Quality, Reliability, Excellence

OSWAL PUMPS

# OSWAL

PUMPS & MOTORS

Solar | Domestic | Agriculture | Industrial

*True Partner!*

# Submersible Motors

Energy Efficient Range....

## PRODUCT CATALOGE

## 2024

Stainless Steel

4" OSF-100 Series (50 Hz & 60 Hz)

6" OSL-150 Series (50 Hz & 60 Hz)

6" OSF-150 Series (50 Hz & 60 Hz)

8" OSF-200 Series (50 Hz & 60 Hz)

Water Filled Submersible Motors

# Company Profile

Oswal Pumps Limited started in year 2000 has become now India's first unique integrated plant with world class manufacturing facility in its own kind, backed by seasoned engineers and technicians.

Quality and Service value for customer money are the guiding principles at **OSWAL**. No doubt that **OSWAL** is one of the fastest growing company in the field of Submersible Pumps, Monoblock Pumps and Electric Motors, Pressure Pumps, Electric Panel, Submersible Winding Wires, Cables & uPVC Pipes covering Domestic, Agriculture & Industrial range.

### *Infrastructure :*

The company has its own plant covering an area of 45000 sq. mtr. at the prestigious location on National Highway -1 near Kutail, Karnal well equipped with modern machineries for manufacturing of pumps and motors.

Oswal Pumps Limited is an ISO-9001 : 2015 certified company and products are ISI & 5 Star BEE marked. **OSWAL** is one of the leading and largest manufacturer of Stainless Steel Pumps and Submersible Motors in India.

**OSWAL** have their own in-house plant for:-

a) Stamping unit.
b) Aluminum die casting for rotor.
c) Aluminum die casting for motor body & parts.
d) Poly wrapped and PVC winding wire for submersible motor.
e) Thrust Bearing.
f ) Injection plastic moldings.
g) Stainless steel investment casting.
h) Stainless steel pipe.
i ) Corrugated box facility.
j ) Cast iron casting plant.
k ) Super enameled copper wire plant.

**OSWAL** have got prestigeous Awards from:-

National Udyog Rattan Award –on dt. 15-09-2005 from Indian Organization for Business Research Association, New Delhi for individual achievement of National Development .

Bhartiya Udyog Rattan Award – on dt. 01-12-2005 from Indian Economic Development of Research Association, New Delhi for individual achievement of National Development.

**OSWAL** is the first company out of thousand participants , who have got the above awards for submersible pumpsets.

All the products more than 1000 varieties are offered to the market through a vide distributor network of more than 1170 Distributors / Agents all over India to ensure that for every **OSWAL** pump in use, there is a sales and service outlet for wide range of Agriculture, Industries and domestic needs.

***Export :*** **Exporting to 20 countries at present and heading to mark presence in 50 countries.**

Oswal Pumps Limited assure you to provide quality products and best services always.

# Submersible Motors

## Stainless Steel
## 4” Water Filled Submersible Motor
## OSF-100 Series
## (50 Hz & 60 Hz)

OSWAL
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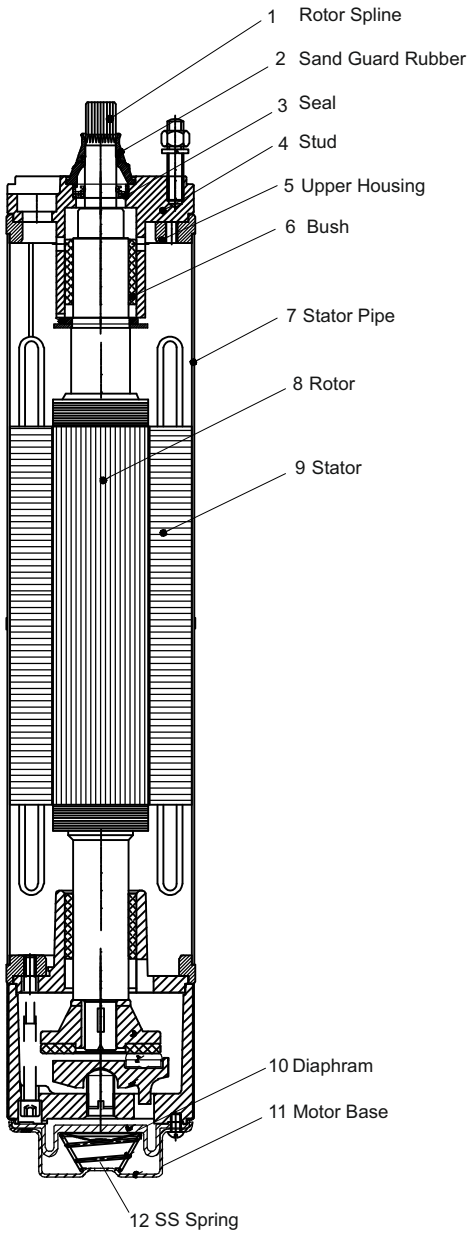
Energy Efficient Range....

# INDEX

## CUT Drawing




***OSF - 100***
***2HP - 10.0HP***

### *3 Phase*

| Power | Power | Length | T.Length | Net. Weight |
|---|---|---|---|---|
| KW | HP | mm | mm | Kg. |
| 1.5 | 2.0 | 610 | 648 | 22 |
| 2.2 | 3.0 | 650 | 688 | 24 |
| 4.0 | 5.5 | 792 | 830 | 30 |
| 5.5 | 7.5 | 842 | 880 | 33 |
| 7.5 | 10.0 | 892 | 930 | 35 |

# General Information

## Application :

4” Rewindable motors are built for dependable operation in 4” diameter or Large water wells.
Water lubricated thrust and radial bearings enable a very less maintenance operation.
A preloaded special diaphragm ensures pressure compensation inside the Motor.

## Product advantages :

Cable material according to drinking water regulations.
Sand slinger and SiC mechanical seal for high performance in sand.
High efficiency electrical design for low operation cost.
All motors are pre filled and 100% tested.
Max. storage temperature - $15^0$ C to $+60^0$ C
Approved tilting type thrust bearing (1.5 KW to 7.5 KW)

## Technical Specification :

Standard 4” NEMA flanges with Studs (M8)
Protection IP 68
Start per hours max.20
Installation position : vertical
Motor lead in 3 m length
Standard voltage: 380-415V/50Hz,460V/60Hz Voltage tolerance: +6%,-10% (Standard415+6%=440V,380V-10%=342V)
Frequency tolerance - ±2% Speed-appox.2850 -2880 rpm at 50Hz.Star alternatives - Direct on line (DOL)
Standard motor with poly wrapped copper winding wire for Max Ambient temp. of $50^0$ with a min. cooling flow:
1.5 kw 7.5 kw v=0.2m/s
OSF - 100 2HP - 10HP

## Optional :

Other voltage & Frequency 380 V / 220 V/ 60 Hz
In 60 Hz Speed - Appox. - 3400 Rpm

## Performance Data of 4" Rewindable Three Phase Motors (380V-415V) 50 Hz

| PN | | Thrust Load [N] | Rated Volt [V] | Speed ( RPM ) | Rated [Amp] | Eff % at % Load | | | TN [Nm] |
|---|---|---|---|---|---|---|---|---|---|
| H.P | KW | | | | | **50** | **75** | **100** | |
| 2.00 | 1.5 | 4000 | 380 | 2780 | 3.9 | 68 | 70 | 71 | 5.0 |
| | | | 400 | 2790 | 4.0 | 66 | 68 | 70 | 5.0 |
| | | | 415 | 2800 | 4.1 | 64 | 66 | 68 | 4.9 |
| 3.00 | 2.2 | 4000 | 380 | 2790 | 5.8 | 70 | 70 | 72 | 7.6 |
| | | | 400 | 2800 | 5.9 | 68 | 69 | 71 | 7.5 |
| | | | 415 | 2805 | 6.3 | 66 | 68 | 70 | 7.5 |
| 5.50 | 4.0 | 4000 | 380 | 2780 | 10.8 | 62 | 67 | 71 | 13.4 |
| | | | 400 | 2790 | 10.5 | 61 | 65 | 69 | 13.3 |
| | | | 415 | 2810 | 10.0 | 59 | 64 | 66 | 13.3 |
| 7.50 | 5.5 | 4000 | 380 | 2785 | 14.8 | 69 | 71 | 71 | 18.9 |
| | | | 400 | 2790 | 14.5 | 68 | 70 | 71 | 18.9 |
| | | | 415 | 2810 | 14.0 | 67 | 69 | 71 | 18.8 |
| 10.0 | 7.5 | 4000 | 380 | 2780 | 18.0 | 70 | 72 | 72 | 24.6 |
| | | | 400 | 2790 | 18.3 | 67 | 71 | 71 | 25.5 |
| | | | 415 | 2810 | 18.8 | 66 | 68 | 70 | 24.4 |

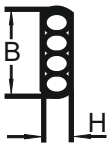
Perfomance is typical not Gurranteed

## Performance Data of 4" Rewindable Three Phase Motors (230V-380V-460V) 60 Hz

| PN | | Thrust Load [N] | Rated Volt [V] | Speed (RPM) | Rated [Amp] | Max.SF | Eff % at % Load | | | TN [Nm] |
|---|---|---|---|---|---|---|---|---|---|---|
| H.P | KW | | | | | | 50 | 75 | 100 | |
| 2.00 | 1.5 | 4000 | 230 | 3350 | 8.0 | 1.15 | 64 | 66 | 67 | 4.1 |
| | | | 380 | 3350 | 4.5 | 1.15 | 64 | 66 | 67 | 4.1 |
| | | | 460 | 3350 | 4.2 | 1.15 | 64 | 66 | 67 | 4.1 |
| 3.00 | 2.2 | 4000 | 230 | 3350 | 10.4 | 1.15 | 68 | 69 | 71 | 6.1 |
| | | | 380 | 3350 | 6.5 | 1.15 | 68 | 69 | 71 | 6.1 |
| | | | 460 | 3350 | 6.3 | 1.15 | 68 | 69 | 71 | 6.1 |
| 5.50 | 4.0 | 4000 | 230 | 3350 | 21 | 1.15 | 68 | 69 | 72 | 11.2 |
| | | | 380 | 3350 | 13.3 | 1.15 | 68 | 69 | 72 | 11.2 |
| | | | 460 | 3350 | 10.1 | 1.15 | 68 | 69 | 72 | 11.2 |
| 7.50 | 5.5 | 4000 | 230 | 3350 | 26.1 | 1.15 | 69 | 70 | 73 | 15.3 |
| | | | 380 | 3350 | 15.4 | 1.15 | 69 | 70 | 73 | 15.3 |
| | | | 460 | 3350 | 12.9 | 1.15 | 69 | 70 | 73 | 15.3 |
| 10.0 | 7.5 | 4000 | 230 | 3350 | 35.9 | 1.15 | 69 | 70 | 73 | 20.4 |
| | | | 380 | 3350 | 20.8 | 1.15 | 69 | 70 | 73 | 20.4 |
| | | | 460 | 3350 | 17.2 | 1.15 | 69 | 70 | 73 | 20.4 |

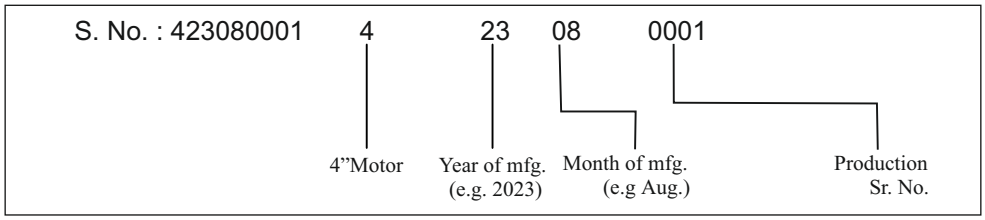
Perfomance is typical not Gurranteed

## 4" Rewindable Motors Flate Cable Leads

| DOL | $P_N$ (Kw) | θ ($mm^2$) | B (mm) Approx. | H (mm) Approx. |
|---|---|---|---|---|
|   | 1.5-4.0 | 3x2.5 | 7.3 | 15.3 |
| | 5.5-7.5 | 3x4.0 | 8.5 | 17.8 |

| Insulation Resistance($20^0$c/500V) | |
|---|---|
| New motor without drop cable | 200>mohm |
| Used motor without drop cable | 20>mohm |
| Used motor with drop cable | 2>mohm |

**Determine the age of motor by checking the name plate Sr. No.**

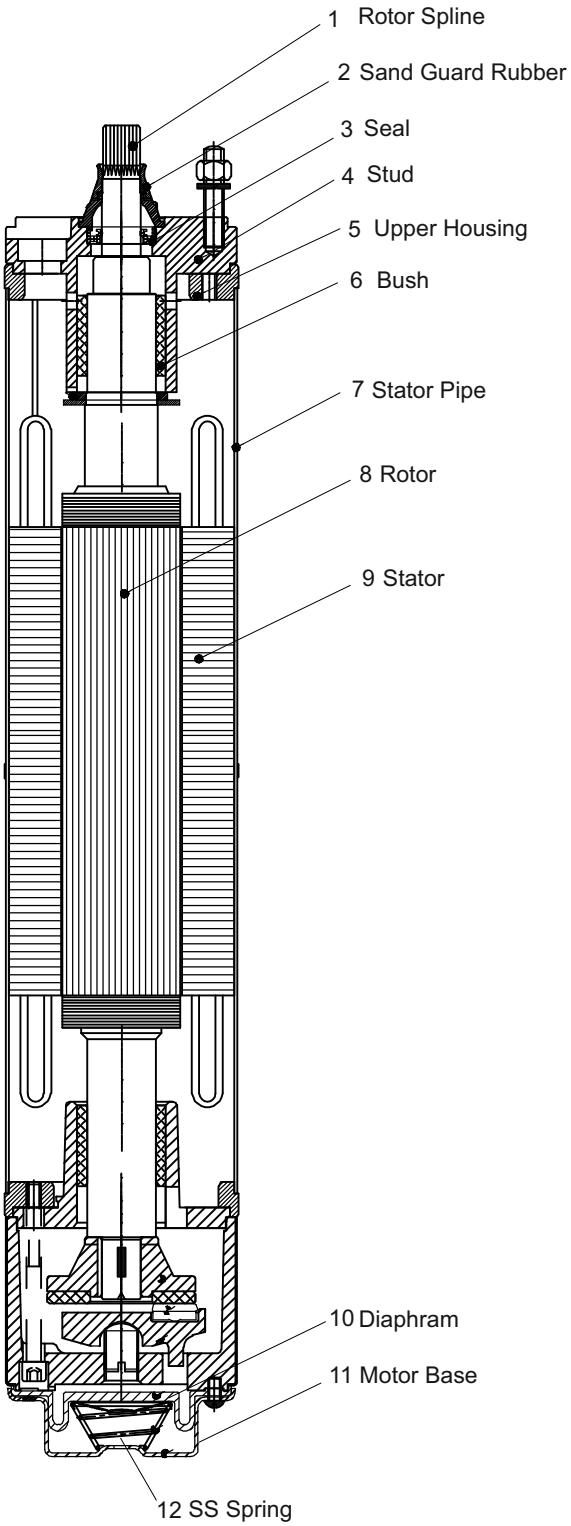



### Checking the motor fluid


***Motor damage due to being insufficiently filled!***

- ⇨ *Fill the motor with sufficient motor filled*
- ⇨ *Wear safety goggles and gloves when filling and draining the motor.*

# MOC OSF-100 SSJK (2HP-7.5HP)

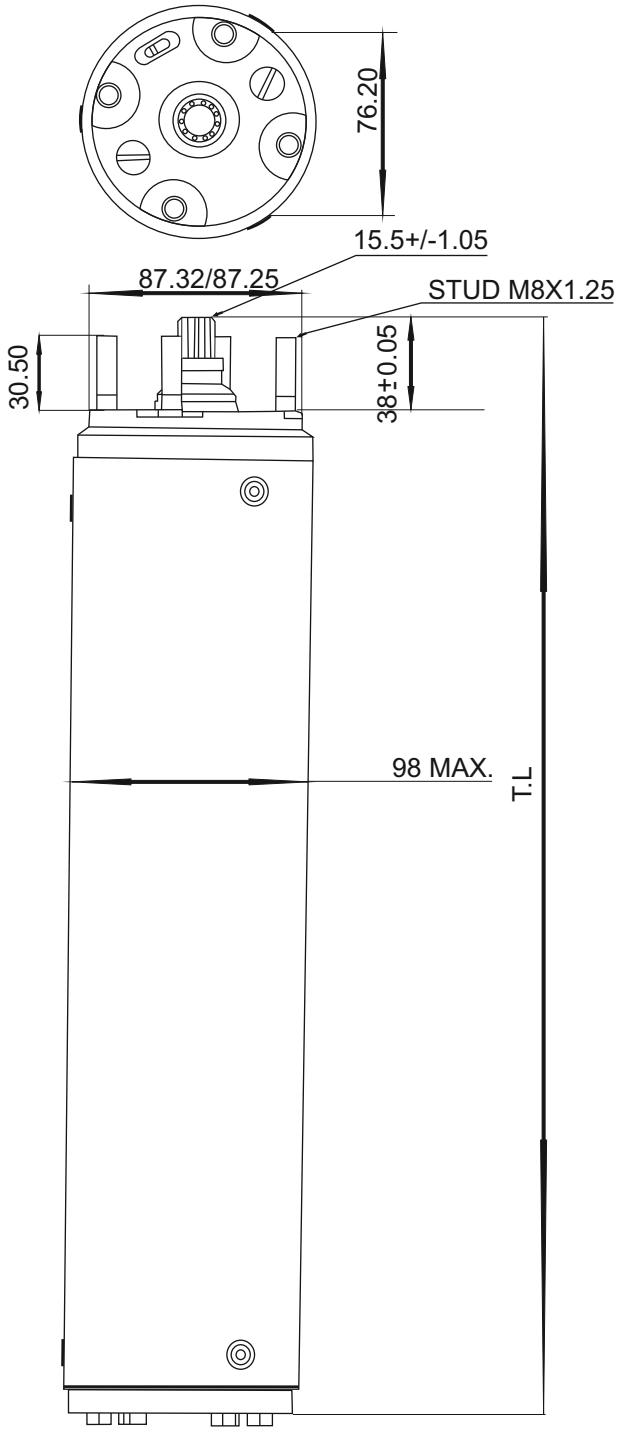



**Matreial Of Composition -OSF-100 SSJK (2 HP - 10 HP)**

| Parts No. | Parts Name | Material |
|---|---|---|
| 1 | Rotor Shaft | SS-410 |
| 2 | Sand Guard Rubber | NBR |
| 3 | Seal | NBR |
| 4 | Stud | SS-304 |
| 5 | Upper Housing | CI/SSJK |
| 6 | Bush | Carbon/G.M. |
| 7 | Stator Pipe | SS-304 |
| 8 | Rotor | SS-410+Lamination |
| 9 | Stator | Lamination |
| 10 | Diaphram | NBR |
| 11 | Motor Base | CI/SSJK |
| 12 | Spring | SS |

## Outline Drawings

### Rewindable Standard Motors Outline Drawing



# General safety instructions

The following safety measures must be observed prior to putting the motor into use :

- Do not carry out any other work on the motor other than described in these instructions.
- Only use the motor under water (the motor and the short motor cable must be fully submersed).
- Do not implement any changes or conversions to the motor or its electrical connections.
- Never open the motor.
- Never use the motor in combination with damaged pump units or parts.
- Only work on the motor when it is switched off. No work or checks require the motor to be running.
- Switch off the power supply to the motor before carrying out any work on it.
- Make sure that nobody can switch on the voltage unexpectedly while work is being carried out on the motor
- Never work on electrical systems during a thunderstorm.
- Make sure immediately after ending the work that all protective and safety devices have been fitted again and are operational.
- Before switching on the motor, make sure that all electrical connections and safety devices have been checked and that all fuses and safeties have been set correctly.
- Make sure that no danger zones are freely accessible (e.g. rotating parts, suction locations, pressure output locations, electrical connections). Observe the pump manufacture's commissioning instructions.
- If motor or pump units have been used in contaminated media they must be marked as such before handing them over to a third party (e.g. when submitting then for repair). Pay attention to possible residues in" dead spaces" (diaphragm cover).
- Repair).

# Storage, Transport, Disposal

## Storage

- ⇨ Store the motor in its original packaging until the time of installing it.
- ⇨ If the motor is stored standing up, make sure that it cannot topple over (shaft always pointing up!).
- ⇨ Do not store the motor in direct sunlight or within the reach of other heat sources.
- ⇨ Observe the storage temperature (- 15 - +60°C, see technical specifications).

## Transport

DANGER

Falling loads may cause lethal injuries or may crush parts of the body!

- ⦸ No body is allowed to be located under suspended loads.
- ⇨ Only use approved hoisting gear.
- ⇨ Select the hoisting gear on the basis of the total weight to be transported

## Unpacking

- ⇨ After unpacking the motor check it for possible damage e.g. damage to the diaphragm cover, housing, endbell, connection and motor cable.
- ⇨ Immediately inform the supplier fo any damage found.

DANGER

Danger to life due to electrocution if the motor cable is damaged!

- ⦸ Do not install the motor and do not put it into operation.

## Disposal

In order to avoid environmental damage:

- Avoid contamination by lubricants, detergents etc.
- Dispose of the motor and the packaging material in a proper, environmentally sound manner.
- Observe local regulations.

# 4" Rewindable Product Information and Service

## Proper motor cooling

Caution

***Damage to the motor and the motor cable due to over heating***

⇨ *Make sure that the coolant flow speed along the motor is sufficient.*

⇨ *Make sure that the short motor cable is always fully surrounded by transport medium for propeer Cooling*

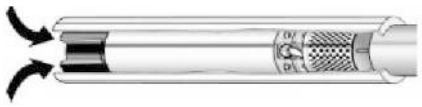


*Figure 6-1. Cooling tube*

If the required minimum coolant low speed cannot be reached (e.g. if the inlet opening of the well is located above the motor or if using large-diameter wells).

⇨ Fit a cooling tube (see figure 6-1)

⇨ Make sure that the cooling tube encases the entire motor and the pump water inlet opening

The motor is force-cooled.

## Providing a check valve and level sensor

⇨ Provide one spring-loaded check valve in the production tube in case no such check valve has been fitted in the pump.

⇨ Ensure that the check valve is no further than 7 meters away from the pump

⇨ Install a level sensor for wells with a highly varying water inflow.

## Switching on the motor

☑ All action steps of the previous chapter have been carried out property

⇨ Switch on the motor using the mains switch in the control cabinet.

⇨ Measure the following values after switching on:

Motor operating current in every phase
Mains voltage when motor is running
Level of the medium to be transported

⇨ **Immediately switch off the motor if.**

- the nominal current as specified on the type plate is exceeded.
- voltage tolerances of more than - 10% / +6% relative to the nominal voltage are measured on the motor
- there is a risk of the motor running dry,
- motor current deviates from the mean value of all three currents by more than 5%

# Motor Operation

## Motor operation with frequency converter

Note :
When operating a motor with a frequency converter, the relevant operating manual must be observed!

- ⇨ Make sure that the motor current in all operating levels of the regulating range does not exceed the nominal motor current indicated on the type plate.
- ⇨ Adjust the frequency converter so that the limit values for the nominal motor frequency of min. 30Hz and max the value of the nominal motor frequency (50 or 60 Hz) are observed.
- ⇨ Limit any voltage peaks on the motor when using a frequency converter to the following values: max. voltage rise 500 V/us, max voltage peak 1000 V.
- ⇨ Make sure that the running up time from 0 to 30 Hz and the deceleration time from 30 to 0 Hz is maximum one second.
- ⇨ Dimension the cable such that power loss due to additional filters is taken into consideration.
- ⇨ Make sure that the required coolant flow speed along the motor is also observed with frequency converter operation.

## Motor operation with soft starter

**Note :**
*When operating a motor with a softstarter, the relevant operating manual must be observed!*

- ⇨ Set the starting voltage of the softstarter to 55 % of the nominal voltage and set the running up and delay times to max, three seconds.
- ⇨ Bridge the softstarter after running up, using a contactor.

## Maintenance and service

The motor is maintenance-free, no maintenance or service activities are necessary.

## Trouble shooting

| Fault | Remedy |
|---|---|
| Unusual noises, problems with the proper running of the pump or the pump switching on and off too frequently. | ⇨ Try to find the cause of the fault on the pump unit. |
| The pump repeatedly switches off. | ⇨ Have the insulation resistance checked by a professional (see chapter 5.40.<br>⇨ If no cause can be found in the motor or the motor cable: Have the electrical system checked . |

# Submersible Motors

## Stainless Steel
## 6” Water Filled Submersible Motor
## OSL-150 Series
## (50 Hz & 60 Hz)

Quality, Reliability, Excellence

OSWAL PUMPS

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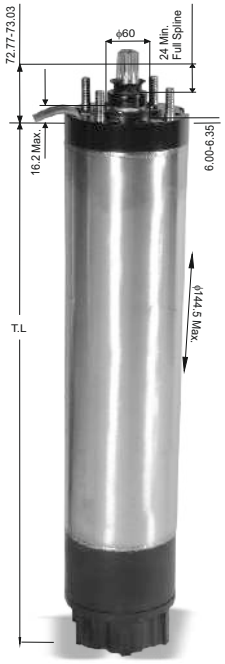
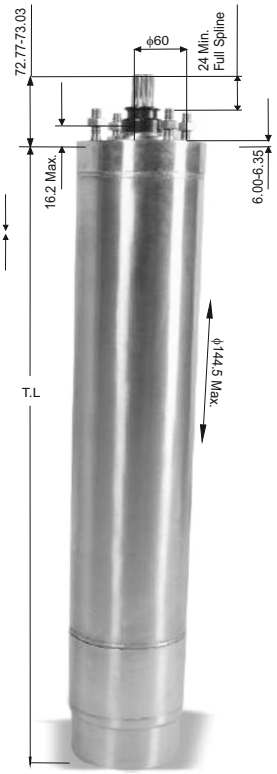
# INDEX

# OUTLINE DRAWING




OSL-150-CI V6




OSL-150 SS JK V6

## 6" OSL - 150 SSJK & OSL-150 CI (50 Hz)

| Power | Power | Length | Total Length | Motor Weights (Kg.) | Gross Weights (Kg.) |
|---|---|---|---|---|---|
| Kw | HP | (mm) | With Cap (mm) | Without Packing | With Packing |
| 4.0 | 5.5 | 713 | 786 | 41.5 | 46.4 |
| 5.5 | 7.5 | 753 | 826 | 49.3 | 54.2 |
| 7.5 | 10 | 783 | 856 | 50.9 | 55.9 |
| 9.3 | 12.5 | 823 | 896 | 55.4 | 60.4 |
| 11 | 15 | 833 | 906 | 55.8 | 60.9 |
| 13 | 17.5 | 873 | 946 | 60.3 | 65.7 |
| 15 | 20 | 913 | 986 | 66.6 | 72.0 |
| 18.5 | 25 | 963 | 1036 | 72.7 | 78.5 |
| 22 | 30 | 1033 | 1106 | 79.3 | 85.4 |
| 26 | 35 | 1033 | 1106 | 79.4 | 85.5 |
| 30 | 40 | 1133 | 1206 | 90.8 | 97.1 |
| 37 | 50 | 1183 | 1256 | 95.2 | 102 |
| 45 | 60 | 1183 | 1256 | 96.2 | 103 |

# Gernal Information

## Application :

6” Rewindable motors are built for dependable operation in 6” diameter or Large water wells.
Water lubricated thrust and radial bearings enable a very less maintenance operation.
A preloaded special diaphragm ensures pressure compensation inside the Motor.

## Product advantages :

Cable material according to drinking water regulations.
Sand slinger and SiC mechanical seal for high performance in sand.
High efficiency electrical design for low operation cost.
All motors are pre filled and 100% tested
Max. storage temperature - $15C^0$ to $+60C^0$
Approved tilting type thrust bearing (4.0 kw to 13 kw) and 6 segment tilting type thrust bearing (15 Kw to 45 Kw) for high thrust load..

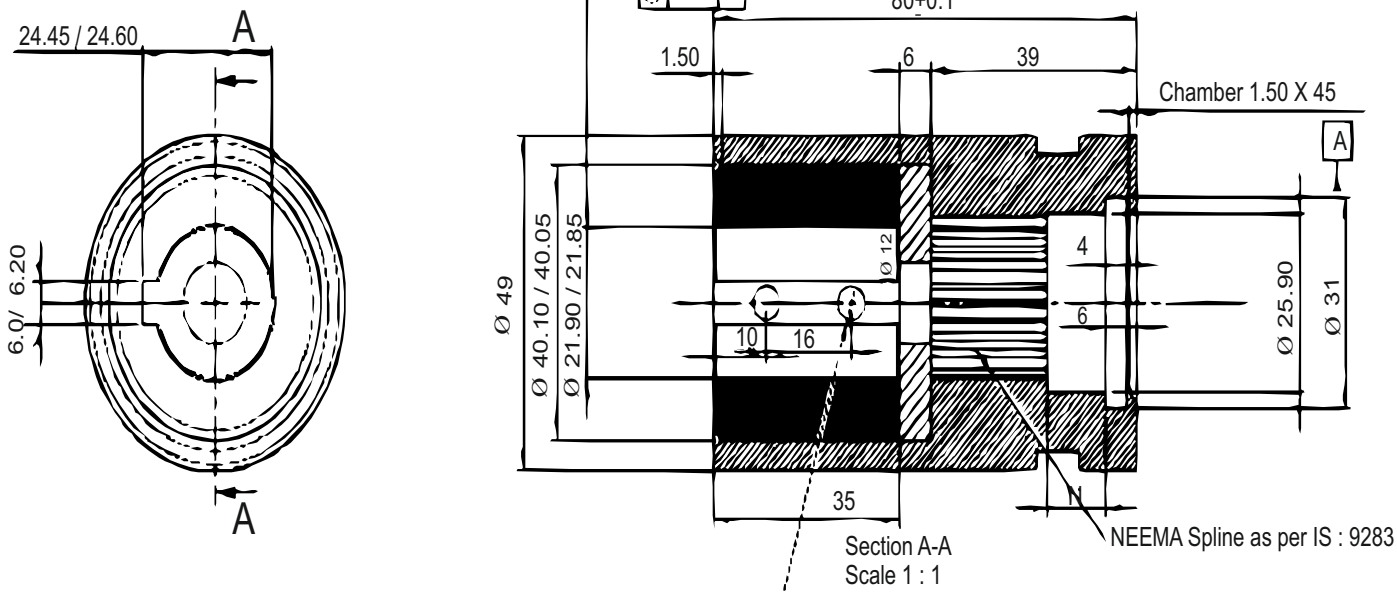
## Technical Specification :

Standard 6" NEMA flanges with Studs (M12)
Protection IP 68
Start per hours max.20
Installation position : vertical
Motor lead in 3 m length
Standard voltage: 380-415V/50Hz,460V/60Hz Voltage tolerance: +6%,-10% (Standard415+6%=440V,380-10%=342)
Frequency tolerance 2% Speed-appox. 2850 -2900 rpm at 50Hz. Star alternatives ± Direct on line (DOL) / Star - Delta Starting.
Standard motor with poly wrapped copper winding wire for max Ambient temp. of $50^0C$ with a min. cooling flow:
4 kw - 45 kw v=0.2m/s

# 6" Rewindable Motor Coupling @ 400 V / 50 Hz

| Insulation resistance (20°C / 500 VDC) | | |
|---|---|---|
| New motor without drop cable | 200 > | MO |
| Used motor without drop cable | 20 > | MO |
| New motor with drop cable | 2 > | MO |
| Used motor with drop cable | 0,5- 2 | MO |

| 6"Rewindable Motor Couplings | | | |
|---|---|---|---|
| Coupling Material | Dimension A (mm) Max./Min. | Dimension B (mm) Max./Min. | Dimension C (mm) Max./Min. |
| AISI 304 | 20.025 / 20.013 | 22.76 / 22.60 | 6.05 / 6.00 |
| AISI 304 | 22.025 / 22.013 | 25.53 / 25.32 | 8.03 / 7.98 |
| AISI 304 | 25.025 / 25.013 | 28.70 / 28.30 | 8.03 / 7.98 |




# 6" OSL-150 Rewindable Product Information and Service

# 6" Rewindable Motors Performance Data 50 Hz

| $P_N$ [kW] | Thrust F [N] | $U_N$ [V] | $n_N$ [min-1] | $I_N$ [A] | $I_A$ [A] | n (Eff) [%] at % load | | | cos Q (PF) at % load | | | $T_{N.}$ [Nm] | TA [Nm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 50 | 75 | 100 | 50 | 75 | 100 | | |
| 4 | 15500 | 380 | 2910 | 10,4 | 48 | 0,71 | 0,75 | 0,76 | 0,59 | 0,71 | 0,78 | 13,1 | 15,5 |
| | | 400 | 2930 | 10,6 | 51 | 0,68 | 0,73 | 0,76 | 0,53 | 0,65 | 0,73 | 13,1 | 17,3 |
| | | 415 | 2930 | 10,9 | 53 | 0,65 | 0,72 | 0,76 | 0,50 | 0,61 | 0,69 | 13,0 | 18,8 |
| 5,5 | 15000 | 380 | 2860 | 13,7 | 48 | 0,74 | 0,76 | 0,75 | 0,67 | 0,78 | 0,83 | 18,3 | 15,5 |
| | | 400 | 2890 | 13,3 | 51 | 0,72 | 0,76 | 0,76 | 0,62 | 0,74 | 0,81 | 18,2 | 17,3 |
| | | 415 | 2890 | 13,4 | 53 | 0,71 | 0,75 | 0,75 | 0,59 | 0,71 | 0,78 | 18,1 | 18,8 |
| 7,5 | 15500 | 380 | 2860 | 18,3 | 59 | 0,77 | 0,78 | 0,76 | 0,70 | 0,80 | 0,84 | 25,0 | 19,2 |
| | | 400 | 2880 | 17,7 | 63 | 0,75 | 0,78 | 0,77 | 0,65 | 0,76 | 0,82 | 24,8 | 21,5 |
| | | 415 | 2890 | 17,7 | 65 | 0,73 | 0,77 | 0,77 | 0,61 | 0,73 | 0,80 | 24,7 | 23,4 |
| 9, 3 | 15500 | 380 | 2850 | 22,0 | 74 | 0,79 | 0,80 | 0,78 | 0,71 | 0,80 | 0,84 | 31,1 | 25,9 |
| | | 400 | 2870 | 21,4 | 78 | 0,78 | 0,79 | 0,78 | 0,64 | 0,76 | 0,82 | 31,0 | 29,0 |
| | | 415 | 2880 | 21,2 | 81 | 0,76 | 0,79 | 0,78 | 0,60 | 0,72 | 0,80 | 30,9 | 31,4 |
| 11,0 | 15500 | 380 | 2860 | 25,8 | 93 | 0,78 | 0,80 | 0,78 | 0,71 | 0,80 | 0,85 | 36,7 | 31,5 |
| | | 400 | 2880 | 25,2 | 98 | 0,77 | 0,80 | 0,79 | 0,65 | 0,76 | 0,83 | 36,4 | 35,3 |
| | | 415 | 2890 | 25,1 | 102 | 0,75 | 0,78 | 0,79 | 0,61 | 0,73 | 0,80 | 36,3 | 38,2 |
| 13,0 | 15500 | 380 | 2880 | 30,1 | 118 | 0,80 | 0,81 | 0,80 | 0,68 | 0,79 | 0,84 | 43,1 | 45,0 |
| | | 400 | 2900 | 29,6 | 125 | 0,78 | 0,80 | 0,80 | 0,61 | 0,74 | 0,81 | 42,8 | 50,3 |
| | | 415 | 2900 | 29,7 | 130 | 0,76 | 0,79 | 0,80 | 0,57 | 0,70 | 0,78 | 42,7 | 54,6 |
| 15,0 | 27500 | 380 | 2880 | 33,9 | 140 | 081 | 0,82 | 0,81 | 0,71 | 0,81 | 0,85 | 49,7 | 53,9 |
| | | 400 | 2890 | 33,1 | 148 | 0,79 | 0,81 | 0,81 | 0,65 | 0,77 | 0,83 | 49,4 | 60,4 |
| | | 415 | 2900 | 33,0 | 154 | 0,77 | 0,80 | 0,81 | 0,60 | 0,73 | 0,81 | 49,3 | 65,5 |
| 18,5 | 27500 | 380 | 2860 | 42,3 | 172 | 0,81 | 0,82 | 0,81 | 0,68 | 0,78 | 0,84 | 61,7 | 75,2 |
| | | 400 | 2880 | 42,0 | 182 | 0,78 | 0,81 | 0,81 | 0,61 | 0,74 | 0,80 | 61,2 | 84,3 |
| | | 415 | 2890 | 42,5 | 189 | 0,76 | 0,79 | 0,80 | 0,57 | 0,70 | 0,77 | 61,1 | 91,3 |
| 22,0 | 27500 | 380 | 2880 | 49,1 | 218 | 0,82 | 0,84 | 0,83 | 0,68 | 0,78 | 0,84 | 72,6 | 91,2 |
| | | 400 | 2900 | 49,0 | 231 | 0,80 | 0,82 | 0,82 | 0,61 | 0,73 | 0,80 | 72,5 | 102,2 |
| | | 415 | 2910 | 49,6 | 240 | 0,77 | 0,81 | 0,82 | 0,58 | 0,69 | 0,77 | 72,2 | 110,7 |
| 26 | 27500 | 380 | 2880 | 57,5 | 268 | 0,83 | 0,84 | 0,83 | 0,68 | 0,79 | 0,86 | 86,0 | 120,4 |
| | | 400 | 2900 | 56,7 | 284 | 0,81 | 0,83 | 0,83 | 0,61 | 0,74 | 0,83 | 85,6 | 134,7 |
| | | 415 | 2910 | 57,3 | 296 | 0,78 | 0,82 | 0,82 | 0,56 | 0,69 | 0,80 | 85,3 | 146,1 |
| 30,0 | 27500 | 380 | 2900 | 66,4 | 328 | 0,82 | 0,84 | 0,83 | 0,67 | 0,78 | 0,84 | 98,8 | 135,0 |
| | | 400 | 2910 | 66,4 | 347 | 0,80 | 0,83 | 0,83 | 0,60 | 0,73 | 0,80 | 98,4 | 151,0 |
| | | 415 | 2910 | 67,5 | 361 | 0,77 | 0,81 | 0,82 | 0,55 | 0,69 | 0,77 | 98,2 | 163,0 |
| 37 | 27500 | 380 | 2890 | 82,0 | 409 | 0,83 | 0,84 | 0,83 | 0,67 | 0,78 | 0,85 | 122,1 | 192,8 |
| | | 400 | 2900 | 81,9 | 433 | 0,80 | 0,83 | 0,83 | 0,60 | 0,72 | 0,80 | 121,6 | 215,8 |
| | | 415 | 2910 | 83,9 | 450 | 0,77 | 0,81 | 0,82 | 0,55 | .0,68 | 0,76 | 121,3 | 234,0 |
| 45 | 27500 | 380 | 2895 | 90,9 | 490,0 | 85,7 | 86,5 | 85,2 | 0,8 | .0,85 | 0,88 | 149,0 | 218,0 |
| | | 400 | 2910 | 90,0 | 520,0 | 85,3 | 86,5 | 86 | 0,75 | .0,82 | 0,86 | 148,0 | 240,0 |
| | | 415 | 2910 | 88,0 | 542,0 | 84,4 | 86,1 | 85,8 | 0,69 | .0,80 | 0,85 | 147,0 | 262,0 |

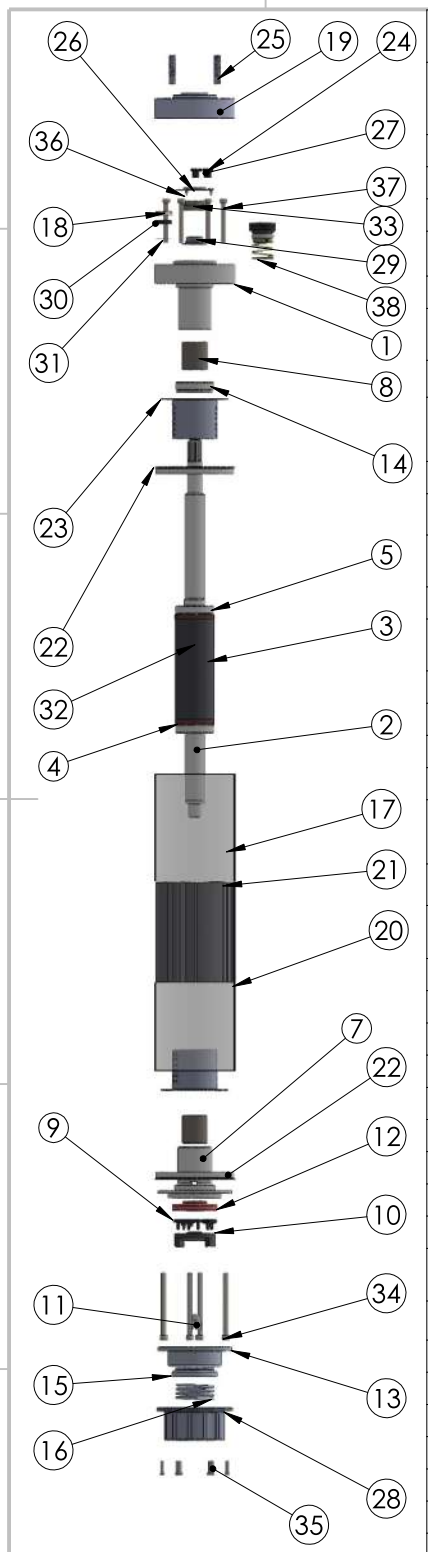
# 6" Rewindable Product Information and Service

# 6" Rewindable Motor Performance Data 60 Hz

| $P_N$ [kW] | $P_{max}$ [kW] | Thrust F [N] | $U_N$ [V] | $n_{max}$ [min1] | $I_{max}$ [A] | $I_A$ [A] | $n_{max}$ (Eff.) [%] at% load | | | cos $Q_{max}$ (Pf.) at % load | | | $T_{max}$ [Nm] | $T_A$ [Nm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 50 | 75 | 100 | 50 | 75 | 100 | | |
| 4 | 4,6 | 15500 | 230 | 3520 | 21,0 | 106 | 0,70 | 0,75 | 0,77 | 0,52 | 0,64 | 0,73 | 12,5 | 18,6 |
| | | | 380 | 3530 | 13,3 | 61 | 0,66 | 0,72 | 0,77 | 0,51 | 0,63 | 0,71 | 12,4 | 15,0 |
| | | | 460 | 3520 | 10,1 | 51 | 0,70 | 0,76 | 0,78 | 0,56 | 0,67 | 0,75 | 12,5 | 15,3 |
| 5,5 | 6,3 | 15500 | 230 | 3490 | 26,1 | 106 | 0,74 | 0,78 | 0,78 | 0,61 | 0,73 | 0,80 | 17,3 | 15,9 |
| | | | 380 | 3480 | 15,4 | 61 | 0,76 | 0,78 | 0,78 | 0,64 | 0,75 | 0,81 | 17,3 | 15,0 |
| | | | 460 | 3480 | 12,9 | 51 | 0,74 | 0,77 | 0,77 | 0,65 | 0,76 | 0,82 | 17,3 | 15,1 |
| 7,5 | 8,6 | 15500 | 230 | 3490 | 35,9 | 146 | 0,75 | 0,79 | 0,79 | 0,58 | 0,71 | 0,78 | 23,6 | 22,4 |
| | | | 380 | 3480 | 20,8 | 81 | 0,76 | 0,79 | 0,79 | 0,64 | 0,75 | 0,81 | 23,6 | 20,2 |
| | | | 460 | 3470 | 17,2 | 64 | 0,75 | 0,78 | 0,78 | 0,67 | 0,77 | 0,82 | 23,7 | 19,4 |
| 9,3 | 10,7 | 15500 | 230 | 3490 | 44,4 | 183 | 0,75 | 0,79 | 0,79 | 0,59 | 0,71 | 0,78 | 29,3 | 28,9 |
| | | | 380 | 3470 | 25,6 | 100 | 0,77 | 0,80 | 0,80 | 0,64 | 0,75 | 0,81 | 29,4 | 25,9 |
| | | | 460 | 3460 | 20,8 | 78 | 0,78 | 0,80 | 0,80 | 0,67 | 0,78 | 0,82 | 29,4 | 24,4 |
| 11,0 | 12,7 | 15500 | 230 | 3490 | 51,2 | 220 | 0,77 | 0,80 | 0,81 | 0,60 | 0,72 | 0,79 | 34,6 | 35,6 |
| | | | 380 | 3490 | 30,3 | 129 | 0,77 | 0,81 | 0,81 | 0,62 | 0,74 | 0,80 | 34,5 | 34,3 |
| | | | 460 | 3480 | 25,0 | 98 | 0,78 | 0,81 | 0,80 | 0,68 | 0,77 | 0,83 | 34,7 | 31,5 |
| 13,0 | 15,0 | 15500 | 230 | 3500 | 62,4 | 288 | 0,76 | 0,80 | 0,81 | 0,55 | 0,68 | 0,76 | 40,7 | 50,5 |
| | | | 360 | 3500 | 36,3 | 164 | 0,77 | 0,81 | 0,82 | 0,59 | 0,71 | 0,78 | 40,7 | 47,2 |
| | | | 460 | 3490 | 29,0 | 125 | 0,78 | 0,81 | 0,81 | 0,65 | 0,76 | 0,82 | 40,9 | 43,3 |
| 15,0 | 17,3 | 27500 | 230 | 3500 | 65,9 | 325 | 0,80 | 0,83 | 0,83 | 0,63 | 0,74 | 0,81 | 47,0 | 59,5 |
| | | | 380 | 3490 | 39,1 | 188 | 0,81 | 0,83 | 0,83 | 0,66 | 0,77 | 0,82 | 47,2 | 56,5 |
| | | | 460 | 3490 | 32,1 | 151 | 0,80 | 0,83 | 0,83 | 0,68 | 0,78 | 0,84 | 47,1 | 55,6 |
| 18,5 | 21,3 | 27500 | 230 | 3490 | 85,4 | 402 | 0,77 | 0,81 | 0,82 | 0,59 | 0,71 | 0,78 | 58,1 | 81,8 |
| | | | 380 | 3490 | 52,5 | 249 | 0,76 | 0,80 | 0,81 | 0,58 | 0,70 | 0,77 | 58,1 | 83,6 |
| | | | 460 | 3480 | 40,6 | 184 | 0,80 | 0,82 | 0,82 | 0,65 | 0,76 | 0,81 | 58,4 | 74,5 |
| 22,0 | 25,3 | 27500 | 230 | 3510 | 100,2 | 520 | 0,82 | 0,84 | 0,84 | 0,65 | 0,74 | 0,77 | 68,8 | 96,6 |
| | | | 380 | 3510 | 59,9 | 309 | 0,82 | 0,84 | 0,84 | 0,67 | 0,75 | 0,78 | 68,8 | 94,9 |
| | | | 460 | 3500 | 47,1 | 232 | 0,83 | 0,84 | 0,84 | 0,72 | 0,79 | 0,82 | 69,1 | 85,8 |
| 26 | 29,9 | 27500 | 230 | 3510 | 118,3 | 657 | 0,83 | 0,85 | 0,85 | 0,63 | 0,72 | 0,76 | 81,3 | 135,0 |
| | | | 380 | 3500 | 67,5 | 360 | 0,83 | 0,85 | 0,85 | 0,62 | 0,74 | 0,81 | 81,6 | 121,4 |
| | | | 460 | 3500 | 55,7 | 287 | 0,83 | 0,85 | 0,85 | 0,64 | 0,76 | 0,84 | 81,6 | 117,2 |
| 30,0 | 34,5 | 27500 | 230 | 3510 | 135,7 | 758 | 0,78 | 0,82 | 0,83 | 0,58 | 0,71 | 0,78 | 93,8 | 139,6 |
| | | | 380 | 3510. | 79,6 | 436 | 0,79 | 0,83 | 0,84 | 0,62 | 0,74 | 0,81 | 93,9 | 132,9 |
| | | | 460 | 3500 | 64,4 | 346 | 0,81 | 0,84 | 0,84 | 0,64 | 0,75 | 0,82 | 94,0 | 126,4 |
| 37.0 | 42.6 | 27500 | 230 | 3510 | 169,9 | 937 | 0,77 | 0,81 | 0,82 | 0,59 | 0,71 | 0,78 | 115,8 | 193,6 |
| | | | 380 | 3510 | 102,8 | 567 | 0,77 | 0,81 | 0,82 | 0,59 | 0,71 | 0,78 | 115,8 | 193,6 |
| | | | 460 | 3500 | 79,1 | 430 | 0,82 | 0,84 | 0,85 | 0,63 | 0,75 | 0,81 | 116,0 | 177,8 |
| 45.0 | 51.7 | 27500 | 230 | 3500 | 196 | 980 | 0,77 | 0,81 | 0,82 | 0,59 | 0,71 | 0,78 | 115,8 | 193 |
| | | | 380 | 3500 | 110 | 575 | 0,77 | 0,81 | 0,82 | 0,59 | 0,71 | 0,78 | 115,8 | 193 |
| | | | 460 | 3500 | 88 | 450 | 0,82 | 0,84 | 0,85 | 0,63 | 0,75 | 0,81 | 116,0 | 177,8 |

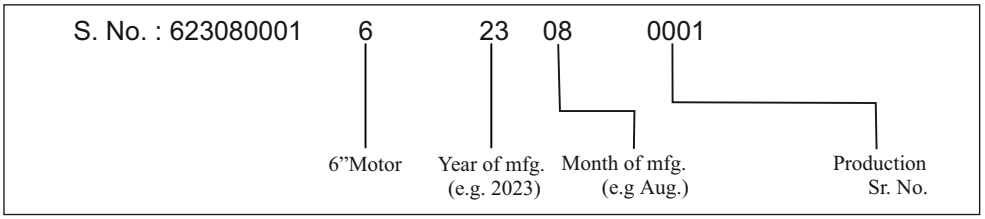
# 6" Rewindable Product Information and Service

# EXPLODED VIEW & MOC




| SR.NO | PART DESCRIPTION | QTY | MATERIAL |
|---|---|---|---|
| 1 | UPPER HOUSING | 01 | FG-260 |
| 2 | ROTOR SHAFT | 01 | SS410 |
| 3 | ROTOR ASSY | - | |
| 4 | COPPER RING | . | COPPER |
| 5 | BALANCE RING | 02 | MS |
| 6 | TB HOUSING | 01 | FG-260 |
| 7 | LOWER HOUSING | 01 | FG-260 |
| 8 | CARBON BUSH | 02 | CARBON |
| 9 | THRUST BEARING SEGMENT | 03 | CI |
| 10 | TB PLATE | 01 | FG-260 |
| 11 | ADJUSTING SCREW | 01 | SS-431 |
| 12 | REVERSE PLATE | 01 | FG-260 |
| 13 | DIAPHGRAM | 01 | NBR |
| 14 | TAFLON WASHER | 01 | TAFLON |
| 15 | PLASTIC CAP | 01 | NYLON |
| 16 | SPRING | 01 | SS-304 |
| 17 | STATOR PIPE | 01 | SS-304 |
| 18 | LOCK NUT | 01 | BRASS |
| 19 | UPPER HOUSING COVER | 01 | SS-304 |
| 20 | STAMPING ASSEMBLY | - | CRC |
| 21 | STATOR STAMPING | 02 | SS-304 |
| 22 | END RING | | SS-304 |
| 23 | WINDING CAP | 02 | NYLON |
| 24 | DRAIN PLUG | 02 | BRASS |
| 25 | STUD | 04 | SS-304 |
| 26 | SEAL COVER | 01 | SS-304 |
| 27 | ORING | 04 | NBR |
| 28 | MOTOR BASE | 1 | SS-304 |
| 29 | DUST COVER | 1 | SS-304 |
| 30 | GROVEMATE | 1 | NBR |
| 31 | GROVEMATE WASHER | 1 | SS-304 |
| 32 | ROTOR STAMPLING | . | . |
| | HARDWARE | | |
| 33 | OIL SEAL | 01 | NBR+304 |
| 34 | ALLEN BOLT | 04 | SS-304 |
| 35 | ALLEN BOLT | 06 | SS-304 |
| 36 | M 6 SCREW | 04 | SS-304 |
| 37 | ALLEN BOLT | 04 | SS-304 |
| 38 | MECH.SEAL | 01 | . |

**Determine the age of motor by checking the name plate Sr. No.**




## Checking the motor fluid


***Motor damage due to being insufficiently filled!***

- ⇨ *Fill the motor with sufficient motor filled*
- ⇨ *Wear safety goggles and gloves when filling and draining the motor.*

## Filling Volumes

- 6" approx. 5 litres

# Submersible Motors

## Stainless Steel
## 6” Water Filled Submersible Motor
## OSF-150 Series
## (50 Hz & 60 Hz)

Quality, Reliability, Excellence

OSWAL PUMPS

OSWAL

PUMPS & MOTORS

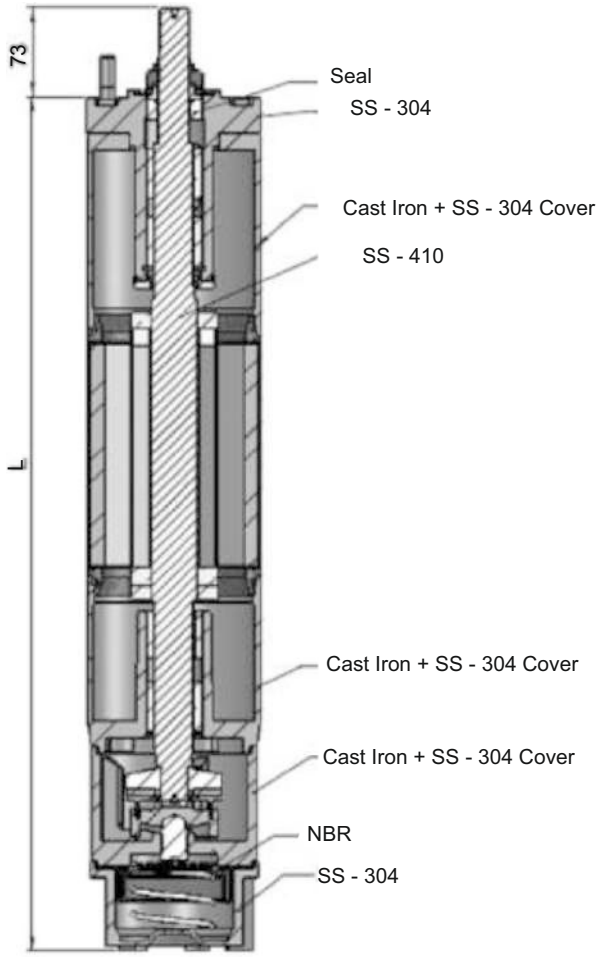
Solar | Domestic | Agriculture | Industrial

*True Partner!*

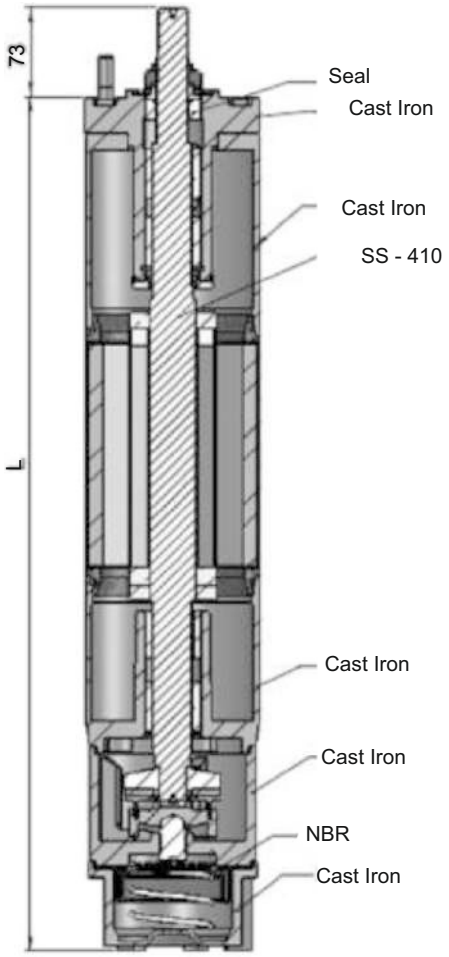
Energy Efficient Range....

# INDEX

# CUT DRAWING




**OSF - 150 SS-304**




**OSF - 150 CI**

| Power KW | Power HP | L (mm) | TL (mm) With Cap | Motor weights ( Kg.) Without Packing | Gross weights ( Kg.) With Packing |
|---|---|---|---|---|---|
| 4.0 | 5.5 | 680 | 753 | 41.5 | 46.4 |
| 5.5 | 7.5 | 720 | 793 | 49.3 | 54.2 |
| 7.5 | 10 | 750 | 823 | 50.9 | 55.9 |
| 9.3 | 12.5 | 790 | 863 | 55.4 | 60.4 |
| 11 | 15 | 800 | 873 | 55.8 | 60.9 |
| 13 | 17.5 | 840 | 913 | 60.3 | 65.7 |
| 15 | 20 | 880 | 953 | 66.6 | 72.0 |
| 18.5 | 25 | 930 | 1003 | 72.7 | 78.5 |
| 22 | 30 | 1000 | 1073 | 79.3 | 85.4 |
| 26 | 35 | 1000 | 1073 | 79.4 | 85.5 |
| 30 | 40 | 1100 | 1073 | 90.8 | 97.1 |
| 37 | 50 | 1150 | 1223 | 95.2 | 102 |
| 45 | 60 | 1150 | 1223 | 96.2 | 103 |

# Gernal Information

## Application :

6” Rewindable motors are built for dependable operation in 6” diameter or Large water wells.
Water lubricated thrust and radial bearings enable a very less maintenance operation.
A preloaded special diaphragm ensures pressure compensation inside the Motor.

## Product advantages :

Cable material according to drinking water regulations.
Sand slinger and SiC mechanical seal for high performance in sand.
High efficiency electrical design for low operation cost.
All motors are pre filled and 100% tested
Max. storage temperature - $15C^0$ to $+60C^0$
Approved tilting type thrust bearing (4.0 kw to 13 kw) and
6 segment tilting type thrust bearing for high thrust load up to (15kw to 45 kw)

## Technical Specification :

Standard 6" NEMA flanges with Studs (M12)
Protection IP 68
Start per hours max.20
Installation position : vertical
Motor lead in 3 m length
Standard voltage: 380-415V/50Hz,460V/60Hz Voltage tolerance: +6%,-10% (Standard415+6%=440V,380-10%=342)
Frequency tolerance - #2% Speed-appox.2850 -2900 rpm at 50Hz.Star alternatives - Direct on line (DOL) / Star - Delta Starting.
Standard motor with poly wrapped copper winding wire for max Ambient temp. of $30^0$ with a min. cooling flow:
4 kw -13 kw v=0.2m/s
15 kw - 45 kw v=0.5m/s

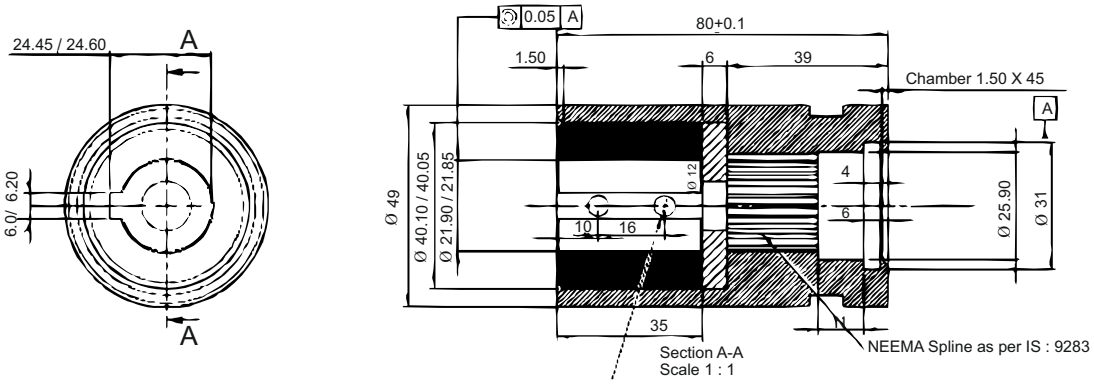
## Optional :

Other voltage & Frequency 380 V / 220 V/ 60 Hz
In 60 Hz Speed - Appox. - 3450 Rpm

# 6" Rewindable Motors Leads @ 400 V / 50 Hz

| Insulation resistance (20℃ / 500 VDC) | | |
|---|---|---|
| New motor without drop cable | 200 > | MO |
| Used motor without drop cable | 20 > | MO |
| New motor with drop cable | 2 > | MO |
| Used motor with drop cable | 0,5- 2 | MO |

| 6"Rewindable Motor Couplings | | | |
|---|---|---|---|
| Coupling | Dimension A (mm) | Dimension B (mm) | Dimension C (mm) |
| Material | Max./Min. | Max./Min. | Max./Min. |
| AISI 304 | 20.025 / 20.013 | 22.76 / 22.60 | 6.05 / 6.00 |
| AISI 304 | 22.025 / 22.013 | 25.53 / 25.32 | 8.03 / 7.98 |
| AISI 304 | 25.025 / 25.013 | 28.70 / 28.30 | 8.03 / 7.98 |



# 6" Rewindable Motors Performance Data 50 Hz

| $P_N$ [kW] | Thrust F [N] | $U_N$ [V] | $n_N$ [min-1] | $I_N$ [A] | $I_A$ [A] | n (Eff) [%] at % load | | | cos Q (PF) at % load | | | $T_{N.}$ [Nm] | TA [Nm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 50 | 75 | 100 | 50 | 75 | 100 | | |
| 4 | 15500 | 380 | 2910 | 10,4 | 48 | 0,71 | 0,75 | 0,76 | 0,59 | 0,71 | 0,78 | 13,1 | 15,5 |
| | | 400 | 2930 | 10,6 | 51 | 0,68 | 0,73 | 0,76 | 0,53 | 0,65 | 0,73 | 13,1 | 17,3 |
| | | 415 | 2930 | 10,9 | 53 | 0,65 | 0,72 | 0,76 | 0,50 | 0,61 | 0,69 | 13,0 | 18,8 |
| 5,5 | 15000 | 380 | 2860 | 13,7 | 48 | 0,74 | 0,76 | 0,75 | 0,67 | 0,78 | 0,83 | 18,3 | 15,5 |
| | | 400 | 2890 | 13,3 | 51 | 0,72 | 0,76 | 0,76 | 0,62 | 0,74 | 0,81 | 18,2 | 17,3 |
| | | 415 | 2890 | 13,4 | 53 | 0,71 | 0,75 | 0,75 | 0,59 | 0,71 | 0,78 | 18,1 | 18,8 |
| 7,5 | 15500 | 380 | 2860 | 18,3 | 59 | 0,77 | 0,78 | 0,76 | 0,70 | 0,80 | 0,84 | 25,0 | 19,2 |
| | | 400 | 2880 | 17,7 | 63 | 0,75 | 0,78 | 0,77 | 0,65 | 0,76 | 0,82 | 24,8 | 21,5 |
| | | 415 | 2890 | 17,7 | 65 | 0,73 | 0,77 | 0,77 | 0,61 | 0,73 | 0,80 | 24,7 | 23,4 |
| 9, 3 | 15500 | 380 | 2850 | 22,0 | 74 | 0,79 | 0,80 | 0,78 | 0,71 | 0,80 | 0,84 | 31,1 | 25,9 |
| | | 400 | 2870 | 21,4 | 78 | 0,78 | 0,79 | 0,78 | 0,64 | 0,76 | 0,82 | 31,0 | 29,0 |
| | | 415 | 2880 | 21,2 | 81 | 0,76 | 0,79 | 0,78 | 0,60 | 0,72 | 0,80 | 30,9 | 31,4 |
| 11,0 | 15500 | 380 | 2860 | 25,8 | 93 | 0,78 | 0,80 | 0,78 | 0,71 | 0,80 | 0,85 | 36,7 | 31,5 |
| | | 400 | 2880 | 25,2 | 98 | 0,77 | 0,80 | 0,79 | 0,65 | 0,76 | 0,83 | 36,4 | 35,3 |
| | | 415 | 2890 | 25,1 | 102 | 0,75 | 0,78 | 0,79 | 0,61 | 0,73 | 0,80 | 36,3 | 38,2 |
| 13,0 | 15500 | 380 | 2880 | 30,1 | 118 | 0,80 | 0,81 | 0,80 | 0,68 | 0,79 | 0,84 | 43,1 | 45,0 |
| | | 400 | 2900 | 29,6 | 125 | 0,78 | 0,80 | 0,80 | 0,61 | 0,74 | 0,81 | 42,8 | 50,3 |
| | | 415 | 2900 | 29,7 | 130 | 0,76 | 0,79 | 0,80 | 0,57 | 0,70 | 0,78 | 42,7 | 54,6 |
| 15,0 | 27500 | 380 | 2880 | 33,9 | 140 | 081 | 0,82 | 0,81 | 0,71 | 0,81 | 0,85 | 49,7 | 53,9 |
| | | 400 | 2890 | 33,1 | 148 | 0,79 | 0,81 | 0,81 | 0,65 | 0,77 | 0,83 | 49,4 | 60,4 |
| | | 415 | 2900 | 33,0 | 154 | 0,77 | 0,80 | 0,81 | 0,60 | 0,73 | 0,81 | 49,3 | 65,5 |
| 18,5 | 27500 | 380 | 2860 | 42,3 | 172 | 0,81 | 0,82 | 0,81 | 0,68 | 0,78 | 0,84 | 61,7 | 75,2 |
| | | 400 | 2880 | 42,0 | 182 | 0,78 | 0,81 | 0,81 | 0,61 | 0,74 | 0,80 | 61,2 | 84,3 |
| | | 415 | 2890 | 42,5 | 189 | 0,76 | 0,79 | 0,80 | 0,57 | 0,70 | 0,77 | 61,1 | 91,3 |
| 22,0 | 27500 | 380 | 2880 | 49,1 | 218 | 0,82 | 0,84 | 0,83 | 0,68 | 0,78 | 0,84 | 72,6 | 91,2 |
| | | 400 | 2900 | 49,0 | 231 | 0,80 | 0,82 | 0,82 | 0,61 | 0,73 | 0,80 | 72,5 | 102,2 |
| | | 415 | 2910 | 49,6 | 240 | 0,77 | 0,81 | 0,82 | 0,58 | 0,69 | 0,77 | 72,2 | 110,7 |
| 26 | 27500 | 380 | 2880 | 57,5 | 268 | 0,83 | 0,84 | 0,83 | 0,68 | 0,79 | 0,86 | 86,0 | 120,4 |
| | | 400 | 2900 | 56,7 | 284 | 0,81 | 0,83 | 0,83 | 0,61 | 0,74 | 0,83 | 85,6 | 134,7 |
| | | 415 | 2910 | 57,3 | 296 | 0,78 | 0,82 | 0,82 | 0,56 | 0,69 | 0,80 | 85,3 | 146,1 |
| 30,0 | 27500 | 380 | 2900 | 66,4 | 328 | 0,82 | 0,84 | 0,83 | 0,67 | 0,78 | 0,84 | 98,8 | 135,0 |
| | | 400 | 2910 | 66,4 | 347 | 0,80 | 0,83 | 0,83 | 0,60 | 0,73 | 0,80 | 98,4 | 151,0 |
| | | 415 | 2910 | 67,5 | 361 | 0,77 | 0,81 | 0,82 | 0,55 | 0,69 | 0,77 | 98,2 | 163,0 |
| 37 | 27500 | 380 | 2890 | 82,0 | 409 | 0,83 | 0,84 | 0,83 | 0,67 | 0,78 | 0,85 | 122,1 | 192,8 |
| | | 400 | 2900 | 81,9 | 433 | 0,80 | 0,83 | 0,83 | 0,60 | 0,72 | 0,80 | 121,6 | 215,8 |
| | | 415 | 2910 | 83,9 | 450 | 0,77 | 0,81 | 0,82 | 0,55 | .0,68 | 0,76 | 121,3 | 234,0 |
| 45 | 27500 | 380 | 2895 | 90,9 | 490,0 | 85,7 | 86,5 | 85,2 | 0,8 | .0,85 | 0,88 | 149,0 | 218,0 |
| | | 400 | 2910 | 90,0 | 520,0 | 85,3 | 86,5 | 86 | 0,75 | .0,82 | 0,86 | 148,0 | 240,0 |
| | | 415 | 2910 | 88,0 | 542,0 | 84,4 | 86,1 | 85,8 | 0,69 | .0,80 | 0,85 | 147,0 | 262,0 |

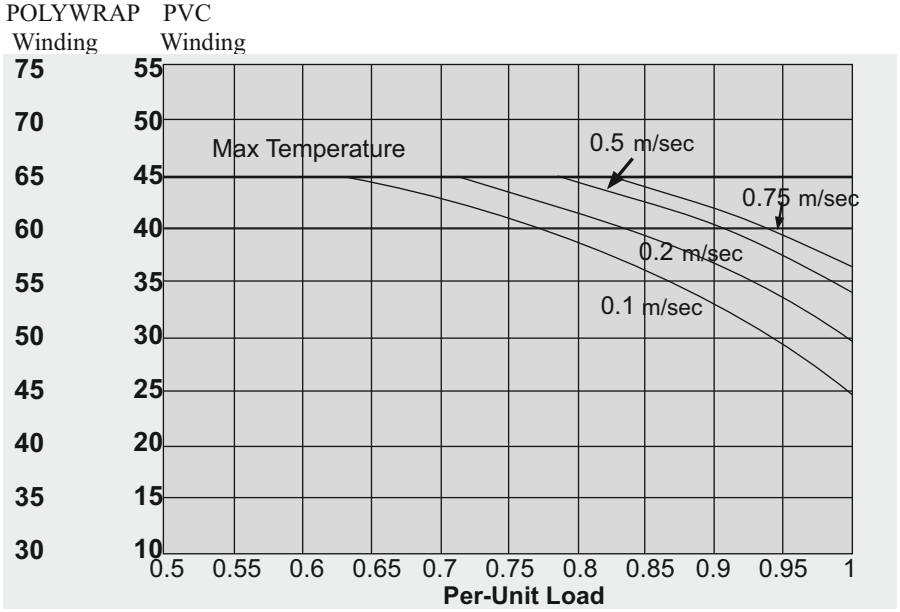
# 6" Rewindable Product Information and Service

# 6" Rewindable Motor Performance Data 60 Hz

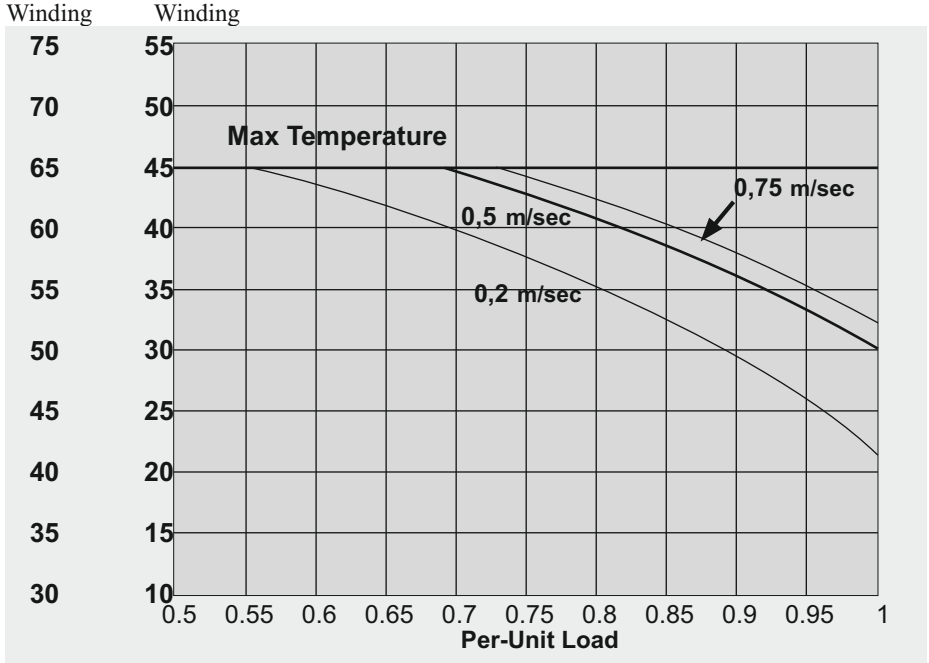
| $P_N$ [kW] | $P_{max}$ [kW] | Thrust F [N] | $U_N$ [V] | $n_{max}$ [min1] | $I_{max}$ [A] | $I_A$ [A] | $n_{max}$ (Eff.) [%] at% load | | | cos $Q_{max}$ (Pf.) at % load | | | $T_{max}$ [Nm] | $T_A$ [Nm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 50 | 75 | 100 | 50 | 75 | 100 | | |
| 4 | 4,6 | 15500 | 230 | 3520 | 21,0 | 106 | 0,70 | 0,75 | 0,77 | 0,52 | 0,64 | 0,73 | 12,5 | 18,6 |
| | | | 380 | 3530 | 13,3 | 61 | 0,66 | 0,72 | 0,77 | 0,51 | 0,63 | 0,71 | 12,4 | 15,0 |
| | | | 460 | 3520 | 10,1 | 51 | 0,70 | 0,76 | 0,78 | 0,56 | 0,67 | 0,75 | 12,5 | 15,3 |
| 5,5 | 6,3 | 15500 | 230 | 3490 | 26,1 | 106 | 0,74 | 0,78 | 0,78 | 0,61 | 0,73 | 0,80 | 17,3 | 15,9 |
| | | | 380 | 3480 | 15,4 | 61 | 0,76 | 0,78 | 0,78 | 0,64 | 0,75 | 0,81 | 17,3 | 15,0 |
| | | | 460 | 3480 | 12,9 | 51 | 0,74 | 0,77 | 0,77 | 0,65 | 0,76 | 0,82 | 17,3 | 15,1 |
| 7,5 | 8,6 | 15500 | 230 | 3490 | 35,9 | 146 | 0,75 | 0,79 | 0,79 | 0,58 | 0,71 | 0,78 | 23,6 | 22,4 |
| | | | 380 | 3480 | 20,8 | 81 | 0,76 | 0,79 | 0,79 | 0,64 | 0,75 | 0,81 | 23,6 | 20,2 |
| | | | 460 | 3470 | 17,2 | 64 | 0,75 | 0,78 | 0,78 | 0,67 | 0,77 | 0,82 | 23,7 | 19,4 |
| 9,3 | 10,7 | 15500 | 230 | 3490 | 44,4 | 183 | 0,75 | 0,79 | 0,79 | 0,59 | 0,71 | 0,78 | 29,3 | 28,9 |
| | | | 380 | 3470 | 25,6 | 100 | 0,77 | 0,80 | 0,80 | 0,64 | 0,75 | 0,81 | 29,4 | 25,9 |
| | | | 460 | 3460 | 20,8 | 78 | 0,78 | 0,80 | 0,80 | 0,67 | 0,78 | 0,82 | 29,4 | 24,4 |
| 11,0 | 12,7 | 15500 | 230 | 3490 | 51,2 | 220 | 0,77 | 0,80 | 0,81 | 0,60 | 0,72 | 0,79 | 34,6 | 35,6 |
| | | | 380 | 3490 | 30,3 | 129 | 0,77 | 0,81 | 0,81 | 0,62 | 0,74 | 0,80 | 34,5 | 34,3 |
| | | | 460 | 3480 | 25,0 | 98 | 0,78 | 0,81 | 0,80 | 0,68 | 0,77 | 0,83 | 34,7 | 31,5 |
| 13,0 | 15,0 | 15500 | 230 | 3500 | 62,4 | 288 | 0,76 | 0,80 | 0,81 | 0,55 | 0,68 | 0,76 | 40,7 | 50,5 |
| | | | 360 | 3500 | 36,3 | 164 | 0,77 | 0,81 | 0,82 | 0,59 | 0,71 | 0,78 | 40,7 | 47,2 |
| | | | 460 | 3490 | 29,0 | 125 | 0,78 | 0,81 | 0,81 | 0,65 | 0,76 | 0,82 | 40,9 | 43,3 |
| 15,0 | 17,3 | 27500 | 230 | 3500 | 65,9 | 325 | 0,80 | 0,83 | 0,83 | 0,63 | 0,74 | 0,81 | 47,0 | 59,5 |
| | | | 380 | 3490 | 39,1 | 188 | 0,81 | 0,83 | 0,83 | 0,66 | 0,77 | 0,82 | 47,2 | 56,5 |
| | | | 460 | 3490 | 32,1 | 151 | 0,80 | 0,83 | 0,83 | 0,68 | 0,78 | 0,84 | 47,1 | 55,6 |
| 18,5 | 21,3 | 27500 | 230 | 3490 | 85,4 | 402 | 0,77 | 0,81 | 0,82 | 0,59 | 0,71 | 0,78 | 58,1 | 81,8 |
| | | | 380 | 3490 | 52,5 | 249 | 0,76 | 0,80 | 0,81 | 0,58 | 0,70 | 0,77 | 58,1 | 83,6 |
| | | | 460 | 3480 | 40,6 | 184 | 0,80 | 0,82 | 0,82 | 0,65 | 0,76 | 0,81 | 58,4 | 74,5 |
| 22,0 | 25,3 | 27500 | 230 | 3510 | 100,2 | 520 | 0,82 | 0,84 | 0,84 | 0,65 | 0,74 | 0,77 | 68,8 | 96,6 |
| | | | 380 | 3510 | 59,9 | 309 | 0,82 | 0,84 | 0,84 | 0,67 | 0,75 | 0,78 | 68,8 | 94,9 |
| | | | 460 | 3500 | 47,1 | 232 | 0,83 | 0,84 | 0,84 | 0,72 | 0,79 | 0,82 | 69,1 | 85,8 |
| 26 | 29,9 | 27500 | 230 | 3510 | 118,3 | 657 | 0,83 | 0,85 | 0,85 | 0,63 | 0,72 | 0,76 | 81,3 | 135,0 |
| | | | 380 | 3500 | 67,5 | 360 | 0,83 | 0,85 | 0,85 | 0,62 | 0,74 | 0,81 | 81,6 | 121,4 |
| | | | 460 | 3500 | 55,7 | 287 | 0,83 | 0,85 | 0,85 | 0,64 | 0,76 | 0,84 | 81,6 | 117,2 |
| 30,0 | 34,5 | 27500 | 230 | 3510 | 135,7 | 758 | 0,78 | 0,82 | 0,83 | 0,58 | 0,71 | 0,78 | 93,8 | 139,6 |
| | | | 380 | 3510. | 79,6 | 436 | 0,79 | 0,83 | 0,84 | 0,62 | 0,74 | 0,81 | 93,9 | 132,9 |
| | | | 460 | 3500 | 64,4 | 346 | 0,81 | 0,84 | 0,84 | 0,64 | 0,75 | 0,82 | 94,0 | 126,4 |
| 37.0 | 42.6 | 27500 | 230 | 3510 | 169,9 | 937 | 0,77 | 0,81 | 0,82 | 0,59 | 0,71 | 0,78 | 115,8 | 193,6 |
| | | | 380 | 3510 | 102,8 | 567 | 0,77 | 0,81 | 0,82 | 0,59 | 0,71 | 0,78 | 115,8 | 193,6 |
| | | | 460 | 3500 | 79,1 | 430 | 0,82 | 0,84 | 0,85 | 0,63 | 0,75 | 0,81 | 116,0 | 177,8 |
| 45.0 | 51.7 | 27500 | 230 | 3500 | 196 | 980 | 0,77 | 0,81 | 0,82 | 0,59 | 0,71 | 0,78 | 115,8 | 193 |
| | | | 380 | 3500 | 110 | 575 | 0,77 | 0,81 | 0,82 | 0,59 | 0,71 | 0,78 | 115,8 | 193 |
| | | | 460 | 3500 | 88 | 450 | 0,82 | 0,84 | 0,85 | 0,63 | 0,75 | 0,81 | 116,0 | 177,8 |

# 6" Rewindable Product Information and Service

## De-rating Of 6” Rewindable Motors 4 - 13 Kw

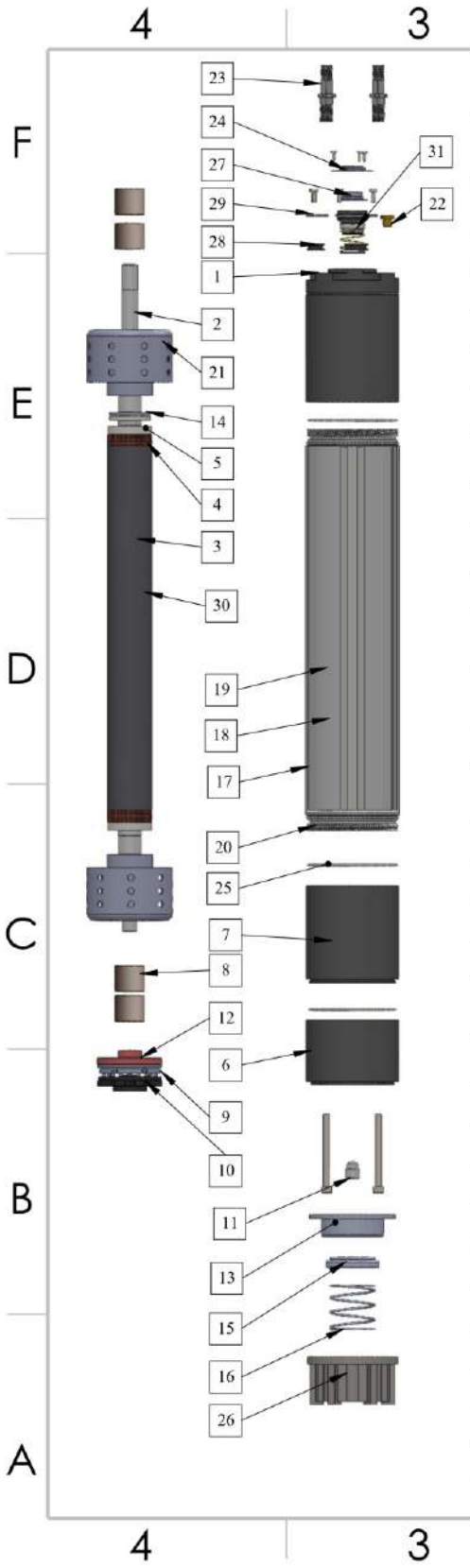



## De-rating Of 6” Rewindable Motors 15 - 45 Kw




## 6" OSF-150 Rewindable Product Information and Service

## Exploded View

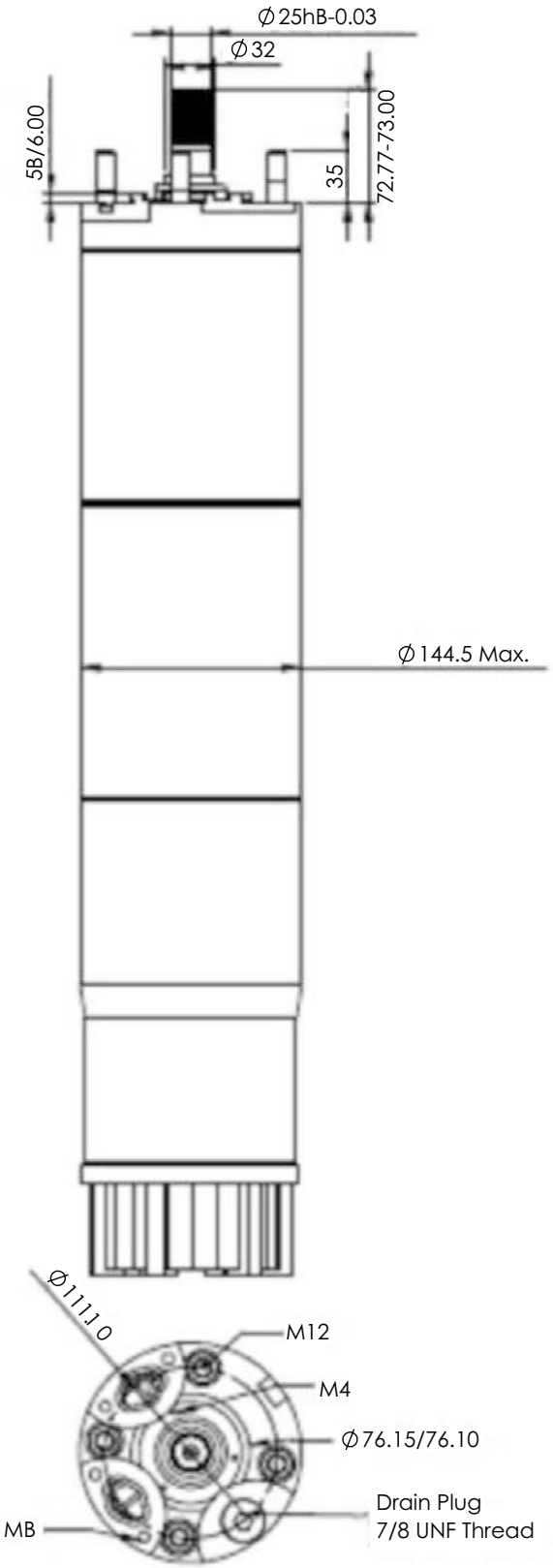



### OSF-150(SSJK)

| SR.NO | PART DESCRIPTION | QTY | MATERIAL |
|---|---|---|---|
| 1 | UPPER HOUSING | 01 | SS 304+CI |
| 2 | ROTOR SHAFT | 01 | SS-410 |
| 3 | ROTOR ASSY | - | |
| 4 | COPPER RING | . | COPPER |
| 5 | BALANCE RING | 02 | MS |
| 6 | TB HOUSING | 01 | SS-304+CI |
| 7 | LOWER HOUSING | 01 | CI |
| 8 | CARBON BUSH | 04 | CARBON |
| 9 | THRUST BEARING SEGMENT | 03 | CI |
| 10 | TB PLATE | 01 | CI |
| 11 | ADJUSTING SCREW | 01 | SS-304 |
| 12 | REVERSE PLATE | 01 | CI |
| 13 | DIAPHGRAM | 01 | NBR |
| 14 | TAFLON WASHER | 01 | TAFLON |
| 15 | PLASTIC CAP | 01 | NYLON |
| 16 | SPRING | 01 | SS-304 |
| 17 | STATOR PIPE | 01 | SS-304 |
| 18 | STAMPING ASSEMBLY | - | CRC |
| 19 | STATOR STAMPING | 02 | SS-304 |
| 20 | END RING | | SS-304 |
| 21 | WINDING CAP | 02 | NYLON |
| 22 | DRAIN PLUG | 02 | BRASS |
| 23 | STUD | 04 | SS-304 |
| 24 | SEAL COVER | 01 | SS-304 |
| 25 | ORING | 02 | NBR |
| 26 | MOTOR BASE | 01 | SS-304+CI |
| 27 | DUST COVER | 01 | SS-304 |
| 28 | GROMMATE | 01 | NBR |
| 29 | CABLE CLAMP | 01 | SS-304 |
| 30 | ROTOR STAMPLING | . | CRC |
| 31 | MECH SEAL | 01 | STD |

## 6" OSF-150 Rewindable Product Information and Service

# 6" Rewindable Standard Motors Outline




# 6" OSF-150 Rewindable Product Information and Service

# General safety instructions

The following safety measures must be observed prior to putting the motor into use :

- Do not carry out any other work on the motor other than described in these instructions.
- Only use the motor under water (the motor and the short motor cable must be fully submersed).
- Do not implement any changes or conversions to the motor or its electrical connections.
- Never open the motor.
- Never use the motor in combination with damaged pump units or parts.
- Only work on the motor when it is switched off. No work or checks require the motor to be running.
- Switch off the power supply to the motor before carrying out any work on it.
- Make sure that nobody can switch on the voltage unexpectedly while work is being carried out on the motor
- Never work on electrical systems during a thunderstorm.
- Make sure immediately after ending the work that all protective and safety devices have been fitted again and are operational.
- Before switching on the motor, make sure that all electrical connections and safety devices have been checked and that all fuses and safeties have been set correctly.
- Make sure that no danger zones are freely accessible (e.g. rotating parts, suction locations, pressure output locations, electrical connections). Observe the pump manufacture's commissioning instructions.
- If motor or pump units have been used in contaminated media they must be marked as such before handing them over to a third party (e.g. when submitting then for repair). Pay attention to possible residues in" dead spaces" (diaphragm cover).
- Contaminated motor or pump units must be marked as such before handing them over to a third party (e.g. when submitting them for repair).

## Storage

- ⇨ Store the motor in its original packaging until the time of installing it.
- ⇨ If the motor is stored standing up, make sure that it cannot topple over (shaft always pointing up!).
- ⇨ Do not store the motor in direct sunlight or within the reach of other heat sources.
- ⇨ Observe the storage temperature (- 15 - +60℃, see technical specifications).

## Transport

DANGER

**Falling loads may cause lethal injuries or may crush parts of the body!**

- ⦸ No body is allowed to be located under suspended loads.
- ⇨ Only use approved hoisting gear.
- ⇨ Select the hoisting gear on the basis of the total weight to be transported

## Unpacking

- ⇨ After unpacking the motor check it for possible damage e.g. damage to the diaphragm cover, housing, endbell, connection and motor cable.
- ⇨ Immediately inform the supplier fo any damage found.

DANGER

***Danger to life due to electrocution if the motor cable is damaged!***

- ⦸ Do not install the motor and do not put it into operation.

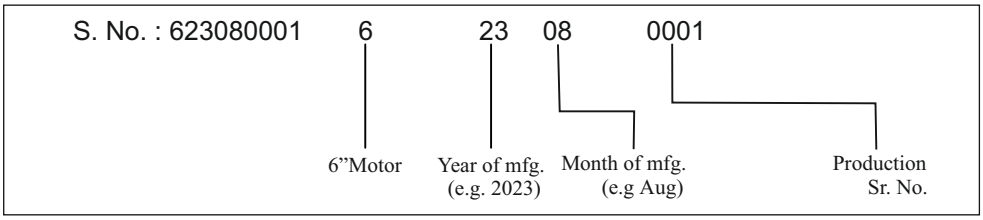
## Disposal

In order to avoid environmental damage:

- Avoid contamination by lubricants, detergents etc.
- Dispose of the motor and the packaging material in a proper, environmentally sound manner.
- Observe local regulations.

# General safety instructions

**Determine the age of motor by checking the name plate Sr. No.**




## Checking the motor fluid

**DANGER**

***Motor damage due to being insufficiently filled!***

⇨ *Fill the motor with sufficient motor filled*

⇨ *Wear safety goggles and gloves when filling and draining the motor.*

## Filling Volumes

- 6" approx. 5 litres

# Motor Operation

## Proper motor cooling

**Caution**

***Damage to the motor and the motor cable due to over heating***

⇨ *Make sure that the coolant flow speed along the motor is sufficient.*

⇨ *Make sure that the short motor cable is always fully surrounded by transport medium for propeer Cooling*

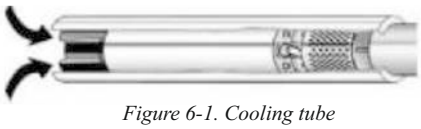


*Figure 6-1. Cooling tube*

If the required minimum coolant low speed cannot be reached (e.g. if the inlet opening of the well is located above the motor or if using large-diameter wells).

⇨ Fit a cooling tube (see figure 6-1)

⇨ Make sure that the cooling tube encases the entire motor and the pump water inlet opening

The motor is force-cooled.

## Providing a check valve and level sensor

⇨ Provide one spring-loaded check valve in the production tube in case no such check valve has been fitted in the pump.

⇨ Ensure that the check valve is no further than 7 meters away from the pump

⇨ Install a level sensor for wells with a highly varying water inflow.

## Switching on the motor

☑ All action steps of the previous chapter have been carried out property

⇨ Switch on the motor using the mains switch in the control cabinet.

⇨ Measure the following values after switching on:

Motor operating current in every phase
Mains voltage when motor is running
Level of the medium to be transported

⇨ **Immediately switch off the motor if.**

- the nominal current as specified on the type plate is exceeded.
- voltage tolerances of more than - 10% / +6% relative to the nominal voltage are measured on the motor
- there is a risk of the motor running dry,
- motor current deviates from the mean value of all three currents by more than 5%

## Motor operation with frequency converter

Note

*When operating a motor with a frequency converter, the relevant operating manual must be observed!*

- ⇨ Make sure that the motor current in all operating levels of the regulating range does not exceed the nominal motor current indicated on the type plate.
- ⇨ Adjust the frequency converter so that the limit values for the nominal motor frequency of min. 30Hz and max the value of the nominal motor frequency (50 or 60 Hz) are observed.
- ⇨ Limit any voltage peaks on the motor when using a frequency converter to the following values: max. voltage rise 500 V/us, max voltage peak 1000 V.
- ⇨ Make sure that the running up time from 0 to 30 Hz and the deceleration time from 30 to 0 Hz is maximum one second.
- ⇨ Dimension the cable such that power loss due to additional filters is taken into consideration.
- ⇨ Make sure that the required coolant flow speed along the motor is also observed with frequency converter operation.

## Motor operation with softstarter

**Note**

*When operating a motor with a softstarter, the relevant operating manual must be observed!*

- ⇨ Set the starting voltage of the softstarter to 55 % of the nominal voltage and set the running up and delay times to max, three seconds.
- ⇨ Bridge the softstarter after running up, using a contactor.

## Maintenance and service

The motor is maintenance-free, no maintenance or service activities are necessary.

## Troubleshooting

| Fault | Remedy |
|---|---|
| Unusual noises, problems with the proper running of the pump or the pump switching on and off too frequently. | ⇨ Try to find the cause of the fault on the pump unit. |
| The pump repeatedly switches off | ⇨ Have the insulation resistance checked by a professional (See page 4)<br>⇨ If no cause can be found in the motor or the motor cable: Have the electrical system checked . |

# Max.length in meters for 400V/50Hz and 5%voltage drop at 30°amb.temp.

| Direct Start | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| rating | | cable size mm², copper wire - 70°C rated insulation | | | | | | | | | | | | | | | |
| KW | HP | 2,5 | 4 | 6 | 10 | 16 | 25 | 35 | 50 | 70 | 95 | 120 | 150 | 185 | 240 | 300 | 400 |
| 4 | 5,5 | 180 | 290 | 430 | 710 | | | | | | | | | | | | |
| 5,5 | 7,5 | 130 | 210 | 320 | 530 | 830 | | | | | | | | | | | |
| 7,5 | 10 | 80 | 150 | 230 | 390 | 610 | 940 | | | | | | | | | | |
| 9,3 | 12,5 | .80 | 130 | 190 | 320 | 510 | 770 | | | | | | | | | | |
| 11 | 15 | 60 | 100 | 160 | 270 | 430 | 650 | 890 | | | | | | | | | |
| 13 | 17,5 | | 90 | 140 | 230 | 370 | 560 | 770 | | | | | | | | | |
| 15 | 20 | | 80 | 120 | 200 | 320 | 490 | 880 | 920 | | | | | | | | |
| 18,5 | 25 | | | 100 | 160 | 260 | 400 | 540 | 740 | 980 | | | | | | | |
| 22 | 30 | | | | 140 | 220 | 340 | 470 | 630 | 840 | | | | | | | |
| 26 | 35 | | | | 120 | 190 | 290 | 380 | 540 | 720 | 920 | | | | | | |
| 30 | 40 | | | | | 150 | 250 | 340 | 470 | 520 | 790 | 940 | | | | | |
| 37 | 50 | | | | | 130 | 200 | 280 | 380 | 600 | 640 | 760 | 890 | 1020 | | | |
| 45 | 60 | | | | | | 170 | 240 | 330 | 440 | 570 | 890 | 810 | 940 | | | |
| 52 | 70 | | | | | | 150* | 210 | 290 | 390 | 500 | 800 | 710 | 820 | 980 | | |
| 55 | 75 | | | | | | 140* | 190 | 270 | 360 | 470 | 5600 | 660 | 770 | 910 | | |
| 60 | 80 | | | | | | | 180 | 250 | 340 | 440 | 530 | 630 | 730 | 870 | 1010 | |
| 67 | 90 | | | | | | | 160* | 220 | 300 | 390 | 460 | 550 | 630 | 750 | 860 | 1000 |
| 75 | 100 | | | | | | | | 200* | 270 | 350 | 420 | 490 | 570 | 680 | 780 | 910 |
| 83 | 111 | | | | | | | | 180* | 250 | 320 | 390 | 450 | 530 | 630 | 730 | 850 |
| 85 | 114 | | | | | | | | | 230 | 290 | 350 | 410 | 480 | 570 | 650 | 750 |
| 93 | 125 | | | | | | | | | 220* | 280 | 340 | 390 | 460 | 550 | 620 | 720 |
| 110 | 150 | | | | | | | | | | 220 | 270 | 310 | 360 | 420 | 480 | 550 |
| 130 | 175 | | | | | | | | | | 200* | 240 | 280 | 330 | 390 | 440 | 520 |
| 150 | 200 | | | | | | | | | | | 200* | 240 | 280 | 330 | 380 | 440 |
| 185 | 250 | | | | | | | | | | | | | 210* | 250 | 280 | 330 |

| Wye - Delta start | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| rating | | cable size mm², copper wire - 70°C rated insulation | | | | | | | | | | | | | | | |
| KW | HP | 2,5 | 4 | 6 | 10 | 16 | 25 | 35 | 50 | 70 | 95 | 120 | 150 | 185 | 240 | 300 | 400 |
| 4 | 5,5 | 270 | 430 | 640 | | | | | | | | | | | | | |
| 5,5 | 7,5 | 190 | 310 | 480 | 790 | | | | | | | | | | | | |
| 7,5 | 10 | 130 | 220 | 340 | 580 | 910 | | | | | | | | | | | |
| 9,3 | 12,5 | 120 | 180 | 280 | 480 | 760 | | | | | | | | | | | |
| 11 | 15 | 80 | 150 | 240 | 400 | 640 | 970 | | | | | | | | | | |
| 13 | 17,5 | 70 | 130 | 210 | 340 | 550 | 840 | | | | | | | | | | |
| 15 | 20 | 70 | 120 | 180 | 300 | 480 | 730 | 1020 | | | | | | | | | |
| 18,5 | 25 | 60 | 90 | 150 | 240 | 390 | 600 | 810 | | | | | | | | | |
| 22 | 30 | | 70 | 120 | 210 | 330 | 510 | 700 | 940 | | | | | | | | |
| 26 | 35 | | 60* | 100 | 180 | 280 | 430 | 580 | 810 | | | | | | | | |
| 30 | 40 | | | 90 | 150 | 240 | 370 | 610 | 700 | 930 | | | | | | | |
| 37 | 50 | | | | 120 | 190 | 300 | 420 | 570 | 750 | 950 | | | | | | |
| 45 | 60 | | | | 100 | 160 | 250 | 360 | 490 | 550 | 850 | | | | | | |
| 52 | 70 | | | | 90* | 150 | 220 | 310 | 430 | 580 | 750 | 800 | | | | | |
| 55 | 75 | | | | | 130 | 210 | 280 | 400 | 540 | 700 | 840 | 890 | | | | |
| 60 | 80 | | | | | 120 | 190 | 270 | 370 | 510 | 660 | 790 | 940 | | | | |
| 67 | 90 | | | | | 100 | 180 | 240 | 330 | 450 | 580 | 690 | 820 | 940 | | | |
| 75 | 100 | | | | | 90* | 150 | 210 | 300 | 400 | 520 | 630 | 730 | 850 | 1020 | | |
| 83 | 111 | | | | | | 130 | 190 | 270 | 370 | 480 | 580 | 670 | 790 | 940 | | |
| 85 | 114 | | | | | | 180* | 180 | 250 | 340 | 430 | 520 | 610 | 720 | 850 | 870 | |
| 93 | 125 | | | | | | 120* | 160 | 240 | 330 | 420 | 510 | 580 | 690 | 820 | 830 | |
| 110 | 150 | | | | | | | 130* | 190 | 250 | 330 | 400 | 460 | 540 | 630 | 720 | 820 |
| 130 | 175 | | | | | | | | 160* | 220 | 300 | 360 | 420 | 490 | 580 | 660 | 780 |
| 150 | 200 | | | | | | | | .150* | 190 | 250 | 300 | 360 | 420 | 490 | 570 | 660 |
| 185 | 250 | | | | | | | | | | 180* | 240 | 270 | 310 | 370 | 420 | 490 |

*only for individual conductor cable

# 6" OSF-150 Rewindable Product Information and Service

# Submersible Motors

## Stainless Steel & Cast Iron
## 8” Water Filled Submersible Motor
## OSF-200 Series
## (50 Hz & 60 Hz)

Quality, Reliability, Excellence
OSWAL PUMPS

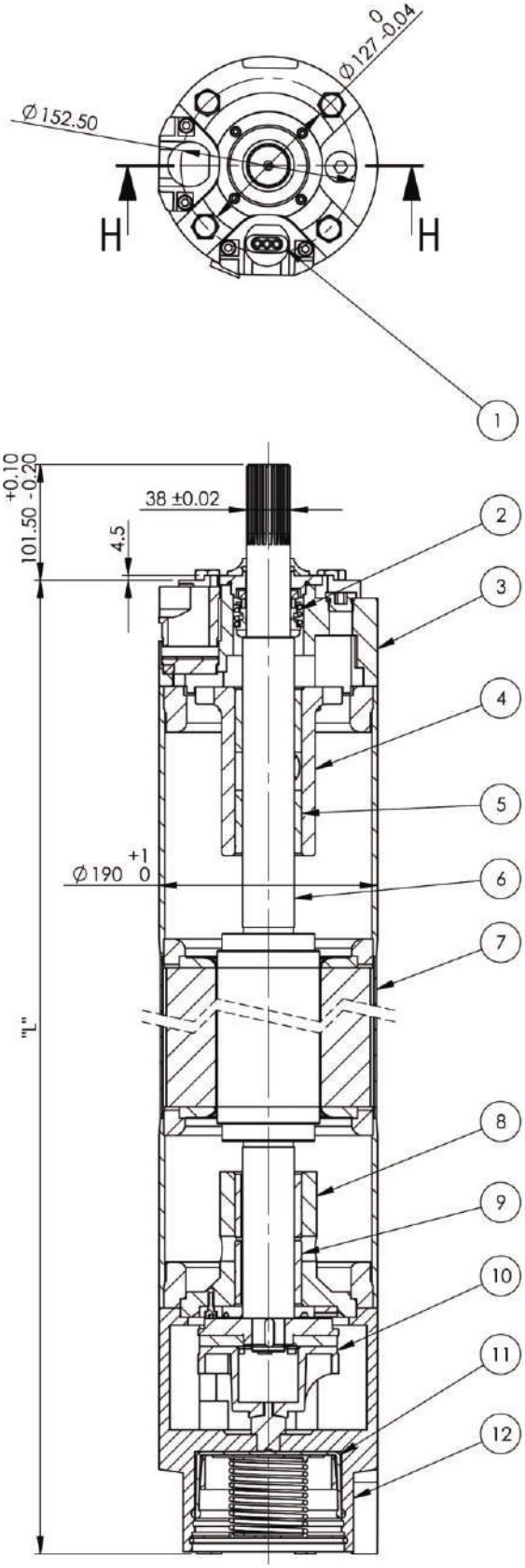
**OSWAL**

PUMPS & MOTORS
Solar | Domestic | Agriculture | Industrial
*True Partner!*

Energy Efficient Range....

# INDEX

# CUT Drawing




| Sr. No. | Part's Name | Material |
|---|---|---|
| 1 | Cable 3 Core/4 Core | EPR |
| 2 | Mechanical Seal | N.B.R./S.S./Carbon |
| 3 | Adoptor | C.I. (FG-200) |
| 4 | Upper Housing | C.I. (FG-200) |
| 5 | Bearing Bush | Carbon |
| 6 | Rotor Shaft | S.S. 420 |
| 7 | Motor Pipe | Stainless Steel |
| 8 | Lower Housing | C.I. (FG-200) |
| 9 | Bearing Bush | Carbon |
| 10 | Thrust Bearing Set | Carbon / S.S. 410 |
| 11 | Pressure Cup | N.B.R. |
| 12 | Motor Base | C.I. (FG-200) |
| 13 | All Hardware | S.S. 316/304 |

| PN | | Motor Weight [Kg] | Motor Weight (Incl. Pkg.) [Kg] |
|---|---|---|---|
| [kW] | [HP] | | |
| 30.0 | 40 | 145.000 | 165.000 |
| 37.0 | 50 | 165.000 | 195.000 |
| 45.0 | 60 | 195.000 | 228.000 |
| 52.0 | 70 | 195.000 | 228.000 |
| 55.0 | 75 | 223.000 | 260.000 |
| 60.0 | 80 | 223.000 | 260.000 |
| 75.0 | 100 | 267.000 | 315.000 |
| 93.0 | 125 | 300.000 | 354.000 |

# Technical Specifications:

- 8" Oswal Water lubricated Motors are rewindable.
- Coupling Dimensions as per NEMA standards.
- Winding wire : Polywrapped / PVC Winding available on specific demand.
- Degree of protection : IP68.
- Max Water temperature : 35°C .
- Starts per hour : 20 time (Max.).
- Allowable voltage variation : +6% - 15%
- Motor shaft of Stainless Steel.
- Stator shell of Stainless Steel.
- Max depth immersion :350M
- Mounting : Vertical / Horizontal.
- Motor Cable length : 5 Meter / 3 Core with separate earth cable & 4 Core as per requirement.
- Cooling Flow : V:0.2 – 0.5 M/S.
- Coolant : Clear Water.

## VERSIONS:

Three Phase 30 kW to 93 kW / 380-415 Volt / 50 Hz

Motor With Other Voltage and Frequency ratings are available on specific Demand.

# Performance Data of 8" Standard Rewindable Motors / 50 Hz

| $P_N$ | | Thrust Load [N] | $U_N$ [V] | $n_N$ [min-1] | $I_N$ [A] | $I_A$ [A] | ? (Eff.) [%] at % load | | | COS ¢ (PF) at % load | | | $T_N$ [Nm] | $T_A$ [Nm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [H.P.] | [kW] | | | | | | 50 | 75 | 100 | 50 | 75 | 100 | | |
| 40.00 | 30.00 | 45000 | 380 | 2885 | 63.1 | 301.0 | 83.4 | 84.4 | 83.2 | 0.88 | 0.88 | 0.89 | 99.1 | 126.0 |
| | | | 400 | 2900 | 60.0 | 317.0 | 83.5 | 85 | 84.4 | 0.80 | 0.85 | 0.89 | 99.0 | 141.0 |
| | | | 415 | 2910 | 58.0 | 331.0 | 83.4 | 85.1 | 84.8 | 76 | 0.88 | 0.89 | 98.1 | 150.0 |
| 50.00 | 37.00 | 45000 | 380 | 2890 | 79.1 | 377.0 | 84.5 | 85.2 | 84 | 0.81 | 0.85 | 0.87 | 122.0 | 155.0 |
| | | | 400 | 2910 | 76.0 | 400.0 | 83.8 | 85.2 | 84.5 | 0.75 | 0.82 | 0.86 | 122.0 | 176.0 |
| | | | 415 | 2910 | 75.1 | 411.0 | 82.5 | 84.4 | 84.3 | 0.7 | 0.80 | 0.85 | 120.0 | 189.0 |
| 60.00 | 45.00 | 45000 | 380 | 2895 | 92.9 | 490.0 | 85.7 | 86.5 | 85.2 | 0.8 | 0.85 | 0.88 | 149.0 | 218.0 |
| | | | 400 | 2910 | 90.0 | 520.0 | 85.3 | 86.5 | 86 | 0.75 | 0.82 | 0.86 | 148.0 | 240.0 |
| | | | 415 | 2910 | 88.0 | 542.0 | 84.4 | 86.1 | 85.8 | 0.69 | 0.80 | 0.85 | 147.0 | 262.0 |
| 70.00 | 52.00 | 45000 | 380 | 2903 | 106.5 | 608.0 | 86.4 | 86.8 | 85.4 | 0.82 | 0.86 | 0.87 | 181.0 | 284.0 |
| | | | 400 | 2912 | 103.5 | 632.0 | 86.2 | 87.2 | 86.1 | 0.75 | 0.84 | 0.85 | 180.0 | 317.0 |
| | | | 415 | 2918 | 101.5 | 624.0 | 85.8 | 87.1 | 86.8 | 0.72 | 0.81 | 0.84 | 180.0 | 346.0 |
| 75.00 | 55.00 | 45000 | 380 | 2910 | 115.0 | 625.0 | 86.4 | 86.8 | 85.7 | 0.78 | 0.84 | 0.88 | 182.0 | 302.0 |
| | | | 400 | 2915 | 110.0 | 660.0 | 85.8 | 87 | 86.5 | 0.72 | 0.82 | 0.85 | 180.0 | 341.0 |
| | | | 415 | 2920 | 109.0 | 687.0 | 84.7 | 86.5 | 86.2 | 0.67 | 0.78 | 0.85 | 180.0 | 361.0 |
| 80.00 | 60.00 | 45000 | 380 | 2910 | 121.0 | 698.0 | 87.3 | 87.5 | 86.6 | 0.82 | 0.86 | 0.88 | 206.0 | 320.0 |
| | | | 400 | 2920 | 116.0 | 724.0 | 86.8 | 87.6 | 87.1 | 0.78 | 0.83 | 0.86 | 205.0 | 356.0 |
| | | | 415 | 2925 | 115.0 | 767.0 | 86.2 | 87.5 | 87.0 | 0.74 | 0.81 | 0.89 | 205.0 | 387.0 |
| 100.00 | 75.00 | 45000 | 380 | 2920 | 154.0 | 892.0 | 86.7 | 87.1 | 85.9 | 0.79 | 0.86 | 0.84 | 247.0 | 419.0 |
| | | | 400 | 2910 | 148.0 | 942.0 | 86.2 | 87.3 | 86.7 | 0.74 | 0.83 | 0.89 | 246.0 | 472.0 |
| | | | 415 | 2920 | 147.0 | 982.0 | 85.4 | 86.9 | 86.6 | 0.69 | 0.79 | 0.87 | 245.0 | 510.0 |
| 125.00 | 93.00 | 45000 | 380 | 2915 | 186 | 1185 | 86.9 | 88.0 | 87.2 | 0.76 | 0.83 | 0.87 | 304.0 | 555.0 |
| | | | 400 | 2925 | 182 | 1275 | 87.0 | 88.2 | 87.4 | 0.70 | 0.79 | 0.84 | 302.0 | 625.0 |
| | | | 415 | 2930 | 183 | 1307 | 86.1 | 87.6 | 87.2 | 0.63 | 0.74 | 0.81 | 301.0 | 674.0 |

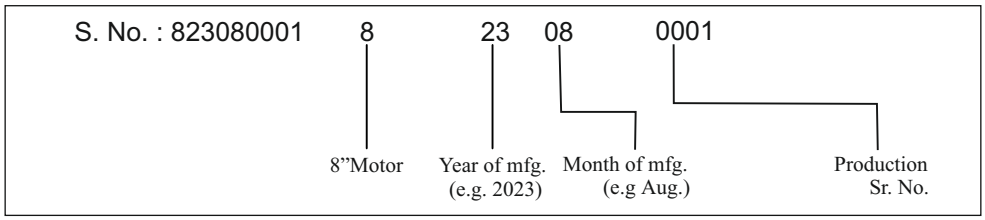
* $P_N$ - Rated Output
* $F_{[N]}$ - Axial Thrust Load
* $U_N$ - Rated Voltage
* $n_N$ - RPM
* $I_N$ - Full Load Current
* $I_A$ - Starting Current
* ? - Motor Efficiency
* cos φ - Power Factor
* $T_N$ - Full Load Torque
* $T_A$ - Starting Torque

## 8" Rewindable Product Information and Service

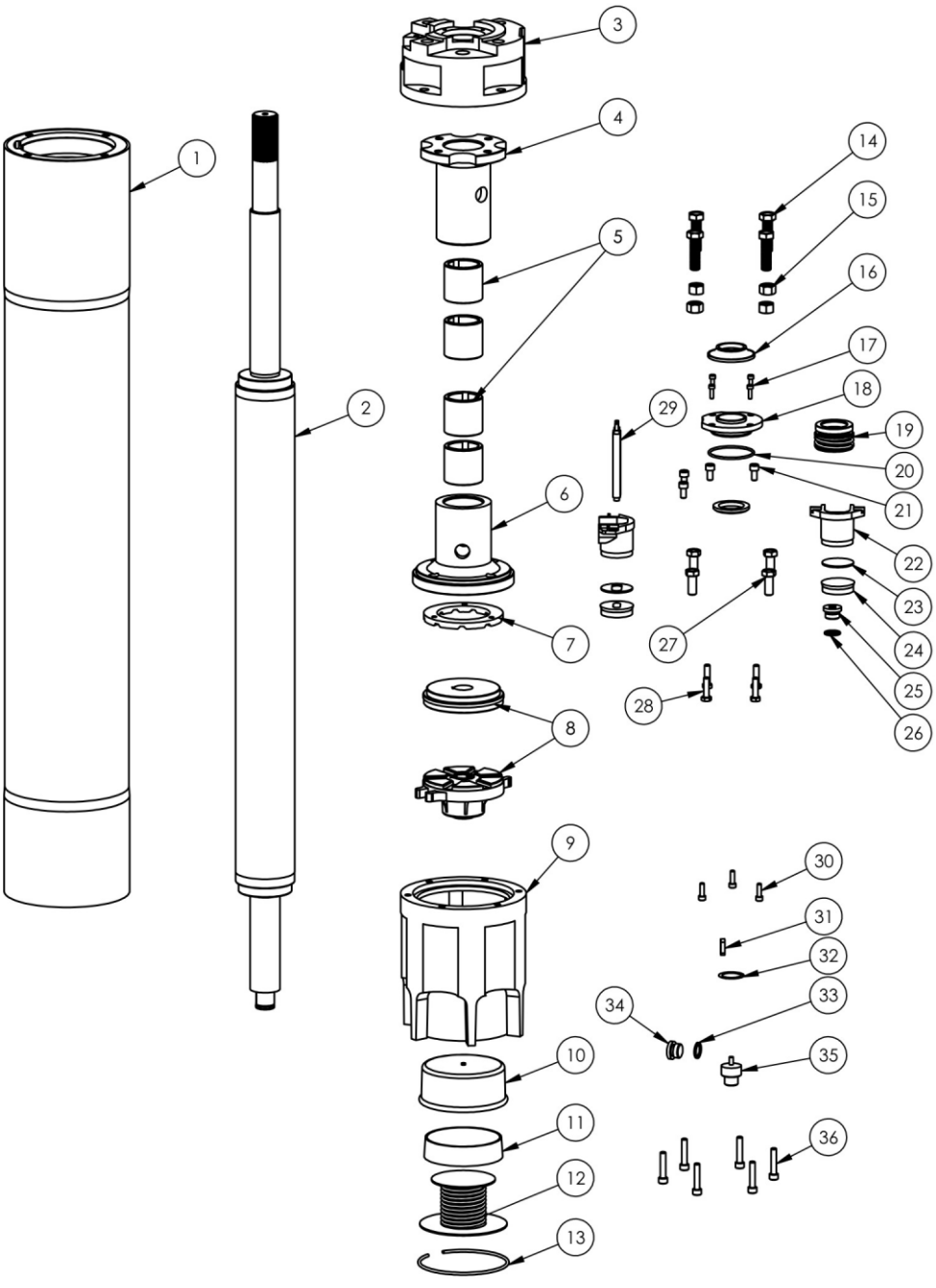
# 8” Rewindable Motors Flate Cable Leads

| Flat Cable Leads for 8" Standard Rewindable Motor, 415 V, 50 Hz | | | |
|---|---|---|---|
| $P_N$ [kW] | Cross Sectional Area | | Length [m] |
| | Single Cable DOL | Double Cable YΔ | |
| 30 - 37 | 1x3x16mm$^2$ | 2x3x10mm$^2$ | 5 |
| 45 - 75 | 1x3x25mm$^2$ | 2x3x16mm$^2$ | 5 |
| 93 | 1x3x35mm$^2$ | 2x3x25mm$^2$ | 5 |
| *Separate Earth Cable On Request / On Demand | | | |

**Determine the age of motor by checking the name plate Sr. No.**

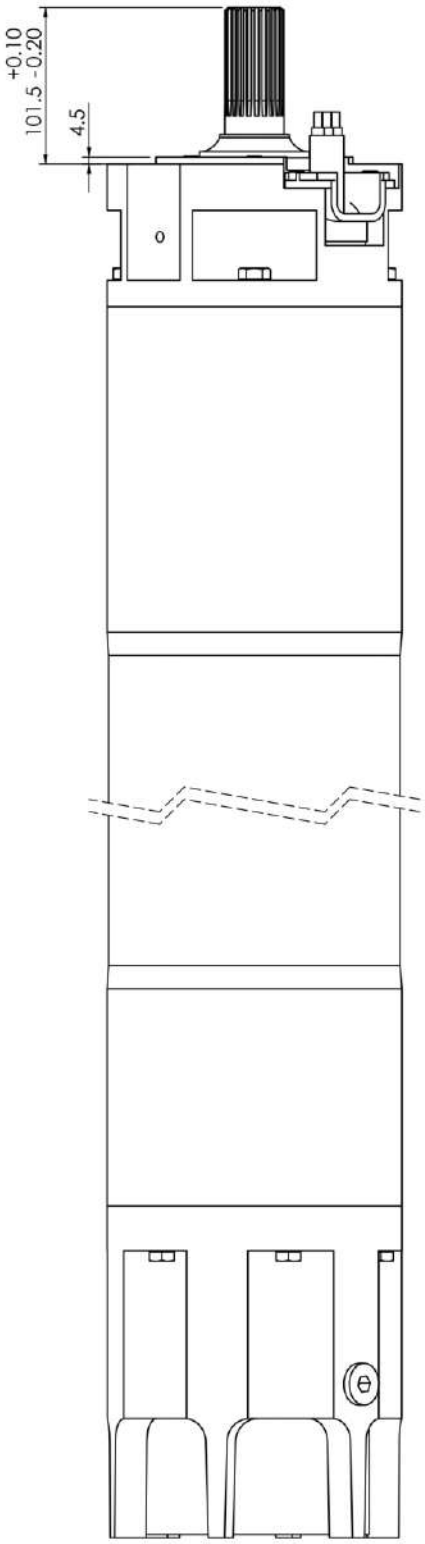


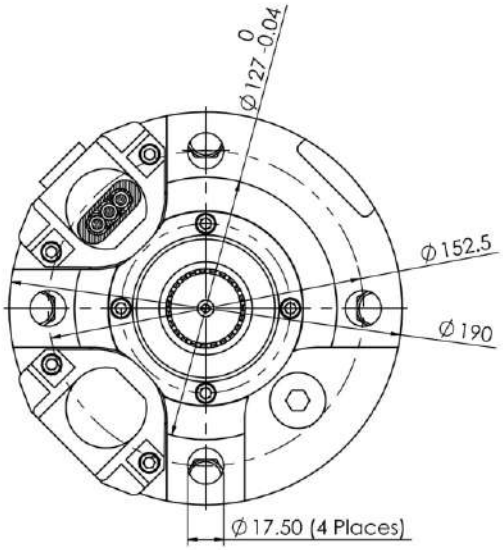
# Exploded View & Spare Parts




| Sr. No. | PART NAME |
|---|---|
| 1 | Stator Assy. |
| 2 | Rotor Assy. |
| 3 | Adopter |
| 4 | Upper Housing |
| 5 | Bearing Bush |
| 6 | Lower Housing |
| 7 | Counter Bearing |
| 8 | Thrust Bearing |
| 9 | Motor Base |
| 10 | Pressure Cup |
| 11 | Pressure Cup Supporter |
| 12 | Spring |
| 13 | Circlip |
| 14 | Hex. Bolt |
| 15 | Hex. Nut |
| 16 | Sand Guard |
| 17 | Allen Bolt |
| 18 | Seal Guard |
| 19 | Mechanical Seal |
| 20 | O' Ring |
| 21 | Allen Bolt |
| 22 | Cable Plunger |
| 23 | Grommet Washer |
| 24 | Grommet |
| 25 | Drain Plug |
| 26 | Drain Plug 'O' Ring |
| 27 | Hex. Bolt |
| 28 | Hex. Bolt |
| 29 | Cable |
| 30 | Allen Bolt |
| 31 | Rotor Key |
| 32 | Circlip |
| 33 | O' Ring |
| 34 | Drain Plug |
| 35 | Rocker Support |
| 36 | Allen Bolt |

# Outline Drawings of V8 Motor



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