

# **DESHB**

## *SUBMERSIBLE PUMP*

**SPA SERIES**  
**SPS SERIES**  
**SPSN SERIES**  
**V SERIES**  
**VN SERIES**  
**VD SERIES**  
**DKTZ SERIES**  
**DKRS SERIES**



# **HANGZHOU DESHB PUMPS CO.,LTD.**

[www.dsbpump.com](http://www.dsbpump.com)

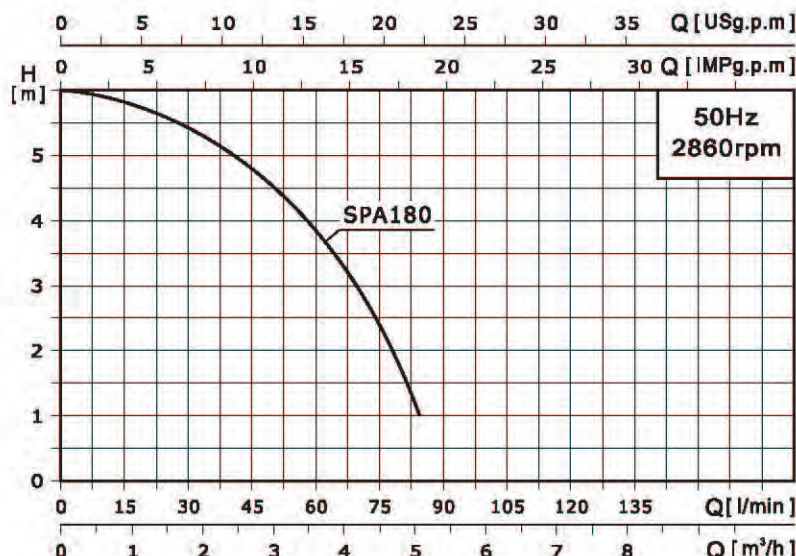
**DESHB**

**HIGH-QUALITY PUMP  
MANUFACTURERS AND SUPPLIERS**



|                        |           |                 |           |
|------------------------|-----------|-----------------|-----------|
| <b>SPA180F</b>         | <b>03</b> | <b>SPS400F</b>  | <b>25</b> |
| <b>SPA250F</b>         | <b>04</b> | <b>SPS700F</b>  | <b>25</b> |
| <b>SPA370F</b>         | <b>05</b> | <b>SPS900F</b>  | <b>26</b> |
| <b>SPA400F</b>         | <b>06</b> | <b>SPS1100F</b> | <b>27</b> |
| <b>SPA450F</b>         | <b>07</b> | <b>SPS1500F</b> | <b>28</b> |
| <b>SPA550F</b>         | <b>08</b> | <b>V180F</b>    | <b>29</b> |
| <b>SPA750F</b>         | <b>09</b> | <b>V250F</b>    | <b>30</b> |
| <b>SPA1100F</b>        | <b>10</b> | <b>V250AF</b>   | <b>31</b> |
| <b>SPA3-18-0.55F</b>   | <b>11</b> | <b>VP250F</b>   | <b>32</b> |
| <b>SPA5-15-0.55F</b>   | <b>12</b> | <b>VP370F</b>   | <b>33</b> |
| <b>SPA4-15/2-0.6F</b>  | <b>13</b> | <b>V450F</b>    | <b>34</b> |
| <b>SPA3-24-0.75F</b>   | <b>14</b> | <b>V550AF</b>   | <b>35</b> |
| <b>SPA6-18-0.75F</b>   | <b>14</b> | <b>V750F</b>    | <b>36</b> |
| <b>SPA37-4-0.75F</b>   | <b>15</b> | <b>V1100F</b>   | <b>37</b> |
| <b>SPA6-28/2-1.1F</b>  | <b>16</b> | <b>V1500F</b>   | <b>38</b> |
| <b>SPA10-18-1.1F</b>   | <b>17</b> | <b>V2200F</b>   | <b>39</b> |
| <b>SPA6-32-1.5F</b>    | <b>18</b> | <b>VN250</b>    | <b>40</b> |
| <b>SPA-1.5-Y1F</b>     | <b>19</b> | <b>VN750</b>    | <b>41</b> |
| <b>SPA-2-Y1.5F</b>     | <b>19</b> | <b>VN1500</b>   | <b>42</b> |
| <b>SPA-3-Y2.2F</b>     | <b>20</b> | <b>V1100DF</b>  | <b>43</b> |
| <b>SPA6-28/2-1.1AF</b> | <b>21</b> | <b>V1300DF</b>  | <b>44</b> |
| <b>SPA6-39/3-1.5AF</b> | <b>22</b> | <b>V1800DF</b>  | <b>45</b> |
| <b>SPSN250</b>         | <b>23</b> | <b>DKTZ</b>     | <b>46</b> |
| <b>SPSN700</b>         | <b>24</b> | <b>DKRS</b>     | <b>48</b> |

## SPA180F



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

### FEATURES AND APPLICATION:

The single phase portable submersible pumps for pumping water are widely used for dewatering of cellars, garages, ditches, pit & pond. Pumping clean or slightly dirty water in aquariums, gardens and fountains, farm and garden. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation.

### TECHNICAL DATA:

| Model  | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|--------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| SPA180 | 0.18       | 25                   | 220 / 50       | 80                | 6             | 6.5       | 205 × 185 × 340 |

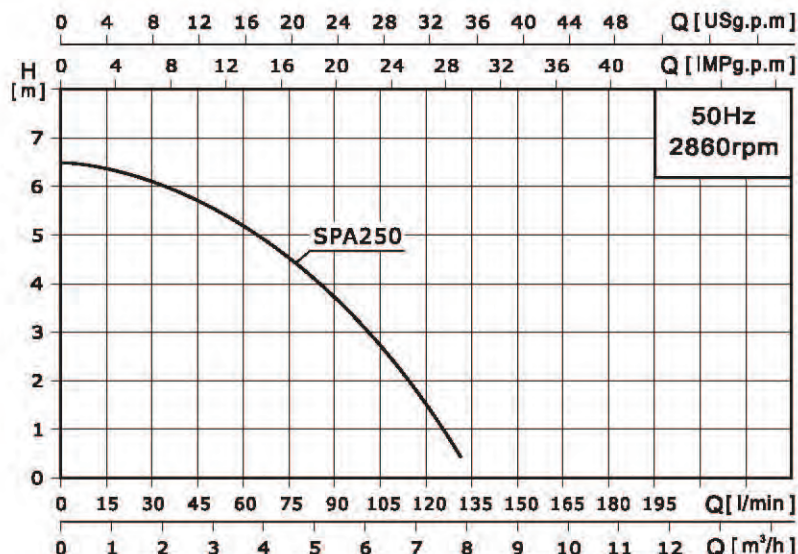
### FRAME DIAGRAM:

| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL         |
|-----|-------------------|----------|-----|-------------------|------------------|
| 1   | Protector         | NR       | 25  | Rotor             |                  |
| 2   | Cable presser     | 11       | 26  | Thermal protector |                  |
| 3   | Screw             | 11       | 27  | Motor stator      | Alsi12           |
| 4   | Cable             |          | 28  | Mechanical seal   | Alumina/Graphite |
| 5   | Flange            | 11       | 29  | " O " ring        | NBR              |
| 6   | Cable protector   | CR       | 30  | Out-let connector | ABS              |
| 7   | Screw             | 11       | 31  | " O " ring        | NBR              |
| 8   | Handle            | ABS      | 32  | Pump body         | No35B            |
| 9   | Bolt              | 11       | 33  | Screw             | 11               |
| 10  | " O " ring        | NBR      | 34  | Oil seal          |                  |
| 11  | Screw             | 11       | 35  | Impeller          | PA66/30%Fiber    |
| 12  | Washer            | 11       | 36  | Nut               | 11               |
| 13  | Capacitor cover   | Alsi12   | 37  | Pump cover        | Fe360A           |
| 14  | " O " ring        | NBR      | 38  | Nut               | 11               |
| 15  | Capacitor         |          | 39  | Bilateral bolt    | 11               |
| 16  | Line protector    | NBR      | 40  | Float switch      |                  |
| 17  | " O " ring        | NBR      | 41  | Filter mesh       | Fe360A           |
| 18  | Screw             | CuZn40   |     |                   |                  |
| 19  | Stretching washer | 1566     |     |                   |                  |
| 20  | Washer            | CuZn40   |     |                   |                  |
| 21  | Screw             | Fe360A   |     |                   |                  |
| 22  | Motor cover       | Alsi12   |     |                   |                  |
| 23  | Undulator washer  | 1566     |     |                   |                  |
| 24  | Ball bearing      |          |     |                   |                  |

Code " F " means pump assembled with float switch



## SPA250F



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

### FEATURES AND APPLICATION:

The single phase portable submersible pumps for pumping water are widely used for dewatering of cellars, garages, ditches, pit & pond. Pumping clean or slightly dirty water in aquariums, gardens and fountains, farm and garden. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation.

### TECHNICAL DATA:

| Model  | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|--------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| SPA250 | 0.25       | 25/32/40             | 220 / 50       | 130               | 6.5           | 7.5       | 205×185×325     |

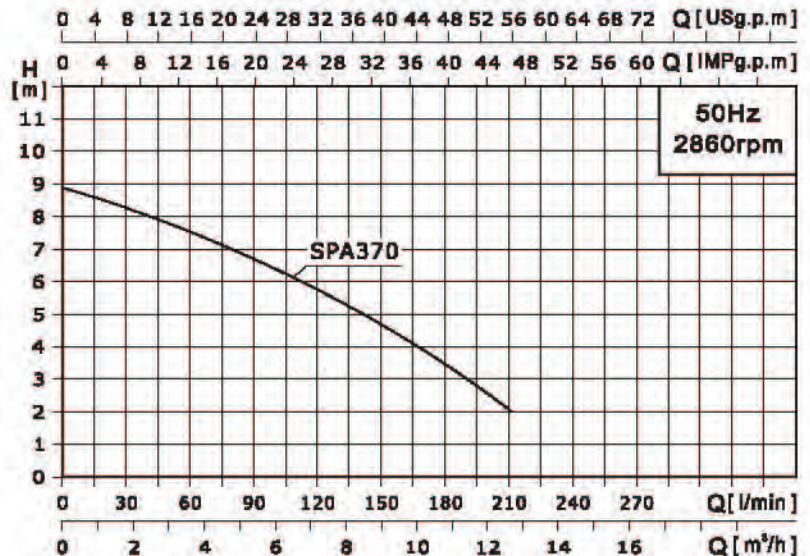
### FRAME DIAGRAM:

| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL         |
|-----|-------------------|----------|-----|-------------------|------------------|
| 1   | Protector         | NR       | 25  | Rotor             |                  |
| 2   | Cable presser     | 11       | 26  | Thermal protector |                  |
| 3   | Screw             | 11       | 27  | Motor stator      | Alsi12           |
| 4   | Cable             |          | 28  | Mechanical seal   | Alumina/Graphite |
| 5   | Flange            | 11       | 29  | " O " ring        | NBR              |
| 6   | Cable protector   | CR       | 30  | Out-let connector | ABS              |
| 7   | Screw             | 11       | 31  | " O " ring        | NBR              |
| 8   | Handle            | ABS      | 32  | Pump body         | No35B            |
| 9   | Bolt              | 11       | 33  | Screw             | 11               |
| 10  | " O " ring        | NBR      | 34  | Oil seal          |                  |
| 11  | Screw             | 11       | 35  | Impeller          | PA66/30%Fiber    |
| 12  | Washer            | 11       | 36  | Nut               | 11               |
| 13  | Capacitor cover   | AlSi12   | 37  | Pump cover        | Fe360A           |
| 14  | " O " ring        | NBR      | 38  | Nut               | 11               |
| 15  | Capacitor         |          | 39  | Bilateral bolt    | 11               |
| 16  | Line protector    | NBR      | 40  | Float switch      |                  |
| 17  | " O " ring        | NBR      | 41  | Filter mesh       | Fe360A           |
| 18  | Screw             | CuZn40   |     |                   |                  |
| 19  | Stretching washer | 1566     |     |                   |                  |
| 20  | Washer            | CuZn40   |     |                   |                  |
| 21  | Screw             | Fe360A   |     |                   |                  |
| 22  | Motor cover       | AlSi12   |     |                   |                  |
| 23  | Undulater washer  | 1566     |     |                   |                  |
| 24  | Ball bearing      |          |     |                   |                  |

Code " F " means pump assembled with float switch



## SPA370F



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

### FEATURES AND APPLICATION:

The single phase portable submersible pumps for pumping water are widely used for dewatering of cellars, garages, ditches, pit & pond. Pumping clean or slightly dirty water in aquariums, gardens and fountains, farm and garden. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation.

### TECHNICAL DATA:

| Model  | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|--------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| SPA370 | 0.37       | 40                   | 220 / 50       | 216               | 9             | 12.5      | 250 × 220 × 415 |

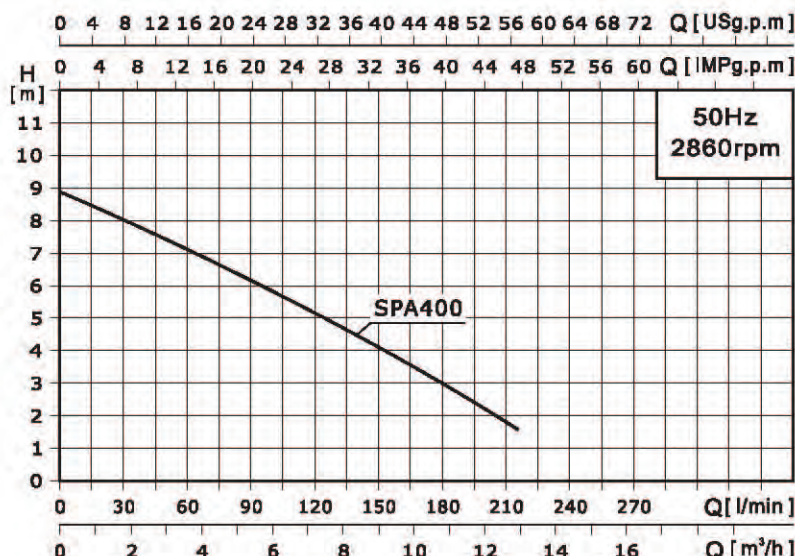
### FRAME DIAGRAM:

| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL         |
|-----|-------------------|----------|-----|-------------------|------------------|
| 1   | Protector         | NR       | 25  | Rotor             |                  |
| 2   | Cable presser     | 11       | 26  | Thermal protector |                  |
| 3   | Screw             | 11       | 27  | Motor stator      | Alsi12           |
| 4   | Cable             |          | 28  | Mechanical seal   | Alumina/Graphite |
| 5   | Flange            | 11       | 29  | " O " ring        | NBR              |
| 6   | Cable protector   | CR       | 30  | Out-let connector | ABS              |
| 7   | Screw             | 11       | 31  | " O " ring        | NBR              |
| 8   | Handle            | ABS      | 32  | Pump body         | No35B            |
| 9   | Bolt              | 11       | 33  | Screw             | 11               |
| 10  | " O " ring        | NBR      | 34  | Oil seal          |                  |
| 11  | Bolt              | 11       | 35  | Impeller          | No35B            |
| 12  | Washer            | 11       | 36  | Nut               | 11               |
| 13  | Capacitor cover   | Alsi12   | 37  | Pump cover        | Fe360A           |
| 14  | " O " ring        | NBR      | 38  | Nut               | 11               |
| 15  | Capacitor         |          | 39  | Bilateral bolt    | 11               |
| 16  | Line protector    | NBR      | 40  | Float switch      |                  |
| 17  | " O " ring        | NBR      | 41  | Key               | 4                |
| 18  | Screw             | CuZn40   | 42  | Washer            | 11               |
| 19  | Stretching washer | 1566     | 43  | Filter mesh       | Fe360A           |
| 20  | Washer            | CuZn40   |     |                   |                  |
| 21  | Screw             | Fe360A   |     |                   |                  |
| 22  | Motor cover       | Alsi12   |     |                   |                  |
| 23  | Undulator washer  | 1566     |     |                   |                  |
| 24  | Ball bearing      |          |     |                   |                  |

Code " F " means pump assembled with float switch



## SPA400F



## OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

## FEATURES AND APPLICATION:

The single phase portable submersible pumps for pumping water are widely used for dewatering of cellars, garages, ditches, pit & pond. Pumping clean or slightly dirty water in aquariums, gardens and fountains, farm and garden. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation.

## TECHNICAL DATA:

| Model  | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|--------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| SPA400 | 0.40       | 50                   | 220 / 50       | 216               | 9             | 13.5      | 250×220×435     |

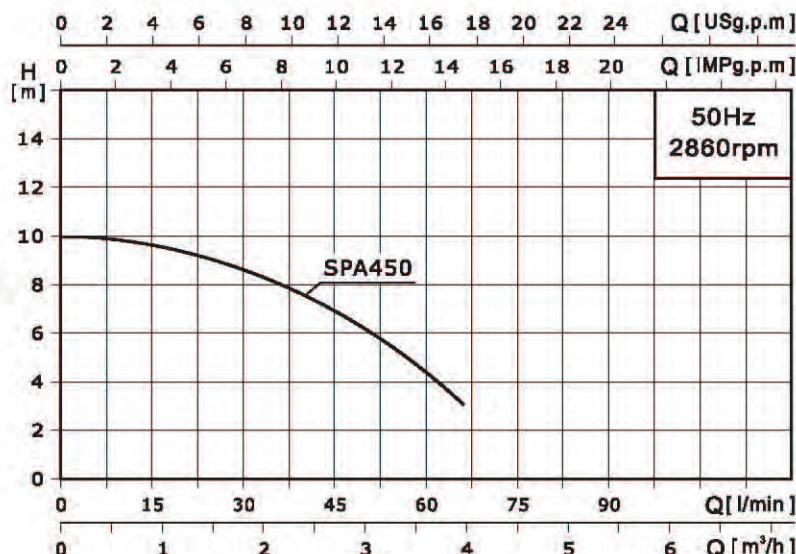
## FRAME DIAGRAM:

| No |                   |        | DESCRIPTION | MATERIAL          | No               | DESCRIPTION | MATERIAL |
|----|-------------------|--------|-------------|-------------------|------------------|-------------|----------|
| 1  | Protector         | NR     | 25          | Rotor             |                  |             |          |
| 2  | Cable presser     | 11     | 26          | Thermal protector |                  |             |          |
| 3  | Screw             | 11     | 27          | Motor stator      | Alsi12           |             |          |
| 4  | Cable             |        | 28          | Mechanical seal   | Alumina/Graphite |             |          |
| 5  | Flange            | 11     | 29          | "O" ring          | NBR              |             |          |
| 6  | Cable protector   | CR     | 30          | Out-let connector | ABS              |             |          |
| 7  | Screw             | 11     | 31          | "O" ring          | NBR              |             |          |
| 8  | Handle            | ABS    | 32          | Pump body         | No35B            |             |          |
| 9  | Bolt              | 11     | 33          | Screw             | 11               |             |          |
| 10 | "O" ring          | NBR    | 34          | Oil seal          |                  |             |          |
| 11 | Bolt              | 11     | 35          | Impeller          | No35B            |             |          |
| 12 | Washer            | 11     | 36          | Nut               | 11               |             |          |
| 13 | Capacitor cover   | AlSi12 | 37          | Pump cover        | Fe360A           |             |          |
| 14 | "O" ring          | NBR    | 38          | Nut               | 11               |             |          |
| 15 | Capacitor         |        | 39          | Bilateral bolt    | 11               |             |          |
| 16 | Line protector    | NBR    | 40          | Screw             | 11               |             |          |
| 17 | "O" ring          | NBR    | 41          | Float switch      |                  |             |          |
| 18 | Screw             | CuZn40 | 42          | Tees              | PA66             |             |          |
| 19 | Stretching washer | 1566   | 43          | Rubber washer     | NBR              |             |          |
| 20 | Washer            | CuZn40 | 44          | Key               | 4                |             |          |
| 21 | Screw             | Fe360A | 45          | Washer            | 11               |             |          |
| 22 | Motor cover       | AlSi12 | 46          | Filter mesh       | Fe360A           |             |          |
| 23 | Undulator washer  | 1566   |             |                   |                  |             |          |
| 24 | Ball bearing      |        |             |                   |                  |             |          |

Code " F " means pump assembled with float switch



## SPA450F



## OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

## FEATURES AND APPLICATION:

The single phase portable submersible pumps for pumping water are widely used for dewatering of cellars, garages, ditches, pit & pond. Pumping clean or slightly dirty water in aquariums, gardens and fountains, farm and garden. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation.

## TECHNICAL DATA:

| Model  | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|--------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| SPA450 | 0.45       | 25                   | 220 / 50       | 65                | 10            | 11.5      | 230 × 230 × 350 |

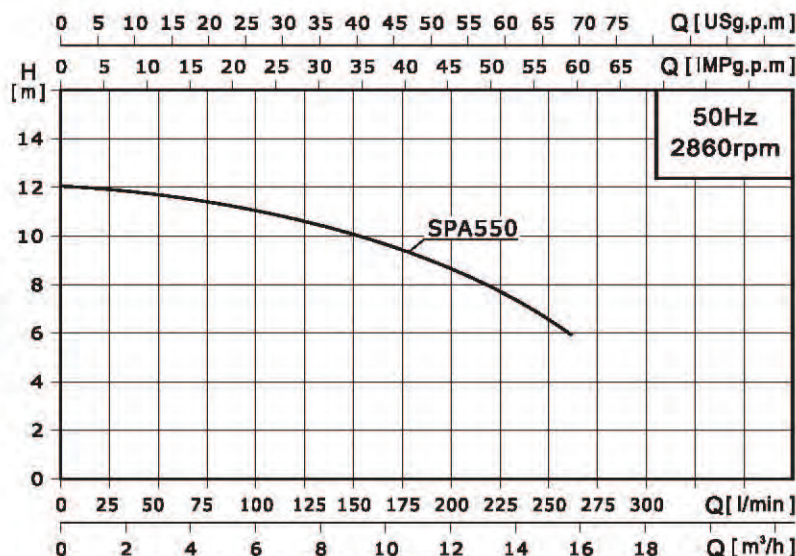
## FRAME DIAGRAM:

| Left Side Components |                   |                     | Right Side Components |                   |          |
|----------------------|-------------------|---------------------|-----------------------|-------------------|----------|
| No.                  | DESCRIPTION       | MATERIAL            | No.                   | DESCRIPTION       | MATERIAL |
| 1                    | Bolt              | 0Cr18Ni9            | 27                    | Oil chamber cover | ZL102    |
| 2                    | Cable presser     | 0Cr18Ni9            | 28                    | Washer            | 0Cr18Ni9 |
| 3                    | Cable clip        | 0Cr18Ni9            | 29                    | Spring washer     | 0Cr18Ni9 |
| 4                    | handle            | ZL102               | 30                    | Screw             | 0Cr18Ni9 |
| 5                    | Bolt              | 0Cr18Ni9            | 31                    | " O " ring        | Rubber   |
| 6                    | Washer            | 0Cr18Ni9            | 32                    | Screw             | 0Cr18Ni9 |
| 7                    | Cable             |                     | 33                    | Oil seal          |          |
| 8                    | Screw             | 0Cr18Ni9            | 34                    | Lip seal          | 0Cr18Ni9 |
| 9                    | Flange            | 0Cr18Ni9            | 35                    | Washer            | 0Cr18Ni9 |
| 10                   | Cable protector   | Rubber              | 36                    | Impeller          |          |
| 11                   | Capacitor         |                     | 37                    | Washer            | 0Cr18Ni9 |
| 12                   | " O " ring        | Rubber              | 38                    | Spring washer     | 0Cr18Ni9 |
| 13                   | Gasket            | Rubber              | 39                    | Nut               | 0Cr18Ni9 |
| 14                   | Nut               | 0Cr18Ni9            | 40                    | Pump casing       | Rubber   |
| 15                   | Outlet connector  | ZL102               | 41                    | Gasket            | Rubber   |
| 16                   | Gasket            | Rubber              | 42                    | Pump cover        | 0Cr18Ni9 |
| 17                   | Stator            | ZL102               | 43                    | Gasket            |          |
| 18                   | Pump casing guard | 0Cr18Ni9            | 44                    | Bolt              | 0Cr18Ni9 |
| 19                   | Undulated washer  | 65Mn                | 45                    | Valve             | Rubber   |
| 20                   | Bearing           |                     | 46                    | Valve set         | Rubber   |
| 21                   | Rotor             |                     | 47                    | Base plate        |          |
| 22                   | Bearing           |                     | 48                    | Nut               | 0Cr18Ni9 |
| 23                   | " O " ring        | Rubber              | 49                    | Line protector    | NBR      |
| 24                   | Oil chamber       | ZL102               | 50                    | Screw             | CuZn40   |
| 25                   | " O " ring        | Rubber              | 51                    | Spring            | 65Mn     |
| 26                   | Mechanical seal   | Graphite to ceramic | 52                    | Washer            | CuZn40   |

Code " F " means pump assembled with float switch



## SPA550F



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

### FEATURES AND APPLICATION:

The single phase portable submersible pumps for pumping water are widely used for dewatering of cellars, garages, ditches, pit & pond. Pumping clean or slightly dirty water in aquariums, gardens and fountains, farm and garden. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation.

### TECHNICAL DATA:

| Model  | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|--------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| SPA550 | 0.55       | 40/50                | 220 / 50       | 260               | 12            | 13.5      | 245 × 220 × 400 |

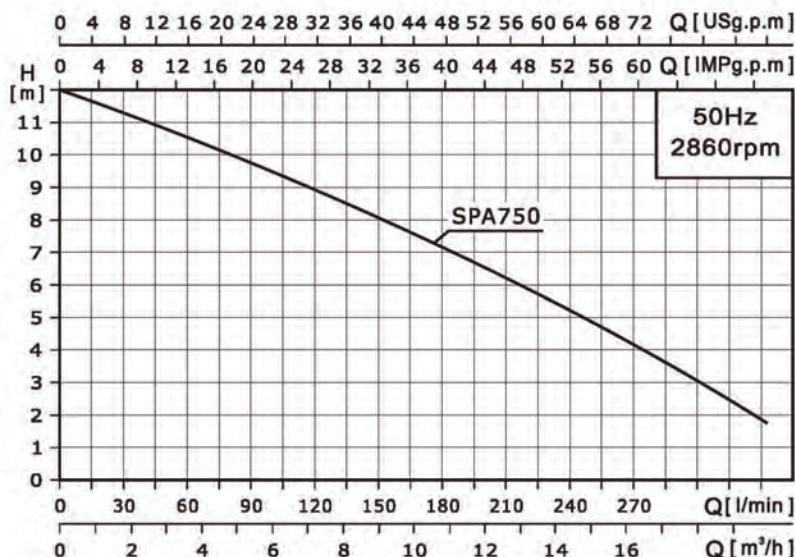
### FRAME DIAGRAM:

|   |                   | <table><tr><th>No</th><th>DESCRIPTION</th><th>MATERIAL</th><th>No</th><th>DESCRIPTION</th><th>MATERIAL</th></tr><tr><td>1</td><td>Protector</td><td>NR</td><td>27</td><td>Motor stator</td><td>AlSi12</td></tr><tr><td>2</td><td>Cable presser</td><td>11</td><td>28</td><td>Mechanical seal</td><td>Alumina/Graphite</td></tr><tr><td>3</td><td>Screw</td><td>11</td><td>29</td><td>" O " ring</td><td>NBR</td></tr><tr><td>4</td><td>Cable</td><td></td><td>30</td><td>Out-let connector</td><td>ABS</td></tr><tr><td>5</td><td>Flange</td><td>11</td><td>31</td><td>" O " ring</td><td>NBR</td></tr><tr><td>6</td><td>Cable protector</td><td>11</td><td>32</td><td>Pump body</td><td>No35B</td></tr><tr><td>7</td><td>Screw</td><td>CR</td><td>33</td><td>Screw</td><td>11</td></tr><tr><td>8</td><td>Handle</td><td>11</td><td>34</td><td>Oil seal</td><td></td></tr><tr><td>9</td><td>Screw</td><td>ABS</td><td>35</td><td>Impeller</td><td>No35B</td></tr><tr><td>10</td><td>" O " ring</td><td>11</td><td>36</td><td>Nut</td><td>11</td></tr><tr><td>11</td><td>Bolt</td><td>11</td><td>37</td><td>Pump cover</td><td>Fe360A</td></tr><tr><td>12</td><td>Washer</td><td>NBR</td><td>38</td><td>Nut</td><td>11</td></tr><tr><td>13</td><td>Capacitor cover</td><td>AlSi12</td><td>39</td><td>Bilateral bolt</td><td>11</td></tr><tr><td>14</td><td>" O " ring</td><td>NBR</td><td>40</td><td>Screw</td><td>11</td></tr><tr><td>15</td><td>Capacitor</td><td></td><td>41</td><td>Float switch</td><td></td></tr><tr><td>16</td><td>Line protector</td><td>NBR</td><td>42</td><td>Tees</td><td>PA66</td></tr><tr><td>17</td><td>" O " ring</td><td>NBR</td><td>43</td><td>Rubber washer</td><td>NBR</td></tr><tr><td>18</td><td>Screw</td><td>CuZn40</td><td>44</td><td>Key</td><td>4</td></tr><tr><td>19</td><td>Stretching washer</td><td>1566</td><td>45</td><td>Ball bearing</td><td></td></tr><tr><td>20</td><td>Washer</td><td>CuZn40</td><td>46</td><td>Bolt</td><td>11</td></tr><tr><td>21</td><td>Rubber washer</td><td>NBR</td><td>47</td><td>Washer</td><td>11</td></tr><tr><td>22</td><td>Motor cover</td><td>AlSi12</td><td>48</td><td>Filter mesh</td><td>11</td></tr><tr><td>23</td><td>Undulated washer</td><td>1566</td><td>49</td><td>Bottom sole</td><td>11</td></tr><tr><td>24</td><td>Ball bearing</td><td></td><td></td><td></td><td></td></tr><tr><td>25</td><td>Rotor</td><td></td><td></td><td></td><td></td></tr><tr><td>26</td><td>Thermal protector</td><td></td><td></td><td></td><td></td></tr></table> | No | DESCRIPTION       | MATERIAL         | No | DESCRIPTION | MATERIAL | 1 | Protector | NR | 27 | Motor stator | AlSi12 | 2 | Cable presser | 11 | 28 | Mechanical seal | Alumina/Graphite | 3 | Screw | 11 | 29 | " O " ring | NBR | 4 | Cable |  | 30 | Out-let connector | ABS | 5 | Flange | 11 | 31 | " O " ring | NBR | 6 | Cable protector | 11 | 32 | Pump body | No35B | 7 | Screw | CR | 33 | Screw | 11 | 8 | Handle | 11 | 34 | Oil seal |  | 9 | Screw | ABS | 35 | Impeller | No35B | 10 | " O " ring | 11 | 36 | Nut | 11 | 11 | Bolt | 11 | 37 | Pump cover | Fe360A | 12 | Washer | NBR | 38 | Nut | 11 | 13 | Capacitor cover | AlSi12 | 39 | Bilateral bolt | 11 | 14 | " O " ring | NBR | 40 | Screw | 11 | 15 | Capacitor |  | 41 | Float switch |  | 16 | Line protector | NBR | 42 | Tees | PA66 | 17 | " O " ring | NBR | 43 | Rubber washer | NBR | 18 | Screw | CuZn40 | 44 | Key | 4 | 19 | Stretching washer | 1566 | 45 | Ball bearing |  | 20 | Washer | CuZn40 | 46 | Bolt | 11 | 21 | Rubber washer | NBR | 47 | Washer | 11 | 22 | Motor cover | AlSi12 | 48 | Filter mesh | 11 | 23 | Undulated washer | 1566 | 49 | Bottom sole | 11 | 24 | Ball bearing |  |  |  |  | 25 | Rotor |  |  |  |  | 26 | Thermal protector |  |  |  |  |
|---|-------------------|--|----|-------------------|------------------|----|-------------|----------|---|-----------|----|----|--------------|--------|---|---------------|----|----|-----------------|------------------|---|-------|----|----|------------|-----|---|-------|--|----|-------------------|-----|---|--------|----|----|------------|-----|---|-----------------|----|----|-----------|-------|---|-------|----|----|-------|----|---|--------|----|----|----------|--|---|-------|-----|----|----------|-------|----|------------|----|----|-----|----|----|------|----|----|------------|--------|----|--------|-----|----|-----|----|----|-----------------|--------|----|----------------|----|----|------------|-----|----|-------|----|----|-----------|--|----|--------------|--|----|----------------|-----|----|------|------|----|------------|-----|----|---------------|-----|----|-------|--------|----|-----|---|----|-------------------|------|----|--------------|--|----|--------|--------|----|------|----|----|---------------|-----|----|--------|----|----|-------------|--------|----|-------------|----|----|------------------|------|----|-------------|----|----|--------------|--|--|--|--|----|-------|--|--|--|--|----|-------------------|--|--|--|--|
| No  | DESCRIPTION       | MATERIAL   | No | DESCRIPTION       | MATERIAL         |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 1   | Protector         | NR   | 27 | Motor stator      | AlSi12           |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 2   | Cable presser     | 11   | 28 | Mechanical seal   | Alumina/Graphite |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 3   | Screw             | 11   | 29 | " O " ring        | NBR              |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 4   | Cable             |  | 30 | Out-let connector | ABS              |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 5   | Flange            | 11   | 31 | " O " ring        | NBR              |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 6   | Cable protector   | 11   | 32 | Pump body         | No35B            |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 7   | Screw             | CR   | 33 | Screw             | 11               |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 8   | Handle            | 11   | 34 | Oil seal          |                  |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 9   | Screw             | ABS  | 35 | Impeller          | No35B            |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 10  | " O " ring        | 11   | 36 | Nut               | 11               |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 11  | Bolt              | 11   | 37 | Pump cover        | Fe360A           |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 12  | Washer            | NBR  | 38 | Nut               | 11               |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 13  | Capacitor cover   | AlSi12   | 39 | Bilateral bolt    | 11               |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 14  | " O " ring        | NBR  | 40 | Screw             | 11               |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 15  | Capacitor         |  | 41 | Float switch      |                  |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 16  | Line protector    | NBR  | 42 | Tees              | PA66             |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 17  | " O " ring        | NBR  | 43 | Rubber washer     | NBR              |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 18  | Screw             | CuZn40   | 44 | Key               | 4                |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 19  | Stretching washer | 1566   | 45 | Ball bearing      |                  |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 20  | Washer            | CuZn40   | 46 | Bolt              | 11               |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 21  | Rubber washer     | NBR  | 47 | Washer            | 11               |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 22  | Motor cover       | AlSi12   | 48 | Filter mesh       | 11               |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 23  | Undulated washer  | 1566   | 49 | Bottom sole       | 11               |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 24  | Ball bearing      |  |    |                   |                  |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 25  | Rotor             |  |    |                   |                  |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| 26  | Thermal protector |  |    |                   |                  |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |
| Code " F " means pump assembled with float switch |                   |  |    |                   |                  |    |             |          |   |           |    |    |              |        |   |               |    |    |                 |                  |   |       |    |    |            |     |   |       |  |    |                   |     |   |        |    |    |            |     |   |                 |    |    |           |       |   |       |    |    |       |    |   |        |    |    |          |  |   |       |     |    |          |       |    |            |    |    |     |    |    |      |    |    |            |        |    |        |     |    |     |    |    |                 |        |    |                |    |    |            |     |    |       |    |    |           |  |    |              |  |    |                |     |    |      |      |    |            |     |    |               |     |    |       |        |    |     |   |    |                   |      |    |              |  |    |        |        |    |      |    |    |               |     |    |        |    |    |             |        |    |             |    |    |                  |      |    |             |    |    |              |  |  |  |  |    |       |  |  |  |  |    |                   |  |  |  |  |

Code " F " means pump assembled with float switch



## SPA750F



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

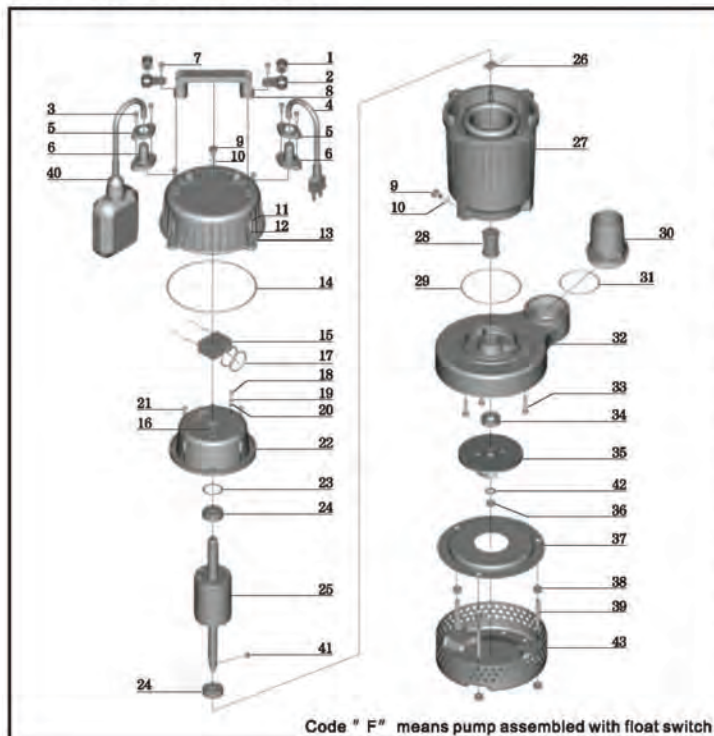
### FEATURES AND APPLICATION:

The single phase portable submersible pumps for pumping water are widely used for dewatering of cellars, garages, ditches, pit & pond. Pumping clean or slightly dirty water in aquariums, gardens and fountains, farm and garden. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation. (3 phase option available)

### TECHNICAL DATA:

| Model  | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|--------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| SPA750 | 0.75       | 50                   | 220 / 50       | 333               | 12            | 15.0      | 270 × 235 × 415 |

### FRAME DIAGRAM:

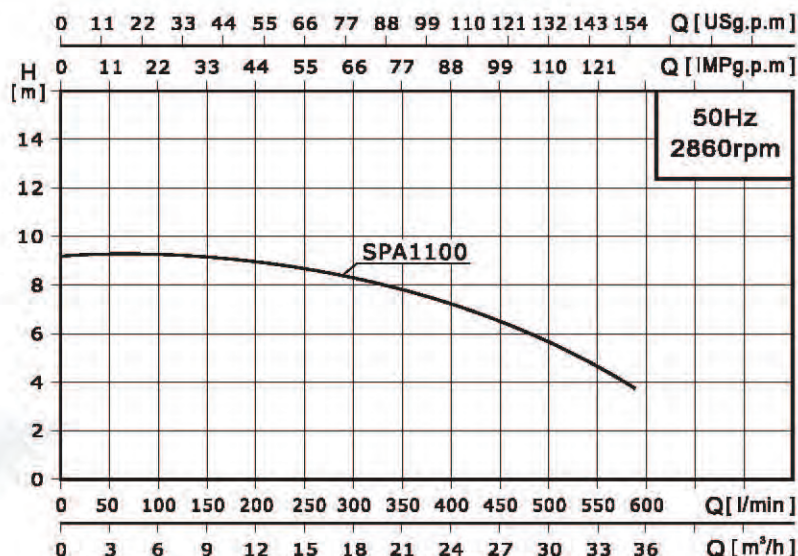


| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL         |
|-----|-------------------|----------|-----|-------------------|------------------|
| 1   | Protector         | NR       | 25  | Rotor             |                  |
| 2   | Cable presser     | 11       | 26  | Thermal protector |                  |
| 3   | Screw             | 11       | 27  | Motor stator      | Alsi12           |
| 4   | Cable             |          | 28  | Mechanical seal   | Alumina/Graphite |
| 5   | Flange            | 11       | 29  | " O " ring        | NBR              |
| 6   | Cable protector   | CR       | 30  | Out-let connector | ABS              |
| 7   | Screw             | 11       | 31  | " O " ring        | NBR              |
| 8   | Handle            | ABS      | 32  | Pump body         | No35B            |
| 9   | Bolt              | 11       | 33  | Screw             | 11               |
| 10  | " O " ring        | NBR      | 34  | Oil seal          |                  |
| 11  | Bolt              | 11       | 35  | Impeller          | No35B            |
| 12  | Washer            | 11       | 36  | Nut               | 11               |
| 13  | Capacitor cover   | AlSi12   | 37  | Pump cover        | Fe360A           |
| 14  | " O " ring        | NBR      | 38  | Nut               | 11               |
| 15  | Capacitor         |          | 39  | Bilateral bolt    | 11               |
| 16  | Line protector    | NBR      | 40  | Float switch      |                  |
| 17  | " O " ring        | NBR      | 41  | Key               | 4                |
| 18  | Screw             | CuZn40   | 42  | Washer            | 11               |
| 19  | Stretching washer | 1566     | 43  | Filter mesh       | Fe360A           |
| 20  | Washer            | CuZn40   |     |                   |                  |
| 21  | Screw             | Fe360A   |     |                   |                  |
| 22  | Motor cover       | AlSi12   |     |                   |                  |
| 23  | Undulator washer  | 1566     |     |                   |                  |
| 24  | Ball bearing      |          |     |                   |                  |

Code " F " means pump assembled with float switch



## SPA1100F



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

### FEATURES AND APPLICATION:

The single phase portable submersible pumps for pumping water are widely used for dewatering of cellars, garages, ditches, pit & pond. Pumping clean or slightly dirty water in aquariums, gardens and fountains, farm and garden. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation. (3 phase option available)

### TECHNICAL DATA:

| Model   | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|---------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| SPA1100 | 1.1        | 75                   | 220 / 50       | 580               | 9             | 21        | 325 × 225 × 485 |

### FRAME DIAGRAM:

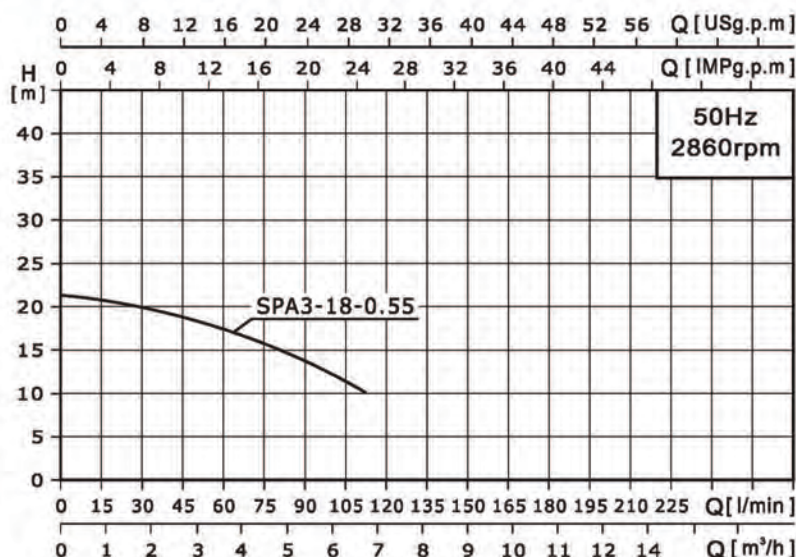
| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL         |
|-----|-------------------|----------|-----|-------------------|------------------|
| 1   | Protector         | NR       | 27  | Motor stator      | AlSi12           |
| 2   | Cable presser     | 11       | 28  | Mechanical seal   | Alumina/Graphite |
| 3   | Screw             | 11       | 29  | " O " ring        | NBR              |
| 4   | Cable             |          | 30  | Out-let connector | ABS              |
| 5   | Flange            | 11       | 31  | " O " ring        | NBR              |
| 6   | Cable protector   | CR       | 32  | Pump body         | No35B            |
| 7   | Bolt              | 11       | 33  | Screw             | 11               |
| 8   | Handle            | 11       | 34  | Oil seal          |                  |
| 9   | Bolt              | 11       | 35  | Impeller          | No35B            |
| 10  | " O " ring        | NBR      | 36  | Nut               | 11               |
| 11  | Screw             | 11       | 37  | Pump cover        | No35B            |
| 12  | Washer            | 11       | 38  | Nut               | 11               |
| 13  | Capacitor cover   | AlSi12   | 39  | Bilateral bolt    | 11               |
| 14  | " O " ring        | NBR      | 40  | Float switch      |                  |
| 15  | Capacitor         |          | 41  | Key               | 4                |
| 16  | Line protector    | NBR      | 42  | Washer            | 11               |
| 17  | " O " ring        | NBR      | 43  | Filter mesh       | Fe360A           |
| 18  | Screw             | CuZn40   | 44  | Ball bearing      |                  |
| 19  | Stretching washer | 1566     | 45  | Screw             | 11               |
| 20  | Washer            | CuZn40   | 46  | Washer            | 11               |
| 21  | Screw             | Fe360A   | 47  | Connection nut    | No35B            |
| 22  | Motor cover       | AlSi12   | 48  | Screw             | 11               |
| 23  | Undulated washer  | 1566     | 49  | Washer            | 11               |
| 24  | Ball bearing      |          | 50  | Nut               | 11               |
| 25  | Rotor             |          | 51  | Washer            | 11               |
| 26  | Thermal protector |          |     |                   |                  |

Code " F " means pump assembled with float switch

Code " F " means pump assembled with float switch



## SPA3-18-0.55F



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

### FEATURES AND APPLICATION:

The single phase portable submersible pumps for pumping water are widely used for dewatering of cellars, garages, ditches, pit & pond. Pumping clean or slightly dirty water in aquariums, gardens and fountains, farm and garden. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation. (3 phase option available)

### TECHNICAL DATA:

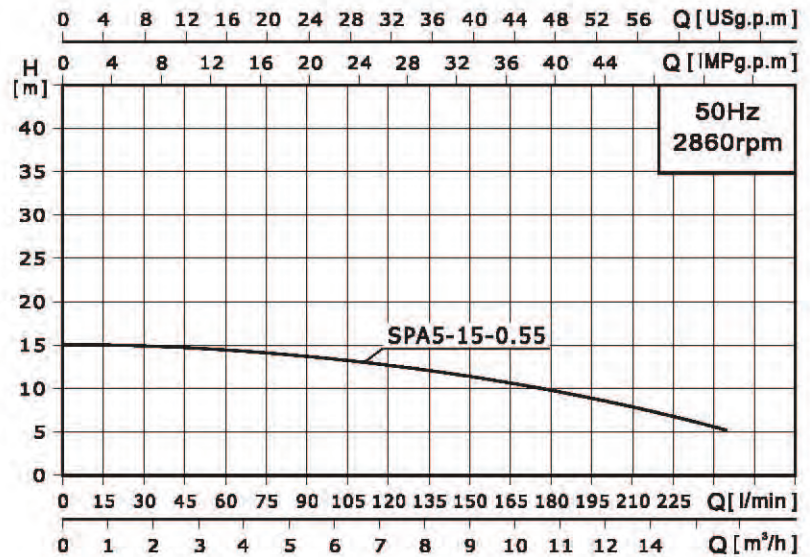
| Model        | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|--------------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| SPA3-18-0.55 | 0.55       | 25/32/40             | 220 / 50       | 108               | 21            | 12.3      | 250 × 220 × 425 |

### FRAME DIAGRAM:

|   |                   |          | <table> <tr> <th>No.</th><th>DESCRIPTION</th><th>MATERIAL</th><th>No.</th><th>DESCRIPTION</th><th>MATERIAL</th></tr> <tr> <td>1</td><td>Protector</td><td>NR</td><td>25</td><td>Rotor</td><td></td></tr> <tr> <td>2</td><td>Cable presser</td><td>11</td><td>26</td><td>Thermal protector</td><td></td></tr> <tr> <td>3</td><td>Screw</td><td>11</td><td>27</td><td>Motor stator</td><td>AlSi12</td></tr> <tr> <td>4</td><td>Cable</td><td></td><td>28</td><td>Mechanical seal</td><td>Alumina/Graphite</td></tr> <tr> <td>5</td><td>Flange</td><td>11</td><td>29</td><td>" O " ring</td><td>NBR</td></tr> <tr> <td>6</td><td>Cable protector</td><td>CR</td><td>30</td><td>Out-let connector</td><td>ABS</td></tr> <tr> <td>7</td><td>Screw</td><td>11</td><td>31</td><td>" O " ring</td><td>NBR</td></tr> <tr> <td>8</td><td>Handle</td><td>ABS</td><td>32</td><td>Pump body</td><td>No35B</td></tr> <tr> <td>9</td><td>Bolt</td><td>11</td><td>33</td><td>Screw</td><td>11</td></tr> <tr> <td>10</td><td>" O " ring</td><td>NBR</td><td>34</td><td>Oil seal</td><td></td></tr> <tr> <td>11</td><td>Screw</td><td>11</td><td>35</td><td>Impeller</td><td>No35B</td></tr> <tr> <td>12</td><td>Washer</td><td>11</td><td>36</td><td>Nut</td><td>11</td></tr> <tr> <td>13</td><td>Capacitor cover</td><td>AlSi12</td><td>37</td><td>Pump cover</td><td>No35B</td></tr> <tr> <td>14</td><td>" O " ring</td><td>NBR</td><td>38</td><td>Screw</td><td>11</td></tr> <tr> <td>15</td><td>Capacitor</td><td></td><td>39</td><td>Washer</td><td>11</td></tr> <tr> <td>16</td><td>Line protector</td><td>NBR</td><td>40</td><td>Screw</td><td>11</td></tr> <tr> <td>17</td><td>" O " ring</td><td>NBR</td><td>41</td><td>Float switch</td><td></td></tr> <tr> <td>18</td><td>Screw</td><td>CuZn40</td><td>42</td><td>" O " ring</td><td>NBR</td></tr> <tr> <td>19</td><td>Stretching washer</td><td>1566</td><td>43</td><td>Ball bearing</td><td></td></tr> <tr> <td>20</td><td>Washer</td><td>CuZn40</td><td>44</td><td>Key</td><td>4</td></tr> <tr> <td>21</td><td>Screw</td><td>Fe360A</td><td>45</td><td>Washer</td><td>11</td></tr> <tr> <td>22</td><td>Motor cover</td><td>AlSi12</td><td>46</td><td>Filter mesh</td><td>Fe360A</td></tr> <tr> <td>23</td><td>Undulated washer</td><td>1566</td><td></td><td></td><td></td></tr> <tr> <td>24</td><td>Ball bearing</td><td></td><td></td><td></td><td></td></tr> </table> |                   |                  | No. | DESCRIPTION | MATERIAL | No. | DESCRIPTION | MATERIAL | 1 | Protector | NR | 25 | Rotor |  | 2 | Cable presser | 11 | 26 | Thermal protector |  | 3 | Screw | 11 | 27 | Motor stator | AlSi12 | 4 | Cable |  | 28 | Mechanical seal | Alumina/Graphite | 5 | Flange | 11 | 29 | " O " ring | NBR | 6 | Cable protector | CR | 30 | Out-let connector | ABS | 7 | Screw | 11 | 31 | " O " ring | NBR | 8 | Handle | ABS | 32 | Pump body | No35B | 9 | Bolt | 11 | 33 | Screw | 11 | 10 | " O " ring | NBR | 34 | Oil seal |  | 11 | Screw | 11 | 35 | Impeller | No35B | 12 | Washer | 11 | 36 | Nut | 11 | 13 | Capacitor cover | AlSi12 | 37 | Pump cover | No35B | 14 | " O " ring | NBR | 38 | Screw | 11 | 15 | Capacitor |  | 39 | Washer | 11 | 16 | Line protector | NBR | 40 | Screw | 11 | 17 | " O " ring | NBR | 41 | Float switch |  | 18 | Screw | CuZn40 | 42 | " O " ring | NBR | 19 | Stretching washer | 1566 | 43 | Ball bearing |  | 20 | Washer | CuZn40 | 44 | Key | 4 | 21 | Screw | Fe360A | 45 | Washer | 11 | 22 | Motor cover | AlSi12 | 46 | Filter mesh | Fe360A | 23 | Undulated washer | 1566 |  |  |  | 24 | Ball bearing |  |  |  |  |
|---|-------------------|----------|---|-------------------|------------------|-----|-------------|----------|-----|-------------|----------|---|-----------|----|----|-------|--|---|---------------|----|----|-------------------|--|---|-------|----|----|--------------|--------|---|-------|--|----|-----------------|------------------|---|--------|----|----|------------|-----|---|-----------------|----|----|-------------------|-----|---|-------|----|----|------------|-----|---|--------|-----|----|-----------|-------|---|------|----|----|-------|----|----|------------|-----|----|----------|--|----|-------|----|----|----------|-------|----|--------|----|----|-----|----|----|-----------------|--------|----|------------|-------|----|------------|-----|----|-------|----|----|-----------|--|----|--------|----|----|----------------|-----|----|-------|----|----|------------|-----|----|--------------|--|----|-------|--------|----|------------|-----|----|-------------------|------|----|--------------|--|----|--------|--------|----|-----|---|----|-------|--------|----|--------|----|----|-------------|--------|----|-------------|--------|----|------------------|------|--|--|--|----|--------------|--|--|--|--|
| No.   | DESCRIPTION       | MATERIAL | No.   | DESCRIPTION       | MATERIAL         |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 1   | Protector         | NR       | 25  | Rotor             |                  |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 2   | Cable presser     | 11       | 26  | Thermal protector |                  |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 3   | Screw             | 11       | 27  | Motor stator      | AlSi12           |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 4   | Cable             |          | 28  | Mechanical seal   | Alumina/Graphite |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 5   | Flange            | 11       | 29  | " O " ring        | NBR              |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 6   | Cable protector   | CR       | 30  | Out-let connector | ABS              |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 7   | Screw             | 11       | 31  | " O " ring        | NBR              |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 8   | Handle            | ABS      | 32  | Pump body         | No35B            |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 9   | Bolt              | 11       | 33  | Screw             | 11               |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 10  | " O " ring        | NBR      | 34  | Oil seal          |                  |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 11  | Screw             | 11       | 35  | Impeller          | No35B            |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 12  | Washer            | 11       | 36  | Nut               | 11               |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 13  | Capacitor cover   | AlSi12   | 37  | Pump cover        | No35B            |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 14  | " O " ring        | NBR      | 38  | Screw             | 11               |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 15  | Capacitor         |          | 39  | Washer            | 11               |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 16  | Line protector    | NBR      | 40  | Screw             | 11               |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 17  | " O " ring        | NBR      | 41  | Float switch      |                  |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 18  | Screw             | CuZn40   | 42  | " O " ring        | NBR              |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 19  | Stretching washer | 1566     | 43  | Ball bearing      |                  |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 20  | Washer            | CuZn40   | 44  | Key               | 4                |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 21  | Screw             | Fe360A   | 45  | Washer            | 11               |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 22  | Motor cover       | AlSi12   | 46  | Filter mesh       | Fe360A           |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 23  | Undulated washer  | 1566     |   |                   |                  |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 24  | Ball bearing      |          |   |                   |                  |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| Code " F " means pump assembled with float switch |                   |          |   |                   |                  |     |             |          |     |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |



## SPA5-15-0.55F



## OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

## FEATURES AND APPLICATION:

The single phase portable submersible pumps for pumping water are widely used for dewatering of cellars, garages, ditches, pit & pond. Pumping clean or slightly dirty water in aquariums, gardens and fountains, farm and garden. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation. (3 phase option available)

## TECHNICAL DATA:

| Model        | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|--------------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| SPA5-15-0.55 | 0.55       | 50                   | 220 / 50       | 250               | 15            | 13.0      | 270 × 235 × 420 |

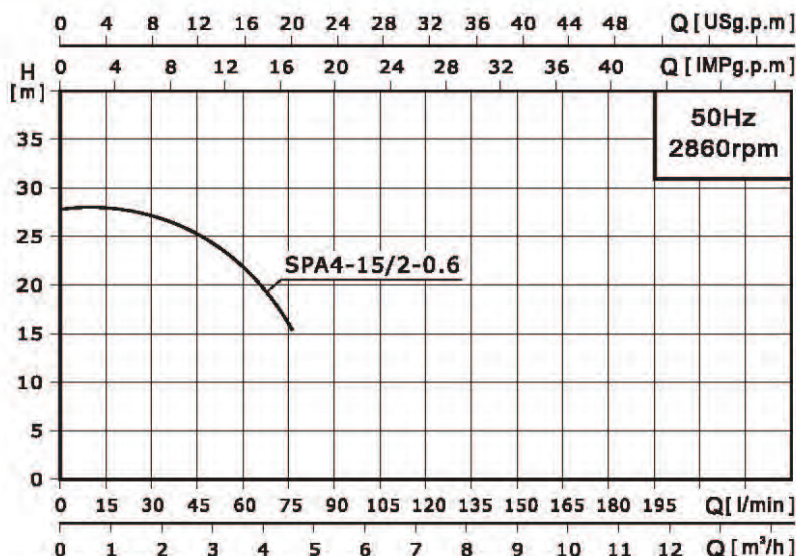
## FRAME DIAGRAM:

| No | DESCRIPTION      | MATERIAL | No | DESCRIPTION       | MATERIAL            |
|----|------------------|----------|----|-------------------|---------------------|
| 1  | Protector        | Rubber   | 27 | Bearing           |                     |
| 2  | Cable presser    | 0Cr18Ni9 | 28 | Thermal protector |                     |
| 3  | Screw            | 0Cr18Ni9 | 29 | Stator            | ZL102               |
| 4  | Cable            |          | 30 | Mechanical seal   | Graphite to ceramic |
| 5  | Flange           | 0Cr18Ni9 | 31 | " O " ring        | Rubber              |
| 6  | Cable protector  | Rubber   | 32 | Out-let connector | ABS                 |
| 7  | Screw            | 0Cr18Ni9 | 33 | " O " ring        | Rubber              |
| 8  | Handle           | ABS      | 34 | Pump casing       | HT200               |
| 9  | Bolt             | 0Cr18Ni9 | 35 | Screw             | 0Cr18Ni9            |
| 10 | " O " ring       | Rubber   | 36 | Oil seal          |                     |
| 11 | Screw            | 0Cr18Ni9 | 37 | Impeller          | HT200               |
| 12 | Washer           | 0Cr18Ni9 | 38 | Washer            | 0Cr18Ni9            |
| 13 | Capacitor cover  | ZL102    | 39 | Nut               | 0Cr18Ni9            |
| 14 | " O " ring       | Rubber   | 40 | " O " ring        | Rubber              |
| 15 | Capacitor        |          | 41 | Pump cover        | HT200               |
| 16 | Line protector   | Rubber   | 42 | " O " ring        | Rubber              |
| 17 | " O " ring       | Rubber   | 43 | Filter mesh       | Q235-A              |
| 18 | Screw            | H62      | 44 | Washer            | 0Cr18Ni9            |
| 19 | Spring washer    | 65Mn     | 45 | Screw             | 0Cr18Ni9            |
| 20 | Washer           | H62      | 46 | Float switch      |                     |
| 21 | Screw            | Q235-A   |    |                   |                     |
| 22 | Upper cover      | ZL102    |    |                   |                     |
| 23 | Undulated washer | 65Mn     |    |                   |                     |
| 24 | Bearing          |          |    |                   |                     |
| 25 | Rotor            |          |    |                   |                     |
| 26 | Key              | 2Cr13    |    |                   |                     |

Code " F " means pump assembled with float switch



## SPA4-15/2-0.6F



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

### FEATURES AND APPLICATION:

The single phase portable submersible pumps for pumping water are widely used for dewatering of cellars, garages, ditches, pit & pond. Pumping clean or slightly dirty water in aquariums, gardens and fountains, farm and garden. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation. (3 phase option available)

### TECHNICAL DATA:

| Model         | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|---------------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| SPA4-15/2-0.6 | 0.6        | 25                   | 220 / 50       | 75                | 27            | 19.5      | 270 × 235 × 500 |

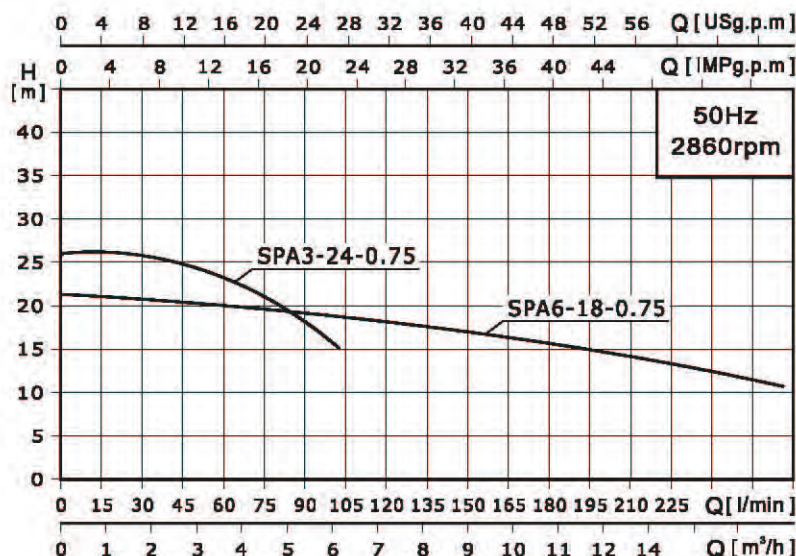
### FRAME DIAGRAM:

| No | DESCRIPTION       | MATERIAL | No | DESCRIPTION      | MATERIAL            |
|----|-------------------|----------|----|------------------|---------------------|
| 1  | Bolt              | 0Cr18Ni9 | 33 | Bearing          |                     |
| 2  | Spring washer     | 0Cr18Ni9 | 34 | Bolt             | 0Cr18Ni9            |
| 3  | Washer            | 0Cr18Ni9 | 35 | Washer           | 0Cr18Ni9            |
| 4  | Bolt              | 0Cr18Ni9 | 36 | Connection part  | HT200               |
| 5  | Washer            | 0Cr18Ni9 | 37 | Mechanical seal  | Graphite to ceramic |
| 6  | Handle            | 0Cr18Ni9 | 38 | " O " ring       | Rubber              |
| 7  | Nut               | 0Cr18Ni9 | 39 | Lower cover      | HT200               |
| 8  | Protector         | Rubber   | 40 | Bolt             | 0Cr18Ni9            |
| 9  | Cable presser     | 0Cr18Ni9 | 41 | Washer           | 0Cr18Ni9            |
| 10 | Washer            | 0Cr18Ni9 | 42 | " O " ring       | 0Cr18Ni9            |
| 11 | Screw             | 0Cr18Ni9 | 43 | Screw            | 0Cr18Ni9            |
| 12 | Bolt              | 0Cr18Ni9 | 44 | Bolt             | 0Cr18Ni9            |
| 13 | " O " ring        | Rubber   | 45 | Washer           | 0Cr18Ni9            |
| 14 | Bolt              | 0Cr18Ni9 | 46 | Outlet connector | ABS                 |
| 15 | Flange            | 0Cr18Ni9 | 47 | " O " ring       | Rubber              |
| 16 | Cable             |          | 48 | Pump casing      | HT200               |
| 17 | Cable protector   | Rubber   | 49 | Mechanical seal  | Graphite to ceramic |
| 18 | Capacitor cover   | HT200    | 50 | Impeller         | nylon               |
| 19 | Capacitor         |          | 51 | Diffuser cover   | nylon               |
| 20 | " O " ring        | Rubber   | 52 | Diffuser         | nylon               |
| 21 | " O " ring        | Rubber   | 53 | Sleeve           | nylon               |
| 22 | Screw             | 0Cr18Ni9 | 54 | " O " ring       | Rubber              |
| 23 | Spring washer     | 0Cr18Ni9 | 55 | Washer           | 0Cr18Ni9            |
| 24 | Washer            | 0Cr18Ni9 | 56 | Spring washer    | 0Cr18Ni9            |
| 25 | Line protector    | Rubber   | 57 | Nut              | 0Cr18Ni9            |
| 26 | Upper cover       | HT200    | 58 | " O " ring       | Rubber              |
| 27 | Thermal protector |          | 59 | Pump cover       | HT200               |
| 28 | Stator            |          | 60 | Filter mesh      | 0Cr18Ni9            |
| 29 | " O " ring        | Rubber   | 61 | Mesh cover       | 0Cr18Ni9            |
| 30 | Undulated washer  | 65Mn     | 62 | Screw            | 0Cr18Ni9            |
| 31 | Bearing           |          | 63 | Float switch     |                     |
| 32 | Rotor             |          |    |                  |                     |

Code " F " means pump assembled with float switch



## SPA3-24-0.75F SPA6-18-0.75F



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C;
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

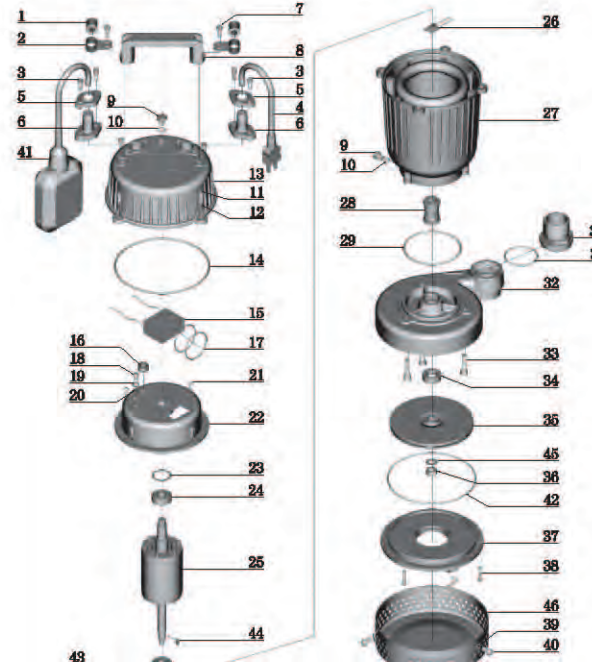
### FEATURES AND APPLICATION:

The 3-phase portable high head submersible pumps are widely used for dewatering of deep ditches, basement, and construction site. The 3 phase motor is more stable. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation. (single phase option available)

### TECHNICAL DATA:

| Model        | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|--------------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| SPA3-24-0.75 | 0.75       | 25/32/40             | 220 / 50       | 100               | 26            | 16.0      | 270 × 235 × 420 |
| SPA6-18-0.75 | 0.75       | 25/32/40             | 220 / 50       | 265               | 21            | 16.0      | 270 × 235 × 420 |

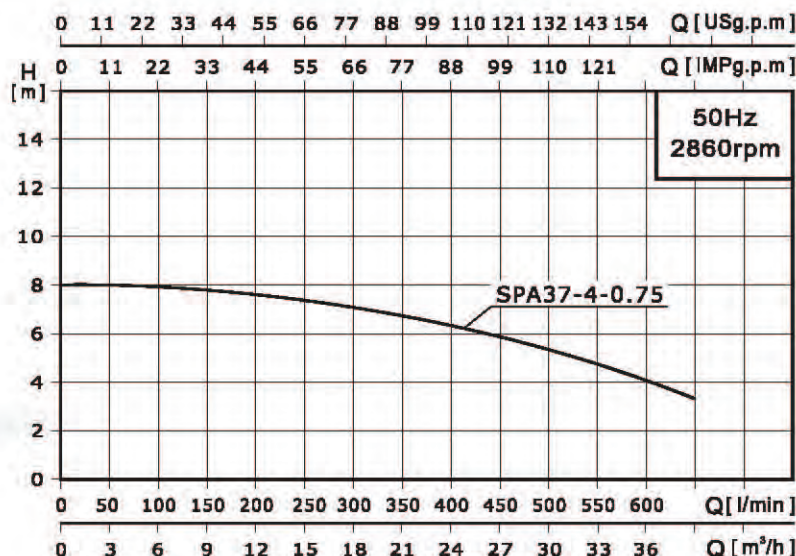
### FRAME DIAGRAM:

|  |                   | <table><tr><th>No</th><th>DESCRIPTION</th><th>MATERIAL</th><th>No</th><th>DESCRIPTION</th><th>MATERIAL</th></tr><tr><td>1</td><td>Protector</td><td>NR</td><td>25</td><td>Rotor</td><td></td></tr><tr><td>2</td><td>Cable presser</td><td>11</td><td>26</td><td>Thermal protector</td><td></td></tr><tr><td>3</td><td>Screw</td><td>11</td><td>27</td><td>Motor stator</td><td>AlSi12</td></tr><tr><td>4</td><td>Cable</td><td></td><td>28</td><td>Mechanical seal</td><td>Alumina/Graphite</td></tr><tr><td>5</td><td>Flange</td><td>11</td><td>29</td><td>" O " ring</td><td>NBR</td></tr><tr><td>6</td><td>Cable protector</td><td>CR</td><td>30</td><td>Out-let connector</td><td>ABS</td></tr><tr><td>7</td><td>Screw</td><td>11</td><td>31</td><td>" O " ring</td><td>NBR</td></tr><tr><td>8</td><td>Handle</td><td>ABS</td><td>32</td><td>Pump body</td><td>No35B</td></tr><tr><td>9</td><td>Bolt</td><td>11</td><td>33</td><td>Screw</td><td>11</td></tr><tr><td>10</td><td>" O " ring</td><td>NBR</td><td>34</td><td>Oil seal</td><td></td></tr><tr><td>11</td><td>Screw</td><td>11</td><td>35</td><td>Impeller</td><td>No35B</td></tr><tr><td>12</td><td>Washer</td><td>11</td><td>36</td><td>Nut</td><td>11</td></tr><tr><td>13</td><td>Capacitor cover</td><td>AlSi12</td><td>37</td><td>Pump cover</td><td>No35B</td></tr><tr><td>14</td><td>" O " ring</td><td>NBR</td><td>38</td><td>Screw</td><td>11</td></tr><tr><td>15</td><td>Capacitor</td><td></td><td>39</td><td>Washer</td><td>11</td></tr><tr><td>16</td><td>Line protector</td><td>NBR</td><td>40</td><td>Screw</td><td>11</td></tr><tr><td>17</td><td>" O " ring</td><td>NBR</td><td>41</td><td>Float switch</td><td></td></tr><tr><td>18</td><td>Screw</td><td>CuZn40</td><td>42</td><td>" O " ring</td><td>NBR</td></tr><tr><td>19</td><td>Stretching washer</td><td>1566</td><td>43</td><td>Ball bearing</td><td></td></tr><tr><td>20</td><td>Washer</td><td>CuZn40</td><td>44</td><td>Key</td><td>4</td></tr><tr><td>21</td><td>Screw</td><td>Fe360A</td><td>45</td><td>Washer</td><td>11</td></tr><tr><td>22</td><td>Motor cover</td><td>AlSi12</td><td>46</td><td>Filter mesh</td><td>Fe360A</td></tr><tr><td>23</td><td>Undulated washer</td><td>1566</td><td></td><td></td><td></td></tr><tr><td>24</td><td>Ball bearing</td><td></td><td></td><td></td><td></td></tr></table> | No | DESCRIPTION       | MATERIAL         | No | DESCRIPTION | MATERIAL | 1 | Protector | NR | 25 | Rotor |  | 2 | Cable presser | 11 | 26 | Thermal protector |  | 3 | Screw | 11 | 27 | Motor stator | AlSi12 | 4 | Cable |  | 28 | Mechanical seal | Alumina/Graphite | 5 | Flange | 11 | 29 | " O " ring | NBR | 6 | Cable protector | CR | 30 | Out-let connector | ABS | 7 | Screw | 11 | 31 | " O " ring | NBR | 8 | Handle | ABS | 32 | Pump body | No35B | 9 | Bolt | 11 | 33 | Screw | 11 | 10 | " O " ring | NBR | 34 | Oil seal |  | 11 | Screw | 11 | 35 | Impeller | No35B | 12 | Washer | 11 | 36 | Nut | 11 | 13 | Capacitor cover | AlSi12 | 37 | Pump cover | No35B | 14 | " O " ring | NBR | 38 | Screw | 11 | 15 | Capacitor |  | 39 | Washer | 11 | 16 | Line protector | NBR | 40 | Screw | 11 | 17 | " O " ring | NBR | 41 | Float switch |  | 18 | Screw | CuZn40 | 42 | " O " ring | NBR | 19 | Stretching washer | 1566 | 43 | Ball bearing |  | 20 | Washer | CuZn40 | 44 | Key | 4 | 21 | Screw | Fe360A | 45 | Washer | 11 | 22 | Motor cover | AlSi12 | 46 | Filter mesh | Fe360A | 23 | Undulated washer | 1566 |  |  |  | 24 | Ball bearing |  |  |  |  |
|---|-------------------|--|----|-------------------|------------------|----|-------------|----------|---|-----------|----|----|-------|--|---|---------------|----|----|-------------------|--|---|-------|----|----|--------------|--------|---|-------|--|----|-----------------|------------------|---|--------|----|----|------------|-----|---|-----------------|----|----|-------------------|-----|---|-------|----|----|------------|-----|---|--------|-----|----|-----------|-------|---|------|----|----|-------|----|----|------------|-----|----|----------|--|----|-------|----|----|----------|-------|----|--------|----|----|-----|----|----|-----------------|--------|----|------------|-------|----|------------|-----|----|-------|----|----|-----------|--|----|--------|----|----|----------------|-----|----|-------|----|----|------------|-----|----|--------------|--|----|-------|--------|----|------------|-----|----|-------------------|------|----|--------------|--|----|--------|--------|----|-----|---|----|-------|--------|----|--------|----|----|-------------|--------|----|-------------|--------|----|------------------|------|--|--|--|----|--------------|--|--|--|--|
| No  | DESCRIPTION       | MATERIAL   | No | DESCRIPTION       | MATERIAL         |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 1   | Protector         | NR   | 25 | Rotor             |                  |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 2   | Cable presser     | 11   | 26 | Thermal protector |                  |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 3   | Screw             | 11   | 27 | Motor stator      | AlSi12           |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 4   | Cable             |  | 28 | Mechanical seal   | Alumina/Graphite |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 5   | Flange            | 11   | 29 | " O " ring        | NBR              |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 6   | Cable protector   | CR   | 30 | Out-let connector | ABS              |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 7   | Screw             | 11   | 31 | " O " ring        | NBR              |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 8   | Handle            | ABS  | 32 | Pump body         | No35B            |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 9   | Bolt              | 11   | 33 | Screw             | 11               |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 10  | " O " ring        | NBR  | 34 | Oil seal          |                  |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 11  | Screw             | 11   | 35 | Impeller          | No35B            |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 12  | Washer            | 11   | 36 | Nut               | 11               |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 13  | Capacitor cover   | AlSi12   | 37 | Pump cover        | No35B            |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 14  | " O " ring        | NBR  | 38 | Screw             | 11               |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 15  | Capacitor         |  | 39 | Washer            | 11               |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 16  | Line protector    | NBR  | 40 | Screw             | 11               |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 17  | " O " ring        | NBR  | 41 | Float switch      |                  |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 18  | Screw             | CuZn40   | 42 | " O " ring        | NBR              |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 19  | Stretching washer | 1566   | 43 | Ball bearing      |                  |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 20  | Washer            | CuZn40   | 44 | Key               | 4                |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 21  | Screw             | Fe360A   | 45 | Washer            | 11               |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 22  | Motor cover       | AlSi12   | 46 | Filter mesh       | Fe360A           |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 23  | Undulated washer  | 1566   |    |                   |                  |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |
| 24  | Ball bearing      |  |    |                   |                  |    |             |          |   |           |    |    |       |  |   |               |    |    |                   |  |   |       |    |    |              |        |   |       |  |    |                 |                  |   |        |    |    |            |     |   |                 |    |    |                   |     |   |       |    |    |            |     |   |        |     |    |           |       |   |      |    |    |       |    |    |            |     |    |          |  |    |       |    |    |          |       |    |        |    |    |     |    |    |                 |        |    |            |       |    |            |     |    |       |    |    |           |  |    |        |    |    |                |     |    |       |    |    |            |     |    |              |  |    |       |        |    |            |     |    |                   |      |    |              |  |    |        |        |    |     |   |    |       |        |    |        |    |    |             |        |    |             |        |    |                  |      |  |  |  |    |              |  |  |  |  |

Code " F " means pump assembled with float switch



## SPA37-4-0.75F



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

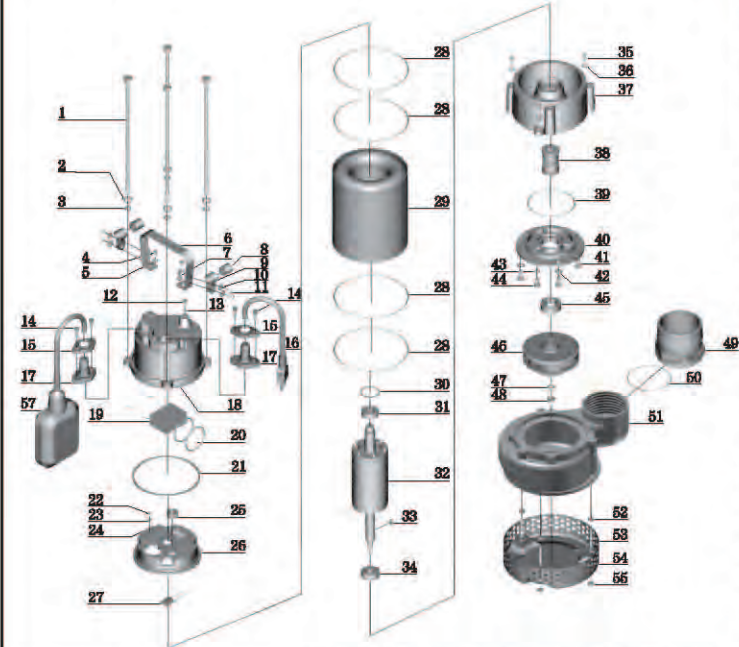
### FEATURES AND APPLICATION:

The single phase portable submersible pumps for pumping water are widely used for dewatering of cellars, garages, ditches, pit & pond. Pumping clean or slightly dirty water in aquariums, gardens and fountains, farm and garden. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation. (3 phase option available)

### TECHNICAL DATA:

| Model        | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|--------------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| SPA37-4-0.75 | 0.75       | 75                   | 220 / 50       | 650               | 8             | 24.5      | 270 × 220 × 555 |

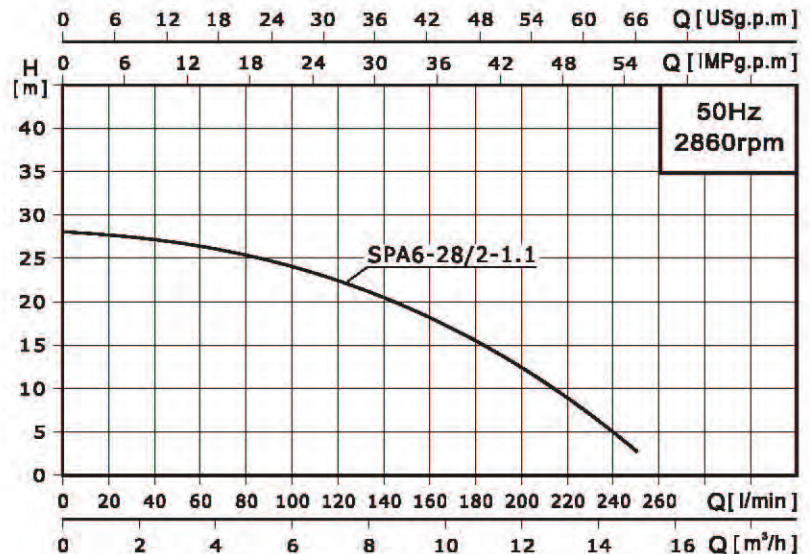
### FRAME DIAGRAM:



| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION      | MATERIAL            |
|-----|-------------------|----------|-----|------------------|---------------------|
| 1   | Bolt              | 0Cr18Ni9 | 29  | Stator           | 0Cr18Ni9            |
| 2   | Spring washer     | 0Cr18Ni9 | 30  | Undulated washer | 65Mn                |
| 3   | Washer            | 0Cr18Ni9 | 31  | Bearing          |                     |
| 4   | Bolt              | 0Cr18Ni9 | 32  | Rotor            |                     |
| 5   | Washer            | 0Cr18Ni9 | 33  | Key              |                     |
| 6   | Handle            | 0Cr18Ni9 | 34  | Bearing          |                     |
| 7   | Nut               | 0Cr18Ni9 | 35  | Bolt             | 0Cr18Ni9            |
| 8   | Protector         | Rubber   | 36  | Washer           | 0Cr18Ni9            |
| 9   | Cable presser     | 0Cr18Ni9 | 37  | Connection part  | HT200               |
| 10  | Washer            | 0Cr18Ni9 | 38  | Mechanical seal  | Graphite to ceramic |
| 11  | Screw             | 0Cr18Ni9 | 39  | "O" ring         | Rubber              |
| 12  | Bolt              | 0Cr18Ni9 | 40  | Lower cover      | HT200               |
| 13  | "O" ring          | Rubber   | 41  | Screw            | 0Cr18Ni9            |
| 14  | Bolt              | 0Cr18Ni9 | 42  | Washer           | 0Cr18Ni9            |
| 15  | Flange            | 0Cr18Ni9 | 43  | Washer           | 0Cr18Ni9            |
| 16  | Cable             |          | 44  | Screw            | 0Cr18Ni9            |
| 17  | Cable protector   | Rubber   | 45  | Oil seal         |                     |
| 18  | Capacitor cover   | HT200    | 46  | Impeller         |                     |
| 19  | Capacitor         |          | 47  | Spring washer    | 0Cr18Ni9            |
| 20  | "O" ring          | Rubber   | 48  | Nut              | 0Cr18Ni9            |
| 21  | "O" ring          | Rubber   | 49  | Outlet connector | ABS                 |
| 22  | Spring washer     | 0Cr18Ni9 | 50  | "O" ring         | Rubber              |
| 23  | Screw             | 0Cr18Ni9 | 51  | Pump casing      | HT200               |
| 24  | Washer            | 0Cr18Ni9 | 52  | Nut              | 11                  |
| 25  | Line protector    | Rubber   | 53  | Bolt             | 11                  |
| 26  | Upper cover       | HT200    | 54  | Filter mesh      | Fe360A              |
| 27  | Thermal protector |          | 55  | Nut              | 11                  |
| 28  | "O" ring          | Rubber   |     |                  |                     |



## SPA6-28/2-1.1F



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C;
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

### FEATURES AND APPLICATION:

The 3-phase portable high head submersible pumps are widely used for dewatering of deep ditches, basement, and construction site. The 3 phase motor is more stable. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation. (single phase option available)

### TECHNICAL DATA:

| Model         | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|---------------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| SPA6-28/2-1.1 | 1.1        | 50                   | 220 / 50       | 250               | 27            | 20.5      | 270 × 235 × 460 |

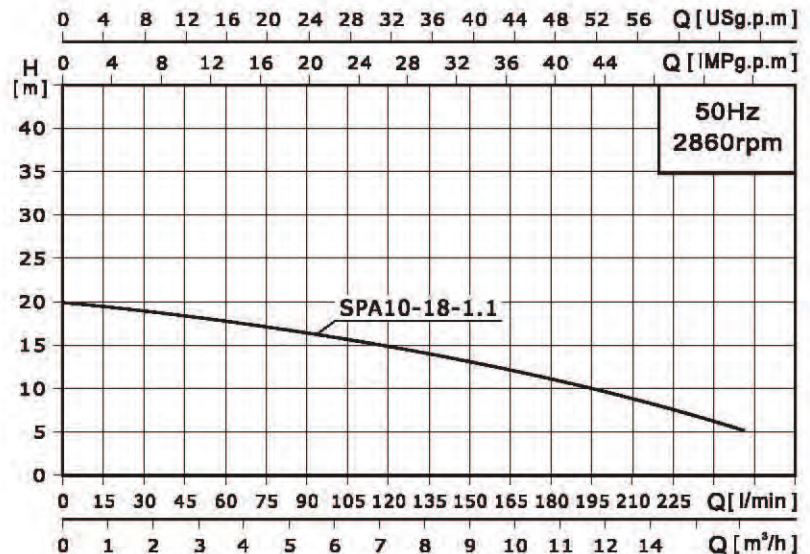
### FRAME DIAGRAM:

| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL         |
|-----|-------------------|----------|-----|-------------------|------------------|
| 1   | Protector         | NR       | 28  | Mechanical seal   | Alumina/Graphite |
| 2   | Cable presser     | 11       | 29  | " O " ring        | NBR              |
| 3   | Screw             | 11       | 30  | Outlet connector  | ABS              |
| 4   | Cable             |          | 31  | " O " ring        | NBR              |
| 5   | Flange            | 11       | 32  | Pump body         | No35B            |
| 6   | Cable protector   | CR       | 33  | Screw             | 11               |
| 7   | Bolt              | 11       | 34  | Oil seal          |                  |
| 8   | Handle            | 11       | 35  | Impeller          | No35B            |
| 9   | Bolt              | 11       | 36  | Nut               | 11               |
| 10  | " O " ring        | NBR      | 37  | Pump cover        | No35B            |
| 11  | Screw             | 11       | 38  | Washer            | 11               |
| 12  | Washer            | 11       | 39  | Screw             | 11               |
| 13  | Capacitor cover   | AlSi12   | 40  | Float switch      |                  |
| 14  | " O " ring        | NBR      | 41  | Rubber washer     | NBR              |
| 15  | Capacitor         |          | 42  | Word ring         | 4                |
| 16  | Line protector    | NBR      | 43  | Filter mesh       | Fe360A           |
| 17  | " O " ring        | NBR      | 44  | Ball bearing      |                  |
| 18  | Screw             | CuZn40   | 45  | " O " ring        | NBR              |
| 19  | Stretching washer | 1566     | 46  | Guide leaf        | No35B            |
| 20  | Washer            | CuZn40   | 47  | Stretching washer | 11               |
| 21  | Screw             | Fe360A   | 48  | Screw             | 11               |
| 22  | Motor cover       | AlSi12   | 49  | Washer            | 11               |
| 23  | Undulated washer  | 1566     | 50  | Nut               | 11               |
| 24  | Ball bearing      |          | 51  | Washer            | 11               |
| 25  | Rotor             |          | 52  | Screw             | 11               |
| 26  | Thermal protector |          | 53  | Screw             | 11               |
| 27  | Motor stator      | AlSi12   |     |                   |                  |

Code " F " means pump assembled with float switch



## SPA10-18-1.1F



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

### FEATURES AND APPLICATION:

The single phase portable submersible pumps for pumping water are widely used for dewatering of cellars, garages, ditches, pit & pond. Pumping clean or slightly dirty water in aquariums, gardens and fountains, farm and garden. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation. (3 phase option available)

### TECHNICAL DATA:

| Model        | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|--------------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| SPA10-18-1.1 | 1.1        | 25/32/40             | 220 / 50       | 250               | 20            | 21.0      | 270 × 220 × 500 |

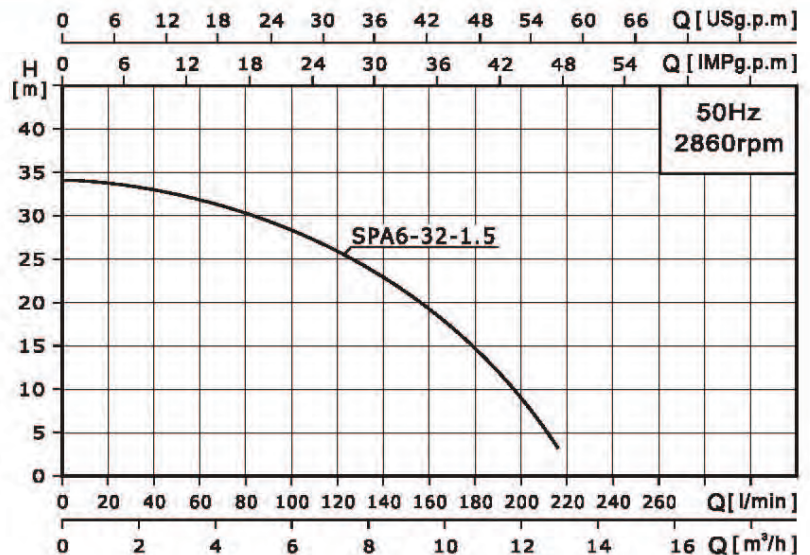
### FRAME DIAGRAM:

|    |                   |          |    |                   | <table> <tr> <th>No</th><th>DESCRIPTION</th><th>MATERIAL</th><th>No</th><th>DESCRIPTION</th><th>MATERIAL</th></tr> <tr> <td>1</td><td>Bolt</td><td>11</td><td>27</td><td>* O* ring</td><td>NBR</td></tr> <tr> <td>2</td><td>Stretching washer</td><td>11</td><td>28</td><td>Motor stator</td><td>11</td></tr> <tr> <td>3</td><td>Washer</td><td>11</td><td>29</td><td>Undulated washer</td><td>1566</td></tr> <tr> <td>4</td><td>Bolt</td><td>11</td><td>30</td><td>Ball bearing</td><td></td></tr> <tr> <td>5</td><td>Washer</td><td>11</td><td>31</td><td>Rotor</td><td></td></tr> <tr> <td>6</td><td>Handle</td><td>11</td><td>32</td><td>Ball bearing</td><td></td></tr> <tr> <td>7</td><td>Nut</td><td>11</td><td>33</td><td>Lower cover</td><td>No35B</td></tr> <tr> <td>8</td><td>Protector</td><td>NR</td><td>34</td><td>Oil seal</td><td></td></tr> <tr> <td>9</td><td>Cable presser</td><td>11</td><td>35</td><td>Outlet connector</td><td>ABS</td></tr> <tr> <td>10</td><td>Washer</td><td>11</td><td>36</td><td>* O* ring</td><td>NBR</td></tr> <tr> <td>11</td><td>Screw</td><td>11</td><td>37</td><td>Pump body</td><td>No35B</td></tr> <tr> <td>12</td><td>Bolt</td><td>11</td><td>38</td><td>Mechanical seal</td><td>Alumina/Graphite</td></tr> <tr> <td>13</td><td>* O* ring</td><td>NBR</td><td>39</td><td>Impeller</td><td>No35B</td></tr> <tr> <td>14</td><td>Screw</td><td>11</td><td>40</td><td>Nut</td><td>11</td></tr> <tr> <td>15</td><td>Flange</td><td>11</td><td>41</td><td>* O* ring</td><td>NBR</td></tr> <tr> <td>16</td><td>Cable</td><td></td><td>42</td><td>Pump body</td><td>No35B</td></tr> <tr> <td>17</td><td>Cable protector</td><td>CR</td><td>43</td><td>Washer</td><td>11</td></tr> <tr> <td>18</td><td>Capacitor cover</td><td>No35B</td><td>44</td><td>Screw</td><td>11</td></tr> <tr> <td>19</td><td>Capacitor</td><td></td><td>45</td><td>Filter mesh</td><td>Fe360A</td></tr> <tr> <td>20</td><td>* O* ring</td><td>NBR</td><td>46</td><td>Washer</td><td>11</td></tr> <tr> <td>21</td><td>Line protector</td><td>NBR</td><td>47</td><td>Screw</td><td>11</td></tr> <tr> <td>22</td><td>Screw</td><td>CuZn40</td><td>48</td><td>Stretching washer</td><td>11</td></tr> <tr> <td>23</td><td>Stretching washer</td><td>1566</td><td>49</td><td>Float switch</td><td></td></tr> <tr> <td>24</td><td>Washer</td><td>CuZn40</td><td></td><td></td><td></td></tr> <tr> <td>25</td><td>Upper cover</td><td>No35B</td><td></td><td></td><td></td></tr> <tr> <td>26</td><td>Thermal protector</td><td></td><td></td><td></td><td></td></tr> </table> | No | DESCRIPTION | MATERIAL | No | DESCRIPTION | MATERIAL | 1 | Bolt | 11 | 27 | * O* ring | NBR | 2 | Stretching washer | 11 | 28 | Motor stator | 11 | 3 | Washer | 11 | 29 | Undulated washer | 1566 | 4 | Bolt | 11 | 30 | Ball bearing |  | 5 | Washer | 11 | 31 | Rotor |  | 6 | Handle | 11 | 32 | Ball bearing |  | 7 | Nut | 11 | 33 | Lower cover | No35B | 8 | Protector | NR | 34 | Oil seal |  | 9 | Cable presser | 11 | 35 | Outlet connector | ABS | 10 | Washer | 11 | 36 | * O* ring | NBR | 11 | Screw | 11 | 37 | Pump body | No35B | 12 | Bolt | 11 | 38 | Mechanical seal | Alumina/Graphite | 13 | * O* ring | NBR | 39 | Impeller | No35B | 14 | Screw | 11 | 40 | Nut | 11 | 15 | Flange | 11 | 41 | * O* ring | NBR | 16 | Cable |  | 42 | Pump body | No35B | 17 | Cable protector | CR | 43 | Washer | 11 | 18 | Capacitor cover | No35B | 44 | Screw | 11 | 19 | Capacitor |  | 45 | Filter mesh | Fe360A | 20 | * O* ring | NBR | 46 | Washer | 11 | 21 | Line protector | NBR | 47 | Screw | 11 | 22 | Screw | CuZn40 | 48 | Stretching washer | 11 | 23 | Stretching washer | 1566 | 49 | Float switch |  | 24 | Washer | CuZn40 |  |  |  | 25 | Upper cover | No35B |  |  |  | 26 | Thermal protector |  |  |  |  |
|----|-------------------|----------|----|-------------------|--|----|-------------|----------|----|-------------|----------|---|------|----|----|-----------|-----|---|-------------------|----|----|--------------|----|---|--------|----|----|------------------|------|---|------|----|----|--------------|--|---|--------|----|----|-------|--|---|--------|----|----|--------------|--|---|-----|----|----|-------------|-------|---|-----------|----|----|----------|--|---|---------------|----|----|------------------|-----|----|--------|----|----|-----------|-----|----|-------|----|----|-----------|-------|----|------|----|----|-----------------|------------------|----|-----------|-----|----|----------|-------|----|-------|----|----|-----|----|----|--------|----|----|-----------|-----|----|-------|--|----|-----------|-------|----|-----------------|----|----|--------|----|----|-----------------|-------|----|-------|----|----|-----------|--|----|-------------|--------|----|-----------|-----|----|--------|----|----|----------------|-----|----|-------|----|----|-------|--------|----|-------------------|----|----|-------------------|------|----|--------------|--|----|--------|--------|--|--|--|----|-------------|-------|--|--|--|----|-------------------|--|--|--|--|
| No | DESCRIPTION       | MATERIAL | No | DESCRIPTION       | MATERIAL   |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 1  | Bolt              | 11       | 27 | * O* ring         | NBR  |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 2  | Stretching washer | 11       | 28 | Motor stator      | 11   |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 3  | Washer            | 11       | 29 | Undulated washer  | 1566   |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 4  | Bolt              | 11       | 30 | Ball bearing      |  |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 5  | Washer            | 11       | 31 | Rotor             |  |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 6  | Handle            | 11       | 32 | Ball bearing      |  |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 7  | Nut               | 11       | 33 | Lower cover       | No35B  |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 8  | Protector         | NR       | 34 | Oil seal          |  |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 9  | Cable presser     | 11       | 35 | Outlet connector  | ABS  |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 10 | Washer            | 11       | 36 | * O* ring         | NBR  |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 11 | Screw             | 11       | 37 | Pump body         | No35B  |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 12 | Bolt              | 11       | 38 | Mechanical seal   | Alumina/Graphite   |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 13 | * O* ring         | NBR      | 39 | Impeller          | No35B  |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 14 | Screw             | 11       | 40 | Nut               | 11   |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 15 | Flange            | 11       | 41 | * O* ring         | NBR  |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 16 | Cable             |          | 42 | Pump body         | No35B  |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 17 | Cable protector   | CR       | 43 | Washer            | 11   |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 18 | Capacitor cover   | No35B    | 44 | Screw             | 11   |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 19 | Capacitor         |          | 45 | Filter mesh       | Fe360A   |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 20 | * O* ring         | NBR      | 46 | Washer            | 11   |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 21 | Line protector    | NBR      | 47 | Screw             | 11   |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 22 | Screw             | CuZn40   | 48 | Stretching washer | 11   |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 23 | Stretching washer | 1566     | 49 | Float switch      |  |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 24 | Washer            | CuZn40   |    |                   |  |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 25 | Upper cover       | No35B    |    |                   |  |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |
| 26 | Thermal protector |          |    |                   |  |    |             |          |    |             |          |   |      |    |    |           |     |   |                   |    |    |              |    |   |        |    |    |                  |      |   |      |    |    |              |  |   |        |    |    |       |  |   |        |    |    |              |  |   |     |    |    |             |       |   |           |    |    |          |  |   |               |    |    |                  |     |    |        |    |    |           |     |    |       |    |    |           |       |    |      |    |    |                 |                  |    |           |     |    |          |       |    |       |    |    |     |    |    |        |    |    |           |     |    |       |  |    |           |       |    |                 |    |    |        |    |    |                 |       |    |       |    |    |           |  |    |             |        |    |           |     |    |        |    |    |                |     |    |       |    |    |       |        |    |                   |    |    |                   |      |    |              |  |    |        |        |  |  |  |    |             |       |  |  |  |    |                   |  |  |  |  |

Code " F " means pump assembled with float switch



## SPA6-32-1.5F



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

### FEATURES AND APPLICATION:

The single phase portable submersible pumps for pumping water are widely used for dewatering of cellars, garages, ditches, pit & pond. Pumping clean or slightly dirty water in aquariums, gardens and fountains, farm and garden. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation. (3 phase option available)

### TECHNICAL DATA:

| Model       | Power [ kW ] | Outlet diameter [ mm ] | Voltage [ V/Hz ] | Max. flow [ l/min ] | Max. head [ m ] | G.W. [ kg ] | Dimensions [ mm ] |
|-------------|--------------|------------------------|------------------|---------------------|-----------------|-------------|-------------------|
| SPA6-32-1.5 | 1.5          | 25/32/40               | 220 / 50         | 216                 | 34              | 25.0        | 270 × 220 × 550   |

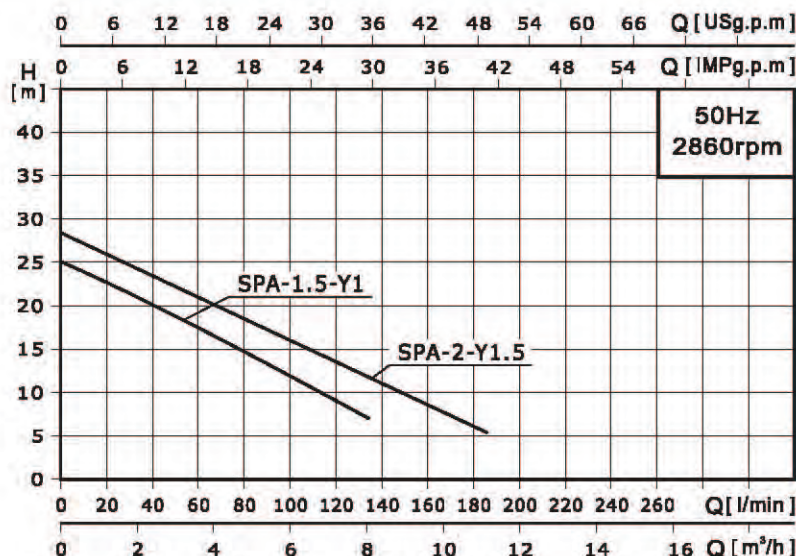
### FRAME DIAGRAM:

| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL         |
|-----|-------------------|----------|-----|-------------------|------------------|
| 1   | Bolt              | 11       | 27  | " O " ring        | NBR              |
| 2   | Stretching washer | 11       | 28  | Motor stator      | 11               |
| 3   | Washer            | 11       | 29  | Undulated washer  | 1566             |
| 4   | Bolt              | 11       | 30  | Ball bearing      |                  |
| 5   | Washer            | 11       | 31  | Rotor             |                  |
| 6   | Handle            | 11       | 32  | Ball bearing      |                  |
| 7   | Nut               | 11       | 33  | Lower cover       | No35B            |
| 8   | Protector         | NR       | 34  | Oil seal          |                  |
| 9   | Cable presser     | 11       | 35  | Outlet connector  | ABS              |
| 10  | Washer            | 11       | 36  | " O " ring        | NBR              |
| 11  | Screw             | 11       | 37  | Pump body         | No35B            |
| 12  | Bolt              | 11       | 38  | Mechanical seal   | Alumina/Graphite |
| 13  | " O " ring        | NBR      | 39  | Impeller          | No35B            |
| 14  | Screw             | 11       | 40  | Nut               | 11               |
| 15  | Flange            | 11       | 41  | " O " ring        | NBR              |
| 16  | Cable             |          | 42  | Pump body         | No35B            |
| 17  | Cable protector   | CR       | 43  | Washer            | 11               |
| 18  | Capacitor cover   | No35B    | 44  | Screw             | 11               |
| 19  | Capacitor         |          | 45  | Filter mesh       | Fe360A           |
| 20  | " O " ring        | NBR      | 46  | Washer            | 11               |
| 21  | Line protector    | NBR      | 47  | Screw             | 11               |
| 22  | Screw             | CuZn40   | 48  | Stretching washer | 11               |
| 23  | Stretching washer | 1566     | 49  | Float switch      |                  |
| 24  | Washer            | CuZn40   |     |                   |                  |
| 25  | Upper cover       | No35B    |     |                   |                  |
| 26  | Thermal protector |          |     |                   |                  |

Code " F " means pump assembled with float switch



## SPA-1.5-Y1F SPA-2-Y1.5F



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

### FEATURES AND APPLICATION:

The 3-phase portable high head submersible pumps are widely used for dewatering of deep ditches, basement, and construction site. The 3 phase motor is more stable. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation.(single phase option available)

### TECHNICAL DATA:

| Model      | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max.flow [l/min] | Max.head [m] | G.W. [kg] | Dimensions [mm] |
|------------|------------|----------------------|----------------|------------------|--------------|-----------|-----------------|
| SPA-1.5-Y1 | 1.0        | 50                   | 220 / 50       | 135              | 25           | 29.5      | 585 × 350 × 245 |

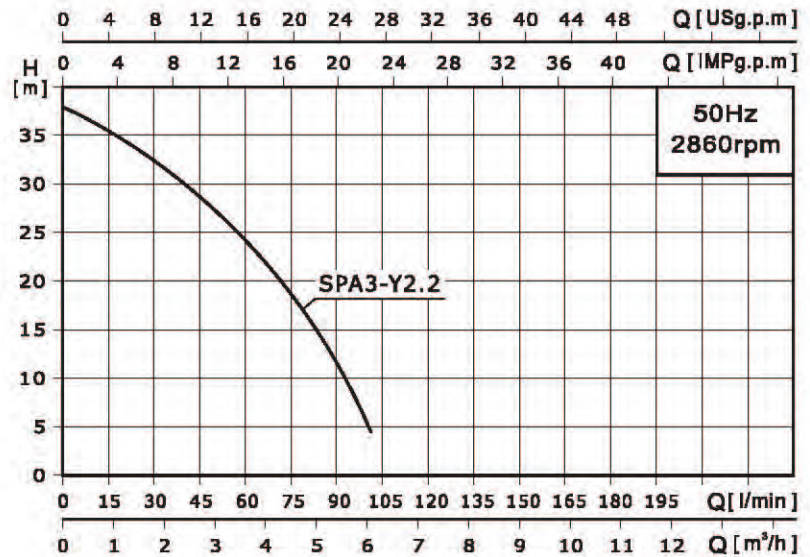
### FRAME DIAGRAM:

|  |    |                   |          |    |                 |                  |
|--|----|-------------------|----------|----|-----------------|------------------|
|  | No | DESCRIPTION       | MATERIAL | No | DESCRIPTION     | MATERIAL         |
|  | 1  | Handle            | 11       | 27 | Ball bearing    |                  |
|  | 2  | Protector         | NR       | 28 | Oil seal        |                  |
|  | 3  | Cable presser     | 11       | 29 | Pump body       | No35B            |
|  | 4  | Screw             | 11       | 30 | Screw           | 11               |
|  | 5  | Washer            | 11       | 31 | " O " ring      | NBR              |
|  | 6  | Nut               | 11       | 32 | Mechanical seal | Alumina/Graphite |
|  | 7  | Bolt              | CuZn40   | 33 | Snap ring       | 1566             |
|  | 8  | Washer            | CuZn40   | 34 | Washer          | CuZn40           |
|  | 9  | Rubber washer     | NBR      | 35 | Impeller        | 11               |
|  | 10 | Bolt              | CuZn40   | 36 | Washer          | CuZn40           |
|  | 11 | Washer            | CuZn40   | 37 | Guide leaf      | 11               |
|  | 12 | Rubber washer     | NBR      | 38 | Word ring       | 11               |
|  | 13 | Screw             | 11       | 39 | Washer          | CuZn40           |
|  | 14 | Upper cover       | No35B    | 40 | Washer          | 11               |
|  | 15 | Screw             | 11       | 41 | Nut             | 11               |
|  | 16 | Capacitor box     | ABS      | 42 | Pump cover      | PP               |
|  | 17 | Capacitor         |          | 43 | Washer          | Fe360A           |
|  | 18 | Rubber washer     | FKM      | 44 | Screw           | Fe360A           |
|  | 19 | Screw             | Fe360A   | 45 | Filter mesh     | 11               |
|  | 20 | Cable             |          | 46 | Washer          | Fe360A           |
|  | 21 | Motor stator      | No35B    | 47 | Screw           | Fe360A           |
|  | 22 | Screw             | 11       | 48 | Float switch    |                  |
|  | 23 | Motor cover       | No35B    | 49 | Power switch    |                  |
|  | 24 | Thermal protector |          | 50 | Snap ring       | 1566             |
|  | 25 | Ball bearing      |          |    |                 |                  |
|  | 26 | Rotor             |          |    |                 |                  |

Code " F " means pump assembled with float switch



## SPA-3-Y2.2F



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C;
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

### FEATURES AND APPLICATION:

The 3-phase portable high head submersible pumps are widely used for dewatering of deep ditches, basement, and construction site. The 3 phase motor is more stable. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation. (single phase option available)

### TECHNICAL DATA:

| Model      | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|------------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| SPA-3-Y2.2 | 2.2        | 50                   | 220 / 50       | 100               | 38            | 30.0      | 585 × 350 × 245 |

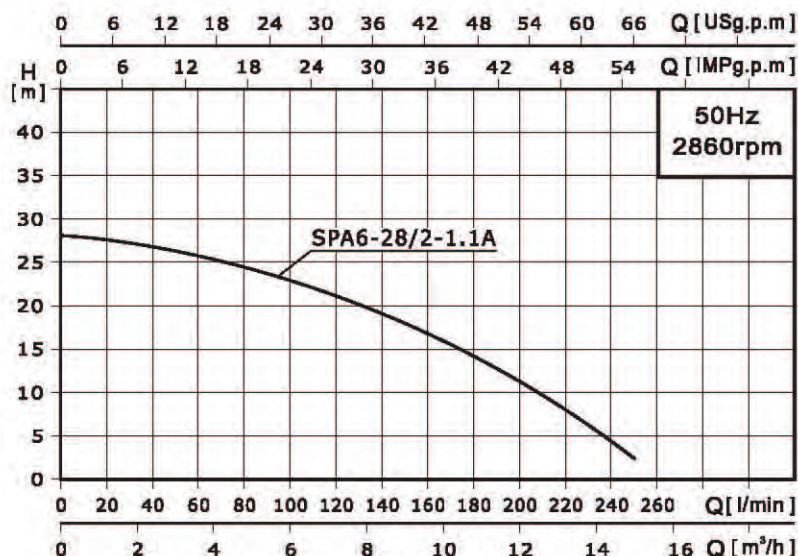
### FRAME DIAGRAM:

| No | DESCRIPTION       | MATERIAL | No | DESCRIPTION     | MATERIAL         |
|----|-------------------|----------|----|-----------------|------------------|
| 1  | Handle            | 11       | 27 | Ball bearing    |                  |
| 2  | Protector         | NR       | 28 | Oil seal        |                  |
| 3  | Cable presser     | 11       | 29 | Pump body       | No35B            |
| 4  | Screw             | 11       | 30 | Screw           | 11               |
| 5  | Washer            | 11       | 31 | "O" ring        | NBR              |
| 6  | Nut               | 11       | 32 | Mechanical seal | Alumina/Graphite |
| 7  | Bolt              | CuZn40   | 33 | Snap ring       | 1566             |
| 8  | Washer            | CuZn40   | 34 | Washer          | CuZn40           |
| 9  | Rubber washer     | NBR      | 35 | Impeller        | 11               |
| 10 | Bolt              | CuZn40   | 36 | Washer          | CuZn40           |
| 11 | Washer            | CuZn40   | 37 | Guide leaf      | 11               |
| 12 | Rubber washer     | NBR      | 38 | Word ring       | 11               |
| 13 | Screw             | 11       | 39 | Washer          | CuZn40           |
| 14 | Upper cover       | No35B    | 40 | Washer          | 11               |
| 15 | Screw             | 11       | 41 | Nut             | 11               |
| 16 | Capacitor box     | ABS      | 42 | Pump cover      | PP               |
| 17 | Capacitor         |          | 43 | Washer          | Fe360A           |
| 18 | Rubber washer     | FKM      | 44 | Screw           | Fe360A           |
| 19 | Screw             | Fe360A   | 45 | Filter mesh     | 11               |
| 20 | Cable             |          | 46 | Washer          | Fe360A           |
| 21 | Motor stator      | No35B    | 47 | Screw           | Fe360A           |
| 22 | Screw             | 11       | 48 | Float switch    |                  |
| 23 | Motor cover       | No35B    | 49 | Power switch    |                  |
| 24 | Thermal protector |          | 50 | Snap ring       | 1566             |
| 25 | Ball bearing      |          |    |                 |                  |
| 26 | Rotor             |          |    |                 |                  |

Code " F " means pump assembled with float switch



## SPA6-28/2-1.1AF



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C;
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

### FEATURES AND APPLICATION:

The 3-phase portable high head submersible pumps are widely used for dewatering of deep ditches, basement, and construction site. The 3 phase motor is more stable. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation.(single phase option available)

### TECHNICAL DATA:

| Model          | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max.flow [l/min] | Max.head [m] | G.W. [kg] | Dimensions [mm] |
|----------------|------------|----------------------|----------------|------------------|--------------|-----------|-----------------|
| SPA6-28/2-1.1A | 1.1        | 50                   | 220 / 50       | 200              | 28           | 20.5      | 270 × 220 × 530 |

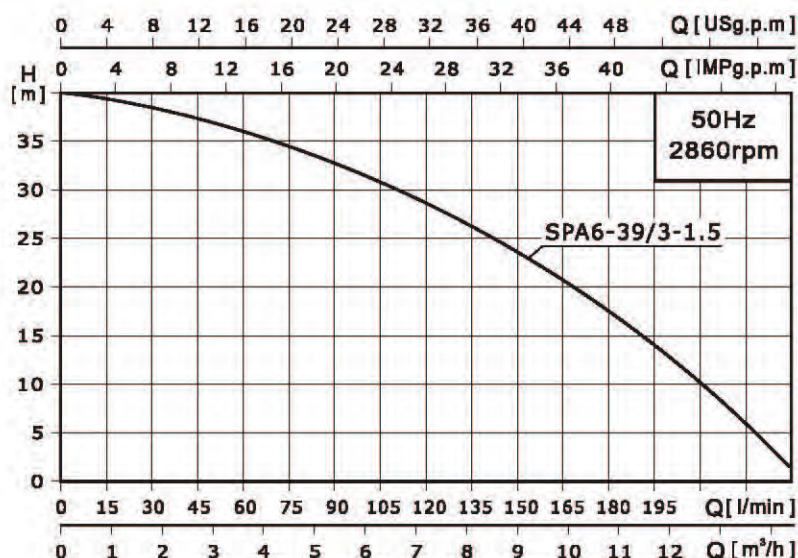
### FRAME DIAGRAM:

| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL         |  |  |  |  |
|-----|-------------------|----------|-----|-------------------|------------------|--|--|--|--|
| 1   | Bolt              | 11       | 28  | " O" ring         | NBR              |  |  |  |  |
| 2   | Stretching washer | 11       | 29  | Motor stator      | 11               |  |  |  |  |
| 3   | Washer            | 11       | 30  | Undulated washer  | 1566             |  |  |  |  |
| 4   | Bolt              | 11       | 31  | Ball bearing      |                  |  |  |  |  |
| 5   | Washer            | 11       | 32  | Rotor             |                  |  |  |  |  |
| 6   | Handle            | 11       | 33  | Ball bearing      |                  |  |  |  |  |
| 7   | Nut               | 11       | 34  | Connection part   | No35B            |  |  |  |  |
| 8   | Protector         | NR       | 35  | Mechanical seal   | Alumina/graphite |  |  |  |  |
| 9   | Cable presser     | 11       | 36  | " O" ring         | NBR              |  |  |  |  |
| 10  | Washer            | 11       | 37  | Outlet connector  | ABS              |  |  |  |  |
| 11  | screw             | 11       | 38  | " O" ring         | NBR              |  |  |  |  |
| 12  | Bolt              | 11       | 39  | Pump body         | No35B            |  |  |  |  |
| 13  | " O" ring         | NBR      | 40  | Screw             | 11               |  |  |  |  |
| 14  | Screw             | 11       | 41  | Oil seal          |                  |  |  |  |  |
| 15  | Flange            | 11       | 42  | Rubber washer     | NBR              |  |  |  |  |
| 16  | Cable             |          | 43  | Impeller          | No35B            |  |  |  |  |
| 17  | Cable protector   | CR       | 44  | Word ring         | 4                |  |  |  |  |
| 18  | Capacitor cover   | No35B    | 45  | " O" ring         | NBR              |  |  |  |  |
| 19  | Capacitor         |          | 46  | Guide leaf        | No35B            |  |  |  |  |
| 20  | " O" ring         | NBR      | 47  | Stretching washer | 11               |  |  |  |  |
| 21  | Rubber washer     | NBR      | 48  | Screw             | 11               |  |  |  |  |
| 22  | Screw             | CuZn40   | 49  | Nut               | 11               |  |  |  |  |
| 23  | Stretching washer | 1566     | 50  | Pump cover        | No35B            |  |  |  |  |
| 24  | Washer            | CuZn40   | 51  | Washer            | 11               |  |  |  |  |
| 25  | Line protector    | NBR      | 52  | Screw             | 11               |  |  |  |  |
| 26  | Motor cover       | No35B    | 53  | Filter mesh       | Fe360A           |  |  |  |  |
| 27  | Thermal protector |          | 54  | Float switch      |                  |  |  |  |  |

Code " F" means pump assembled with float switch



## SPA6-39/3-1.5AF



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C;
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

### FEATURES AND APPLICATION:

The 3-phase portable high head submersible pumps are widely used for dewatering of deep ditches, basement, and construction site. The 3 phase motor is more stable. Pump is equipped with automatic resetting thermal overload to protect motor against overload and preset length float switch fitted for unattended operation.(single phase option available)

### TECHNICAL DATA:

| Model         | Power [ kW ] | Outlet diameter [ mm ] | Voltage [ V/Hz ] | Max.flow [ l/min ] | Max.head [ m ] | G.W. [ kg ] | Dimensions [ mm ] |
|---------------|--------------|------------------------|------------------|--------------------|----------------|-------------|-------------------|
| SPA6-39/-1.5A | 1.5          | 50                     | 220 / 50         | 240                | 40             | 27.5        | 620×280×200       |

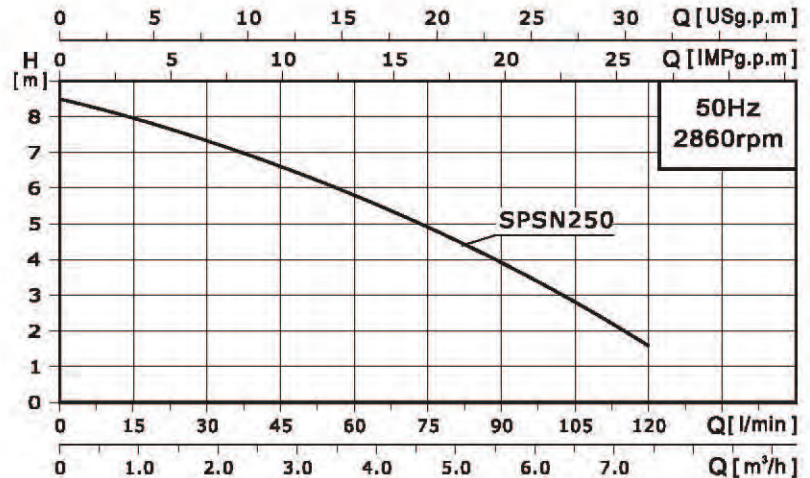
### FRAME DIAGRAM:

| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL         |
|-----|-------------------|----------|-----|-------------------|------------------|
| 1   | Bolt              | 11       | 28  | " O " ring        | NBR              |
| 2   | Stretching washer | 11       | 29  | Motor stator      | 11               |
| 3   | Washer            | 11       | 30  | Undulated washer  | 1566             |
| 4   | Bolt              | 11       | 31  | Ball bearing      |                  |
| 5   | Washer            | 11       | 32  | Rotor             |                  |
| 6   | Handle            | 11       | 33  | Ball bearing      |                  |
| 7   | Nut               | 11       | 34  | Connection part   | No35B            |
| 8   | Protector         | NR       | 35  | Mechanical seal   | Alumina/graphite |
| 9   | Cable presser     | 11       | 36  | " O " ring        | NBR              |
| 10  | Washer            | 11       | 37  | Outlet connector  | ABS              |
| 11  | screw             | 11       | 38  | " O " ring        | NBR              |
| 12  | Bolt              | 11       | 39  | Pump body         | No35B            |
| 13  | " O " ring        | NBR      | 40  | Screw             | 11               |
| 14  | Screw             | 11       | 41  | Oil seal          |                  |
| 15  | Flange            | 11       | 42  | Rubber washer     | NBR              |
| 16  | Cable             |          | 43  | Impeller          | No35B            |
| 17  | Cable protector   | CR       | 44  | Word ring         | 4                |
| 18  | Capacitor cover   | No35B    | 45  | " O " ring        | NBR              |
| 19  | Capacitor         |          | 46  | Guide leaf        | No35B            |
| 20  | " O " ring        | NBR      | 47  | Stretching washer | 11               |
| 21  | Rubber washer     | NBR      | 48  | Screw             | 11               |
| 22  | Screw             | CuZn40   | 49  | Nut               | 11               |
| 23  | Stretching washer | 1566     | 50  | Pump cover        | No35B            |
| 24  | Washer            | CuZn40   | 51  | Washer            | 11               |
| 25  | Line protector    | NBR      | 52  | Screw             | 11               |
| 26  | Motor cover       | No35B    | 53  | Filter mesh       | Fe360A           |
| 27  | Thermal protector |          | 54  | Float switch      |                  |

Code " F " means pump assembled with float switch



## SPSN250



## OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

## FEATURES AND APPLICATION:

SPSN portable stainless steel submersible pump. The liquid flow pass the motor assures superior cooling resulting in long continuous running. The single phase pumps for pumping water are widely used for dewatering of cellars, garages, ditches, pit & pond. Pumping clean or slightly dirty water in aquariums, gardens and fountains, farm and garden. As both the pump and motor casing are stainless steel it's also suitable for liquid chemical. Pump is equipped with automatic resetting thermal overload to protect motor against overload. Preset length float switch fitted for unattended operation option is available.

## TECHNICAL DATA:

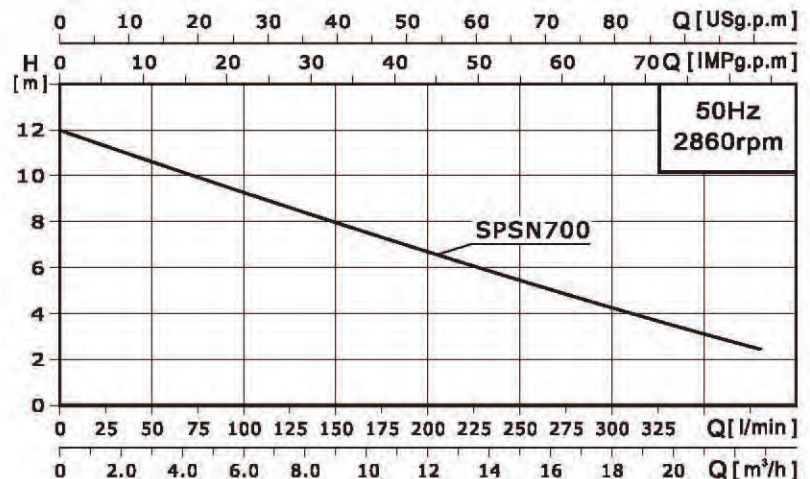
| Model   | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|---------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| SPSN250 | 0.25       | 40 / 32 / 25         | 220 / 50       | 120               | 8.5           | 10.5      | 175 × 175 × 345 |

## FRAME DIAGRAM:

| No | DESCRIPTION       | MATERIAL | No | DESCRIPTION       | MATERIAL |
|----|-------------------|----------|----|-------------------|----------|
| 1  | Handle            | 11       | 28 | Washer            | CuZn40   |
| 2  | Screw             | 11       | 29 | Motor cover       | 11       |
| 3  | Nut               | 11       | 30 | Thermal protector |          |
| 4  | Protector         | CR       | 31 | " O " ring        | NBR      |
| 5  | Cable presser     | 11       | 32 | Motor stator      | 11       |
| 6  | Screw             | 11       | 33 | Undulated washer  | 1566     |
| 7  | Flange            | 11       | 34 | Ball bearing      |          |
| 8  | Cable             |          | 35 | Rotor             |          |
| 9  | Cable protector   | CR       | 36 | Connection part   | 11       |
| 10 | Out-let connector | ABS      | 37 | " O " ring        | NBR      |
| 11 | " O " ring        | NBR      | 38 | " O " ring        | NBR      |
| 12 | Motor shell       | 11       | 39 | Oil chamber cover | 11       |
| 13 | Rubber washer     | NBR      | 40 | Mechanical seal   | Sic/Sic  |
| 14 | Washer            | Fe360A1  | 41 | " O " ring        | NBR      |
| 15 | Stretching washer | 11       | 42 | Pump body         | 11       |
| 16 | Washer            | 11       | 43 | Screw             | 11       |
| 17 | Screw             | 11       | 44 | Oil seal          |          |
| 18 | " O " ring        | NBR      | 45 | Impeller          | 11       |
| 19 | Rubber washer     | NBR      | 46 | Screw             | 11       |
| 20 | Capactor cover    | 11       | 47 | Nut               | 11       |
| 21 | Bolt              | 11       | 48 | Rubber washer     | NBR      |
| 22 | Capacitor         |          | 49 | Screw             | 11       |
| 23 | Screw             | 11       | 50 | Screw             | 11       |
| 24 | " O " ring        | NBR      | 51 | Filter mesh       | 11       |
| 25 | Line protector    | NBR      |    |                   |          |
| 26 | Screw             | CuZn40   |    |                   |          |
| 27 | Stretching washer | 1566     |    |                   |          |



## SPSN700



## OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

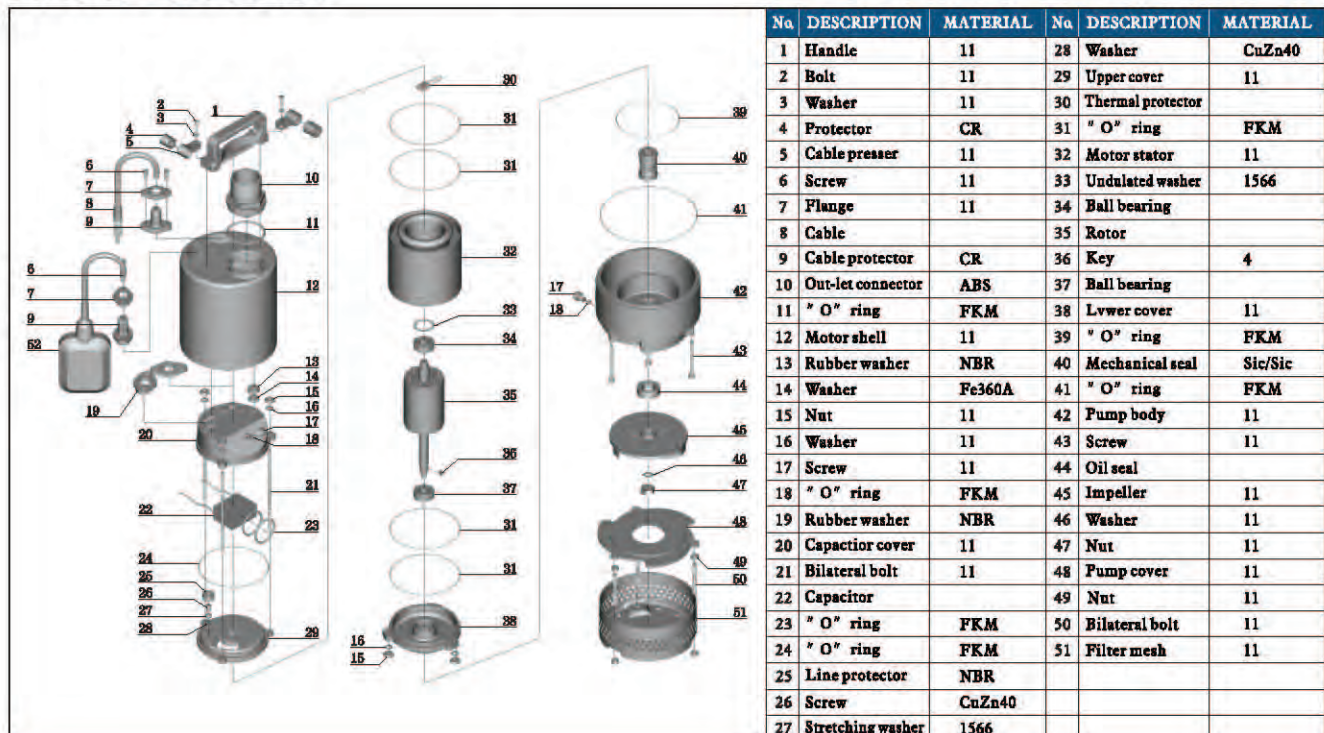
## FEATURES AND APPLICATION:

SPSN portable stainless steel submersible pump. The liquid flow pass the motor assures superior cooling resulting in long continuous running. The single phase pumps for pumping water are widely used for dewatering of cellars, garages, ditches, pit & pond. Pumping clean or slightly dirty water in aquariums, gardens and fountains, farm and garden. As both the pump and motor casing are stainless steel it's also suitable for liquid chemical. Pump is equipped with automatic resetting thermal overload to protect motor against overload. Preset length float switch fitted for unattended operation option is available.

## TECHNICAL DATA:

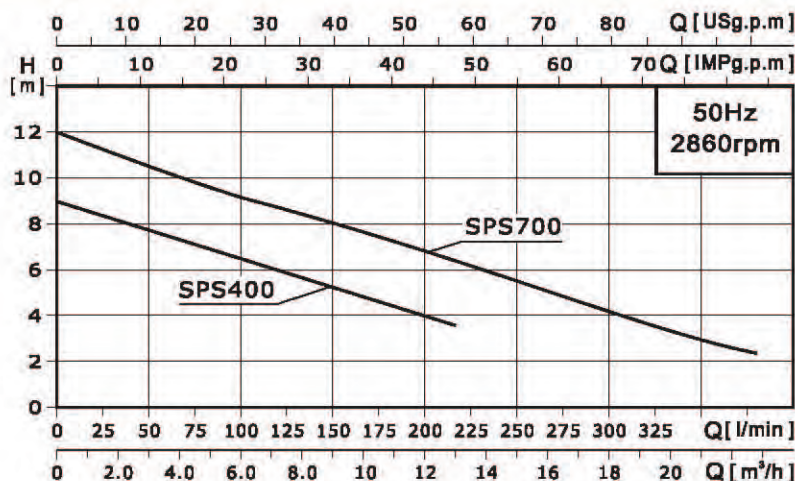
| Model   | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|---------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| SPSN700 | 0.70       | 50                   | 220 / 50       | 380               | 12            | 18.0      | 220 x 220 x 440 |

## FRAME DIAGRAM:





## SPS400F SPS700F



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Clean or grey water of neutral pH containing solids no bigger than 0.2mm

### FEATURES AND APPLICATION:

Stainless steel shell, double cased, portable dewatering sump pump. The liquid flow pass the motor assures superior cooling resulting in long continuous running. The single phase pumps for pumping water are widely used for dewatering of cellars, garages, ditches, pit & pond. Pumping clean or slightly dirty water in aquariums, gardens and fountains, farm and garden. As both the pump and motor casing are stainless steel it's also suitable for liquid chemical. Pump is equipped with automatic resetting thermal overload to protect motor against overload. Preset length float switch fitted for unattended operation option is available.

### TECHNICAL DATA:

| Model  | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|--------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| SPS400 | 0.40       | 50                   | 220 / 50       | 216               | 9             | 17.0      | 220 x 220 x 440 |
| SPS700 | 0.70       | 50                   | 220 / 50       | 380               | 12            | 18.5      | 220 x 220 x 440 |

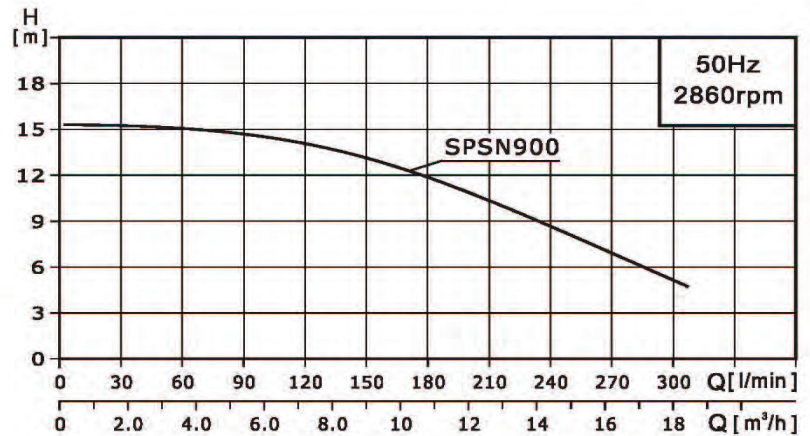
### FRAME DIAGRAM:

| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL         |
|-----|-------------------|----------|-----|-------------------|------------------|
| 1   | Handle            | ABS      | 28  | Washer            | CuZn40           |
| 2   | Bolt              | 11       | 29  | Upper cover       | No35B            |
| 3   | Washer            | 11       | 30  | Thermal protector |                  |
| 4   | Protector         | NR       | 31  | " O " ring        | NBR              |
| 5   | Cable presser     | 11       | 32  | Motor stator      | 11               |
| 6   | Screw             | 11       | 33  | Undulated washer  | 1566             |
| 7   | Flange            | 11       | 34  | Ball bearing      |                  |
| 8   | Cable             |          | 35  | Rotor             |                  |
| 9   | Cable protector   | CR       | 36  | Key               | 4                |
| 10  | Out-let connector | ABS      | 37  | Ball bearing      |                  |
| 11  | " O " ring        | NBR      | 38  | Lower cover       | No35B            |
| 12  | Motor shell       | 11       | 39  | " O " ring        | NBR              |
| 13  | Rubber washer     | NBR      | 40  | Mechanical seal   | Alumina/graphite |
| 14  | Washer            | Fe360A   | 41  | " O " ring        | NBR              |
| 15  | Nut               | 11       | 42  | Pump body         | No35B            |
| 16  | Washer            | 11       | 43  | Screw             | 11               |
| 17  | Screw             | 11       | 44  | Oil seal          |                  |
| 18  | " O " ring        | NBR      | 45  | Impeller          | No35B            |
| 19  | Rubber washer     | NBR      | 46  | Washer            | 11               |
| 20  | Capacitor cover   | 11       | 47  | Nut               | 11               |
| 21  | Bilateral bolt    | 11       | 48  | Pump cover        | No35B            |
| 22  | Capacitor         |          | 49  | Nut               | 11               |
| 23  | " O " ring        | 11       | 50  | Bilateral bolt    | 11               |
| 24  | " O " ring        | NBR      | 51  | Filter mesh       | 11               |
| 25  | Line protector    | NBR      | 52  | Float switch      |                  |
| 26  | Screw             | NBR      |     |                   |                  |
| 27  | Stretching washer | 1566     |     |                   |                  |

Code " F " means pump assembled with float switch



## SPSN900



## FEATURES AND APPLICATION:

SPSN series are vertical complete stainless steel submersible pump (all spare parts contacted with water are made of AISI304), widely used for transferring water in mining, construction industry, breed aquatics, chemical industry, foodstuff processing, etc. Are also suitable for pumping seawater. SPSN pump is easy to cooperate and with good performance in draining and anti-corrosiveness. Thermal protector inside pump can automatically shut off the pump when overheating and overload, to guarantee safe and reliable operation under hard condition.

## CONDITION OF USAGE:

1. Maximum operating depth 5m below water lever;
2. Continuous duty when fluid temperature under +40 °C;
3. Maximum passage for suspended solid  $\Phi 0.2\text{mm}$ .

Technical data(the data will be some change under different voltage and frequency)

## TECHNICAL DATA:

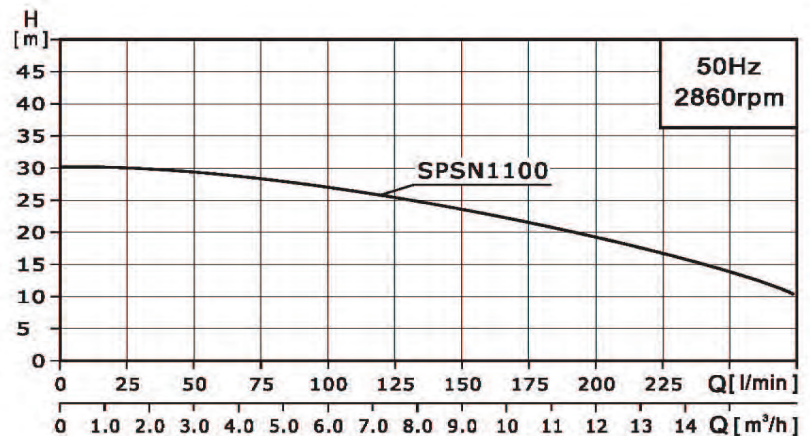
| Modoe   | Power<br>[ kW ] | Outlet diameter<br>[ mm ] | Voltage<br>[ V/Hz ] | Max.flow<br>[ l/min ] | Max.head<br>[ m ] | G.W.<br>[ kg ] | Dimensions<br>[ mm ] |
|---------|-----------------|---------------------------|---------------------|-----------------------|-------------------|----------------|----------------------|
| SPSN900 | 0.9             | 50                        | 220 / 50            | 233                   | 14                | 18.0           | 505×225×205          |

## PART VIEW:

| No. | DESCRIPTION       | MATERIAL        | No. | DESCRIPTION           | MATERIAL        |
|-----|-------------------|-----------------|-----|-----------------------|-----------------|
| 1   | Handle            | 11              | 28  | Washer                | CuZn40          |
| 2   | Bolt              | 11              | 29  | Upper cover           | 11              |
| 3   | Washer            | 11              | 30  | Thermal protector     | Combined pieces |
| 4   | Protector         | FKM             | 31  | Motor stator          | 11              |
| 5   | Cable presser     | 11              | 32  | Undulated washer      | 1566            |
| 6   | Screw             | 11              | 33  | Ball bearing          | Combined pieces |
| 7   | Flange            | 11              | 34  | Rotor                 | Combined pieces |
| 8   | Cable             | Combined pieces | 35  | key                   | 4               |
| 9   | Cable protector   | CR              | 36  | Ball bearing          | Combined pieces |
| 10  | Out-let connector | ABS             | 37  | "O" ring              | FKM             |
| 11  | "O" ring          | FKM             | 38  | Lower bearing bracket | 11              |
| 12  | Motor shell       | 11              | 39  | Mechanical seal       | Sic/Sic         |
| 13  | Rubber washer     | FKM             | 40  | "O" ring              | NBR             |
| 14  | Washer            | Fe360A          | 41  | Upper guide leaf      | 11              |
| 15  | Nut               | 11              | 42  | Screw                 | 11              |
| 16  | Washer            | 11              | 43  | Oil seal              | Combined pieces |
| 17  | Screw             | 11              | 44  | Impeller              | 11              |
| 18  | "O" ring          | FKM             | 45  | "O" ring              | FKM             |
| 19  | Rubber washer     | FKM             | 46  | Pump cover            | 11              |
| 20  | Capacitor cover   | 11              | 47  | Screw                 | 11              |
| 21  | Bilateral bolt    | 11              | 48  | Washer                | 11              |
| 22  | Capacitor         | Combined pieces | 49  | Nut                   | 11              |
| 23  | "O" ring          | NBR             | 50  | Filter mesh           | 11              |
| 24  | Rudder washer     | FKM             | 51  | Bolt                  | 11              |
| 25  | Line protector    | NBR             |     |                       |                 |
| 26  | Screw             | CuZn40          |     |                       |                 |
| 27  | Stretching washer | 1566            |     |                       |                 |



## SPSN1100



## CONDITION OF USAGE:

1. Maximum operating depth 5m below water lever;
2. Continuous duty when fluid temperature under +40℃;
3. Maximum passage for suspended solid Φ0.2mm.

**Technical data(the data will be some change under different voltage and frequency)**

## FUNCTION AND FEATURE:

SPSN series are vertical complete stainless steel submersible pump (all spare parts contacted with water are made of AISI304), widely used for transferring water in mining, construction industry, breed aquatics, chemical industry, foodstuff processing, etc. Are also suitable for pumping seawater. SPSN pump is easy to cooperate and with good performance in draining and anti-corrosiveness. Thermal protector inside pump can automatically shut off the pump when overheating and overload, to guarantee safe and reliable operation under hard condition.

## TECHNICAL DATA:

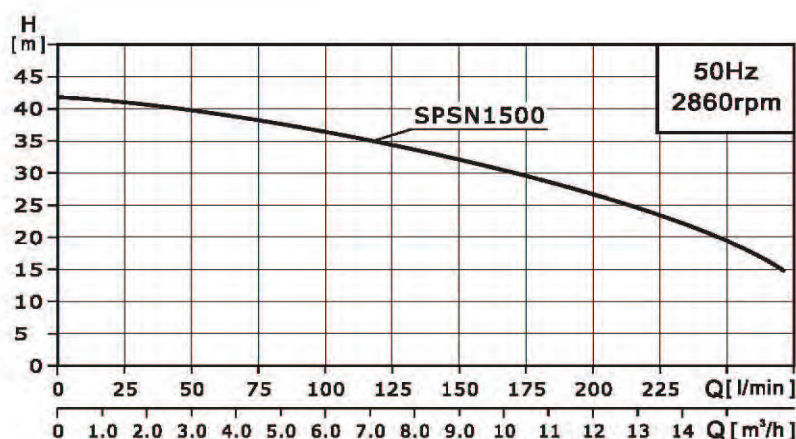
| Model    | Power [ kW ] | Outlet diameter [ mm ] | Voltage [ V/Hz ] | Max.flow [ l/min ] | Max.head [ m ] | G.W. [ kg ] | Dimensions [ mm ] |
|----------|--------------|------------------------|------------------|--------------------|----------------|-------------|-------------------|
| SPSN1100 | 1.1          | 50                     | 220 / 50         | 233                | 28             | 23.0        | 575×225×205       |

## PART VIEW:

| No. | DESCRIPTION       | MATERIAL        | No. | DESCRIPTION           | MATERIAL        |
|-----|-------------------|-----------------|-----|-----------------------|-----------------|
| 1   | Handle            | 11              | 28  | Washer                | CuZn40          |
| 2   | Bolt              | 11              | 29  | Upper cover           | 11              |
| 3   | Washer            | 11              | 30  | Thermal protector     | Combined pieces |
| 4   | Protector         | FKM             | 31  | Motor stator          | 11              |
| 5   | Cable presser     | 11              | 32  | Undulated washer      | 1566            |
| 6   | Screw             | 11              | 33  | Ball bearing          | Combined pieces |
| 7   | Flange            | 11              | 34  | Rotor                 | Combined pieces |
| 8   | Cable             | Combined pieces | 35  | key                   | 4               |
| 9   | Cable protector   | CR              | 36  | Ball bearing          | Combined pieces |
| 10  | Out-let connector | ABS             | 37  | "O" ring              | FKM             |
| 11  | "O" ring          | FKM             | 38  | Lower bearing bracket | 11              |
| 12  | Motor shell       | 11              | 39  | Mechanical seal       | Sic/Sic         |
| 13  | Rubber washer     | FKM             | 40  | Upper guide leaf      | 11              |
| 14  | Washer            | 11              | 41  | Screw                 | 11              |
| 15  | Nut               | Fe360A          | 42  | Oil seal              | 11              |
| 16  | Washer            | 11              | 43  | Impeller              | Combined pieces |
| 17  | Screw             | 11              | 44  | Guide vane separator  | 11              |
| 18  | "O" ring          | FKM             | 45  | Lower guide leaf      | 11              |
| 19  | Rubber washer     | FKM             | 46  | Shaft sleeve          | 11              |
| 20  | Capacitor cover   | 11              | 47  | "O" ring              | FKM             |
| 21  | Bilateral bolt    | 11              | 48  | Pump cover            | 11              |
| 22  | Capacitor         | Combined pieces | 49  | Screw                 | 11              |
| 23  | "O" ring          | NBR             | 50  | Washer                | 11              |
| 24  | Rubber washer     | FKM             | 51  | Nut                   | 11              |
| 25  | Line protector    | NBR             | 52  | Filter mesh           | 11              |
| 26  | Screw             | CuZn40          | 53  | Bolt                  | 11              |
| 27  | Stretching washer | 1566            |     |                       |                 |



## SPSN1500



## CONDITION OF USAGE:

1. Maximum operating depth 5m below water lever;
2. Continuous duty when fluid temperature under +40℃;
3. Maximum passage for suspended solid Φ0.2mm.

Technical data(the data will be some change under different voltage and frequency)

## FUNCTION AND FEATURE:

SPSN series are vertical complete stainless steel submersible pump (all spare parts contacted with water are made of AISI304), widely used for transferring water in mining, construction industry, breed aquatics, chemical industry, foodstuff processing, etc. Are also suitable for pumping seawater. SPSN pump is easy to cooperate and with good performance in draining and anti-corrosiveness. Thermal protector inside pump can automatically shut off the pump when overheating and overload, to guarantee safe and reliable operation under hard condition.

## TECHNICAL DATA:

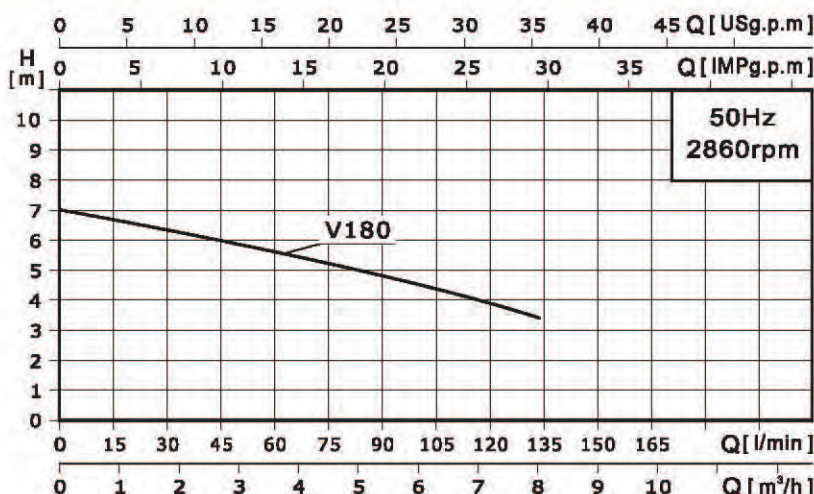
| Modoe    | Power [ kW ] | Outlet diameter [ mm ] | Voltage [ V/Hz ] | Max.flow [ l/min ] | Max.head [ m ] | G.W. [ kg ] | Dimensions [ mm ] |
|----------|--------------|------------------------|------------------|--------------------|----------------|-------------|-------------------|
| SPSN1500 | 1.5          | 50                     | 220 / 50         | 233                | 42             | 28.0        | 645×205×220       |

## PART VIEW:

| No. | DESCRIPTION       | MATERIAL        | No. | DESCRIPTION           | MATERIAL        |
|-----|-------------------|-----------------|-----|-----------------------|-----------------|
| 1   | Handle            | 11              | 28  | Washer                | CuZn40          |
| 2   | Bolt              | 11              | 29  | Upper cover           | 11              |
| 3   | Washer            | 11              | 30  | Thermal protector     | Combined pieces |
| 4   | Protector         | FKM             | 31  | Motor stator          | 11              |
| 5   | Cable presser     | 11              | 32  | Undulated washer      | 1566            |
| 6   | Screw             | 11              | 33  | Ball bearing          | Combined pieces |
| 7   | Flange            | 11              | 34  | Rotor                 | Combined pieces |
| 8   | Cable             | Combined pieces | 35  | key                   | 4               |
| 9   | Cable protector   | CR              | 36  | Ball bearing          | Combined pieces |
| 10  | Out-let connector | ABS             | 37  | "O" ring              | FKM             |
| 11  | "O" ring          | FKM             | 38  | Lower bearing bracket | 11              |
| 12  | Motor shell       | 11              | 39  | Mechanical seal       | Sic/Sic         |
| 13  | Rubber washer     | FKM             | 40  | Upper guide leaf      | 11              |
| 14  | Washer            | 11              | 41  | Screw                 | 11              |
| 15  | Nut               | Fe360A          | 42  | Oil seal              | 11              |
| 16  | Washer            | 11              | 43  | Impeller              | Combined pieces |
| 17  | Screw             | 11              | 44  | Guide vane separator  | 11              |
| 18  | "O" ring          | FKM             | 45  | Lower guide leaf      | 11              |
| 19  | Rubber washer     | FKM             | 46  | Shaft sleeve          | 11              |
| 20  | Capacitor cover   | 11              | 47  | "O" ring              | FKM             |
| 21  | Bilateral bolt    | 11              | 48  | Pump cover            | 11              |
| 22  | Capacitor         | Combined pieces | 49  | Screw                 | 11              |
| 23  | "O" ring          | NBR             | 50  | Washer                | 11              |
| 24  | Rubber washer     | FKM             | 51  | Nut                   | 11              |
| 25  | Line protector    | NBR             | 52  | Filter mesh           | 11              |
| 26  | Screw             | CuZn40          | 53  | Bolt                  | 11              |
| 27  | Stretching washer | 1566            |     |                       |                 |



## V180F



## OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Sewage or grey water of neutral PH containing up to 10% of small soft organic solids

## FEATURES AND APPLICATION:

This advanced V series, single phase waste water pumps with high efficiency open multi-channel impeller are ideal for pumping dirty water with slight soiled liquids. The maximum solid size is 15mm. The bottom suction design and abrasive resistance material made them very suitable for:

- Drainage of sewage from building basements and waste water from factories.
- Emptying of septic tanks and sump.
- Pumping surface and drainage water from garage.

The float switch can automatically control on/off of pump with the change of the liquid level. Equipped with automatic reset protection. Power is automatically cut off when overload or over heat.

## TECHNICAL DATA:

| Model | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | Max. diameter of [mm] | G.W. [kg] | Dimensions [mm] |
|-------|------------|----------------------|----------------|-------------------|---------------|-----------------------|-----------|-----------------|
| V180  | 0.18       | 40 / 32 / 25         | 220 / 50       | 133               | 7             | 15                    | 9.0       | 185 × 180 × 360 |

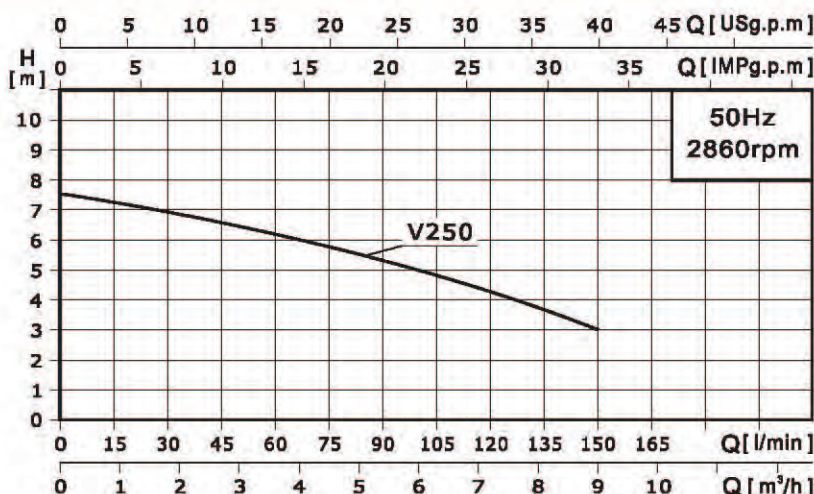
## FRAME DIAGRAM:

| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL         |
|-----|-------------------|----------|-----|-------------------|------------------|
| 1   | Bolt              | 11       | 25  | Motor stator      | 11               |
| 2   | Stretching washer | 11       | 26  | Screw             | 11               |
| 3   | Washer            | 11       | 27  | Stretching washer | 11               |
| 4   | Handle            | 11       | 28  | Thermal protector |                  |
| 5   | Screw             | 11       | 29  | Undulated washer  | 1566             |
| 6   | Cable             |          | 30  | Ball bearing      |                  |
| 7   | Flange            | 11       | 31  | Rotor             |                  |
| 8   | Cable protector   | CR       | 32  | Ball bearing      |                  |
| 9   | Capacitor cover   | No35B    | 33  | Rubber washer     | NBR              |
| 10  | Screw             | 11       | 34  | Screw             | 11               |
| 11  | Cable presser     | 11       | 35  | "O" ring          | NBR              |
| 12  | Protector         | NR       | 36  | Connection part   | No35B            |
| 13  | "O" ring          | NBR      | 37  | Mechanical seal   | Alumina/Graphite |
| 14  | Capacitor         |          | 38  | "O" ring          | NBR              |
| 15  | Rubber washer     | NBR      | 39  | Oil chamber cover | No35B            |
| 16  | Screw             | Fe360A   | 40  | Washer            | 11               |
| 17  | Stretching washer | 1566     | 41  | Screw             | 11               |
| 18  | Washer            | Fe360A   | 42  | Oil seal          |                  |
| 19  | Press plate       | Fe360A   | 43  | Impeller          | PA66/30%Fiber    |
| 20  | Line protector    | NBR      | 44  | Nut               | 11               |
| 21  | Screw             | CuZn40   | 45  | One-let connector | ABS              |
| 22  | Stretching washer | 1566     | 46  | "O" ring          | NBR              |
| 23  | Washer            | CuZn40   | 47  | Pump body         | No35B            |
| 24  | Nut               | 11       | 48  | Float switch      |                  |

Code " F " means pump assembled with float switch



## V250F



## OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Sewage or grey water of neutral PH containing up to 10% of small soft organic solids

## FEATURES AND APPLICATION:

This advanced V series, single phase waste water pumps with high efficiency open multi-channel impeller are ideal for pumping dirty water with slight soiled liquids. The maximum solid size is 15mm. The bottom suction design and abrasive resistance material made them very suitable for:

- Drainage of sewage from building basements and waste water from factories.
- Emptying of septic tanks and sump.
- Pumping surface and drainage water from garage.

The float switch can automatically control on/off of pump with the change of the liquid level. Equipped with automatic reset protection. Power is automatically cut off when overload or over heat.

## TECHNICAL DATA:

| Model | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | Max. diameter of [mm] | G.W. [kg] | Dimensions [mm] |
|-------|------------|----------------------|----------------|-------------------|---------------|-----------------------|-----------|-----------------|
| V250  | 0.25       | 40 / 32 / 25         | 220 / 50       | 150               | 7.5           | 15                    | 9.5       | 185 × 180 × 380 |

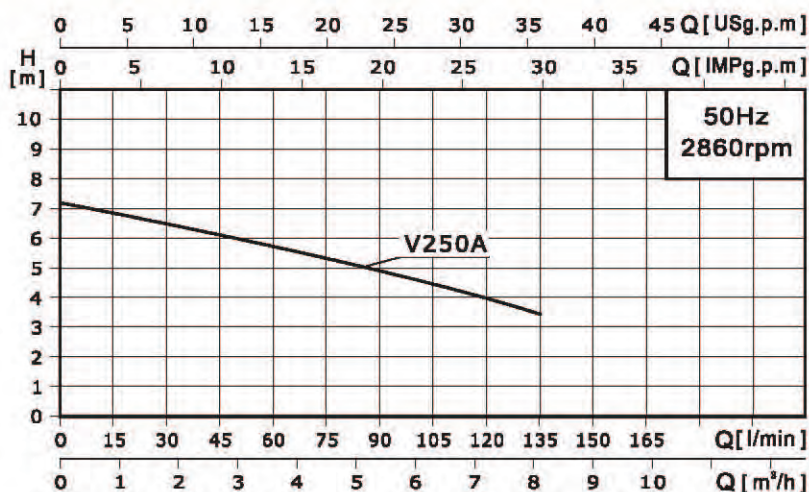
## FRAME DIAGRAM:

| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL         |
|-----|-------------------|----------|-----|-------------------|------------------|
| 1   | Bolt              | 11       | 25  | Motor stator      | 11               |
| 2   | Stretching washer | 11       | 26  | Screw             | 11               |
| 3   | Washer            | 11       | 27  | Stretching washer | 11               |
| 4   | Handle            | 11       | 28  | Thermal protector |                  |
| 5   | Screw             | 11       | 29  | Undulated washer  | 1566             |
| 6   | Cable             |          | 30  | Ball bearing      |                  |
| 7   | Flange            | 11       | 31  | Rotor             |                  |
| 8   | Cable protector   | CR       | 32  | Ball bearing      |                  |
| 9   | Capacitor cover   | No35B    | 33  | Rubber washer     | NBR              |
| 10  | Screw             | 11       | 34  | Screw             | 11               |
| 11  | Cable presser     | 11       | 35  | "O" ring          | NBR              |
| 12  | Protector         | NR       | 36  | Connection part   | No35B            |
| 13  | "O" ring          | NBR      | 37  | Mechanical seal   | Alumina/Graphite |
| 14  | Capacitor         |          | 38  | "O" ring          | NBR              |
| 15  | Rubber washer     | NBR      | 39  | Oil chamber cover | No35B            |
| 16  | Screw             | Fe360A   | 40  | Washer            | 11               |
| 17  | Stretching washer | 1566     | 41  | Screw             | 11               |
| 18  | Washer            | Fe360A   | 42  | Oil seal          |                  |
| 19  | Press plate       | Fe360A   | 43  | Impeller          | PA66/30%Fiber    |
| 20  | Line protector    | NBR      | 44  | Nut               | 11               |
| 21  | Screw             | CuZn40   | 45  | One-let connector | ABS              |
| 22  | Stretching washer | 1566     | 46  | "O" ring          | NBR              |
| 23  | Washer            | CuZn40   | 47  | Pump body         | No35B            |
| 24  | Nut               | 11       | 48  | Float switch      |                  |

Code " F " means pump assembled with float switch



## V250AF



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Sewage or grey water of neutral PH containing up to 10% of small soft organic solids

### FEATURES AND APPLICATION:

This advanced V series, single phase waste water pumps with high efficiency open multi-channel impeller are ideal for pumping dirty water with slight soiled liquids. The maximum solid size is 10mm. The bottom suction design and abrasive resistance material made them very suitable for:

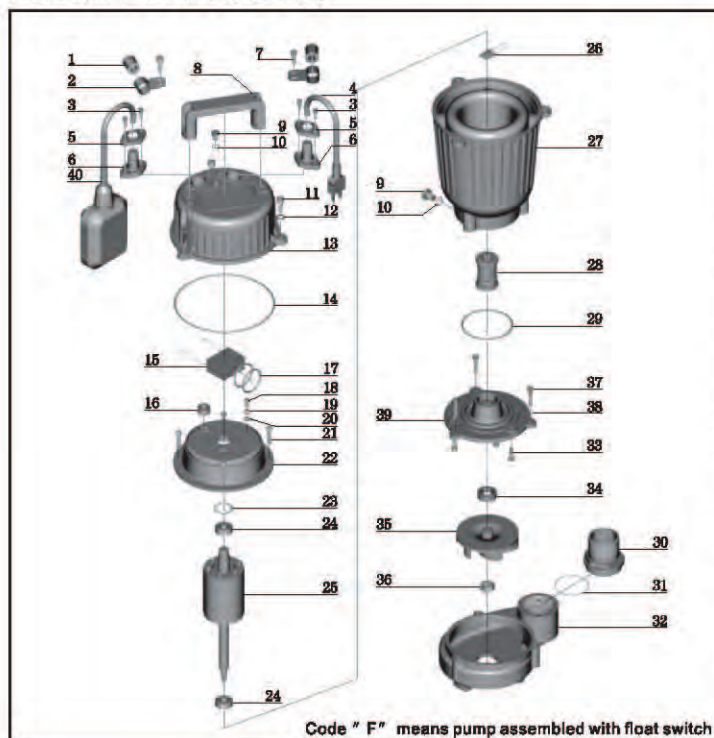
- Drainage of sewage from building basements and waste water from factories.
- Emptying of septic tanks and sump.
- Pumping surface and drainage water from garage.

The float switch can automatically control on/off of pump with the change of the liquid level. Equipped with automatic reset protection. Power is automatically cut off when overload or over heat.

### TECHNICAL DATA:

| Model | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | Max. diameter of [mm] | G.W. [kg] | Dimensions [mm] |
|-------|------------|----------------------|----------------|-------------------|---------------|-----------------------|-----------|-----------------|
| V250A | 0.25       | 25/32/40             | 220 / 50       | 133               | 7             | 10                    | 9.5       | 205×185×340     |

### FRAME DIAGRAM:

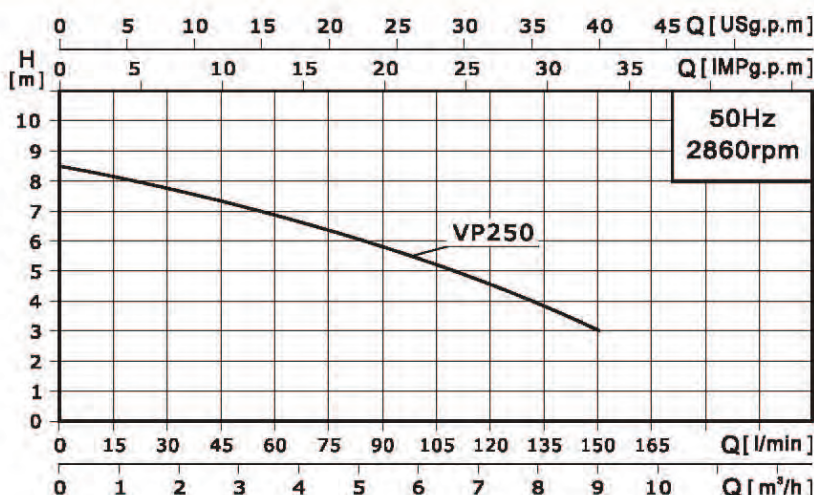


Code " F " means pump assembled with float switch

| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL         |
|-----|-------------------|----------|-----|-------------------|------------------|
| 1   | Protector         | NR       | 25  | Rotor             |                  |
| 2   | Cable presser     | 11       | 26  | Thermal protector |                  |
| 3   | Screw             | 11       | 27  | Motor stator      | AlSi12           |
| 4   | Cable             |          | 28  | Mechanical seal   | Alumina/Graphite |
| 5   | Flange            | 11       | 29  | "O" ring          | NBR              |
| 6   | Cable protector   | CR       | 30  | Out-let connector | ABS              |
| 7   | Screw             | 11       | 31  | "O" ring          | NBR              |
| 8   | Handle            | ABS      | 32  | Pump body         | No35B            |
| 9   | Bolt              | 11       | 33  | Screw             | 11               |
| 10  | "O" ring          | NBR      | 34  | Oil seal          |                  |
| 11  | Screw             | 11       | 35  | Impeller          | PA66/30%Fiber    |
| 12  | Washer            | 11       | 36  | Nut               | 11               |
| 13  | Capacitor cover   | AlSi12   | 37  | Screw             | 11               |
| 14  | "O" ring          | NBR      | 38  | Washer            | 11               |
| 15  | Capacitor         |          | 39  | Connection part   | No35B            |
| 16  | Line protector    | NBR      | 40  | Float switch      |                  |
| 17  | "O" ring          | NBR      |     |                   |                  |
| 18  | Screw             | CuZn40   |     |                   |                  |
| 19  | Stretching washer | 1566     |     |                   |                  |
| 20  | Washer            | CuZn40   |     |                   |                  |
| 21  | Screw             | Fe360A   |     |                   |                  |
| 22  | Motor stator      | AlSi12   |     |                   |                  |
| 23  | Undulated washer  | 1566     |     |                   |                  |
| 24  | Ball bearing      |          |     |                   |                  |



## VP250F



## OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Waste water or grey water of 4-10 PH containing up to 10% of small soft organic solids

## FEATURES AND APPLICATION:

VP portable submersible pump with reinforce nylon wetted parts and stainless steel motor cover and fasteners. This single phase waste water pumps with high efficiency open multi-channel impeller can be are ideal for pumping dirty water with slight soiled liquids. The maximum solid size is 25mm. The bottom suction design and abrasive resistance material made them very suitable for:

- Drainage of light chemical and waste water from factories.
- Emptying of septic tanks and sump.
- Pumping surface and drainage water from garage.
- Seawater in ship and fish farm.

Equipped with automatic reset protection. Power is automatically cut off when overload or over heat.

## TECHNICAL DATA:

| Model | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | Max. diameter of [mm] | G.W. [kg] | Dimensions [mm] |
|-------|------------|----------------------|----------------|-------------------|---------------|-----------------------|-----------|-----------------|
| VP250 | 0.25       | 25/32/40             | 220 / 50       | 150               | 8.5           | 25                    | 6.0       | 185×180×405     |

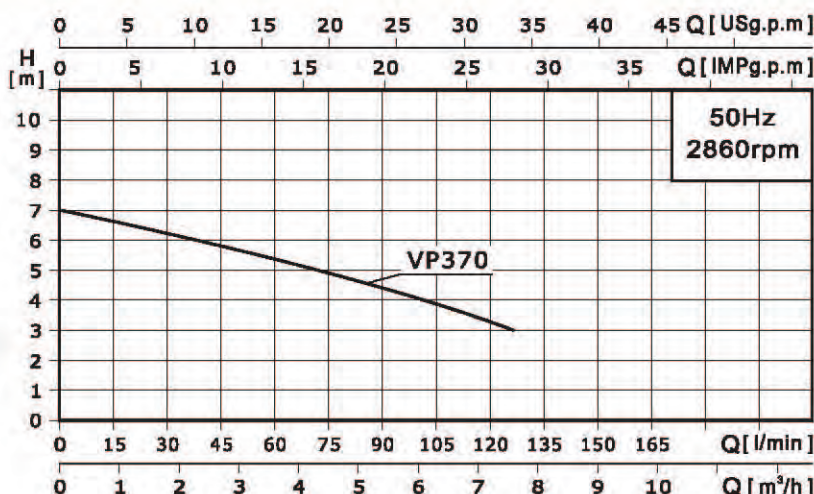
## FRAME DIAGRAM:

| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL            |
|-----|-------------------|----------|-----|-------------------|---------------------|
| 1   | Bolt              | 0Cr18Ni9 | 25  | Stator            | 0Cr18Ni9            |
| 2   | Stretching washer | 0Cr18Ni9 | 26  | Screw             | 0Cr18Ni9            |
| 3   | Washer            | 0Cr18Ni9 | 27  | Spring washer     | 0Cr18Ni9            |
| 4   | Handle            | 0Cr18Ni9 | 28  | Thermal protector |                     |
| 5   | Screw             | 0Cr18Ni9 | 29  | Undulated washer  | 65Mn                |
| 6   | Cable             |          | 30  | Bearing           |                     |
| 7   | Flange            | 0Cr18Ni9 | 31  | Rotor             |                     |
| 8   | Cable protector   | Rubber   | 32  | Bearing           |                     |
| 9   | Capacitor cover   | Nylon    | 33  | Gasket            | Rubber              |
| 10  | Screw             | 0Cr18Ni9 | 34  | Bot               | 0Cr18Ni9            |
| 11  | Cable presser     | 0Cr18Ni9 | 35  | "O" ring          | Rubber              |
| 12  | Protector         | Rubber   | 36  | Connection part   | Plastic             |
| 13  | "O" ring          | Rubber   | 37  | Mechanical seal   | Graphite to ceramic |
| 14  | Capacitor         |          | 38  | "O" ring          | Rubber              |
| 15  | Gasket washer     | Rubber   | 39  | Oil chamber cover | Nylon               |
| 16  | Screw             | Q-235-A  | 40  | Washer            | 0Cr18Ni9            |
| 17  | Spring washer     | 65Mn     | 41  | Screw             | 0Cr18Ni9            |
| 18  | Washer            | Q-235-A  | 42  | Oil seal          |                     |
| 19  | Bearing plate     | Q-235-A  | 43  | Impeller          | Nylon               |
| 20  | Line protector    | Rubber   | 44  | Nut               | 0Cr18Ni9            |
| 21  | Screw             | H62      | 45  | Out-let connector | ABS                 |
| 22  | Spring washer     | 65Mn     | 46  | "O" ring          | Rubber              |
| 23  | Washer            | H62      | 47  | Pump casing       | Nylon               |
| 24  | Nut               | 0Cr18Ni9 | 48  | Float switch      |                     |

Code " F " means pump assembled with float switch



## VP370F



## CONDITION OF USAGE:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Rain or grey water of neutral pH containing up to 2% of small soft organic solids.

## FEATURES AND APPLICATION:

Double cased submersible dewatering sump pump. The casing is made of reinforced polypropylene, and motor frame and fasteners are made of stainless steel for attractive lasting appearance and long service life.

Double casing with full discharge flow past internal of motor shell enable pump to operate in partially submerged installation and better cooling for longer life. The pump is equipped with preset length float switch for automatic operation. Automatic resetting thermal overload protects motor from overloading.

The pump with open impeller is able to pump small soft solid in suspension, they are ideal for application such as:

- Domestic rain or grey water for gardens
- Sump emptying
- Water transfer
- Emergency household flood relief
- Pumping in partially submerged application.

## TECHNICAL DATA:

| Model | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | Max. diameter of [mm] | G.W. [kg] | Dimensions [mm] |
|-------|------------|----------------------|----------------|-------------------|---------------|-----------------------|-----------|-----------------|
| VP370 | 0.37       | 32                   | 220 / 50       | 130               | 7.0           | 20                    | 5.3       | 200 × 190 × 330 |

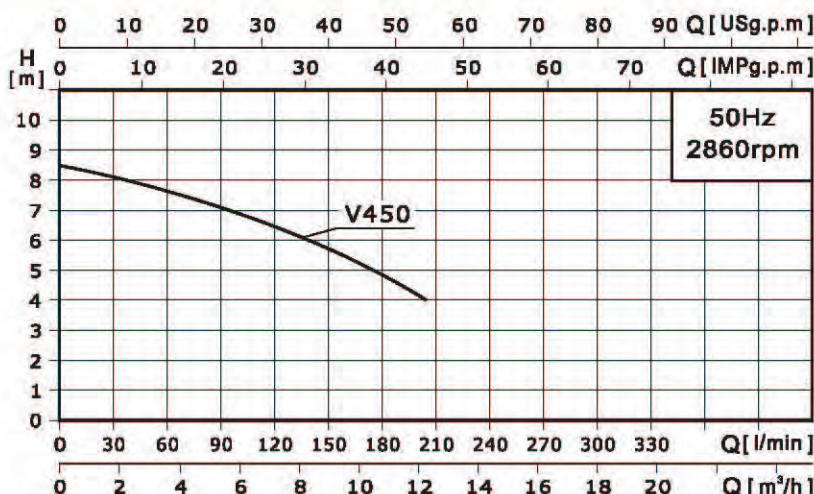
## FRAME DIAGRAM:

| No. | DESCRIPTION       | MATERIAL                 | No. | DESCRIPTION     | MATERIAL                 |
|-----|-------------------|--------------------------|-----|-----------------|--------------------------|
| 1   | Cable             |                          | 25  | Rotor           |                          |
| 2   | Flot switch       |                          | 26  | Lower cover     | Plastic                  |
| 3   | Screw             | 0Cr18Ni9                 | 27  | Oil seal        |                          |
| 4   | Screw             | 0Cr18Ni9                 | 28  | "O" ring        | Rubber                   |
| 5   | Cable protector   | Rubber                   | 29  | Connection part | Reinforced polypropylene |
| 6   | Flange            | 0Cr18Ni9                 | 30  | Screw           | 0Cr18Ni9                 |
| 7   | Screw             | 0Cr18Ni9                 | 31  | "O" ring        | Rubber                   |
| 8   | Gasket            | Rubber                   | 32  | Screw           | 0Cr18Ni9                 |
| 9   | Handle            | Reinforced polypropylene | 33  | Mechanical seal | Graphite to ceramic      |
| 10  | Nut               | ABS                      | 34  | Impeller        | Reinforced polypropylene |
| 11  | Outlet connector  | ABS                      | 35  | Screw           | 0Cr18Ni9                 |
| 12  | Screw             | 0Cr18Ni9                 | 36  | Gasket          | Rubber                   |
| 13  | "O" ring          | Rubber                   | 37  | Pump cover      | 0Cr18Ni9                 |
| 14  | Frame             | Reinforced polypropylene | 38  | Pump casing     | Reinforced polypropylene |
| 15  | Capacitor clip    | ABS                      | 39  | Base plate      | Reinforced polypropylene |
| 16  | Capacitor         |                          | 40  | Screw           | 0Cr18Ni9                 |
| 17  | Upper cover       | polypropylene            |     |                 |                          |
| 18  | "O" ring          | Rubber                   |     |                 |                          |
| 19  | Seal ring         | ABS                      |     |                 |                          |
| 20  | Stator            |                          |     |                 |                          |
| 21  | Screw             | 0Cr18Ni9                 |     |                 |                          |
| 22  | Thermal protector |                          |     |                 |                          |
| 23  | Undulate washer   | 65Mn                     |     |                 |                          |
| 24  | Bearing           |                          |     |                 |                          |

Code " F " means pump assembled with float switch



## V450F



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Sewage or grey water of neutral PH containing up to 10% of small soft organic solids.

### FEATURES AND APPLICATION:

This advanced V series, single phase waste water pumps with high efficiency open multi-channel impeller are ideal for pumping dirty water with slight soiled liquids. The maximum solid size is 25mm. The bottom suction design and abrasive resistance material made them very suitable for:

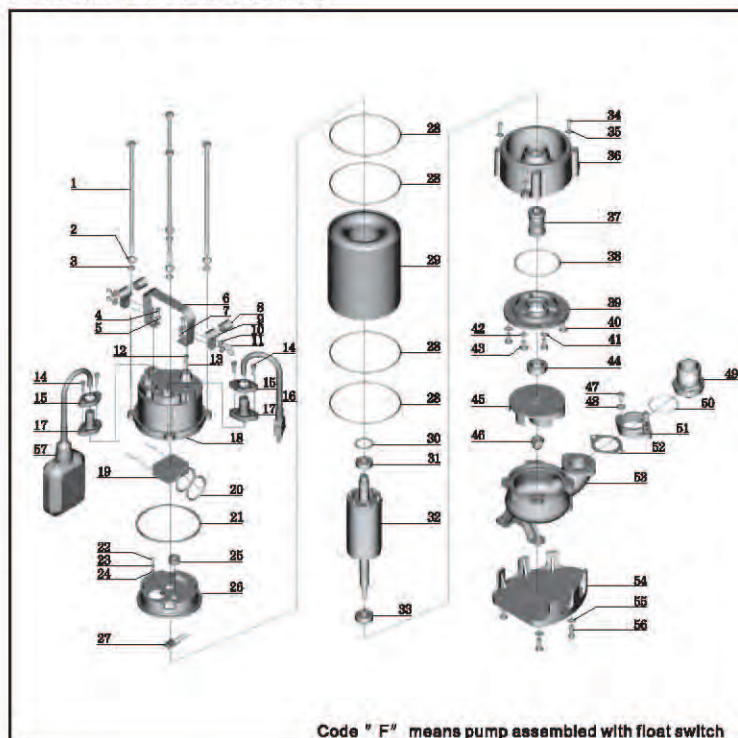
- Drainage of sewage from building basements and waste water from factories.
- Emptying of septic tanks and sump.
- Pumping surface and drainage water from garage.

The float switch can automatically control on/off of pump with the change of the liquid level. Equipped with automatic reset protection. Power is automatically cut off when overload or over heat.

### TECHNICAL DATA:

| Model | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | Max. diameter of [mm] | G.W. [kg] | Dimensions [mm] |
|-------|------------|----------------------|----------------|-------------------|---------------|-----------------------|-----------|-----------------|
| V450  | 0.45       | 50                   | 220 / 50       | 200               | 8.5           | 25                    | 18        | 255×195×495     |

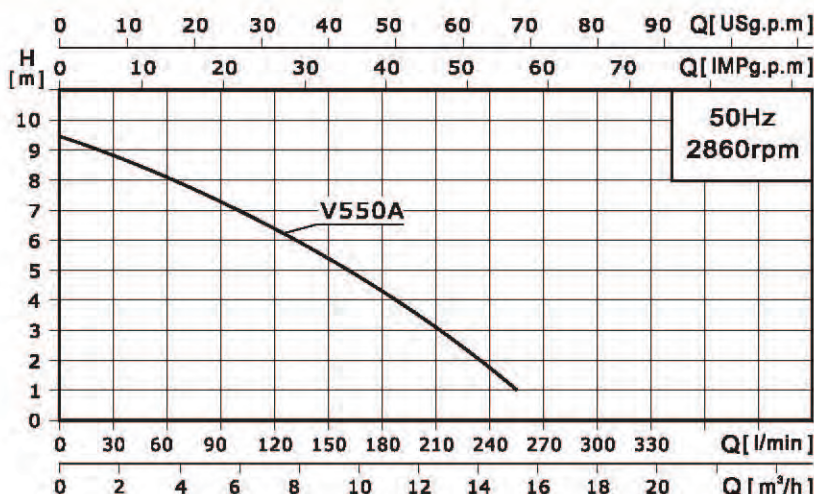
### FRAME DIAGRAM:



| No | DESCRIPTION       | MATERIAL | No | DESCRIPTION       | MATERIAL         |
|----|-------------------|----------|----|-------------------|------------------|
| 1  | Bolt              | 11       | 30 | Undulated washer  | 1566             |
| 2  | Stretching washer | 11       | 31 | Ball bearing      |                  |
| 3  | Washer            | 11       | 32 | Rotor             |                  |
| 4  | Bolt              | 11       | 33 | Ball bearing      |                  |
| 5  | Washer            | 11       | 34 | Screw             | 11               |
| 6  | Handle            | 11       | 35 | Washer            | 11               |
| 7  | Nut               | 11       | 36 | Connection part   | No35B            |
| 8  | Protector         | NR       | 37 | Mechanical seal   | Alumina/Graphite |
| 9  | Cable presser     | 11       | 38 | "O" ring          | NBR              |
| 10 | Washer            | 11       | 39 | Oil chamber cover | No35B            |
| 11 | Screw             | 11       | 40 | Screw             | 11               |
| 12 | Bolt              | 11       | 41 | Washer            | 11               |
| 13 | "O" ring          | NBR      | 42 | "O" ring          | NBR              |
| 14 | Screw             | 11       | 43 | Screw             | 11               |
| 15 | Flange            | 11       | 44 | Oil seal          |                  |
| 16 | Cable             |          | 45 | Impeller          | No35B            |
| 17 | Cable protector   | CR       | 46 | Nut               | 11               |
| 18 | Capacitor cover   | No35B    | 47 | Bolt              | 11               |
| 19 | Capacitor         |          | 48 | Washer            | 11               |
| 20 | "O" ring          | NBR      | 49 | Out-let connector | ABS              |
| 21 | Rubber washer     | NBR      | 50 | "O" ring          | NBR              |
| 22 | Screw             | CuZn40   | 51 | Connection nut    | No35B            |
| 23 | Stretching washer | 1566     | 52 | Rubber washer     | NBR              |
| 24 | Washer            | CuZn40   | 53 | Pump body         | No35B            |
| 25 | Line protector    | NBR      | 54 | Base plate        | No35B            |
| 26 | Motor cover       | No35B    | 55 | Washer            | 11               |
| 27 | Thermal protector |          | 56 | Screw             | 11               |
| 28 | "O" ring          | No35B    | 57 | Float switch      |                  |
| 29 | Motor stator      | 11       |    |                   |                  |



## V550AF



## OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C;
3. Suitable Fluids: Sewage or grey water of neutral PH containing up to 10% of small soft organic solids.

## FEATURES AND APPLICATION:

This advanced V series, single phase waste water pumps with high efficiency open multi-channel impeller are ideal for pumping dirty water with slight soiled liquids. The maximum solid size is 15mm. The bottom suction design and abrasive resistance material made them very suitable for:

- Drainage of sewage from building basements and waste water from factories.
- Emptying of septic tanks and sump.
- Pumping surface and drainage water from garage.

The float switch can automatically control on/off of pump with the change of the liquid level. Equipped with automatic reset protection. Power is automatically cut off when overload or over heat.

## TECHNICAL DATA:

| Model | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | Max. diameter of [mm] | G.W. [kg] | Dimensions [mm] |
|-------|------------|----------------------|----------------|-------------------|---------------|-----------------------|-----------|-----------------|
| V550A | 0.55       | 32/40                | 220 / 50       | 260               | 9.5           | 15                    | 14.5      | 245×220×405     |

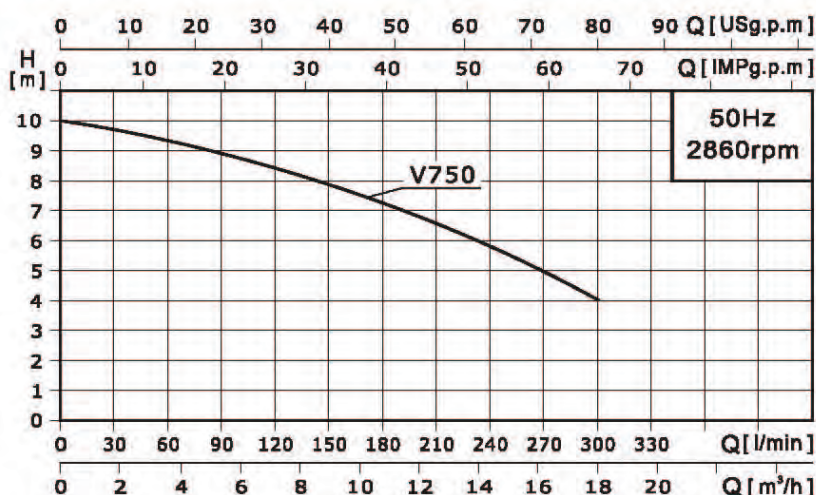
## FRAME DIAGRAM:

| No. | DESCRIPTION       | MATERIAL         | No. | DESCRIPTION       | MATERIAL |
|-----|-------------------|------------------|-----|-------------------|----------|
| 1   | Protector         | NR               | 29  | "O" ring          | NBR      |
| 2   | Cable presser     | 11               | 30  | Out-let connector | ABS      |
| 3   | Screw             | 11               | 31  | "O" ring          | NBR      |
| 4   | Cable             |                  | 32  | Pump body         | No35B    |
| 5   | Flange            | 11               | 33  | Screw             | 11       |
| 6   | Cable protector   | CR               | 34  | Oil seal          |          |
| 7   | Screw             | 11               | 35  | Impeller          | No35B    |
| 8   | Handle            | ABS              | 36  | Nut               | 11       |
| 9   | Screw             | 11               | 37  | Bolt              | 11       |
| 10  | "O" ring          | NBR              | 38  | Washer            | 11       |
| 11  | Bolt              | 11               | 39  | Connection part   | No35B    |
| 12  | Washer            | 11               | 40  | Screw             | 11       |
| 13  | Capacitor cover   | AlSi12           | 41  | Float switch      | 11       |
| 14  | "O" ring          | NBR              | 42  | Tees              | Pa66     |
| 15  | Capacitor         |                  | 43  | Rubber washer     | NBR      |
| 16  | Line protector    | NBR              | 44  | Key               | 4        |
| 17  | "O" ring          | NBR              | 45  | Ball bearing      |          |
| 18  | Screw             | CuZn40           | 46  | Bolt              | 11       |
| 19  | Stretching washer | 1566             | 47  | Washer            | 11       |
| 20  | Washer            | CuZn40           | 48  | Rubber washer     | NBR      |
| 21  | Rubber washer     | NBR              | 49  | Rubber mat        | NR       |
| 22  | Motor cover       | AlSi12           | 50  | Bolt              | 11       |
| 23  | Undulated washer  | 1566             | 51  | Washer            | 11       |
| 24  | Ball bearing      |                  | 52  | Connection nut    | No35B    |
| 25  | Rotor             |                  | 53  | Rubber washer     | NBR      |
| 26  | Thermal protector |                  | 54  | Washer            | 11       |
| 27  | Motor stator      | AlSi12           | 55  | Nut               | 11       |
| 28  | Mechanical seal   | Alumina/Graphite |     |                   |          |

Code " F " means pump assembled with float switch



## V750F



## OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Sewage or grey water of neutral PH containing up to 10% of small soft organic solids.

## FEATURES AND APPLICATION:

This advanced V series, single phase waste water pumps with high efficiency open multi-channel impeller are ideal for pumping dirty water with slight soiled liquids. The maximum solid size is 25mm. The bottom suction design and abrasive resistance material made them very suitable for:

- Drainage of sewage from building basements and waste water from factories.
- Emptying of septic tanks and sump.
- Pumping surface and drainage water from garage.

The float switch can automatically control on/off of pump with the change of the liquid level. Equipped with automatic reset protection. Power is automatically cut off when overload or over heat.

## TECHNICAL DATA:

| Model | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | Max. diameter of [mm] | G.W. [kg] | Dimensions [mm] |
|-------|------------|----------------------|----------------|-------------------|---------------|-----------------------|-----------|-----------------|
| V750  | 0.75       | 50                   | 220 / 50       | 300               | 10            | 25                    | 22        | 255×195×535     |

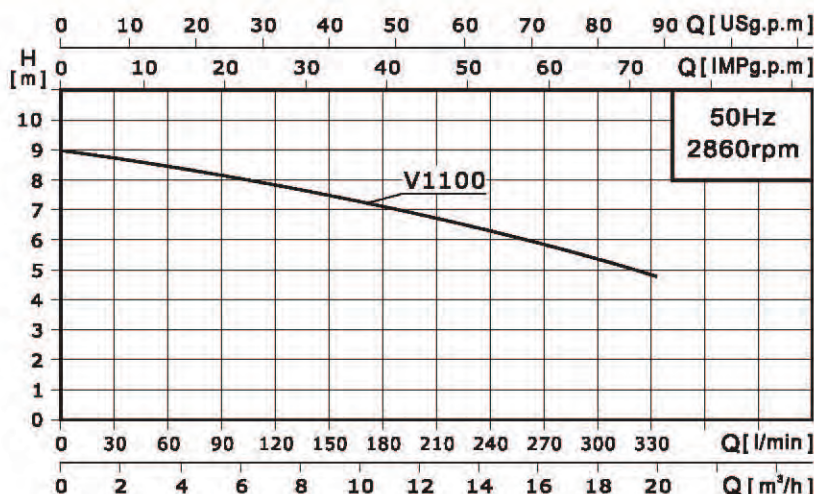
## FRAME DIAGRAM:

| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL         |
|-----|-------------------|----------|-----|-------------------|------------------|
| 1   | Bolt              | 11       | 30  | Undulated washer  | 1566             |
| 2   | Stretching washer | 11       | 31  | Ball bearing      |                  |
| 3   | Washer            | 11       | 32  | Rotor             |                  |
| 4   | Bolt              | 11       | 33  | Ball bearing      |                  |
| 5   | Washer            | 11       | 34  | Screw             | 11               |
| 6   | Handle            | 11       | 35  | Washer            | 11               |
| 7   | Nut               | 11       | 36  | Connection part   | No35B            |
| 8   | Protector         | NR       | 37  | Mechanical seal   | Alumina/Graphite |
| 9   | Cable presser     | 11       | 38  | "O" ring          | NBR              |
| 10  | Washer            | 11       | 39  | Oil chamber cover | No35B            |
| 11  | Screw             | 11       | 40  | Screw             | 11               |
| 12  | Bolt              | 11       | 41  | Washer            | 11               |
| 13  | "O" ring          | NBR      | 42  | "O" ring          | NBR              |
| 14  | Screw             | 11       | 43  | Screw             | 11               |
| 15  | Flange            | 11       | 44  | Oil seal          |                  |
| 16  | Cable             |          | 45  | Impeller          | No35B            |
| 17  | Cable protector   | CR       | 46  | Nut               | 11               |
| 18  | Capacitor cover   | No35B    | 47  | Bolt              | 11               |
| 19  | Capacitor         |          | 48  | Washer            | 11               |
| 20  | "O" ring          | NBR      | 49  | Out-let connector | AB5              |
| 21  | Rubber washer     | NBR      | 50  | "O" ring          | NBR              |
| 22  | Screw             | CuZn40   | 51  | Connection nut    | No35B            |
| 23  | Stretching washer | 1566     | 52  | Rubber washer     | NBR              |
| 24  | Washer            | CuZn40   | 53  | Pump body         | No35B            |
| 25  | Line protector    | NBR      | 54  | Base plate        | No35B            |
| 26  | Motor cover       | No35B    | 55  | Washer            | 11               |
| 27  | Thermal protector |          | 56  | Screw             | 11               |
| 28  | "O" ring          | NBR      | 57  | Float switch      |                  |
| 29  | Motor stator      | 11       |     |                   |                  |

Code " F " means pump assembled with float switch



## V1100F



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Sewage or grey water of neutral PH containing up to 10% of small soft organic solids.

### FEATURES AND APPLICATION:

This advanced V series, single phase waste water pumps with high efficiency open multi-channel impeller are ideal for pumping dirty water with slight soiled liquids. The maximum solid size is 35mm. The bottom suction design and abrasive resistance material made them very suitable for:

- Drainage of sewage from building basements and waste water from factories.
- Emptying of septic tanks and sump.
- Pumping surface and drainage water from garage.

The float switch can automatically control on/off of pump with the change of the liquid level. Equipped with automatic reset protection. Power is automatically cut off when overload or over heat.

### TECHNICAL DATA:

| Model | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | Max. diameter of [mm] | G.W. [kg] | Dimensions [mm] |
|-------|------------|----------------------|----------------|-------------------|---------------|-----------------------|-----------|-----------------|
| V750  | 1.1        | 50                   | 220 / 50       | 333               | 9.0           | 35                    | 23.5      | 275×225×555     |

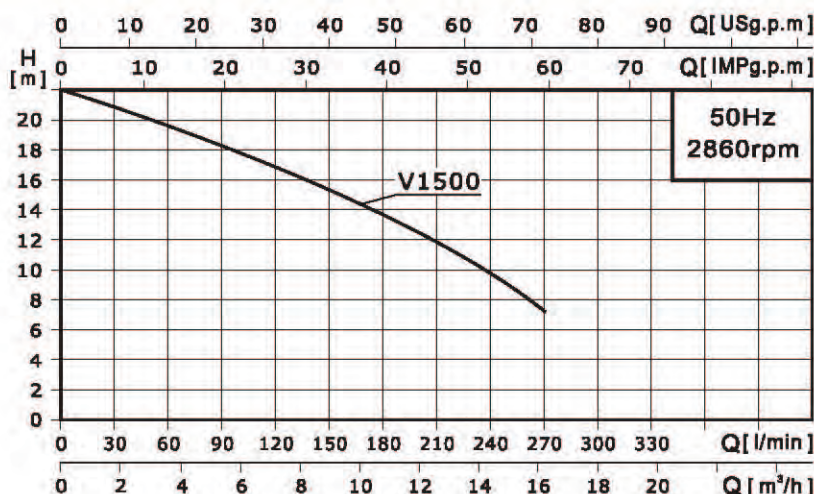
### FRAME DIAGRAM:

| No | DESCRIPTION       | MATERIAL | No | DESCRIPTION       | MATERIAL        |
|----|-------------------|----------|----|-------------------|-----------------|
| 1  | Bolt              | 11       | 25 | Line protector    | NBR             |
| 2  | Stretching washer | 11       | 26 | Upper cover       | No35B           |
| 3  | Washer            | 11       | 27 | Thermal protector |                 |
| 4  | Bolt              | 11       | 28 | *O*ring           | NBR             |
| 5  | Washer            | 11       | 29 | Motor stator      | 11              |
| 6  | Handle            | 11       | 30 | Undulated washer  | 1566            |
| 7  | Nut               | 11       | 31 | Ball bearing      |                 |
| 8  | Protector         | NR       | 32 | Rotor             |                 |
| 9  | Cable presser     | 11       | 33 | Ball bearing      |                 |
| 10 | Washer            | 11       | 34 | Lower cover       | No35B           |
| 11 | Screw             | 11       | 35 | Mechanical seal   | Alumina/Graphit |
| 12 | Bolt              | 11       | 36 | Out-let connector | ABS             |
| 13 | *O*ring           | NBR      | 37 | *O*ring           | NBR             |
| 14 | Screw             | 11       | 38 | Pump body         | No35B           |
| 15 | Flange            | 11       | 39 | Oil seal          |                 |
| 16 | Cable             |          | 40 | Impeller          | No35B           |
| 17 | Cable protector   | CR       | 41 | Nut               | 11              |
| 18 | Capacitor cover   | No35B    | 42 | Pump cover        | 11              |
| 19 | Capacitor         |          | 43 | Base plate        | 11              |
| 20 | *O*ring           | NBR      | 44 | Washer            | 11              |
| 21 | Rubber washer     | NBR      | 45 | Bolt              | 11              |
| 22 | Screw             | CuZn40   | 46 | Float switch      |                 |
| 23 | Stretching washer | 1566     |    |                   |                 |
| 24 | Washer            | CuZn40   |    |                   |                 |

Code " F " means pump assembled with float switch



## V1500F



## OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Sewage or grey water of neutral PH containing up to 10% of small soft organic solids.

## FEATURES AND APPLICATION:

This advanced V series, single phase waste water pumps with high efficiency open multi-channel impeller are ideal for pumping dirty water with slight soiled liquids. The maximum solid size is 10mm. The bottom suction design and abrasive resistance material made them very suitable for:

- Drainage of sewage from building basements and waste water from factories.
- Emptying of septic tanks and sump.
- Pumping surface and drainage water from garage.

The float switch can automatically control on/off of pump with the change of the liquid level. Equipped with automatic reset protection. Power is automatically cut off when overload or over heat.

## TECHNICAL DATA:

| Model | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | Max. diameter of [mm] | G.W. [kg] | Dimensions [mm] |
|-------|------------|----------------------|----------------|-------------------|---------------|-----------------------|-----------|-----------------|
| V1500 | 1.5        | 40                   | 220 / 50       | 270               | 22            | 10                    | 27        | 585×350×245     |

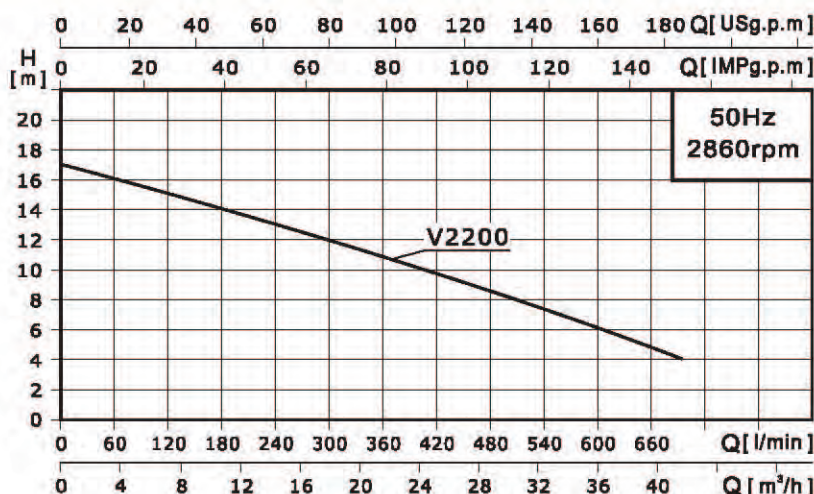
## FRAME DIAGRAM:

| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL         |
|-----|-------------------|----------|-----|-------------------|------------------|
| 1   | Bolt              | 11       | 30  | Undulated washer  | 1566             |
| 2   | Stretching washer | 11       | 31  | Ball bearing      |                  |
| 3   | Washer            | 11       | 32  | Rotor             |                  |
| 4   | Bolt              | 11       | 33  | Ball bearing      |                  |
| 5   | Washer            | 11       | 34  | Screw             | 11               |
| 6   | Handle            | 11       | 35  | Washer            | 11               |
| 7   | Nut               | 11       | 36  | Connection part   | No35B            |
| 8   | Protector         | CR       | 37  | Mechanical seal   | Alumina/Graphite |
| 9   | Cable presser     | 11       | 38  | "O" ring          | NBR              |
| 10  | Washer            | 11       | 39  | Oil chamber cover | No35B            |
| 11  | Screw             | 11       | 40  | Screw             | 11               |
| 12  | Bolt              | 11       | 41  | Washer            | 11               |
| 13  | "O" ring          | NBR      | 42  | "O" ring          | NBR              |
| 14  | Screw             | 11       | 43  | Screw             | 11               |
| 15  | Flange            | 11       | 44  | Oil seal          |                  |
| 16  | Cable             |          | 45  | Impeller          | No35B            |
| 17  | Cable protector   | CR       | 46  | Nut               | 11               |
| 18  | Capacitor cover   | No35B    | 47  | Bolt              | 11               |
| 19  | Capacitor         |          | 48  | Washer            | 11               |
| 20  | "O" ring          | NBR      | 49  | Out-let connector | ABS              |
| 21  | Rubber washer     | NBR      | 50  | "O" ring          | NBR              |
| 22  | Screw             | CuZn40   | 51  | Connection nut    | No35B            |
| 23  | Stretching washer | 1566     | 52  | Rubber washer     | NBR              |
| 24  | Washer            | CuZn40   | 53  | Pump body         | No35B            |
| 25  | Line protector    | NBR      | 54  | Base plate        | No35B            |
| 26  | Motor cover       | No35B    | 55  | Washer            | 11               |
| 27  | Thermal protector |          | 56  | Screw             | 11               |
| 28  | "O" ring          | NBR      | 57  | Key               | 4                |
| 29  | Motor stator      | 11       | 58  | Float switch      |                  |

Code " F " means pump assembled with float switch



## V2200F



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Sewage or grey water of neutral PH containing up to 10% of small soft organic solids.

### FEATURES AND APPLICATION:

This advanced V series, single phase waste water pumps with high efficiency open multi-channel impeller are ideal for pumping dirty water with slight soiled liquids. The maximum solid size is 20mm. The bottom suction design and abrasive resistance material made them very suitable for:

- Drainage of sewage from building basements and waste water from factories.
- Emptying of septic tanks and sump.
- Pumping surface and drainage water from garage.

The float switch can automatically control on/off of pump with the change of the liquid level. Equipped with automatic reset protection. Power is automatically cut off when overload or over heat.

### TECHNICAL DATA:

| Model | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | Max. diameter of [mm] | G.W. [kg] | Dimensions [mm] |
|-------|------------|----------------------|----------------|-------------------|---------------|-----------------------|-----------|-----------------|
| V2200 | 2.2        | 75                   | 220 / 50       | 700               | 17            | 20                    | 35        | 585×350×245     |

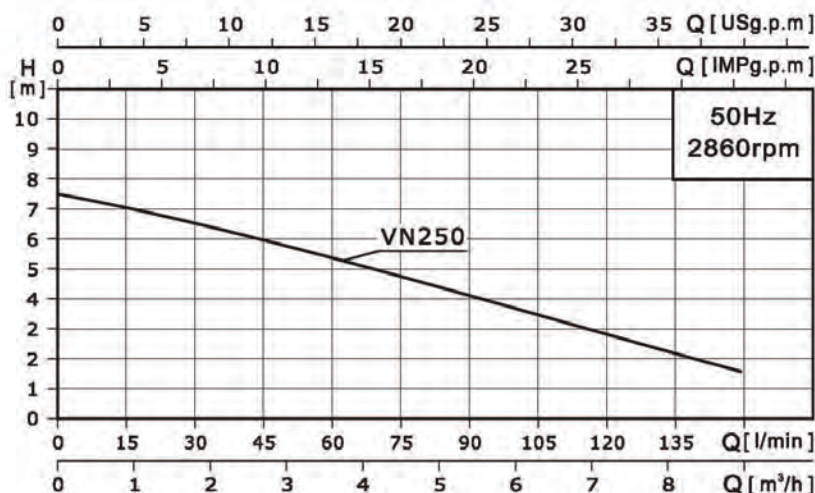
### FRAME DIAGRAM:

| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL         |
|-----|-------------------|----------|-----|-------------------|------------------|
| 1   | Bolt              | 11       | 28  | Key               | 11               |
| 2   | Washer            | 11       | 29  | Ball bearing      |                  |
| 3   | Handle            | 11       | 30  | "O" ring          | NBR              |
| 4   | Bolt              | 11       | 31  | Screw             | 11               |
| 5   | Nut               | 11       | 32  | Stretching washer | 11               |
| 6   | Protector         | NR       | 33  | Connection part   | NO35B            |
| 7   | Screw             | 11       | 34  | Mechanical seal   | Alumina/Graphite |
| 8   | Washer            | 11       | 35  | "O" ring          | NBR              |
| 9   | Cable presser     | 11       | 36  | Oil chamber cover | NO35B            |
| 10  | Screw             | 11       | 37  | Bolt              | 11               |
| 11  | Cable             |          | 38  | Oil seal          |                  |
| 12  | Flange            | 11       | 39  | Impeller          | NO35B            |
| 13  | Cable protector   | CR       | 40  | Washer            | 11               |
| 14  | Bolt              | 11       | 41  | Nut               | 11               |
| 15  | "O" ring          | NBR      | 42  | Bolt              | 11               |
| 16  | Stretching washer | 11       | 43  | Washer            | 11               |
| 17  | Capacitor cover   | NO35B    | 44  | Out-let connector | ABS              |
| 18  | "O" ring          | NBR      | 45  | "O" ring          | NBR              |
| 19  | Capacitor         |          | 46  | Connection nut    | NO35B            |
| 20  | "O" ring          | NBR      | 47  | Rubber washer     | NBR              |
| 21  | Motor cover       | NO35B    | 48  | Pump body         | NO35B            |
| 22  | "O" ring          | NBR      | 49  | Rubber washer     | NBR              |
| 23  | Thermal protector |          | 50  | Pump cover        | NO35B            |
| 24  | Motor stator      | 11       | 51  | Bolt              | 11               |
| 25  | Undulated washer  | 1566     | 52  | Filter mesh       | 11               |
| 26  | Ball bearing      |          | 53  | Screw             | 11               |
| 27  | Rotor             |          | 54  | Float switch      |                  |

Code " F " means pump assembled with float switch



### VN250



### OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Waste water or grey water of 4-10 PH containing up to 10% of small soft organic solids.

### FEATURES AND APPLICATION:

VN portable stainless steel submersible pump. This single phase waste water pumps with high efficiency open multi-channel impeller can be ideal for pumping dirty water with slight soiled liquids. The maximum solid size is 15mm. The bottom suction design and abrasive resistance material made them very suitable for:

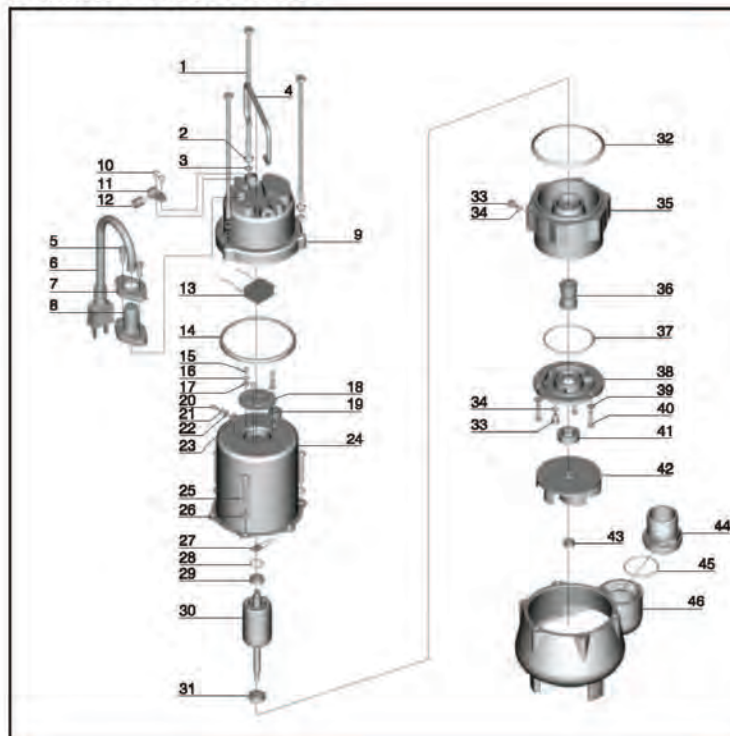
- Drainage of light chemical and waste water from factories.
- Emptying of septic tanks and sump.
- Pumping surface and drainage water from garage.
- Seawater in ship and fish farm.

Equipped with automatic reset protection. Power is automatically cut off when overload or over heat.

### TECHNICAL DATA:

| Model | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | Max. diameter of [mm] | G.W. [kg] | Dimensions [mm] |
|-------|------------|----------------------|----------------|-------------------|---------------|-----------------------|-----------|-----------------|
| VN250 | 0.25       | 40 / 32 / 25         | 220 / 50       | 150               | 7.5           | 15                    | 10.5      | 185 × 180 × 380 |

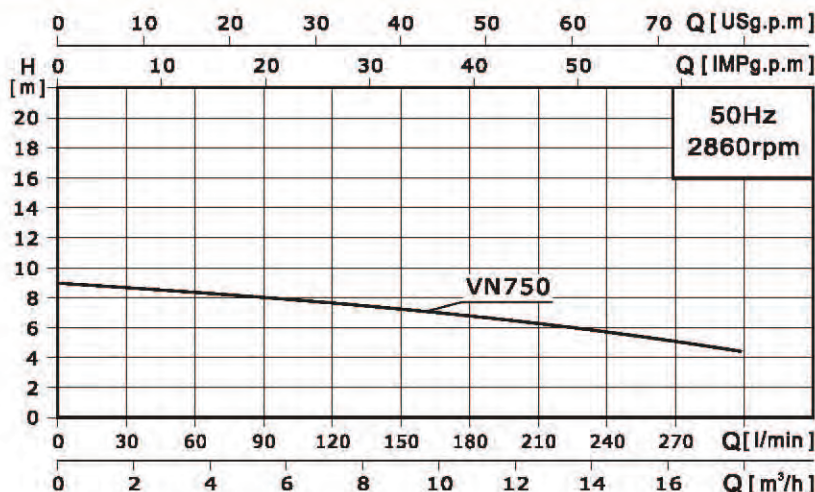
### FRAME DIAGRAM:



| Nº | DESCRIPTION       | MATERIAL | Nº | DESCRIPTION       | MATERIAL  |
|----|-------------------|----------|----|-------------------|-----------|
| 1  | Bolt              | 11       | 25 | Motor stator      | 11        |
| 2  | Stretching washer | 11       | 26 | Screw             | 11        |
| 3  | Washer            | 11       | 27 | Stretching washer | 11        |
| 4  | Handle            | 11       | 28 | Thermal protector |           |
| 5  | Screw             | 11       | 29 | Undulated washer  | 1566      |
| 6  | Cable             |          | 30 | Ball bearing      |           |
| 7  | Flange            | 11       | 31 | Rotor             |           |
| 8  | Cable protector   | CR       | 32 | Ball bearing      |           |
| 9  | Capacitor cover   | 11       | 33 | Rubber washer     | FKM       |
| 10 | Screw             | 11       | 34 | Screw             | 11        |
| 11 | Cable presser     | 11       | 35 | "O" ring          | FKM       |
| 12 | Protector         | CR       | 36 | Connection part   | 11        |
| 13 | "O" ring          | NBR      | 37 | Mechanical seal   | Sic / Sic |
| 14 | Capacitor         |          | 38 | "O" ring          | FKM       |
| 15 | Rubber washer     | FKM      | 39 | Oil chamber cover | 11        |
| 16 | Screw             | Fe360A   | 40 | Washer            | 11        |
| 17 | Stretching washer | 1566     | 41 | Screw             | 11        |
| 18 | Washer            | Fe360A   | 42 | Oil seal          |           |
| 19 | Press plate       | Fe360A   | 43 | Impeller          | 11        |
| 20 | Line protector    | NBR      | 44 | Nut               | 11        |
| 21 | Screw             | CuZn40   | 45 | Out-let connector | ABS       |
| 22 | Stretching washer | 1566     | 46 | "O" ring          | FKM       |
| 23 | Washer            | CuZn40   | 47 | Pump body         | 11        |
| 24 | Nut               | 11       |    |                   |           |



## VN750



## OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids: Waste water or grey water of 4-10 PH containing up to 10% of small soft organic solids.

## FEATURES AND APPLICATION:

VN portable stainless steel submersible pump. This single phase waste water pumps with high efficiency open multi-channel impeller can be ideal for pumping dirty water with slight soiled liquids. The maximum solid size is 25mm. The bottom suction design and abrasive resistance material made them very suitable for:

- Drainage of light chemical and waste water from factories.
- Emptying of septic tanks and sump.
- Pumping surface and drainage water from garage.
- Seawater in ship and fish farm.

Equipped with automatic reset protection. Power is automatically cut off when overload or over heat.

## TECHNICAL DATA:

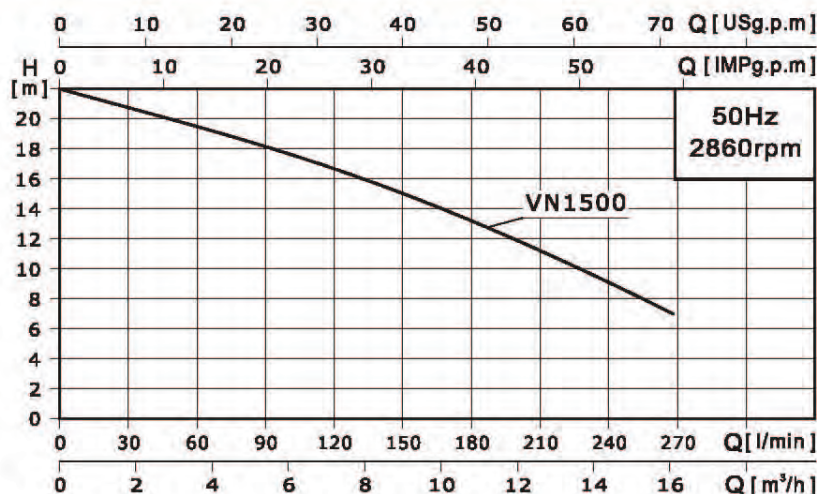
| Model | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | Max. diameter of [mm] | G.W. [kg] | Dimensions [mm] |
|-------|------------|----------------------|----------------|-------------------|---------------|-----------------------|-----------|-----------------|
| VN750 | 0.75       | 50                   | 220 / 50       | 300               | 12            | 25                    | 22        | 255×195×535     |

## FRAME DIAGRAM:

| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL  |
|-----|-------------------|----------|-----|-------------------|-----------|
| 1   | Bolt              | 11       | 29  | Motor stator      | 11        |
| 2   | Stretching washer | 11       | 30  | Undulated washer  | 1566      |
| 3   | Washer            | 11       | 31  | Ball bearing      |           |
| 4   | Bolt              | 11       | 32  | Rotor             |           |
| 5   | Washer            | 11       | 33  | Ball bearing      |           |
| 6   | Handle            | 11       | 34  | Screw             | 11        |
| 7   | Nut               | 11       | 35  | Washer            | 11        |
| 8   | Protector         | CR       | 36  | Connection part   | 11        |
| 9   | Cable presser     | 11       | 37  | Mechanical seal   | Sic / Sic |
| 10  | Washer            | 11       | 38  | "O" ring          | FKM       |
| 11  | Screw             | 11       | 39  | Oil chamber cover | 11        |
| 12  | Bolt              | 11       | 40  | Screw             | 11        |
| 13  | "O" ring          | FKM      | 41  | Washer            | 11        |
| 14  | Screw             | 11       | 42  | "O" ring          | FKM       |
| 15  | Flange            | 11       | 43  | Screw             | 11        |
| 16  | Cable             |          | 44  | Oil seal          |           |
| 17  | Cable protector   | CR       | 45  | Impeller          | 11        |
| 18  | Capacitor cover   | 11       | 46  | Nut               | 11        |
| 19  | Capacitor         |          | 47  | Bolt              | 11        |
| 20  | "O" ring          | NBR      | 48  | Washer            | 11        |
| 21  | Rubber washer     | FKM      | 49  | Out-let connector | ABS       |
| 22  | Screw             | CuZn40   | 50  | "O" ring          | FKM       |
| 23  | Stretching washer | 1566     | 51  | Connection nut    | 11        |
| 24  | Washer            | CuZn40   | 52  | Rubber washer     | FKM       |
| 25  | Line protector    | NBR      | 53  | Pump body         | 11        |
| 26  | Motor cover       | 11       | 54  | Base plate        | 11        |
| 27  | Thermal protector |          | 55  | Washer            | 11        |
| 28  | "O" ring          | FKM      | 56  | Screw             | 11        |



## VN1500



## OPERATION LIMITS:

1. Maximum submergence; 5 meter
2. Maximum operating temp; 40°C
3. Suitable Fluids; Waste water or grey water of 4-10 PH containing up to 10% of small soft organic solids.

## FEATURES AND APPLICATION:

VN portable stainless steel submersible pump. This single phase waste water pumps with high efficiency open multi-channel impeller can be ideal for pumping dirty water with slight soiled liquids. The maximum solid size is 10mm. The bottom suction design and abrasive resistance material made them very suitable for:

- Drainage of light chemical and waste water from factories.
- Emptying of septic tanks and sump.
- Pumping surface and drainage water from garage.
- Seawater in ship and fish farm.

Equipped with automatic reset protection. Power is automatically cut off when overload or over heat.

## TECHNICAL DATA:

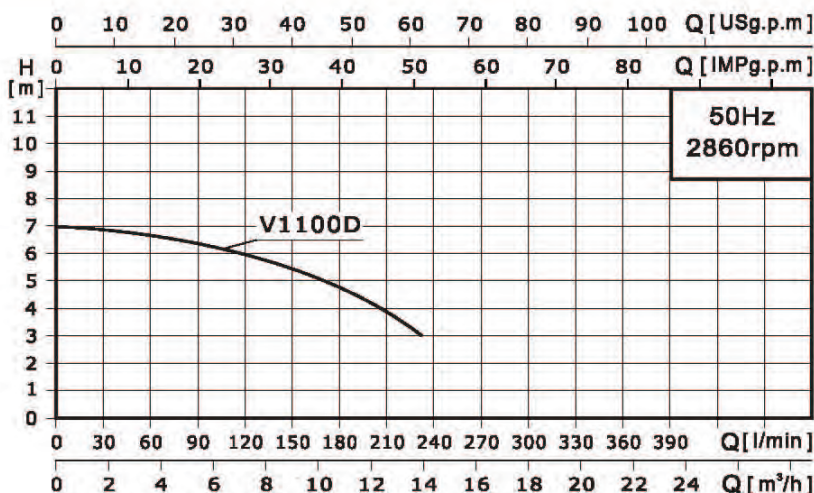
| Model  | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | Max. diameter of [mm] | G.W. [kg] | Dimensions [mm] |
|--------|------------|----------------------|----------------|-------------------|---------------|-----------------------|-----------|-----------------|
| VN1500 | 1.5        | 40                   | 220 / 50       | 270               | 22            | 10                    | 28.5      | 585×350×245     |

## FRAME DIAGRAM:

|     |                   |          | <table border="1"> <thead> <tr> <th>No.</th><th>DESCRIPTION</th><th>MATERIAL</th><th>No.</th><th>DESCRIPTION</th><th>MATERIAL</th></tr> </thead> <tbody> <tr><td>1</td><td>Bolt</td><td>11</td><td>30</td><td>Undulated washer</td><td>1566</td></tr> <tr><td>2</td><td>Stretching washer</td><td>11</td><td>31</td><td>Ball bearing</td><td></td></tr> <tr><td>3</td><td>Washer</td><td>11</td><td>32</td><td>Rotor</td><td></td></tr> <tr><td>4</td><td>Bolt</td><td>11</td><td>33</td><td>Ball bearing</td><td></td></tr> <tr><td>5</td><td>Washer</td><td>11</td><td>34</td><td>Screw</td><td>11</td></tr> <tr><td>6</td><td>Handle</td><td>11</td><td>35</td><td>Washer</td><td>11</td></tr> <tr><td>7</td><td>Nut</td><td>11</td><td>36</td><td>Connection part</td><td>11</td></tr> <tr><td>8</td><td>Protector</td><td>CR</td><td>37</td><td>Mechanical seal</td><td>Sic/Sic</td></tr> <tr><td>9</td><td>Cable presser</td><td>11</td><td>38</td><td>"O" ring</td><td>FKM</td></tr> <tr><td>10</td><td>Washer</td><td>11</td><td>39</td><td>Oil chamber cover</td><td>11</td></tr> <tr><td>11</td><td>Screw</td><td>11</td><td>40</td><td>Screw</td><td>11</td></tr> <tr><td>12</td><td>Bolt</td><td>11</td><td>41</td><td>Washer</td><td>11</td></tr> <tr><td>13</td><td>"O" ring</td><td>FKM</td><td>42</td><td>"O" ring</td><td>FKM</td></tr> <tr><td>14</td><td>Screw</td><td>11</td><td>43</td><td>Screw</td><td>11</td></tr> <tr><td>15</td><td>Flange</td><td>11</td><td>44</td><td>Oil seal</td><td></td></tr> <tr><td>16</td><td>Cable</td><td></td><td>45</td><td>Impeller</td><td>11</td></tr> <tr><td>17</td><td>Cable protector</td><td>CR</td><td>46</td><td>Nut</td><td>11</td></tr> <tr><td>18</td><td>Capacitor cover</td><td>11</td><td>47</td><td>Bolt</td><td>11</td></tr> <tr><td>19</td><td>Capacitor</td><td></td><td>48</td><td>Washer</td><td>11</td></tr> <tr><td>20</td><td>"O" ring</td><td>NBR</td><td>49</td><td>Out-let connector</td><td>ABS</td></tr> <tr><td>21</td><td>Rubber washer</td><td>FKM</td><td>50</td><td>"O" ring</td><td>FKM</td></tr> <tr><td>22</td><td>Screw</td><td>CuZn40</td><td>51</td><td>Connection nut</td><td>11</td></tr> <tr><td>23</td><td>Stretching washer</td><td>1566</td><td>52</td><td>Rubber washer</td><td>NBR</td></tr> <tr><td>24</td><td>Washer</td><td>CuZn40</td><td>53</td><td>Pump body</td><td>11</td></tr> <tr><td>25</td><td>Line protector</td><td>NBR</td><td>54</td><td>Base plate</td><td>11</td></tr> <tr><td>26</td><td>Motor cover</td><td>11</td><td>55</td><td>Washer</td><td>11</td></tr> <tr><td>27</td><td>Thermal protector</td><td></td><td>56</td><td>Screw</td><td>11</td></tr> <tr><td>28</td><td>"O" ring</td><td>FKM</td><td>57</td><td>Key</td><td>4</td></tr> <tr><td>29</td><td>Motor stator</td><td>11</td><td></td><td></td><td></td></tr> </tbody> </table> |                   |          | No. | DESCRIPTION | MATERIAL | No. | DESCRIPTION | MATERIAL | 1 | Bolt | 11 | 30 | Undulated washer | 1566 | 2 | Stretching washer | 11 | 31 | Ball bearing |  | 3 | Washer | 11 | 32 | Rotor |  | 4 | Bolt | 11 | 33 | Ball bearing |  | 5 | Washer | 11 | 34 | Screw | 11 | 6 | Handle | 11 | 35 | Washer | 11 | 7 | Nut | 11 | 36 | Connection part | 11 | 8 | Protector | CR | 37 | Mechanical seal | Sic/Sic | 9 | Cable presser | 11 | 38 | "O" ring | FKM | 10 | Washer | 11 | 39 | Oil chamber cover | 11 | 11 | Screw | 11 | 40 | Screw | 11 | 12 | Bolt | 11 | 41 | Washer | 11 | 13 | "O" ring | FKM | 42 | "O" ring | FKM | 14 | Screw | 11 | 43 | Screw | 11 | 15 | Flange | 11 | 44 | Oil seal |  | 16 | Cable |  | 45 | Impeller | 11 | 17 | Cable protector | CR | 46 | Nut | 11 | 18 | Capacitor cover | 11 | 47 | Bolt | 11 | 19 | Capacitor |  | 48 | Washer | 11 | 20 | "O" ring | NBR | 49 | Out-let connector | ABS | 21 | Rubber washer | FKM | 50 | "O" ring | FKM | 22 | Screw | CuZn40 | 51 | Connection nut | 11 | 23 | Stretching washer | 1566 | 52 | Rubber washer | NBR | 24 | Washer | CuZn40 | 53 | Pump body | 11 | 25 | Line protector | NBR | 54 | Base plate | 11 | 26 | Motor cover | 11 | 55 | Washer | 11 | 27 | Thermal protector |  | 56 | Screw | 11 | 28 | "O" ring | FKM | 57 | Key | 4 | 29 | Motor stator | 11 |  |  |  |
|-----|-------------------|----------|---|-------------------|----------|-----|-------------|----------|-----|-------------|----------|---|------|----|----|------------------|------|---|-------------------|----|----|--------------|--|---|--------|----|----|-------|--|---|------|----|----|--------------|--|---|--------|----|----|-------|----|---|--------|----|----|--------|----|---|-----|----|----|-----------------|----|---|-----------|----|----|-----------------|---------|---|---------------|----|----|----------|-----|----|--------|----|----|-------------------|----|----|-------|----|----|-------|----|----|------|----|----|--------|----|----|----------|-----|----|----------|-----|----|-------|----|----|-------|----|----|--------|----|----|----------|--|----|-------|--|----|----------|----|----|-----------------|----|----|-----|----|----|-----------------|----|----|------|----|----|-----------|--|----|--------|----|----|----------|-----|----|-------------------|-----|----|---------------|-----|----|----------|-----|----|-------|--------|----|----------------|----|----|-------------------|------|----|---------------|-----|----|--------|--------|----|-----------|----|----|----------------|-----|----|------------|----|----|-------------|----|----|--------|----|----|-------------------|--|----|-------|----|----|----------|-----|----|-----|---|----|--------------|----|--|--|--|
| No. | DESCRIPTION       | MATERIAL | No.   | DESCRIPTION       | MATERIAL |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 1   | Bolt              | 11       | 30  | Undulated washer  | 1566     |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 2   | Stretching washer | 11       | 31  | Ball bearing      |          |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 3   | Washer            | 11       | 32  | Rotor             |          |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 4   | Bolt              | 11       | 33  | Ball bearing      |          |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 5   | Washer            | 11       | 34  | Screw             | 11       |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 6   | Handle            | 11       | 35  | Washer            | 11       |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 7   | Nut               | 11       | 36  | Connection part   | 11       |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 8   | Protector         | CR       | 37  | Mechanical seal   | Sic/Sic  |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 9   | Cable presser     | 11       | 38  | "O" ring          | FKM      |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 10  | Washer            | 11       | 39  | Oil chamber cover | 11       |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 11  | Screw             | 11       | 40  | Screw             | 11       |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 12  | Bolt              | 11       | 41  | Washer            | 11       |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 13  | "O" ring          | FKM      | 42  | "O" ring          | FKM      |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 14  | Screw             | 11       | 43  | Screw             | 11       |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 15  | Flange            | 11       | 44  | Oil seal          |          |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 16  | Cable             |          | 45  | Impeller          | 11       |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 17  | Cable protector   | CR       | 46  | Nut               | 11       |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 18  | Capacitor cover   | 11       | 47  | Bolt              | 11       |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 19  | Capacitor         |          | 48  | Washer            | 11       |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 20  | "O" ring          | NBR      | 49  | Out-let connector | ABS      |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 21  | Rubber washer     | FKM      | 50  | "O" ring          | FKM      |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 22  | Screw             | CuZn40   | 51  | Connection nut    | 11       |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 23  | Stretching washer | 1566     | 52  | Rubber washer     | NBR      |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 24  | Washer            | CuZn40   | 53  | Pump body         | 11       |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 25  | Line protector    | NBR      | 54  | Base plate        | 11       |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 26  | Motor cover       | 11       | 55  | Washer            | 11       |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 27  | Thermal protector |          | 56  | Screw             | 11       |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 28  | "O" ring          | FKM      | 57  | Key               | 4        |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |
| 29  | Motor stator      | 11       |   |                   |          |     |             |          |     |             |          |   |      |    |    |                  |      |   |                   |    |    |              |  |   |        |    |    |       |  |   |      |    |    |              |  |   |        |    |    |       |    |   |        |    |    |        |    |   |     |    |    |                 |    |   |           |    |    |                 |         |   |               |    |    |          |     |    |        |    |    |                   |    |    |       |    |    |       |    |    |      |    |    |        |    |    |          |     |    |          |     |    |       |    |    |       |    |    |        |    |    |          |  |    |       |  |    |          |    |    |                 |    |    |     |    |    |                 |    |    |      |    |    |           |  |    |        |    |    |          |     |    |                   |     |    |               |     |    |          |     |    |       |        |    |                |    |    |                   |      |    |               |     |    |        |        |    |           |    |    |                |     |    |            |    |    |             |    |    |        |    |    |                   |  |    |       |    |    |          |     |    |     |   |    |              |    |  |  |  |



## V1100DF



## OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids:  
Semi screened sewage or waste water of neutral PH containing up to 20% small soft solids or 1% string like solids.

## FEATURES AND APPLICATION:

Submersible sewage pump with a high speed rotating cutter assembled at the pump inlet, made it easy to cut off all long-fiber and soft solids to entering the pump. Open impeller prevent blockage of the pump and small solid allow connection to small discharge pipe. The pump is equipped with float switch for automatic operation and automatic resetting thermal overload for overload protection. The pump is ideal for:

- Waste water pumping with long fiber and soft solid...
- Septic effluent & sewage waste disposal.
- Sump emptying.
- Kitchen waste water disposal.

## TECHNICAL DATA:

| Model  | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|--------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| V1100D | 1.1        | 50                   | 220 / 50       | 233               | 7             | 22.5      | 565 × 305 × 245 |

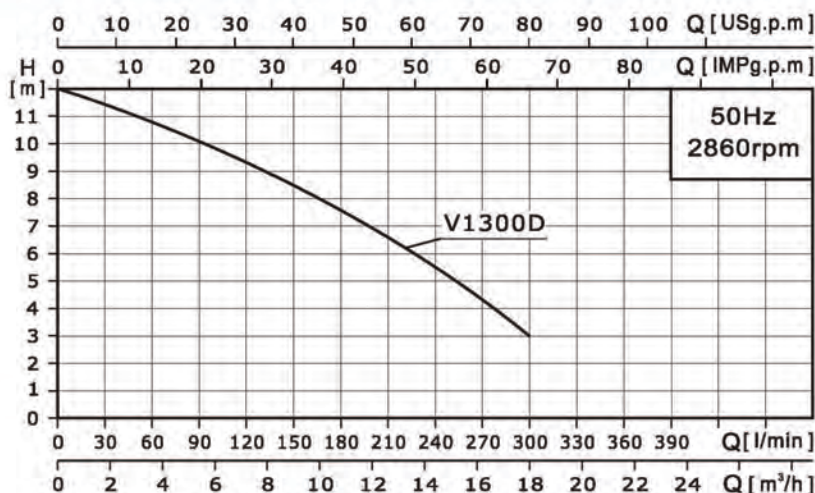
## FRAME DIAGRAM:

| No. | DESCRIPTION     | MATERIAL | No. | DESCRIPTION       | MATERIAL         |
|-----|-----------------|----------|-----|-------------------|------------------|
| 1   | Bolt            | 0Cr18Ni9 | 25  | Line protector    | Rubber           |
| 2   | Spring washer   | 0Cr18Ni9 | 26  | Upper cover       | HT200            |
| 3   | Washer          | 0Cr18Ni9 | 27  | Thermal protector |                  |
| 4   | Bolt            | 0Cr18Ni9 | 28  | "O" ring          | Rubber           |
| 5   | Washer          | 0Cr18Ni9 | 29  | Stator            |                  |
| 6   | Handle          | 0Cr18Ni9 | 30  | Undulated washer  | 65Mn             |
| 7   | Nut             | 0Cr18Ni9 | 31  | Bearing           |                  |
| 8   | Protector       | Rubber   | 32  | Rotor             |                  |
| 9   | Cable presser   | 0Cr18Ni9 | 33  | Key               | 2Cr13            |
| 10  | Washer          | 0Cr18Ni9 | 34  | Bearing           |                  |
| 11  | Screw           | 0Cr18Ni9 | 35  | Lower cover       | HT200            |
| 12  | Bolt            | 0Cr18Ni9 | 36  | Mechanical seal   | Alumina/Graphite |
| 13  | O ring          | Rubber   | 37  | Pump casing       | HT200            |
| 14  | Screw           | 0Cr18Ni9 | 38  | Oil seal          |                  |
| 15  | Flange          | 0Cr18Ni9 | 39  | Impeller          | HT200            |
| 16  | Cable           |          | 40  | Fixed cutter      | 40Cr             |
| 17  | Cable protector | Rubber   | 41  | Washer            | 0Cr18Ni9         |
| 18  | Capacitor cover | HT200    | 42  | Bolt              | 0Cr18Ni9         |
| 19  | Capacitor       |          | 43  | Rotoray cutter    | 40Cr             |
| 20  | "O" ring        | Rubber   | 44  | Washer            | 0Cr18Ni9         |
| 21  | Gasket          | Rubber   | 45  | Screw             | 0Cr18Ni9         |
| 22  | Screw           | 0Cr18Ni9 | 46  | Float switch      |                  |
| 23  | Spring washer   | 65Mn     |     |                   |                  |
| 24  | Washer          | 0Cr18Ni9 |     |                   |                  |

Code " F " means pump assembled with float switch



## V1300DF



## OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids:  
Semi screened sewage or waste water of neutral PH containing up to 20% small soft solids or 1% string like solids.

## FEATURES AND APPLICATION:

- Submersible sewage pump with a high speed rotating cutter assembled at the pump inlet, made it easy to cut off all long-fiber and soft solids to entering the pump. Open impeller prevent blockage of the pump and small solid allow connection to small discharge pipe. The pump is equipped with float switch for automatic operation and automatic resetting thermal overload for overload protection. The pump is ideal for:
- Waste water pumping with long fiber and soft solid...
  - Septic effluent & sewage waste disposal.
  - Sump emptying.
  - Kitchen waste water disposal.

## TECHNICAL DATA:

| Model  | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|--------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| V1300D | 1.3        | 50                   | 220 / 50       | 300               | 12            | 25.5      | 585 × 350 × 245 |

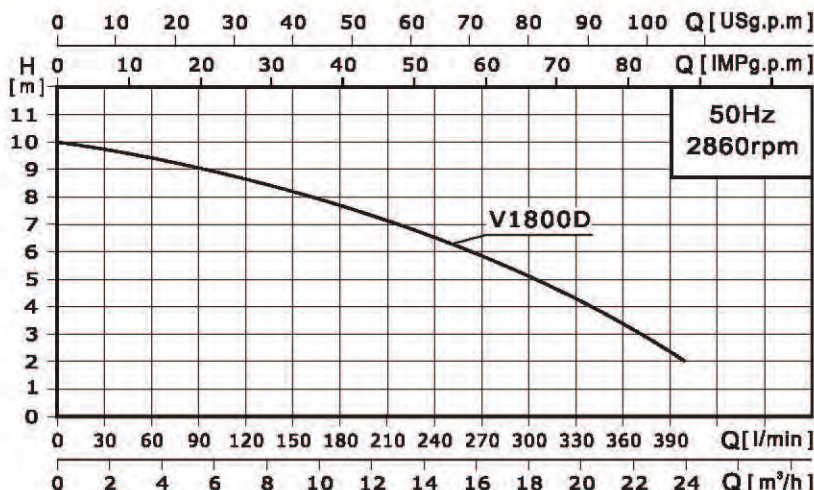
## FRAME DIAGRAM:

| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL         |
|-----|-------------------|----------|-----|-------------------|------------------|
| 1   | Bolt              | 11       | 28  | " O " ring        | NBR              |
| 2   | Stretching washer | 11       | 29  | Motor stator      | 11               |
| 3   | Washer            | 11       | 30  | Undulated washer  | 1566             |
| 4   | Bolt              | 11       | 31  | Ball bearing      |                  |
| 5   | Washer            | 11       | 32  | Rotor             |                  |
| 6   | Handle            | 11       | 33  | Ball bearing      |                  |
| 7   | Nut               | 11       | 34  | Screw             | 11               |
| 8   | Protector         | NR*      | 35  | Washer            | 11               |
| 9   | Cable presser     | 11       | 36  | Connection part   | No35B            |
| 10  | Washer            | 11       | 37  | Mechanical seal   | Alumina/graphite |
| 11  | Screw             | 11       | 38  | " O " ring        | NBR              |
| 12  | Bolt              | 11       | 39  | Oil chamber cover | No35B            |
| 13  | " O " ring        | NBR      | 40  | Screw             | 11               |
| 14  | Screw             | 11       | 41  | Washer            | 11               |
| 15  | Flange            | 11       | 42  | " O " ring        | NBR              |
| 16  | Cable             |          | 43  | Screw             | 11               |
| 17  | Cable protector   | CR       | 44  | Oil seal          |                  |
| 18  | Capacitor cover   | No35B    | 45  | Pump body         | No35B            |
| 19  | Capacitor         |          | 46  | Impeller          | No35B            |
| 20  | " O " ring        | NBR      | 47  | Shredding ring    | 41Cr4            |
| 21  | Rubber washer     | NBR      | 48  | Washer            | 11               |
| 22  | Screw             | CuZn40   | 49  | Bolt              | 11               |
| 23  | Stretching washer | 1566     | 50  | Radial cutter     | 41Cr4            |
| 24  | Washer            | CuZn40   | 51  | Washer            | 41Cr4            |
| 25  | Line protector    | NBR      | 52  | Screw             | 11               |
| 26  | Motor cover       | No35B    | 53  | Key               | 4                |
| 27  | Thermal protector |          | 54  | Float switch      |                  |

Code " F " means pump assembled with float switch



## V1800DF



## OPERATION LIMITS:

1. Maximum submergence: 5 meter
2. Maximum operating temp: 40°C
3. Suitable Fluids:  
Semi screened sewage or waste water of neutral PH containing up to 20% small soft solids or 1% string like solids.

## FEATURES AND APPLICATION:

Submersible sewage pump with a high speed rotating cutter assembled at the pump inlet, made it easy to cut off all long-fiber and soft solids to entering the pump. Open impeller prevent blockage of the pump and small solid allow connection to small discharge pipe. The pump is equipped with float switch for automatic operation and automatic resetting thermal overload for overload protection. The pump is ideal for:

- Waste water pumping with long fiber and soft solid...
- Septic effluent & sewage waste disposal.
- Sump emptying.
- Kitchen waste water disposal.

## TECHNICAL DATA:

| Model  | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [l/min] | Max. head [m] | G.W. [kg] | Dimensions [mm] |
|--------|------------|----------------------|----------------|-------------------|---------------|-----------|-----------------|
| V1800D | 1.8        | 75                   | 220 / 50       | 400               | 10            | 32.0      | 585 × 350 × 245 |

## FRAME DIAGRAM:

| No. | DESCRIPTION       | MATERIAL | No. | DESCRIPTION       | MATERIAL         |
|-----|-------------------|----------|-----|-------------------|------------------|
| 1   | Bolt              | 11       | 28  | " O " ring        | NBR              |
| 2   | Stretching washer | 11       | 29  | Motor stator      | 11               |
| 3   | Washer            | 11       | 30  | Undulated washer  | 1566             |
| 4   | Bolt              | 11       | 31  | Ball bearing      |                  |
| 5   | Washer            | 11       | 32  | Rotor             |                  |
| 6   | Handle            | 11       | 33  | Ball bearing      |                  |
| 7   | Nut               | 11       | 34  | Screw             | 11               |
| 8   | Protector         | NR       | 35  | Washer            | 11               |
| 9   | Cable presser     | 11       | 36  | Connection part   | No35B            |
| 10  | Washer            | 11       | 37  | Mechanical seal   | Alumina/graphite |
| 11  | Screw             | 11       | 38  | " O " ring        | NBR              |
| 12  | Bolt              | 11       | 39  | Oil chamber cover | No35B            |
| 13  | " O " ring        | NBR      | 40  | Screw             | 11               |
| 14  | Screw             | 11       | 41  | Washer            | 11               |
| 15  | Flange            | 11       | 42  | " O " ring        | NBR              |
| 16  | Cable             |          | 43  | Screw             | 11               |
| 17  | Cable protector   | CR       | 44  | Oil seal          |                  |
| 18  | Capacitor cover   | No35B    | 45  | Pump body         | No35B            |
| 19  | Capacitor         |          | 46  | Impeller          | No35B            |
| 20  | " O " ring        | NBR      | 47  | Shredding ring    | 41Cr4            |
| 21  | Rubber washer     | NBR      | 48  | Washer            | 11               |
| 22  | Screw             | CuZn40   | 49  | Bolt              | 11               |
| 23  | Stretching washer | 1566     | 50  | Radial cutter     | 41Cr4            |
| 24  | Washer            | CuZn40   | 51  | Washer            | 41Cr4            |
| 25  | Line protector    | NBR      | 52  | Screw             | 11               |
| 26  | Motor cover       | No35B    | 53  | Key               | 4                |
| 27  | Thermal protector |          | 54  | Float switch      |                  |

Code " F " means pump assembled with float switch



## DKTZ



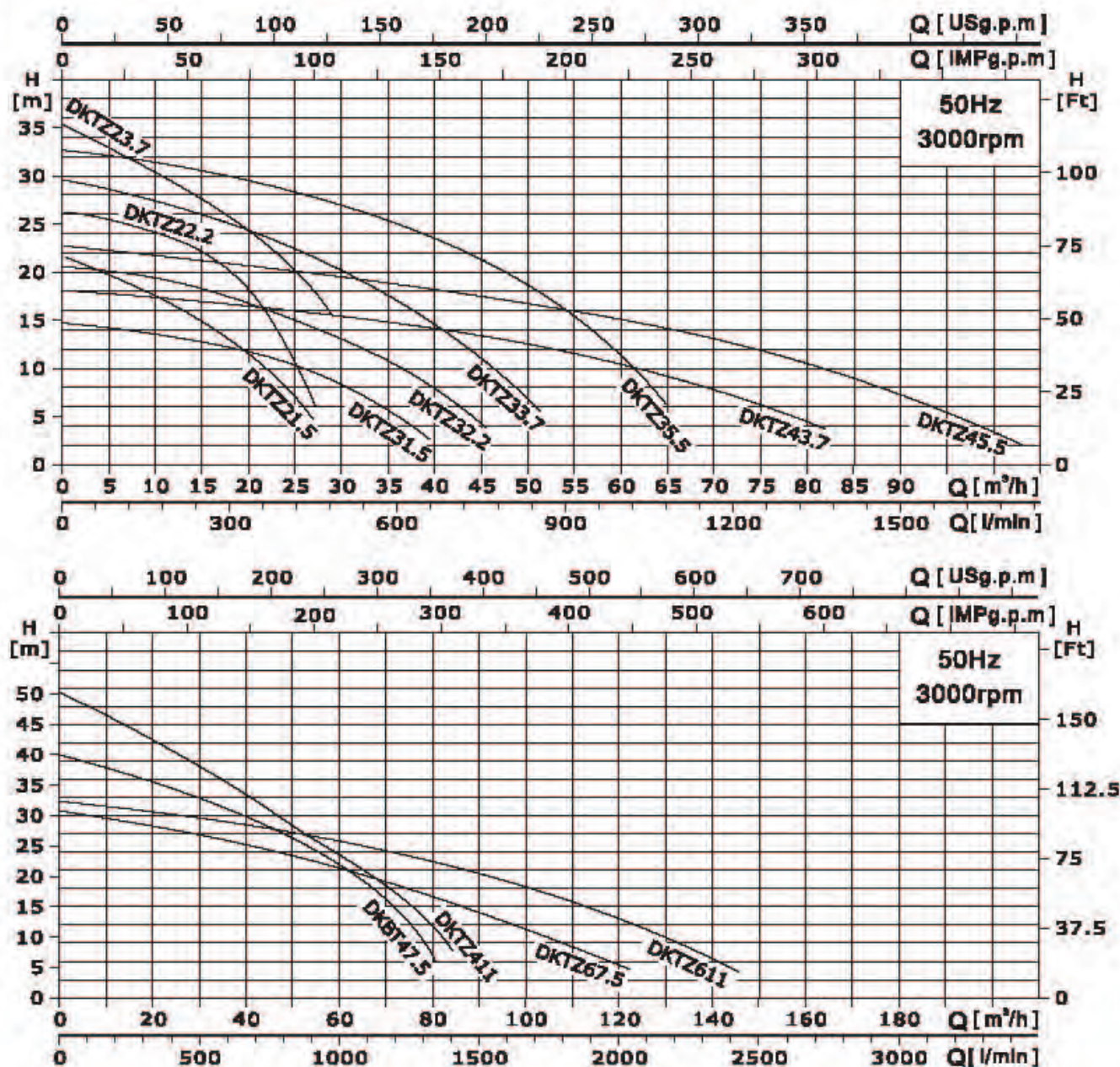
## FEATURES:

- Heavy duty construction for long lasting durability.
- Water jacket with axial flow for superior cooling.
- Double mechanical seal for maximum submerge depth (50meter) and reliability.
- Heavy duty wear resistance impeller & wearplate.
- Agitator (option) to create mixing action at pump inlet.
- Top discharge for space saving.
- IP 68 motor protection, with thermal protection.

## APPLICATION:

### (WATER/SLUDGE/SLURRY PUMPING)

- Ground and Nuisance water removal.
- Drainage from dams. Sewer, systems, tunnels and construction site.
- Muddy liquid at civil engineering site.

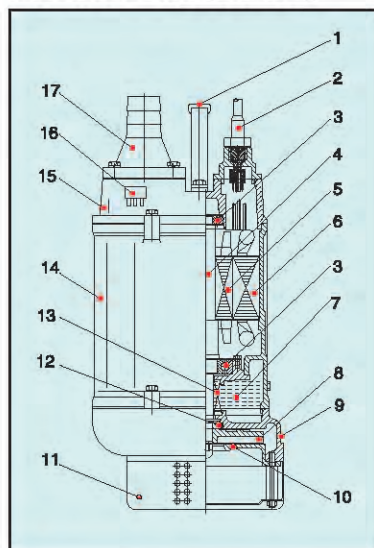




## TECHNICAL DATA:

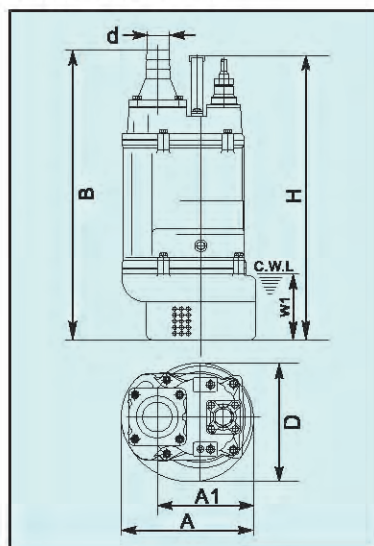
| Model    | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max.flow [m³/h] | Max.head [m] | Max.diameter of [mm] | G.W. [kg] | Dimensions [mm] |
|----------|------------|----------------------|----------------|-----------------|--------------|----------------------|-----------|-----------------|
| DKTZ21.5 | 1.5        | 50                   | 380 / 50       | 27              | 22           | 8.5                  | 37        | 590×290×250     |
| DKTZ22.2 | 2.2        | 50                   | 380 / 50       | 27              | 26           | 8.5                  | 39        | 590×290×250     |
| DKTZ23.7 | 3.7        | 50                   | 380 / 50       | 29              | 34           | 8.5                  | 65        | 684×334×397     |
| DKTZ31.5 | 1.5        | 80                   | 380 / 50       | 40              | 14.5         | 8.5                  | 37        | 590×290×250     |
| DKTZ32.2 | 2.2        | 80                   | 380 / 50       | 50              | 21           | 8.5                  | 39        | 590×290×250     |
| DKTZ33.7 | 3.7        | 80                   | 380 / 50       | 55              | 29           | 8.5                  | 65        | 684×334×397     |
| DKTZ35.5 | 5.5        | 80                   | 380 / 50       | 70              | 32           | 8.5                  | 84        | 731×366×405     |
| DKTZ43.7 | 3.7        | 100                  | 380 / 50       | 5               | 18           | 8.5                  | 66        | 702×344×397     |
| DKTZ45.5 | 5.5        | 100                  | 380 / 50       | 7.5             | 23           | 8.5                  | 85        | 746×366×405     |
| DKTZ47.5 | 7.5        | 100                  | 380 / 50       | 10              | 40           | 11.5                 | 114       | 824×390×459     |
| DKTZ411  | 11         | 100                  | 380 / 50       | 15              | 48.5         | 11.5                 | 140       | 867×430×495     |
| DKTZ67.5 | 7.5        | 150                  | 380 / 50       | 10              | 31           | 19.5                 | 114       | 850×390×459     |
| DKTZ611  | 11         | 150                  | 380 / 50       | 15              | 32           | 19.5                 | 143       | 867×430×495     |

## FRAME DIAGRAM:



| No. | DESCRIPTION | MATERIAL                          | No. | DESCRIPTION      | MATERIAL                |
|-----|-------------|-----------------------------------|-----|------------------|-------------------------|
| 1   | Handle      | Rubber&Steel                      | 10  | End Plate        | Ductile iron            |
| 2   | Cable       | 2PNCT-F                           | 11  | Filter           | Steel                   |
| 3   | Bearing     | Ball Bearing                      | 12  | Oil seal bracket | Sic-sic Carbon-ceramics |
| 4   | Shaft       | AISI420SS                         | 13  | Mechanical       |                         |
| 5   | Rotor       |                                   | 14  | Motor body       | Cast iron               |
| 6   | Stator      |                                   | 15  | Upper cover      | Cast iron               |
| 7   | Lube oil    |                                   | 16  | Motor protector  |                         |
| 8   | Impeller    | High chrome alloy or ductile iron | 17  | Hose coupling    | Cast iron               |
| 9   | Pump        | Cast iron                         |     |                  |                         |

## DIMENSION:



| Model    | d   | A   | A1  | B   | D   | H   | W1  |
|----------|-----|-----|-----|-----|-----|-----|-----|
| DKTZ21.5 | 50  | 235 | 173 | 517 | 216 | 486 | 120 |
| DKTZ22.2 | 80  | 235 | 173 | 517 | 216 | 486 | 120 |
| DKTZ23.7 | 50  | 235 | 173 | 517 | 216 | 486 | 120 |
| DKTZ31.5 | 80  | 235 | 173 | 517 | 216 | 486 | 120 |
| DKTZ32.2 | 50  | 283 | 208 | 628 | 252 | 638 | 150 |
| DKTZ33.7 | 80  | 283 | 208 | 628 | 252 | 638 | 150 |
| DKTZ35.5 | 100 | 283 | 208 | 642 | 252 | 688 | 150 |
| DKTZ43.7 | 80  | 306 | 218 | 671 | 259 | 688 | 150 |
| DKTZ45.5 | 100 | 306 | 218 | 686 | 259 | 688 | 150 |
| DKTZ47.5 | 100 | 330 | 240 | 764 | 314 | 676 | 190 |
| DKTZ411  | 100 | 373 | 255 | 807 | 350 | 695 | 190 |
| DKTZ67.5 | 150 | 330 | 240 | 790 | 314 | 676 | 190 |
| DKTZ611  | 150 | 373 | 255 | 807 | 350 | 695 | 190 |



## DKRS



## FEATURES AND APPLICATION:

Submersible slurry pumps with a 4-pole motor for an increased lifetime and greater convenience.

DKRS-based extra powered submersible slurry pumps with agitator.

Slim design with a top discharge enabling installation in smaller casings. For bentonite mixed water in foundation works or muddy water in civil engineering works.

- Civil engineering
- Mines, quarries, coal ore&slurries
- Sewage treatment plants
- General pumping purposes
- Pumping fluid, sludge, sludge, liquids containing
- mud and/or bentonite

## SPECIFICATION:

Capacity: up to 3.25 m<sup>3</sup>/min

Head: up to 22 m

Discharge: 80mm (3") to 150mm (6")

Power: 4Kw(5-1/3 HP) to 9Kw(12 HP)

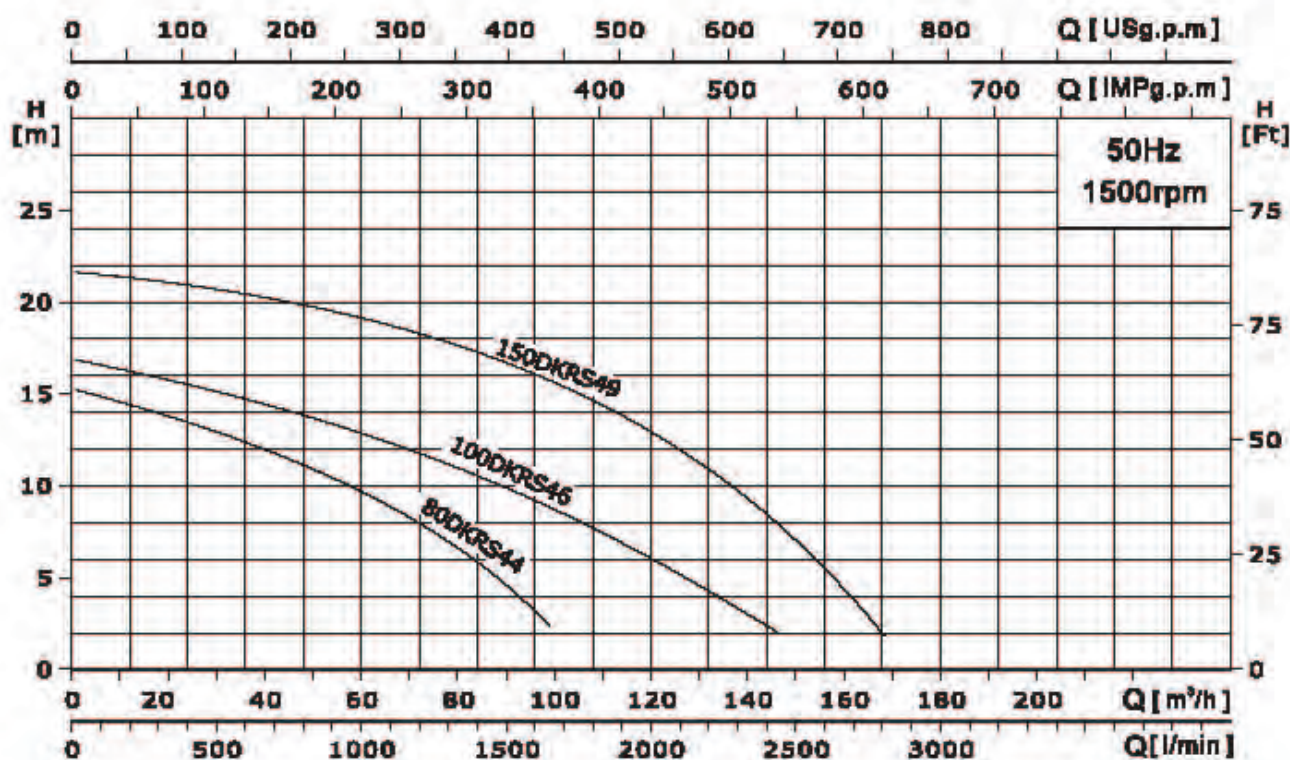
Power supply: three phase 380V ± 10%

Insulation class: F

Cable: length 8m

Water temperature: up to 40°C

Max. water depth: 30m

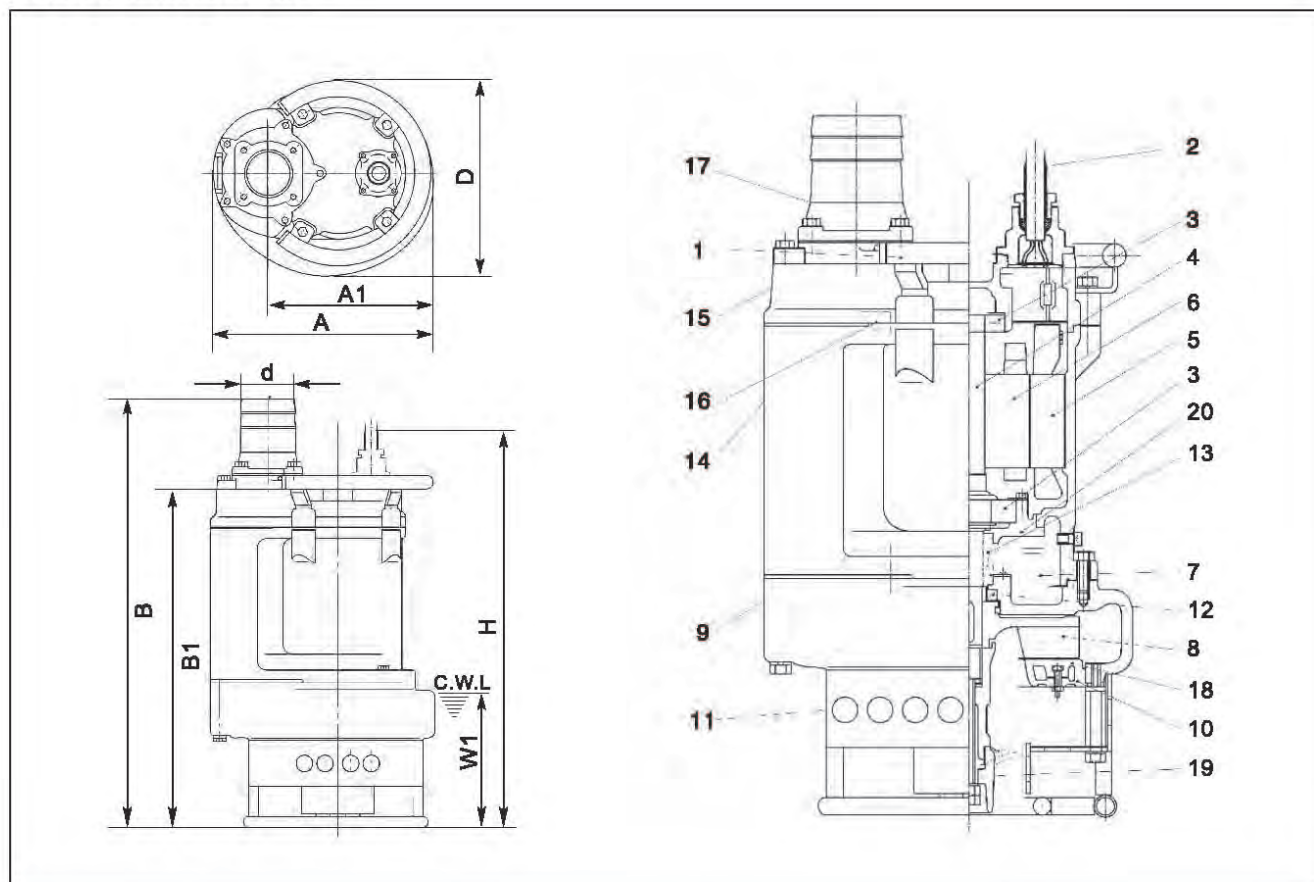


## TECHNICAL DATA:

| Model     | Power [kW] | Outlet diameter [mm] | Voltage [V/Hz] | Max. flow [m³/h] | Max. head [m] | Max. diameter of [mm] | G.W. [kg] | Dimensions [mm] |
|-----------|------------|----------------------|----------------|------------------|---------------|-----------------------|-----------|-----------------|
| 80DKRS44  | 4.0        | 80                   | 380 / 50       | 100              | 14.8          | 30                    | 113       | 830×415×470     |
| 100DKRS46 | 6.0        | 100                  | 380 / 50       | 150              | 16.9          | 30                    | 156       | 915×475×520     |
| 150DKRS49 | 9.0        | 150                  | 380 / 50       | 172              | 21.5          | 30                    | 185       | 935×500×555     |



## FRAME DIAGRAM:

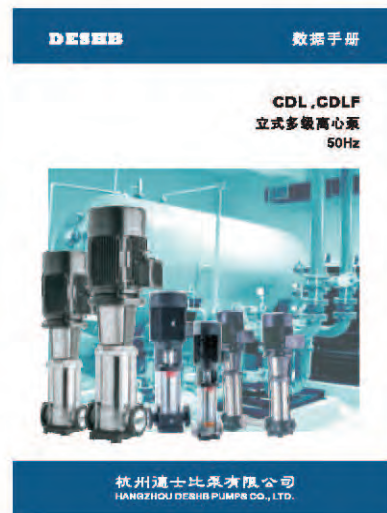
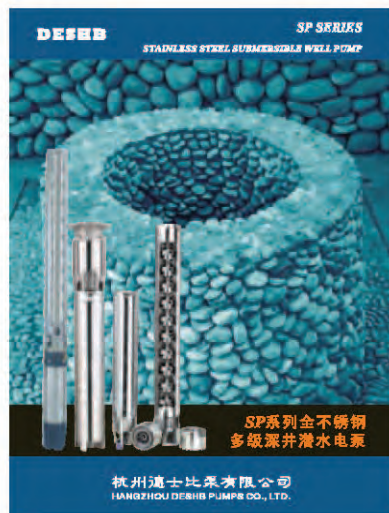


| No. | DESCRIPTION | MATERIAL              | No. | DESCRIPTION      | MATERIAL              |
|-----|-------------|-----------------------|-----|------------------|-----------------------|
| 1   | Handle      | Rubber&Steel          | 11  | Filter           | Steel                 |
| 2   | Cable       | 2PNCT-F               | 12  | Oil seal bracket |                       |
| 3   | Bearing     | Ball Bearing          | 13  | Mechanical seal  | Sic-sic               |
| 4   | Shaft       | AISI420SS             | 14  | Motor body       | Cast iron             |
| 5   | Rotor       |                       | 15  | Upper cover      | Cast iron             |
| 6   | Stator      |                       | 16  | Motor protector  |                       |
| 7   | Lube oil    |                       | 17  | Hose coupling    | Cast iron             |
| 8   | Impeller    | Chromium iron casting | 18  | Suction plate    | Cast iron             |
| 9   | Pump body   | Cast iron             | 19  | Agitator         | Chromium iron casting |
| 10  | End Plate   | Cast iron             | 20  | Bearing house    | Ductile iron          |

## DIMENSION:

| Model     | d   | A   | A1  | B   | B1  | D   | H   | W1  |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|
| 80DKRS44  | 80  | 350 | 260 | 765 | 666 | 326 | 730 | 250 |
| 100DKRS46 | 100 | 415 | 305 | 848 | 688 | 373 | 730 | 250 |
| 150DKRS49 | 150 | 434 | 324 | 869 | 709 | 407 | 776 | 250 |











WE RESEVE THE RIGHT TO CHANGE THE SPECIFICATION AND DESIGNS FOR IMPROVEMENT  
WITHOUT PRIOR NOTICE.

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