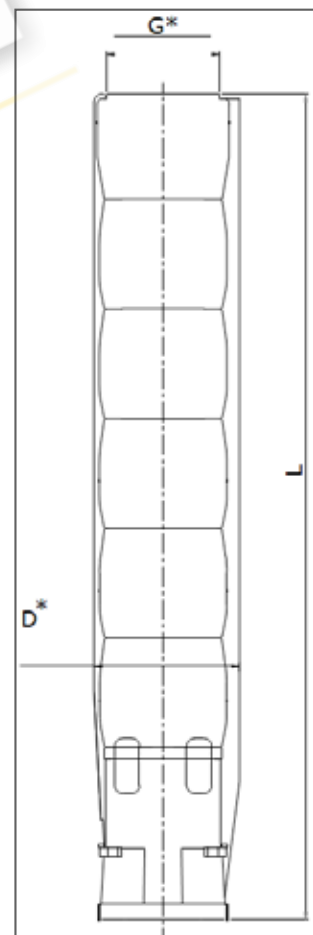
|                                       |                                    |
|---------------------------------------|------------------------------------|
| Thrust load:                          | 2500N                              |
| Degree of protection:                 | IP68                               |
| Maximum ambient temperature:          | 40°C                               |
| Water pH range:                       | 6.5 - 8.0                          |
| Maximum submerged depth:              | 250m                               |
| Insulation:                           | Class F                            |
| Mounting:                             | Vertical/horizontal                |
| Minimum cooling flow along the motor: | 8cm/s                              |
| Maximum starts per hour:              | 10-30<br>(dependent on motor size) |

Flat, waterproof lead out cable with separate earth wire.  
Designed for **vertical and horizontal installation.**



| MODEL NAME  |       | RATING |       | DISCHARGE     |     |      |      |      |      |      |      |      |      |
|-------------|-------|--------|-------|---------------|-----|------|------|------|------|------|------|------|------|
| Three-Phase | Stage | kW     | HP    | l/min<br>m³/h | 0   | 170  | 335  | 500  | 670  | 835  | 1000 | 1167 | 1300 |
|             |       |        |       |               | 0   | 10.2 | 20.1 | 30.1 | 40.2 | 50.1 | 60.0 | 70.0 | 78.0 |
| VP62A-03    | 3     | 5.50   | 7.50  | Head (m)      | 43  | 42   | 40   | 36   | 32   | 28   | 24   | 18   | 13   |
| VP62A-04    | 4     | 7.50   | 10.00 |               | 57  | 56   | 53   | 48   | 42   | 37   | 32   | 25   | 17   |
| VP62A-05    | 5     | 9.30   | 12.50 |               | 72  | 70   | 66   | 60   | 53   | 46   | 40   | 31   | 21   |
| VP62A-06    | 6     | 11.00  | 15.00 |               | 86  | 84   | 80   | 72   | 64   | 55   | 47   | 37   | 25   |
| VP62A-07    | 7     | 13.00  | 17.50 |               | 100 | 98   | 93   | 84   | 74   | 65   | 55   | 43   | 30   |
| VP62A-08    | 8     | 15.00  | 20.00 |               | 115 | 112  | 106  | 96   | 85   | 74   | 63   | 49   | 34   |
| VP62A-09    | 9     | 18.50  | 25.00 |               | 129 | 126  | 120  | 108  | 96   | 83   | 71   | 55   | 38   |
| VP62A-10    | 10    | 18.50  | 25.00 |               | 143 | 140  | 133  | 120  | 106  | 92   | 79   | 61   | 42   |
| VP62A-11    | 11    | 22.00  | 30.00 |               | 158 | 154  | 146  | 133  | 117  | 102  | 87   | 68   | 47   |
| VP62A-12    | 12    | 22.00  | 30.00 |               | 172 | 168  | 159  | 145  | 127  | 111  | 95   | 74   | 51   |
| VP62A-13    | 13    | 26.00  | 35.00 |               | 186 | 182  | 173  | 157  | 138  | 120  | 103  | 80   | 55   |
| VP62A-14    | 14    | 26.00  | 35.00 |               | 201 | 196  | 186  | 169  | 149  | 129  | 111  | 86   | 59   |
| VP62A-15    | 15    | 26.00  | 35.00 |               | 215 | 210  | 199  | 181  | 159  | 139  | 118  | 92   | 64   |
| VP62A-16    | 16    | 30.00  | 40.00 |               | 229 | 224  | 212  | 193  | 170  | 148  | 126  | 98   | 68   |
| VP62A-17    | 17    | 30.00  | 40.00 |               | 244 | 238  | 226  | 205  | 181  | 157  | 134  | 104  | 72   |
| VP62A-18    | 18    | 37.00  | 50.00 |               | 258 | 252  | 239  | 217  | 191  | 166  | 142  | 111  | 76   |
| VP62A-19    | 19    | 37.00  | 50.00 |               | 272 | 266  | 252  | 229  | 202  | 176  | 150  | 117  | 81   |
| VP62A-20    | 20    | 37.00  | 50.00 |               | 287 | 280  | 266  | 241  | 212  | 185  | 158  | 123  | 85   |
| VP62A-21    | 21    | 37.00  | 50.00 |               | 301 | 294  | 279  | 253  | 223  | 194  | 166  | 129  | 89   |

| MODEL NAME | SPECIFICATIONS |        |        |                  |                                    |
|------------|----------------|--------|--------|------------------|------------------------------------|
|            | D (mm)         | L (mm) | G (mm) | Pump Weight (kg) | Total Weight [incl packaging] (kg) |
| VP62A-03   | 147            | 622    | 100    | 16               | 14                                 |
| VP62A-04   | 147            | 735    | 100    | 18               | 21                                 |
| VP62A-05   | 147            | 848    | 100    | 20               | 24                                 |
| VP62A-06   | 147            | 961    | 100    | 18               | 23                                 |
| VP62A-07   | 147            | 1074   | 100    | 20               | 25                                 |
| VP62A-08   | 147            | 1187   | 100    | 22               | 28                                 |
| VP62A-09   | 147            | 1300   | 100    | 24               | 29                                 |
| VP62A-10   | 147            | 1413   | 100    | 26               | 34                                 |
| VP62A-11   | 147            | 1526   | 100    | 28               | 36                                 |
| VP62A-12   | 147            | 1639   | 100    | 32               | 42                                 |
| VP62A-13   | 147            | 1752   | 100    | 34               | 44                                 |
| VP62A-14   | 147            | 1865   | 100    | 36               | 46                                 |
| VP62A-15   | 147            | 1978   | 100    | 38               | 48                                 |
| VP62A-16   | 147            | 2091   | 100    | 40               | 50                                 |
| VP62A-17   | 147            | 2204   | 100    | 42               | 52                                 |
| VP62A-18   | 147            | 2317   | 100    | 44               | 54                                 |
| VP62A-19   | 147            | 2430   | 100    | 46               | 56                                 |
| VP62A-20   | 147            | 2543   | 100    | 48               | 58                                 |
| VP62A-21   | 147            | 2656   | 100    | 50               | 60                                 |



### Motor range

Three phase 5.5 to 30kW (7.5~ 40HP) 380V ~ 415V

### Applications

This motor is designed for reliable operation in wells, dams, canals, rivers and boreholes (with a minimum diameter of 6 inches).

### Basic features

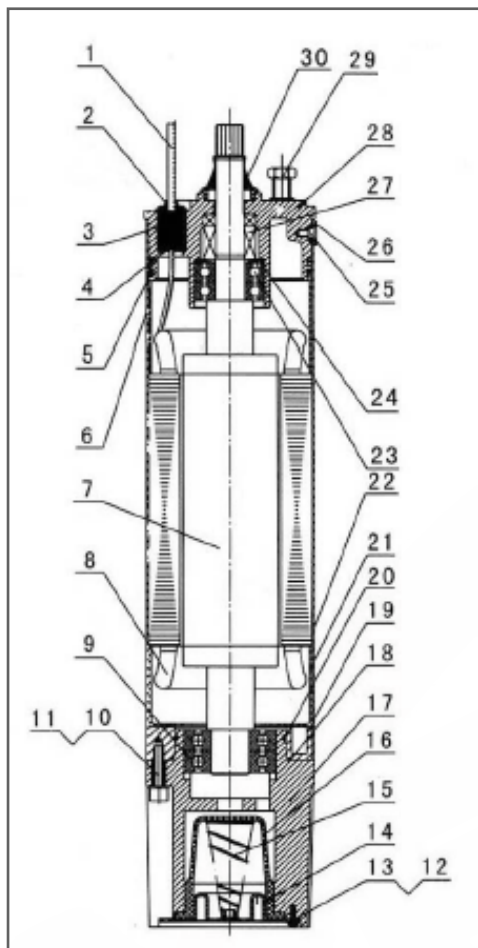


IEC34-1 standard squirrel motor - hermetically sealed  
All stainless steel support and double flange design

|                                       |                                    |
|---------------------------------------|------------------------------------|
| Thrust load:                          | 2500N                              |
| Degree of protection:                 | IP68                               |
| Maximum ambient temperature:          | 40°C                               |
| Water pH range:                       | 6.5 - 8.0                          |
| Maximum submerged depth:              | 250m                               |
| Insulation:                           | Class F                            |
| Mounting:                             | Vertical/horizontal                |
| Minimum cooling flow along the motor: | 8cm/s                              |
| Maximum starts per hour:              | 10-30<br>(dependent on motor size) |

Flat, waterproof lead out cable with separate earth wire.  
Designed for **vertical and horizontal installation.**

## Motor parts



| NO. | DESCRIPTION            | NO. | DESCRIPTION       |
|-----|------------------------|-----|-------------------|
| 1   | Cable: YQSB            | 16  | O-ring            |
| 2   | Cable holder           | 17  | Flange            |
| 3   | Cable protector        | 18  | O-ring            |
| 4   | Cable protector washer | 19  | Insulation paper  |
| 5   | O-ring                 | 20  | Lower motor cover |
| 6   | Insulation paper       | 21  | Ball bearing      |
| 7   | Rotor                  | 22  | Insulation paper  |
| 8   | Stator and wire        | 23  | Mechanical seal   |
| 9   | Bearing                | 24  | Ball bearing      |
| 10  | Screw                  | 25  | Leaf spring       |
| 11  | Washer                 | 26  | Screw             |
| 12  | Screw                  | 27  | Pin               |
| 13  | Spring                 | 28  | Top motor cover   |
| 14  | Cup ring               | 29  | Screw             |
| 15  | Motor base             | 30  | Washer            |

## Performance data

| MODEL     | POWER |      | CURRENT | COS $\phi$ | SPEED<br>RPM | LENGTH<br>mm | WEIGHT<br>kg |
|-----------|-------|------|---------|------------|--------------|--------------|--------------|
|           | kW    | HP   |         |            |              |              |              |
| HTY6-5.5  | 5.5   | 7.5  | 12.3    | 0.83       | 2835         | 580          | 42           |
| HTY6-7.5  | 7.5   | 10   | 16.5    | 0.85       | 2835         | 620          | 46           |
| HTY6-9.2  | 9.2   | 12.3 | 20.2    | 0.86       | 2835         | 655          | 50           |
| HTY6-11   | 11    | 15   | 23.6    | 0.86       | 2835         | 685          | 53           |
| HTY6-13   | 13    | 17.5 | 27.6    | 0.86       | 2850         | 715          | 56           |
| HTY6-15   | 15    | 20   | 31.8    | 0.86       | 2850         | 755          | 59           |
| HTY6-18.5 | 18.5  | 25   | 38.2    | 0.86       | 2850         | 820          | 66           |
| HTY6-22   | 22    | 30   | 45.2    | 0.86       | 2850         | 880          | 73           |
| HTY6-26   | 26    | 35   | 53.5    | 0.86       | 2850         | 930          | 80           |
| HTY6-30   | 30    | 40   | 61.6    | 0.86       | 2850         | 980          | 86           |

### MOTOR TECHNICAL DATA

|                              |                                                        |
|------------------------------|--------------------------------------------------------|
| Winding wire:                | Polywrapped / PVC winding available on specific demand |
| Degree of protection:        | IP68                                                   |
| Maximum water temperature:   | 35°C                                                   |
| Maximum starts per hour:     | 10 - 30 depending on kW size                           |
| Allowable voltage variation: | +6% - 10%                                              |
| Motor shaft:                 | Stainless steel                                        |
| Stator shell:                | Stainless steel                                        |
| Maximum immersion depth:     | 350m                                                   |
| Mounting:                    | Vertical/Horizontal                                    |
| Motor cable length:          | 3m/3 Core with separate earthcable and 4 Core          |
| Cooling flow:                | V=0.2 m/s                                              |
| Coolant:                     | Clear water                                            |
| Stator replaceable           |                                                        |

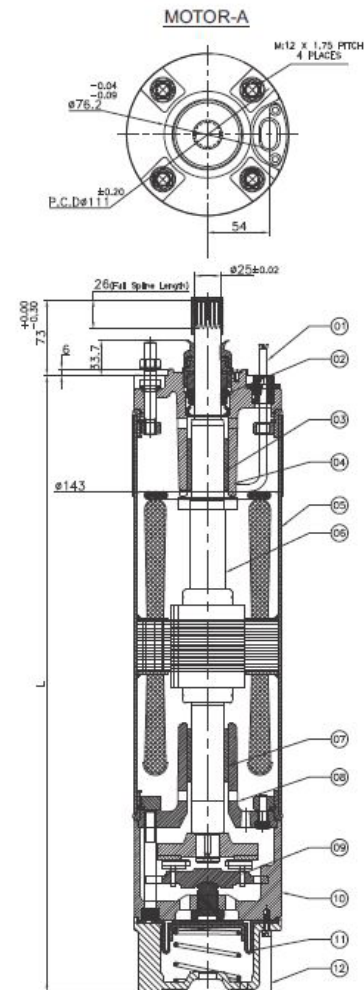
### MOTOR TECHNICAL DATA

Three phase 5.5kW - 37.5kW





| NO. | PART NAME            | MATERIAL       |
|-----|----------------------|----------------|
| 1   | Cable 3 Core/ 4 Core | EPR            |
| 2   | Mech/Seal            | Ceramic/Carbon |
| 3   | Bearing Bush         | Carbon         |
| 4   | Upper Housing        | Cast Iron      |
| 5   | Motor Shell          | S.S.304        |
| 6   | Rotor Shaft          | S.S.431        |
| 7   | Bearing Bush         | Carbon         |
| 8   | Lower Housing        | Cast Iron      |
| 9   | Thrust Bearing Set   | Carbon/S.S.420 |
| 10  | Lower Part-2         | Cast Iron      |
| 11  | Pressure Cup         | H.B.R.         |
| 12  | Motor Base           | Cast Iron      |
| 13  | All Hardware         | S.S.304        |



## Motor specifications

| MOTOR POWER |      | PWL C.I. | PWL S.S. | WEIGHT (MOTOR ONLY) |                | WEIGHT (INCL PACKAGING) |                |
|-------------|------|----------|----------|---------------------|----------------|-------------------------|----------------|
| (kW)        | (HP) | (mm)     | (mm)     | S.S. 304 (kg)       | Cast Iron (kg) | S.S. 304 (kg)           | Cast Iron (kg) |
| 5.5         | 7.5  | 747      | 727      | 46.0                | 49.0           | 51.2                    | 54.2           |
| 7.5         | 10   | 777      | 757      | 50.0                | 54.0           | 54.2                    | 57.8           |
| 9.3         | 12.5 | 803      | 787      | 53.0                | 59.0           | 56.8                    | 63.0           |
| 11          | 15   | 847      | 827      | 61.0                | 63.0           | 64.8                    | 66.6           |
| 13          | 17.5 | 897      | 877      | 64.0                | 67.0           | 67.7                    | 70.7           |
| 15          | 20   | 937      | 917      | 70.0                | 71.0           | 74.6                    | 75.2           |
| 18.5        | 25   | 992      | 972      | 76.0                | 80.0           | 79.8                    | 83.5           |
| 22          | 30   | 1067     | 1047     | 90.0                | 90.0           | 94.2                    | 94.3           |
| 26          | 35   | 1127     | 1107     | 94.0                | 97.0           | 98.0                    | 101.           |
| 30          | 40   | 1247     | 1227     | 102.0               | 100.0          | 108.0                   | 105.0          |
| 37.5        | 50   | 1347     | 1347     | 127.5               | 125.5          | 133.5                   | 130.5          |

## PERFORMANCE DATA OF 6" THREE PHASE SUBMERSIBLE MOTOR / 50HZ - 380V

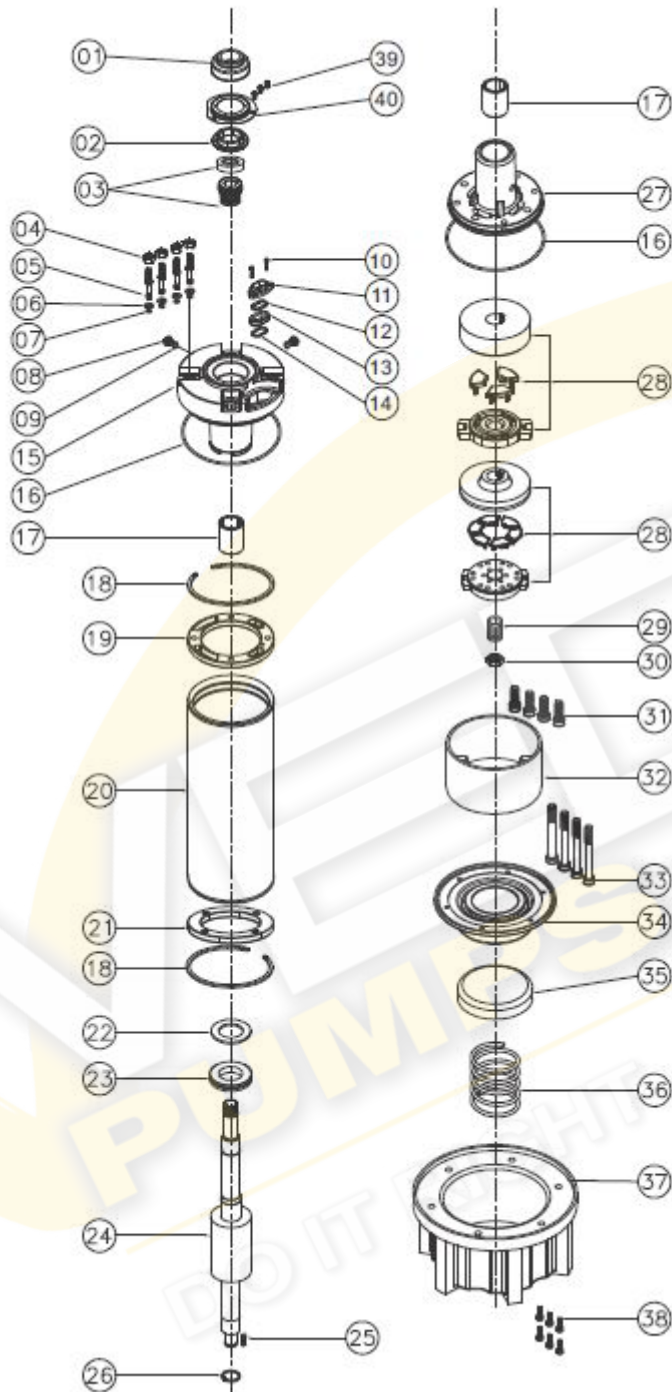
| $P_N$ |      | THRUST LOAD | $U_N$ | $n_N$   | $I_N$ | $I_A$ | $\eta$ (%) |    |     | $\cos\phi$ |      |      | $T_N$  | $T_A$  |
|-------|------|-------------|-------|---------|-------|-------|------------|----|-----|------------|------|------|--------|--------|
| (kW)  | (HP) | F(N)        | (V)   | (min-1) | (A)   | (A)   | 50         | 75 | 100 | 50         | 75   | 100  | (Nm)   | (Nm)   |
| 5.5   | 7.5  | 15500       | 380   | 2865    | 13.71 | 47    | 73         | 76 | 76  | 0.68       | 0.79 | 0.83 | 18.31  | 15.40  |
| 7.5   | 10   | 15500       | 380   | 2870    | 18.29 | 58    | 77         | 78 | 78  | 0.70       | 0.80 | 0.83 | 25.10  | 19.2   |
| 9.3   | 12.5 | 15500       | 380   | 2855    | 22.00 | 75    | 79         | 80 | 79  | 0.70       | 0.80 | 0.83 | 31.11  | 25.91  |
| 11    | 15   | 15500       | 380   | 2865    | 25.79 | 93    | 77         | 80 | 78  | 0.71       | 0.80 | 0.84 | 36.60  | 31.50  |
| 13    | 17.5 | 15500       | 380   | 2885    | 30.11 | 117   | 79         | 81 | 80  | 0.69       | 0.79 | 0.83 | 43.20  | 45.00  |
| 15    | 20   | 15500       | 380   | 2880    | 33.91 | 140   | 80         | 82 | 81  | 0.72       | 0.82 | 0.85 | 49.71  | 53.80  |
| 18.5  | 25   | 15500       | 380   | 2870    | 42.31 | 171   | 80         | 82 | 81  | 0.68       | 0.79 | 0.84 | 61.72  | 75.21  |
| 22    | 30   | 15500       | 380   | 2875    | 49.11 | 217   | 82         | 83 | 84  | 0.69       | 0.78 | 0.83 | 72.62  | 91.10  |
| 26    | 35   | 15500       | 380   | 2890    | 57.49 | 267   | 82         | 84 | 83  | 0.69       | 0.79 | 0.85 | 86.10  | 120.40 |
| 30    | 40   | 27500       | 380   | 2895    | 66.39 | 329   | 81         | 84 | 83  | 0.68       | 0.77 | 0.84 | 98.82  | 135.00 |
| 37.5  | 50   | 27500       | 380   | 2890    | 82.00 | 406   | 82         | 83 | 83  | 0.68       | 0.79 | 0.83 | 122.00 | 192.70 |

|       |   |                   |            |   |                   |
|-------|---|-------------------|------------|---|-------------------|
| $P_N$ | - | Rated Output      | $\eta$     | - | Motor Efficiency  |
| $U_N$ | - | Rated Voltage     | $\cos\phi$ | - | Power Factor      |
| $n_N$ | - | RPM               | $T_N$      | - | Full Load Torque  |
| $I_N$ | - | Full Load Current | $T_A$      | - | Starting Torque   |
| $I_A$ | - | Starting Current  | $F_{IN}$   | - | Axial Thrust Load |

## PERFORMANCE DATA OF 6" THREE PHASE SUBMERSIBLE MOTOR / 50HZ - 525V

| kW | HP | AMPS |      |      | Hz | RPM  |      |      | $\cos\phi$ |      |      | CONN.     | THRUST LOAD | WIND | COOLING FLOW M/SEC | MAX WATER TEMP. | CLASS |
|----|----|------|------|------|----|------|------|------|------------|------|------|-----------|-------------|------|--------------------|-----------------|-------|
|    |    | 480  | 500  | 525  |    | 480  | 500  | 525  | 480        | 500  | 525  |           |             |      |                    |                 |       |
| 22 | 30 | 36.4 | 35.6 | 35.6 | 50 | 2878 | 2878 | 2880 | 0.82       | 0.8  | 0.80 | DELTA (1) | 15500       | PW   | 0.85               | 35              | B     |
| 30 | 40 | 42.8 | 42   | 42   | 50 | 2880 | 2882 | 2885 | 0.85       | 0.85 | 0.84 | DELTA (1) | 27500       | PW   | 0.5                | 35              | B     |
| 37 | 50 | 54   | 53.2 | 53.2 | 50 | 2880 | 2882 | 2885 | 0.85       | 0.85 | 0.84 | DELTA (1) | 27500       | PW   | 0.5                | 35              | B     |

## Exploded Drawing of 6" Motor-A



| No. | PARTS NAME                         |
|-----|------------------------------------|
| 1   | SAND GUARD                         |
| 2   | UPPER COLLAR                       |
| 3   | MECH. SEAL                         |
| 4   | NUT                                |
| 5   | STUD                               |
| 6   | STUD WASHER                        |
| 7   | STUD "O" RING                      |
| 8   | DRAIN PLUG                         |
| 9   | DRAIN PLUG "O" RING                |
| 10  | ALLEN BOLT                         |
| 11  | CABLE PROTECTOR CAP                |
| 12  | PLASTIC GROMMET WASHER             |
| 13  | RUBBER GROMMET                     |
| 14  | S.S. GROMMET WASHER                |
| 15  | UPPER HOUSING                      |
| 16  | "O" RING (UPPER & LOWER)           |
| 17  | BEARING BUSH                       |
| 18  | CIR CLIP                           |
| 19  | UPPER FLANGE                       |
| 20  | STATOR BODY                        |
| 21  | LOWER FLANGE                       |
| 22  | TEFLON WASHER                      |
| 23  | THRUST RING                        |
| 24  | ROTOR SHAFT                        |
| 25  | ROTOR KEY                          |
| 26  | CIR CLIP BEARING SIDE              |
| 27  | LOWER HOUSING                      |
| 28  | THRUST BEARING SET (UP TO 10.0 HP) |
| 28  | THRUST BEARING SET (ABOVE 10.0 HP) |
| 29  | ROCKER                             |
| 30  | ROCKER LOCK NUT                    |
| 31  | ALLEN BOLT LOWER SIDE              |
| 32  | LOWER PART-2                       |
| 33  | ALLEN BOLT LOWER PART-2 SIDE       |
| 34  | PRESSURE CUP                       |
| 35  | SPRING JACKET                      |
| 36  | SPRING                             |
| 37  | MOTOR BASE                         |
| 38  | ALLEN BOLT MOTOR BASE SIDE         |
| 39  | UPPER CAP                          |
| 40  | UPPER CAP SCREW                    |



**BOREHOLE RANGE**  
**8VP**



# 8VP BOREHOLE RANGE (8")

## 8VP-80 & 8VP-98



### Pump features

The 8VP range features high efficiency, class leading rigidity and increased pressure for large scale pressure and flow characteristics.

### Operating range

These pumps are designed for agricultural & mining applications.

|                       |                           |
|-----------------------|---------------------------|
| Head range:           | 7m - 400m                 |
| Flow rate:            | 20 - 120m <sup>3</sup> /h |
| Minimum immersion:    | 1m                        |
| Maximum sand content: | 50g/m <sup>3</sup>        |

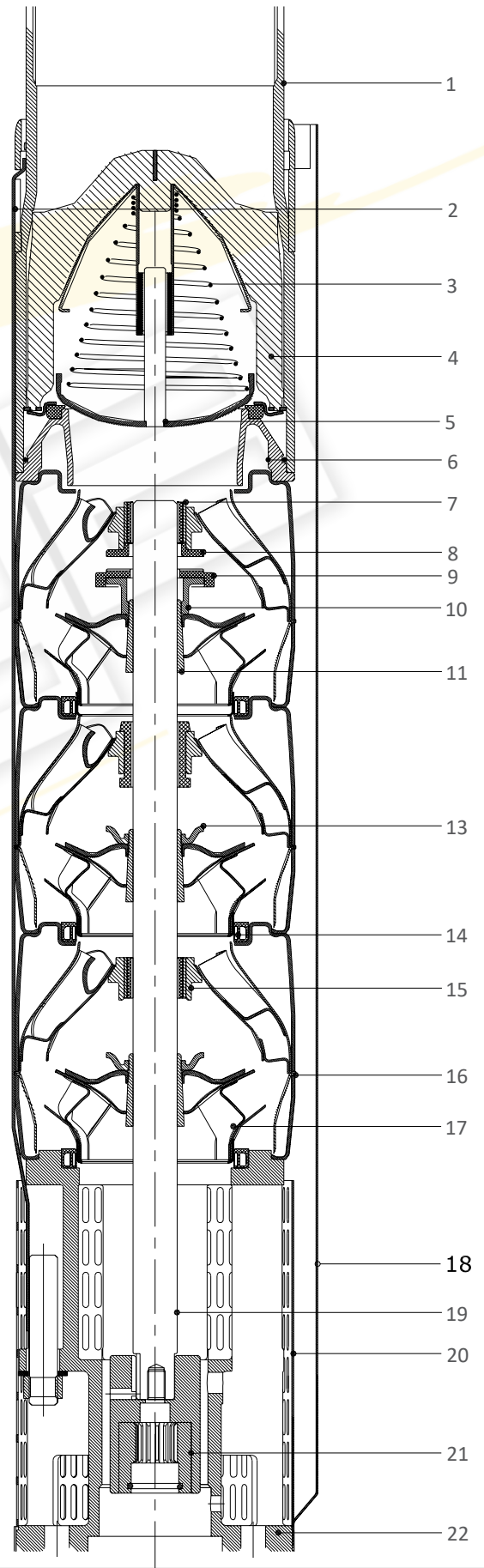
### Key materials

|                                                     |                      |
|-----------------------------------------------------|----------------------|
| Suction, stage casing and discharge outlets:        | stainless steel 304  |
| Impellers:                                          | stainless steel 304  |
| Pump shaft:                                         | SS AISI 431          |
| Bearing bush:                                       | anti friction rubber |
| Non return valve:                                   | stainless steel 304  |
| Cable guard and strainer:                           | stainless steel 304  |
| Pump and motor couplings are as per NEMA standards. |                      |



### Material specifications

| NO. | PART NAME                | MATERIAL              | STANDARD |
|-----|--------------------------|-----------------------|----------|
| 1   | DCH Sleeve               | Stainless Steel       | 304      |
| 2   | Clamping Strip           | Stainless Steel       | 304      |
| 3   | Spring                   | Stainless Steel       | 304      |
| 4   | Valve guide rib assembly | Stainless Steel       | 304      |
| 5   | Valve assembly           | Stainless Steel       | 304      |
| 6   | Valve seat housing       | Stainless Steel       | 304      |
| 7   | First stage bearing bush | Stainless Steel + NBR | 304      |
| 8   | Stop ring                | Stainless Steel       | 304      |
| 9   | Spacing washer           | 25% CFT               | 304      |
| 10  | First stage nut          | Stainless Steel       | 304      |
| 11  | Impeller Collet          | Stainless Steel       | 304      |
| 12  | Bearing bush stage       | NBR                   |          |
| 13  | Collet Nut               | Stainless Steel       | 304      |
| 14  | Neckring                 | NBR + PPS             |          |
| 15  | IMC Sleeve               | Stainless Steel       | 304      |
| 16  | Intermediate Chamber     | Stainless Steel       | 304      |
| 17  | Impeller Assembly        | Stainless Steel       | 304      |
| 18  | Cable guard              | Stainless Steel       | 304      |
| 19  | Shaft                    | Stainless Steel       | 431      |
| 20  | Strainer                 | Stainless Steel       | 304      |
| 21  | NEMA Coupling            | Stainless Steel       | 304      |
| 22  | Suction Inter-connector  | Stainless Steel       | 304      |

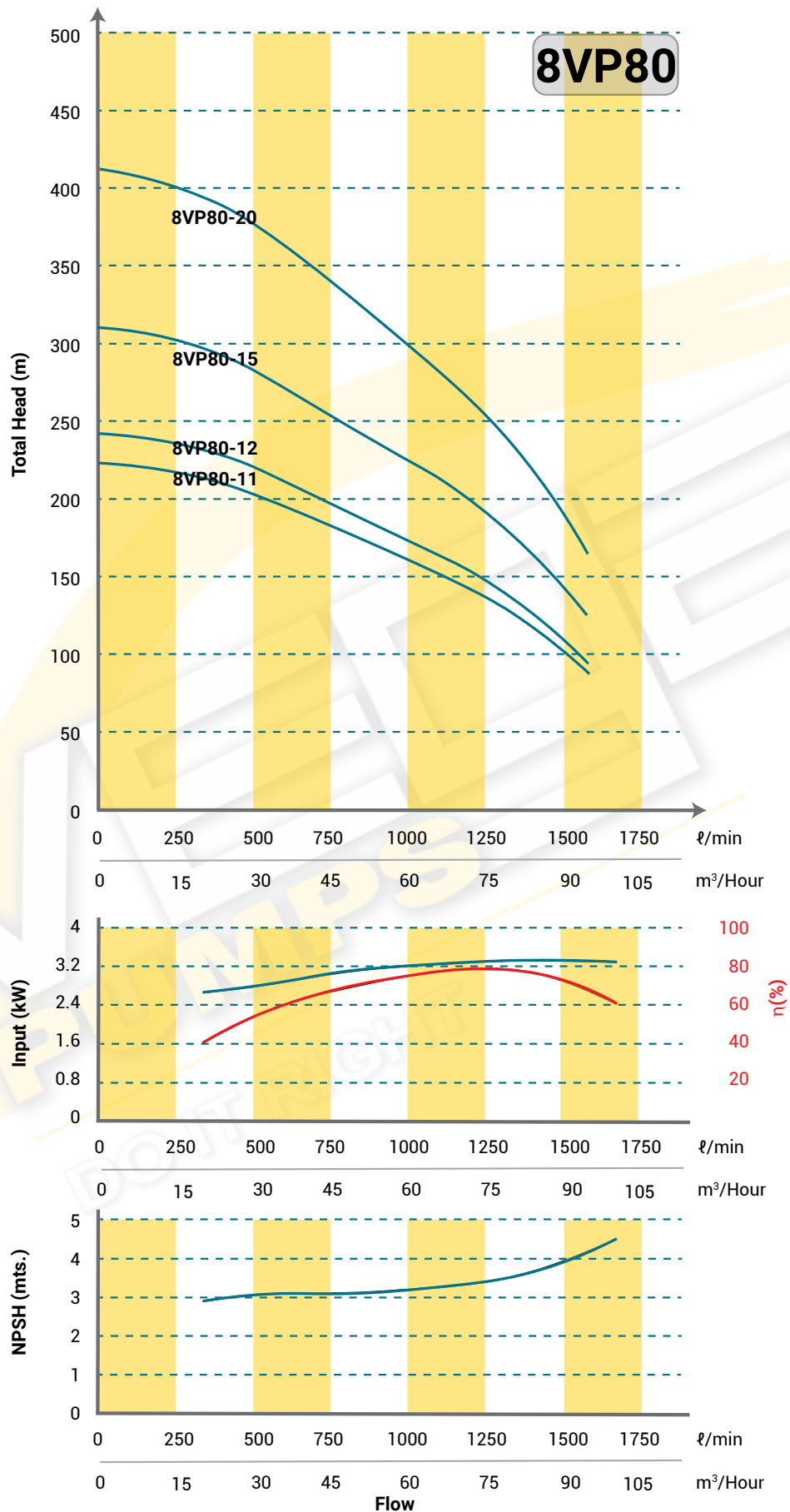


# 8VP BOREHOLE RANGE (8")

## 8VP-80



### Performance Curve

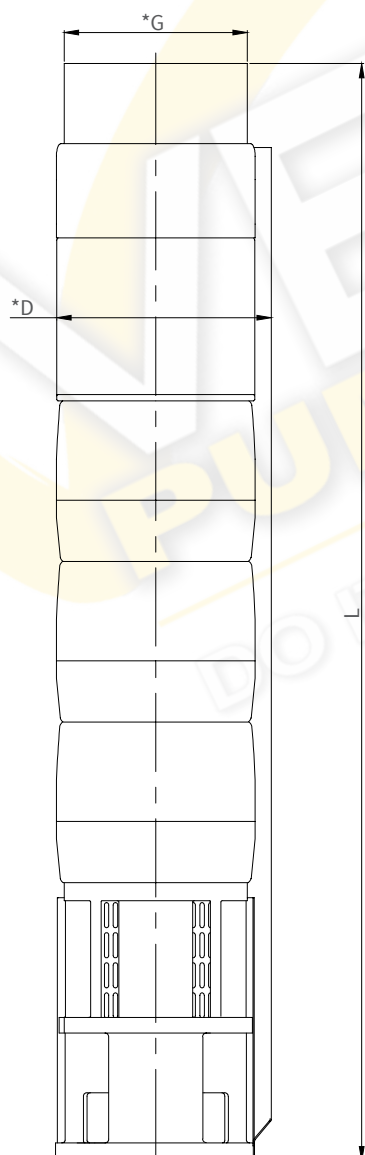


### Performance chart

| Model     | Stage | kW    | HP    | l/min             | 0   | 335  | 500  | 670  | 835  | 1000 | 1170 | 1335 | 1500 | 1670  |
|-----------|-------|-------|-------|-------------------|-----|------|------|------|------|------|------|------|------|-------|
|           |       |       |       | m <sup>3</sup> /h | 0   | 20.0 | 30.0 | 40.2 | 50.1 | 60.0 | 70.2 | 80.1 | 90.0 | 100.0 |
| 8VP 80-11 | 11    | 37.00 | 50.00 | HEAD              | 226 | 217  | 206  | 192  | 177  | 163  | 149  | 133  | 110  | 80    |
| 8VP 80-12 | 12    | 45.00 | 60.00 |                   | 246 | 237  | 225  | 209  | 193  | 178  | 163  | 145  | 120  | 88    |
| 8VP 80-15 | 15    | 55.00 | 75.00 |                   | 308 | 296  | 281  | 262  | 242  | 223  | 203  | 181  | 150  | 110   |
| 8VP 80-20 | 20    | 75.00 | 100.0 |                   | 410 | 395  | 375  | 349  | 322  | 297  | 271  | 241  | 200  | 146   |

### Dimensions & Weights

| MODEL NAME | D (mm) | L (mm) | G (mm) | Pump Weight (kg) |
|------------|--------|--------|--------|------------------|
| 8VP 80-11  | 175    | 1900   | 125    | 59               |
| 8VP 80-12  | 175    | 2028   | 125    | 63               |
| 8VP 80-15  | 196    | 2412   | 125    | 75               |
| 8VP 80-20  | 196    | 3052   | 125    | 95               |



\* G: Available Outlet Size BSP 5"

\* D: Maximum Diameter With Single Cable Guard

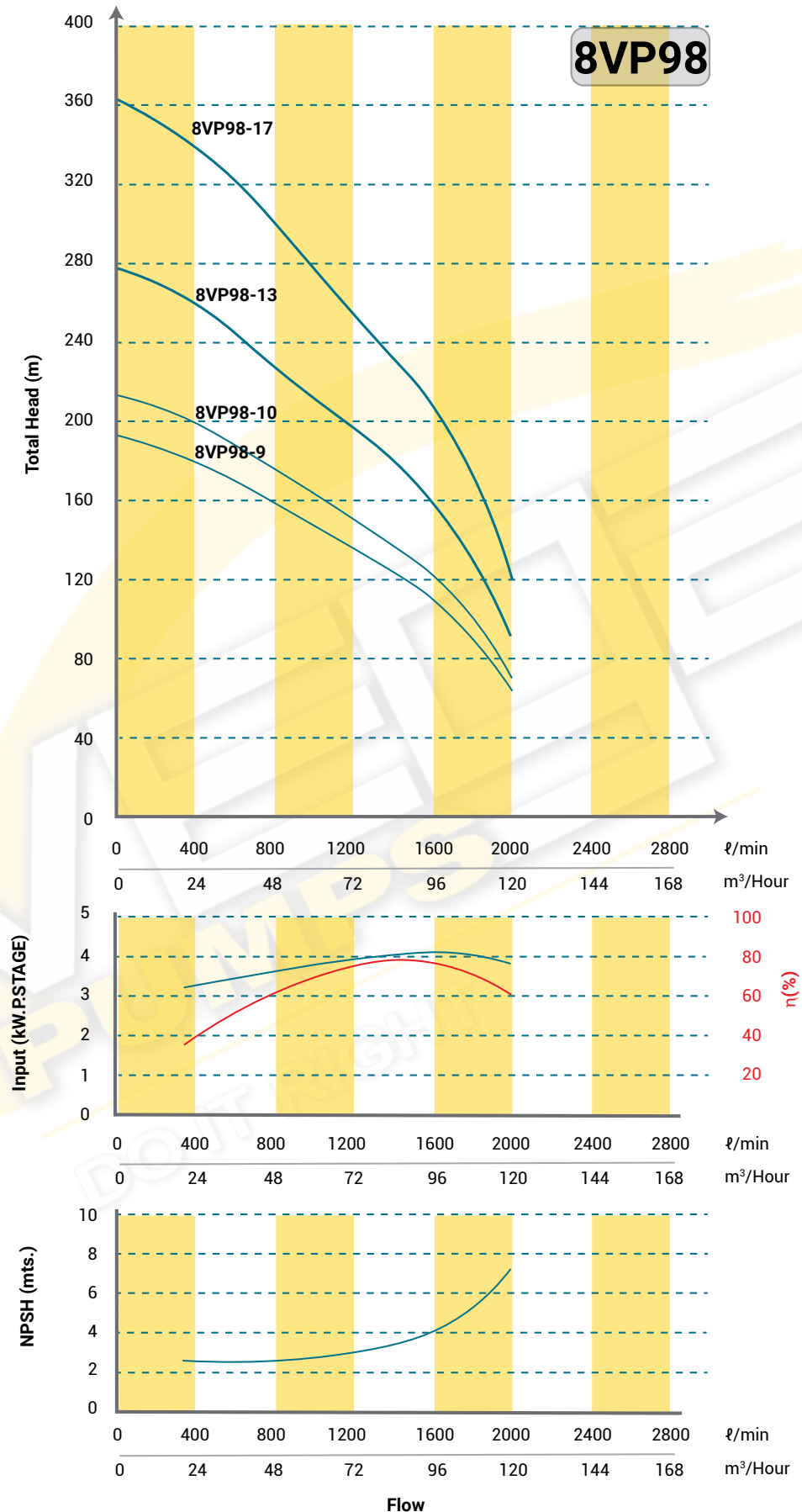


# 8VP BOREHOLE RANGE (8")

## 8VP-98



### Performance Curve

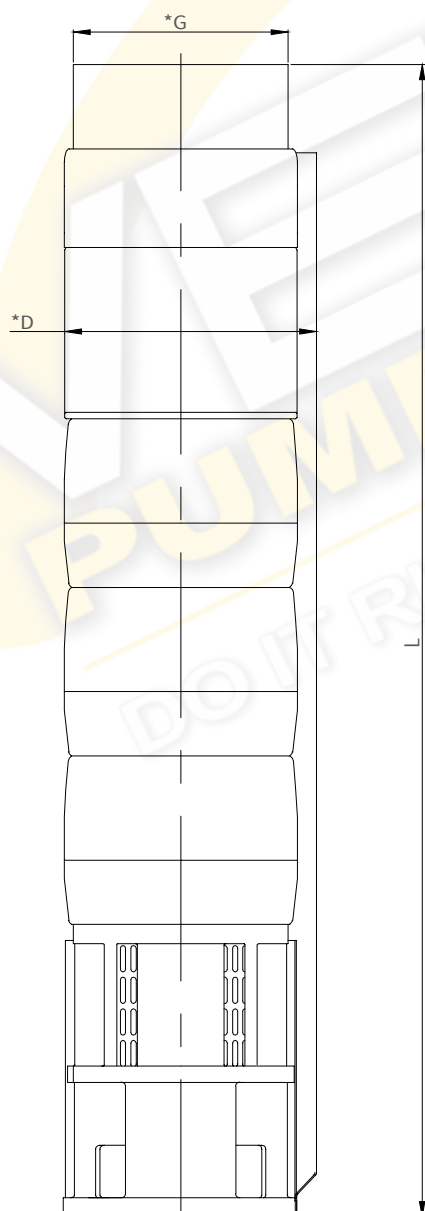


### Performance chart

| Three Phase | Stage | kW    | HP    | l/min<br>m³/h | 0   | 335  | 675  | 1010 | 1170 | 1335 | 1500 | 1670  | 1835  | 2000  |
|-------------|-------|-------|-------|---------------|-----|------|------|------|------|------|------|-------|-------|-------|
|             |       |       |       |               | 0   | 20.0 | 40.5 | 60.6 | 70.2 | 80.1 | 90.0 | 100.2 | 110.1 | 120.0 |
| 8VP 98-09   | 9     | 37.00 | 50    | HEAD          | 193 | 185  | 166  | 146  | 137  | 128  | 118  | 104   | 85    | 63    |
| 8VP 98-10   | 10    | 45.00 | 60.00 |               | 214 | 205  | 184  | 162  | 152  | 142  | 131  | 115   | 94    | 70    |
| 8VP 98-13   | 13    | 55.00 | 75.00 |               | 278 | 267  | 239  | 210  | 197  | 185  | 171  | 150   | 122   | 92    |
| 8VP 98-17   | 17    | 75.00 | 100.0 |               | 364 | 349  | 313  | 275  | 258  | 242  | 223  | 196   | 160   | 120   |

### Dimensions & Weights

| MODEL NAME | D<br>(mm) | L<br>(mm) | G<br>(mm) | Pump Weight<br>(kg) |
|------------|-----------|-----------|-----------|---------------------|
| 8VP 98-09  | 175       | 1644      | 125       | 53                  |
| 8VP 98-10  | 175       | 1772      | 125       | 55                  |
| 8VP 98-13  | 196       | 2156      | 125       | 67                  |
| 8VP 98-17  | 196       | 2668      | 125       | 83                  |



\* G: Available Outlet Size BSP 5"

\* D: Maximum Diameter With Single Cable Guard

# 8" SUBMERSIBLE MOTOR

## WATER FILLED



### Technical specification

8" Water lubricated submersible motor

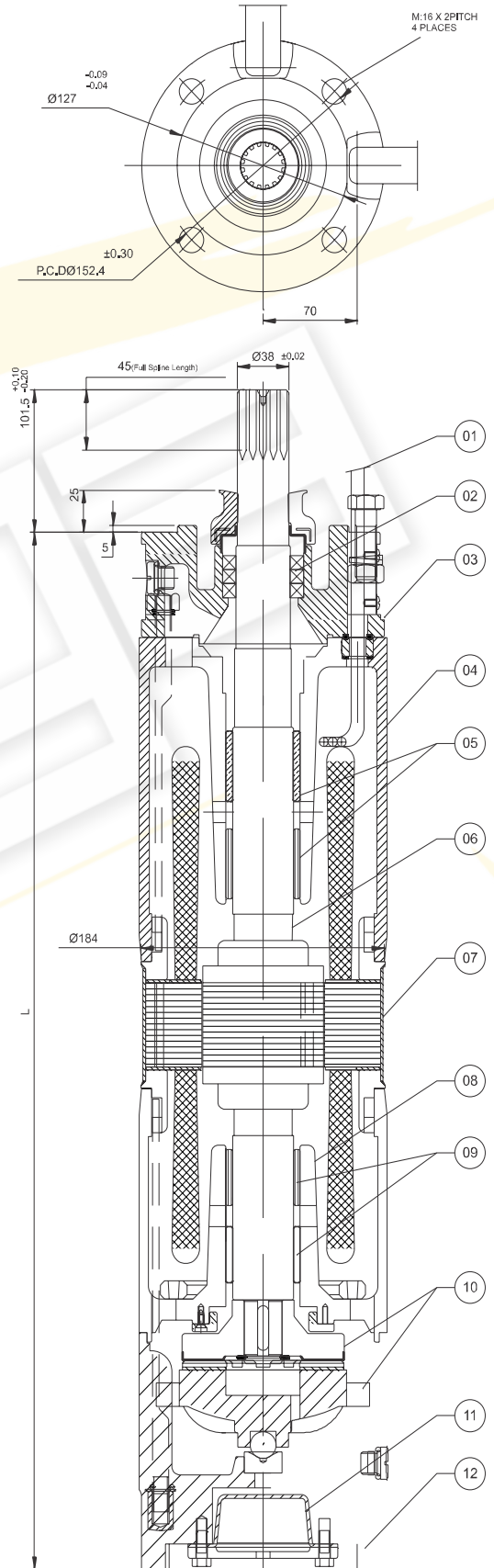
Coupling dimensions as per NEMA standard.

|                              |                                        |
|------------------------------|----------------------------------------|
| Voltage:                     | 380-415V & 525V 50Hz                   |
| Winding wire:                | Polywrapped                            |
| Protection:                  | IP68                                   |
| Max water temperature:       | 35 °C                                  |
| Max starts per hour:         | 20                                     |
| Allowable voltage variation: | +6% - 10%                              |
| Motor shaft:                 | Stainless steel                        |
| Stator shell:                | Stainless steel                        |
| Max immersion:               | 350m                                   |
| Mounting:                    | vertical / up to 15 ° above horizontal |
| Cable:                       | 3m X 4 core                            |

### Material specification

| NO | PART NAME          | MATERIAL                  |
|----|--------------------|---------------------------|
| 01 | Cable 4 core       | EPR                       |
| 02 | Oil seal           | N.B.R                     |
| 03 | Adapter            | CAST IRON(FG-200)         |
| 04 | Upper housing      | CAST IRON(FG-200)         |
| 05 | Bearing bush       | LTB-4 (2% Ni) / M.S-N.B.R |
| 06 | Robot shaft        | S.S.431                   |
| 07 | Motor shell        | S.S.304                   |
| 08 | Lower housing      | CAST IRON (FG-200)        |
| 09 | Bearing bush       | LTB-4 (2% Ni) / M.S-N.B.R |
| 10 | Thrust bearing set | CARBON / S.S.420          |
| 11 | Pressure cup       | H.B.R                     |
| 12 | Motor base         | CAST IRON (FG-200)        |
| 13 | All hardware       | S.S.304                   |

| Pn |     | Weight    |            |
|----|-----|-----------|------------|
| kW | HP  | Nett (kg) | Gross (kg) |
| 45 | 60  | 165       | 183.4      |
| 55 | 75  | 205       | 223        |
| 75 | 100 | 220       | 245        |



# 8" SUBMERSIBLE MOTOR WATER FILLED

## Technical data

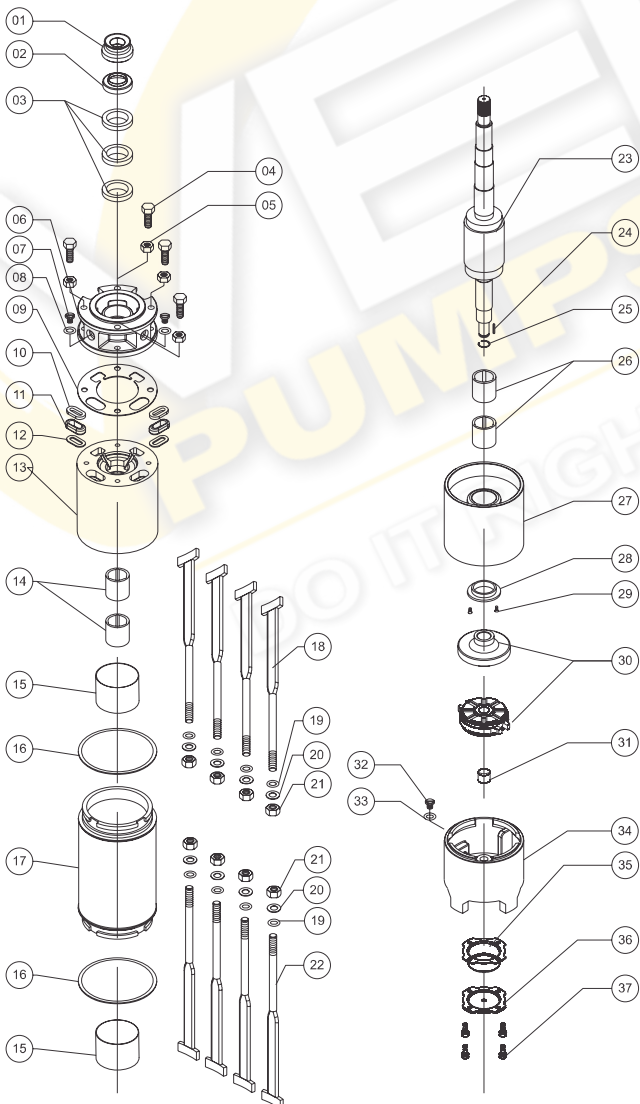
### 380V

| TYPE | HP  | kW | AMPS  |       |       | Hz | RPM   |       |       | COS Ø |       |       | CONN.     | THRUST LOAD | WIND | COOLING FLOW | MAX WATER TEMP. | CABLE  |
|------|-----|----|-------|-------|-------|----|-------|-------|-------|-------|-------|-------|-----------|-------------|------|--------------|-----------------|--------|
|      |     |    | 380 V | 400 V | 415 V |    | 380 V | 400 V | 415 V | 380 V | 400 V | 415 V |           |             |      | m/sec        |                 |        |
| V8   | 60  | 45 | 92.9  | 90    | 88    | 50 | 2895  | 2910  | 2910  | 0.88  | 0.86  | 0.85  | Delta (I) | 45000       | PW   | 0.5          | 35              | SINGLE |
| V8   | 75  | 55 | 115   | 110   | 109   | 50 | 2910  | 2915  | 2920  | 0.88  | 0.85  | 0.85  | Delta (I) | 45000       | PW   | 0.5          | 35              | SINGLE |
| V8   | 100 | 75 | 152   | 147   | 145   | 50 | 2890  | 2910  | 2910  | 0.88  | 0.85  | 0.85  | Delta (I) | 45000       | PW   | 0.5          | 35              | SINGLE |

### 525V

| TYPE | HP  | kW | AMPS  |       |       | Hz | RPM  |      |      | COS Ø |      |      | CONN.     | THRUST LOAD | WIND | COOLING FLOW | MAX WATER TEMP. | CABLE  |
|------|-----|----|-------|-------|-------|----|------|------|------|-------|------|------|-----------|-------------|------|--------------|-----------------|--------|
|      |     |    | 480 V | 500 V | 525 V |    | 480V | 500V | 525V | 480V  | 500V | 525V |           |             |      | m/sec        |                 |        |
| V8   | 60  | 45 | 74    | 67    | 67    | 50 | 2880 | 2890 | 2900 | 0.81  | 0.82 | 0.84 | Delta (I) | 45000       | PW   | 0.5          | 35              | SINGLE |
| V8   | 75  | 55 | 75    | 68    | 68    | 50 | 2881 | 2892 | 2900 | 0.81  | 0.8  | 0.83 | Delta (I) | 45000       | PW   | 0.5          | 35              | SINGLE |
| V8   | 100 | 75 | 76    | 70    | 70    | 50 | 2882 | 2890 | 2900 | 0.81  | 0.8  | 0.84 | Delta (I) | 45000       | PW   | 0.5          | 35              | SINGLE |

## Exploded drawing



|    |                   |
|----|-------------------|
| 1  | Sand Guard        |
| 2  | Upper Cap         |
| 3  | Oil Seal          |
| 4  | Hex Bolt          |
| 5  | Hex Nut           |
| 6  | Adapter           |
| 7  | Drain Plug        |
| 8  | Drain Plug O-ring |
| 9  | Paper Gasket      |
| 10 | Grommet Washer    |
| 11 | Grommet           |
| 12 | Grommet Washer    |
| 13 | Upper Housing     |
| 14 | Bearing Bush      |
| 15 | Winding Cap       |
| 16 | Paper Gasket      |
| 17 | Stator Body       |
| 18 | T-bolt Washer     |

|    |                     |
|----|---------------------|
| 19 | T-bolt O-ring       |
| 20 | T-bolt Washer       |
| 21 | Hex Nut             |
| 22 | T-bolt              |
| 23 | Rotor               |
| 24 | Rotor Key           |
| 25 | Rotor Cir Clip      |
| 26 | Bearing Bush        |
| 27 | Lower Housing       |
| 28 | Fiber C.T Bearing   |
| 29 | Screw               |
| 30 | Counter Bearing Set |
| 31 | Fix Rocker          |
| 32 | Drain Plug          |
| 33 | Motor Base          |
| 34 | Pressure Cupe       |
| 35 | Drain Plug          |
| 36 | Motor Baseplate     |