MODEL: MLS (50/60Hz)

OPERATING INSTRUCTIONS, INSTALLATION & MAINTENANCE MANUAL INCLUDING SPARE PARTS LIST

Mody Pumps Inc.

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LIFE IS PRECIOUS – SAFETY FIRST

IMPORTANT!

Read all instructions in this manual before operating pump. Mody Pumps Inc. is dedicated to provide the most optimal product for the application by making continuous product improvements and enhancements. Mody Pumps Inc. reserves the right to change product specifications without prior written notification.

IMPORTANT!

All maintenance work involving the dismantling and re-assembly of the pump, must be carried out by qualified and trained specialized personnel.
All maintenance work must be carried out with the pump disconnected from the power supply.
To reduce risk of electrical shock, pumps and control panels must be properly grounded in accordance with state or province norms.

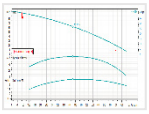
Most accidents can be avoided by using
COMMON SENSE THINK SAFETY!

Do not wear loose apparel that may become entangled in the impeller or other moving parts.
Keep clear of suction and discharge openings **Do not** insert fingers in pump while still connected.

Always use appropriate safety equipment, such as safety glasses, when working on the pump or piping.

Secure the pump in its operating position so it does not tip over, fall or slide.
Do not operate pump without adequate protection and safety devices in place.
Make sure lifting handles/hooks are securely fastened each time before lifting.

Do not lift pump by the power cord under any circumstances.
Never operate a pump with a power cord that has frayed or brittle insulation.
Cable should be protected at all times to avoid punctures, cuts, and abrasions - inspect frequently.
Never operate a pump with a plug-in type power cord without a ground fault circuit interrupter, adequate overload and short circuit protection.



Do not exceed manufacturer's recommendation for optimum performance, as this could cause the motor/pump to overheat and lead to premature wear or failure.

Do not block or restrict discharge hose, as it may whip or burst catastrophically under pressure.

Pumps build up heat and pressure during operation-allow time for pumps to cool before handling or servicing.

Do not pump flammable or hazardous materials (gasoline, acids, alkalis, etc.)

Submersible Pumps are not approved for use in swimming pools, recreational water installations, decorative fountains or any installation where human contact with the pumped fluid is common.

IMPORTANT! Mody Pumps Inc. is not responsible for losses, injury, or death resulting from failure to observe these safety precautions, misuse or abuse of pumps or equipment.

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INTRODUCTION

The "***Mody"*** motor driven portable submersible pumps have been developed due to a long felt need of having a truly maintenance free pumpset for various applications. The pump is a lightweight, compact unit that can be used in most sea-craft and difficult land installations where light slurry is present. The unit consists of a vertical centrifugal pump with an in-built squirrel cage, induction electric motor which is available for various electric supply configurations.

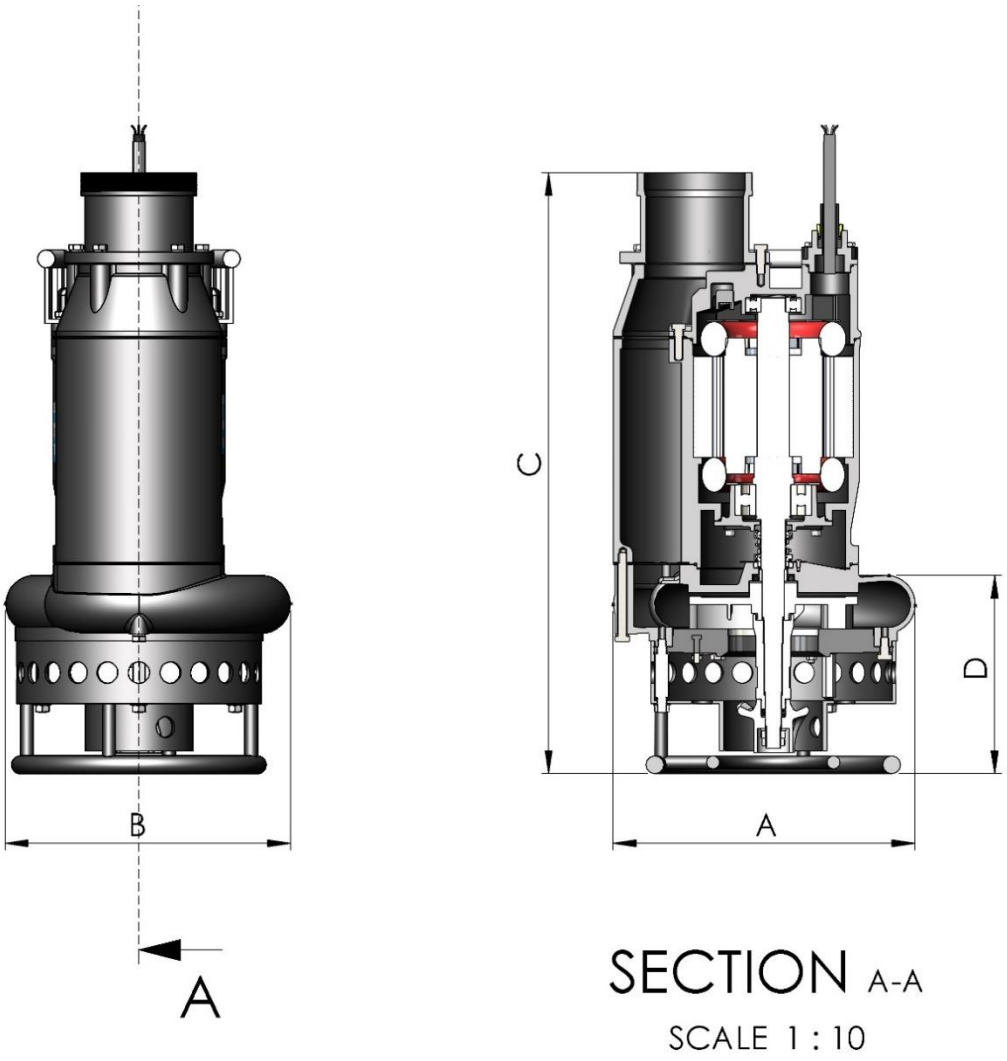
The service life of a submersible pump depends mainly on two things: the dependability of the sealing system and the wear resistance of the pump wear parts.

All ***"Mody"*** submersible sump pumps incorporate a unique sealing system. The construction consists of double mechanical seals, all faces in Silicon Carbide material of construction. The complete package is a pressure compensated sealing device which ensures a minimal pressure differential across the seal faces, irrespective of the depth setting of the pump or the head against which the pump is operating.

In ***"Mody"*** submersible sump pumps, all wear parts are 28% Hi-Chrome Iron providing the highest level of abrasion resistance for slurry pumping. Both wear and electricity consumption are still further reduced when the pumps are fitted with built-in level controls for automatic starting and stopping. It is however recommended that irrespective of type of pump, adequate motor protection switchgear should be used at the installation. We strongly recommend the use of suitable control panels which are available from us incorporating all required protection devices.

It is in the interest of the user to go through this manual in detail before using the pump. The manual will help the user to understand the constructional features and to obtain trouble free service from the pump.

OVERALL DIMENSIONS AND WEIGHT



DIMENSIONS CHART (mm)				
MODEL	**A**	**B**	**C**	**D***
MLS3-4/5	350	326	816	250
MLS4-6/8	415	373	844	250
MLS6-9/12	434	407	889	250
MLS8-15/20	484	457	1121	295
MLS8-22/30	578	528	1245	330

***Lowest Water Level for effective suction**

GENERAL INFORMATION

Mody Pumps have basically been designed and manufactured as a High Chrome unit with an agitator to pump out flooded installations or any conditions that need dewatering of unwanted fluids. The pump has been designed to handle water contaminated with oil as well as abrasive particles normally associated with raw water.

	TECHNICAL DESCRIPTION
MOTOR	• 4-Pole, 3 Phase continuous rated squirrel cage induction motor. • Stator insulation class F (155°C). • Speed: 1800RPM @60 Hz, 1450RPM @ 50Hz • Power rating: 5HP/30HP @ 60Hz, 4KW/22kW @ 50Hz • Automatic ON/OFF/ON Thermal Overloads in Motor. • Max. Start/stop per hour 15 • Service factor: 1.15
POWER SUPPLY	208V, 230V, 460V, 575V. Other voltages available upon request.
STARTING METHOD	Direct on Line (DOL).
OUTLET	3",4", 6", 8" Cast Iron (NPT, BSPT or HOSE connection)
PUMP ROTOR SHAFT	Rugged aluminum die cast/copper rotor dynamically balanced with a 2.5 accuracy of ISO 942. Stainless Steel 400SS series shaft.
BEARINGS	Double/ single row deep groove ball bearings (shielded). Can carry high thrust and radial loads. Upper bearing is a deep groove single row oversized bearing. The bearings are enclosed with high temperature grease-containing special Anti-corrosion additive.
SEALS	Double mechanical seals, all faces in silicon carbide material of construction and Nitrile Elastomers
DIFFUSER/ WEAR PLATE/ AGITATOR	28% Hi-Chrome Iron
IMPELLER	Semi-Open impeller with 28% Hi-Chrome Iron
FRAME AND OUTER CASE	Primer with Epoxy paint
HARDWARE	304 Stainless steel
POWER CABLE	• Waterproof/ oilproof, rubber-insulated, neoprene- sheathed cooper conductor flexible cable. • Type SOOW in North America, EPR in the Middle East, and HO7RN in Europe. • Cable shield for extra cable protection and pressure grommet for sealing.
STRAINER	AISI 1020 Steel
SUBMERGENCE	MIN: 5" (127mm), MAX: 65' (20m).
ORINGS/ ELASTOMERS	Buna (Nitrile rubber) Optional Viton.
LIQUID DATA	**Temp**: 104°F(40°C); **Ph range:** 5-12; **Specific Gravity:** 1.1 MAX.
CONTROL BOX	Manual or Automatic ON/OFF with Float system. Soft Start and VFD Options Available.

PUMP HANDLING RECOMMENDATIONS

1. Receiving:

Pump should be inspected for damage upon receiving. If damage has occurred, contact Mody Pumps Inc. or your authorized distributor to file a claim immediately.

2. Check Insulation and Phase Ohm Resistance:

Before operating pump, ensure the voltage and phase information stamped on Name Plate matches with the available power.

a. **Ohm resistance test:** Using a Multimeter, perform a line to line ohm resistance test on all three phases. For three phase motors, the ohm resistance should show similar readings.

b. **Insulation (megger) test:** Set the Megohmmeter on the insulation mode. Connect a power lead on the positive side of the meter probe. Connect negative meter probe to ground and press the test button. The reading must show the values given in table 1 or greater, to pass the insulation test. Perform the same procedure for all three power leads connected to the ground cable. Failing of this test indicates a faulty stator.

IR Value of Submersible Motor: (As per NETA ATS 2007. Section 7.15.1)

IR Value of Submersible Motor	
Motor Out off Well (Without Cable)	**IR Value**
New Motor	20 MΩ
A used motor which can be reinstalled	10 MΩ
Motor Installed in Well (With Cable)	
New Motor	2 MΩ
A used motor which can be reinstalled	0.5 MΩ

3. Inspection of thermal and moisture sensors - if provided:

Identify control cables. Mody Pumps provides a reference such as color-coded labels or sticker on the cable.

a. **Probe Sensor. Normally open:**

Using a multimeter and setting it on the Ohm resistance mode, connect meter terminals to wires (Probe) and Green (Ground) and check for ohm resistance. An open-connection reading must be obtained, otherwise pump has a wet stator or water in the oil chamber which may require further inspection of the complete pump unit.

b. Thermal sensor: Normally closed

Using a multimeter set the instrument on ohm-resistance mode and connect terminals to wires Thermal 1 and Thermal 2. These terminals represent the thermal switches embedded in all three windings connected internally in series and should show continuity indicating a normally closed circuit. In the event there is no reading indicating an open circuit the stator will have to be removed for further evaluation.

All pumps and control panels must be properly grounded

4. Installation:

a. Check voltage: Ensure site voltage corresponds with the value stamped on pump nameplate.

b. Check for pump rotation before installation: Improper rotation may result in poor pump performance and can damage the pump motor. Pumps are provided with tags that show the rotation of the impeller and the Kick start. The kick start, thus rotation can be checked by energizing the pump for a short period of time. If the “kick” is not noticeable suspend pump freely and energize it momentarily. Shift any two phases in the power supply if the kick is wrong.

Do not operate Pump in reverse rotation – may cause severe damage

c. Lifting:

Do not lift or pull the pump under any circumstances by means of the power cable. Always lift pump by securely fitted lifting hooks/eyebolts provided with pump.

d. Discharge/ Suction:

Ensure discharge connection is correctly and securely fitted. Ensure delivery hose is free from kinks and sharp bends. Pump should have strainer affixed at all times. Inspect and clean strainer periodically for maximum efficiency and performance.

e. **Float system - <u>if applicable</u>:**

Attach “ON” and “OFF” floats at a desired level. The “OFF” float must be below the “ON” float. It is recommended that pump is completely submerged when the level control is on the “OFF” position.

Avoid running the pump on dry for a long time as damage to the motor and seals may occur due to snoring and cavitation conditions.

5. **Monitoring the unit:**

Check Amperage periodically. Do not let pump run if an overload condition occurs. The FLA stamped on the nameplate is an indicator that the pump is in overloading conditions. If a generator is the power source, check for voltage variation periodically. Motors are designed to operate on single voltage and frequency. Max. Deviation in voltage allowed is + - 10 % and frequency +- 3%. Check name plate for operating voltage and frequency.

MAINTENANCE

Pumps must be frequently inspected at least once a month depending on usage. All electrical parts such as the cable and wiring shall be kept in a dry condition preferably cool and indoors shielded from the elements and inspected for cuts or insulation damage. Do not store pumps outside in sub-zero weather which will cause rotating elements to freeze up. Ensure that all fasteners are in place, properly tightened and secured ensuring watertight (IP68) joints.

Seals

Condition of seals shall be checked every 2500 hrs. of operation by ascertaining the condition of oil in the seal chamber. Milky white oil indicates the presence of water in the oil chamber and a pressure check needs to be performed.

Pressure test

The pressure test must be performed to ensure the seal faces are properly installed. A pressure gauge assembly is necessary to perform this test. Disassemble pump unit until the oil chamber and oil plug is exposed. Remove plug from bearing housing (7) and drain oil completely. Tighten the pressure gage assembly into Oil plug hole. Pressurize oil chamber to 5 PSI, rotate shaft by hand, and check for leaks. If no leaks are observed and the pressure holds for 15 minutes, slowly release the pressure valve and remove the pressure gauge assembly. If the pressure does not hold, the leak must be located and fixed. Cleaning the seal faces and reinstalling the seals may fix the problem.

Handle seals with extreme care. Keep seal faces clean. Do not scratch seal faces. Do not hammer on seal pusher.

- Ensure that the pump is properly trimmed at all times. as the impeller gets worn out, the capacity of the unit will drop, and it is essential to maintain the original clearance between the impeller and diffuser to obtain satisfactory performance. This can be adjusted by inserting trimming spacers behind the impeller hub.

- Periodically (once a month) it is advisable to dismantle the strainer and to clean the impeller cavities. frequently foreign matter will be deposited which should be cleaned for optimum performance.

- If pump is not used and lying in storage for more than 30 days please ensure that the seal faces are not gauge locked – rotate the impeller/kick start the unit once a month. Refer to instructions on disassembly/reassembly of mech. seals in the event the faces have locked.

- Ensure proper conduit connections at wellhead. These connections should conform with your local standards. Additionally, support pump cable to discharge pipe at least every 3 meters.

SERVICE CENTERS:

For the location of the nearest Mody Pumps service center, check with your Mody representative or contact Mody Pumps Inc. We are located at 2166 Zeus Court Bakersfield, CA 93308 USA Tel.: (661) 392-7600 FAX.: (661) 392-7601.

http://www.modypump.com

TROUBLESHOOTING:

SYMPTOM: Pump will not run	Pump runs but suddenly stops	Pump will not turn OFF	Pump hums but does not run	Pump delivers insufficient capacity	Pump operates noisily or vibrates excesively	CAUSE	CORRECTIVE ACTION
✓	✓					Poor electrical connection, blown fuse, tripped breaker or other interruption of power	Check power supply, replace fuses, max deviation in valotage is +- 10%
✓			✓			Damaged cable	Replace cable.
		✓				H-O-A switch on control panel in "Hand" position	Turn to automatic position if float system is being used.
✓						Wet stator	Bake stator and Perform line ohm resistance/ insulation test to ensure stator is in operating conditions.
✓			✓			Stator winding burnt	Rewind or Replace stator and Perform line ohm resistance/insulation test to ensure stator is in operating conditions.
	✓		✓			Incorrect voltage	Ensure the voltage and phase information stamped on Name Plate matches with the available power.
✓	✓	✓				Float movement restricted	Reposition floats, clean surroundings to provide adecuate clearance to floats, ensure float switches are properly functioning by using ohmmeter anch checking resistance for on and off position.
	✓		✓			Blocked impeller	Clean impeller, remove debris that is blocking the impeller from rotation. Ensure impeller is properly torqued and in position.
				✓	✓	Pump not properly sized for application	Recheck all sizing calculations to determine proper pump size.
				✓	✓	Pump running backwards	Check kickstart/ rotation. If power supply is three phase, reverse any two of the power leads.
				✓		Clogged strainer	Clean strainer.
				✓	✓	Pump running dry	Turn the power OFF.
				✓		Discharge restricted	Check discharge line for restrictions, twisted hose, check valve stucked closed or installed backwards.
				✓		Shut-off valve close	Open valve.
				✓		Pump may be air-locked	Loosen union slightly to allow trapped air to escape. Verify that turn OFF float is set so that the suction is always flooded.
	✓					Excesive water temperature	Check pump temperature limits and fluid temperature.
					✓	Unbalanced impeller	Ensure impeller is properly balanced.
				✓		Worn down wear parts	Adjust impeller diffuser clearance. Replace wear components.
					✓	Worn bearings, motor shaft bent.	Replace bearings following dismantling instructions.
				✓		Head presssure too high	Resize pump or use pumps on tandem arrangement.

DISMANTLING AND OVERHAULING

- All O-rings need to be replaced whenever parts are dismantled
- Seal elastomer parts should never be re-used after dis-assembly.
- Do not refill bearing grease.
- Always replace new bearings with special high temperature grease.

GENERAL OVERHAUL AND OIL CHECK. (REF. TO DRAWINGS AND PART LIST)

Please note the below dismantling procedures refers to MLS3-4/5. Part numbers and annotation balloons for other models are indicated in their corresponding parts list. The construction of these pumps is identical.

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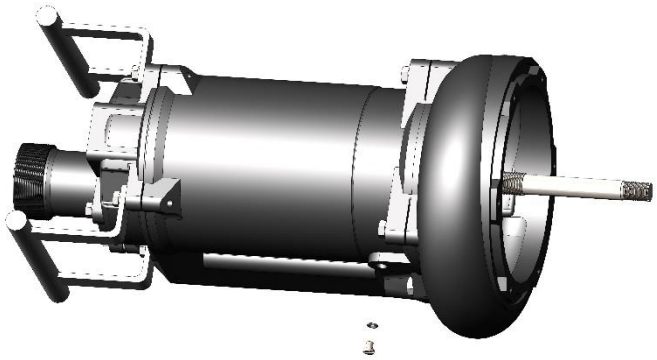
All maintenance work must be carried out with the pump disconnected from the power supply.
To reduce risk of electrical shock, pumps and control panels must be properly grounded in accordance of state or province norms.

DISMANTLING PROCEDURES:

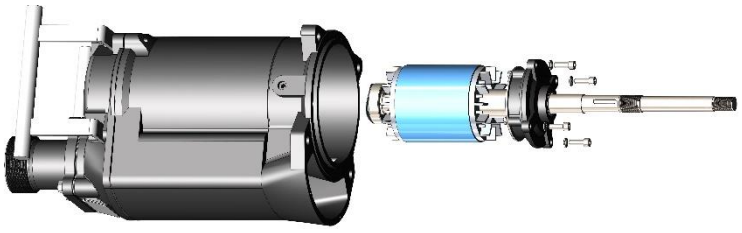
Note: Always replace O-rings with new ones whenever dismantling and re-assembling a pump. **1.**) Begin by removing the cable gland (28) from cable gland base (27). Remove the four M8 hex bolts (37) from the cable gland base and remove the cable gland assembly from the top bracket (2) by using two flathead screwdrivers to gently pry it off. Detach the wire connectors and the earthing screw from the pump then examine the grommet (29) and O-ring (59).	
2.) Place pump upside down lying flat on the outlet/ handles and ensure the pump is secure from falling down. Remove the strainer (32) after removing the M12 nuts (48) and lock washers (44). The agitator (24) and the stub shaft (20) should now be exposed. Check by hand that the rotor shaft is not blocked and rotates freely.	

3.) Continue to remove the three studs (47) and three M12 bolts (46) that secure the wear plate (31A/31B) to the volute (4) along with the six M12 washers (44). Then unfasten the two impeller nuts (34) and M22 washer (33) located within the agitator (24). Unfasten Agitator by applying a pair of forces using proper pair of wrenches on stub shaft (20) and agitator.	
4.) Start removing all parts shown in the image to the right beginning with the wear plate (31A & 31B) using screwdrivers as leverage. Remove stub shaft (20) by locking the impeller and applying the same concept for the agitator/stub shaft. Next, remove the impeller (23) then the impeller key (19) and trimming spacer (22).	

5.) At this point, lay down the pump on its side with the oil plug (56) facing the ground. Remove the oil plug to empty the oil from the oil chamber. Inspect the oil appearance to determine water intrusion in the oil chamber.	
6.) Once all the oil from the oil chamber has been emptied, place the pump on top of a table with a hole deep enough to fit the rotor shaft (7) protruding out from the volute (4). Ensure that the pump is up-right to remove the four M12 hex bolts (45) and the four M12 washers (44). Then, carefully lift the pump from the handles while avoiding a shaft collision with the seal face (14). Inspect O-ring (62) and gasket (5). **Note: Improper lifting may cause damage to seal face**	

7.) Now that the volute is separated from the stator casing, the two rotary seals (16), seal spring (13), and lower stationary seal (14) should be visible. Remove the seal holder plate (10) covering the lower stationary seal (14) by unscrewing the four M6 hex bolts (50). Handle the seal faces with extreme care. Remove the lower stationary seal from the volute by slowly and gently tapping on the rubber part of the seal until it pops out. Remove shaft sleeve (21). To remove the lip seal (18), use same method used for the lower stationary seal.

8.) Lay pump flat on its side and remove the four M8 cap screws (53) and M8 washers (36) holding the bearing bracket (8), rotor assembly (6,7) and bearings (11,12) to the stator casing (1). Slide complete assembly out from the stator casing.



9.) To separate the bearing bracket from the rotor assembly, unscrew the four M6 hex bolt (50) and M6 washers (51). Once removed, the upper stationary seal (17) can be removed the same way as the lower stationary seal. Remove the upper and lower bearing (11 & 12) using a bearing puller or hydraulic press. However, before you can remove the lower bearing you must use circlip pliers to remove the circlip (64) holding the bearing in place.

10.) To remove the top bracket (2) loosen the four M10 hex bolts (40) and M10 washers located at the base of the pump handles (41). Remove the top bracket by using two flathead screw drivers to pry it off. To remove the outlet, unscrew the four M10 hex bolts (39) and M10 washers (38) around the base. Remove the motor protection and all sealing components. Finally, to remove the bare stator use a stator pusher or shrink the same.	

RE-ASSEMBLY PROCEDURES:

1.) To start re-assembly, begin by checking insulation and proper functioning of the bare stator (9). Install new stator back into the stator casing (1). Use heat induction to enlarge the stator casing.	

2.) First install upper bearing (11) on to the top of the rotor shaft (7). Before placing bottom bearing (12) into place, slide bearing cover (10) from the bottom of the rotor shaft past the bottom bearing's resting point. Shrink fit both bearings into place. Secure bottom bearing with circlip (64) using circlip pliers. Once the bottom bearing has been placed, replace O-ring (60) of bearing bracket (8) and insert upper stationary seal (17) into the bottom of the bearing bracket. Attach the bearing bracket to the bottom bearing. Secure in place with the bearing cover, four M6 hex bolts (50), and washers (51).

3.) Place the pump upside down laying flat on stator casing. Avoid collision of the upper bearing with the lower surface. You can use a hollow table or blocks to generate spacing for the upper bearing. Always secure pump to prevent from falling over. Slide the rotor assembly along with bearing bracket on the bottom of the stator casing (1). Insert lock washer (36) on bolts and tighten bolts (53) to stator casing.	
4.) Secure lower stationary seal (14) into volute's (4) seal housing with the seal holder plate (15) and four M5 pan head screws (52). Place rotatory seal (16) and seal spring (13) onto rotor shaft (7). Replace O-ring (62) and bottom gasket (5). Gently guide the volute through rotor shaft. Be extremely careful with the seal faces. Secure volute into place using four M12 bolts (44) and washers (45). Insert lip seal (18) then shaft sleeve (21) onto shaft.	

5.) Place trimming space (22) on top of shaft sleeve (21). Insert impeller key into slot of rotor shaft (7) then slide impeller (23) onto the rotor shaft. Tighten stub shaft (20) while locking impeller from rotation with an impeller locking tool. Place the wear plate gasket (58) then wear plate (31A&31B) onto volute and align all holes. Secure wear plate using three M12 bolts (46) and washers (48) in a triangle arrangement.	
6.) Make another triangle arrangement using three studs (47) and washers (44) into the remaining holes of the wear plate. Screw the agitator (24) onto stub shaft, and the same by applying a pair of forces using proper pair of wrenches on stub shaft (20) and agitator. Lock the agitator into place by using two M22 hex nuts (34) and spring washer (33).	

7.) Align the three small holes inside the pump strainer (32) with the three studs (47) screwed into the wear plate (31) and secure with three M12 nuts (48) and washers (44).	
8.) Proceed to prepare the cable assembly. Insert cable (35) through cable gland (28). Cable washer (30), cable grommet (29) and cable gland base (27). Insert O'ring (59) onto cable gland base. Place cable assembly on top bracket (2), and secure them by tightening the 4 x M6 bolts (38) with respective lock washers. Place the motor protection (42) into the top bracket (2) and secure with two M4 screws (49). Make all wiring connections following diagram provided in this manual. Place the top gasket (3), plastic wiring plate (63), and new O-ring (61) into their correct positions. Place spring wave washer (43) into the center of the top bracket. Secure the top bracket onto the stator casing by using four M10 bolts (40) and washers (38). Re-attach the outlet (25) to the top bracket after placing the outlet gasket (26) back in place. Secure with four M10 bolts (39) and washers (38). Secure pump handles to top bracket with four M10 bolts and washers. Ensure oil plug (56) is tightly closed with a new O-ring (57).	

OIL SPECIFICATIONS

Food Grade white Mineral Oil is USDA/ NSF 3-H approved. Colorless, odorless, tasteless mixtures of saturated paraffinic and naphthenic hydrocarbons that span a viscosity range of 60-550 SUS at 100 °F. Well suited to clean and prevent rust. Used as a coolant and lubricant in the seal chamber.

TYPICAL PROPERTIES	WHITE MINERAL OIL 90-W	TECHNICAL GRADE 90-T
Gravity		
API	33.3	33.3
Specific, 25°C/25°C	0.854	0.854
Viscosity, Kinematic		
cSt at 40°C	17	17
Viscosity, Saybolt		
SUS at 100°F	90	90
Flash Point, °C (°F)	177 (350)	177 (350)
Pour Point, °C (°F)	-15(5)	-15(5)
Color, Saybolt	30	28
21 CFR 172.878 (a)	Pass	Pass
21 CFR 178.3620 (a)	Pass	----------

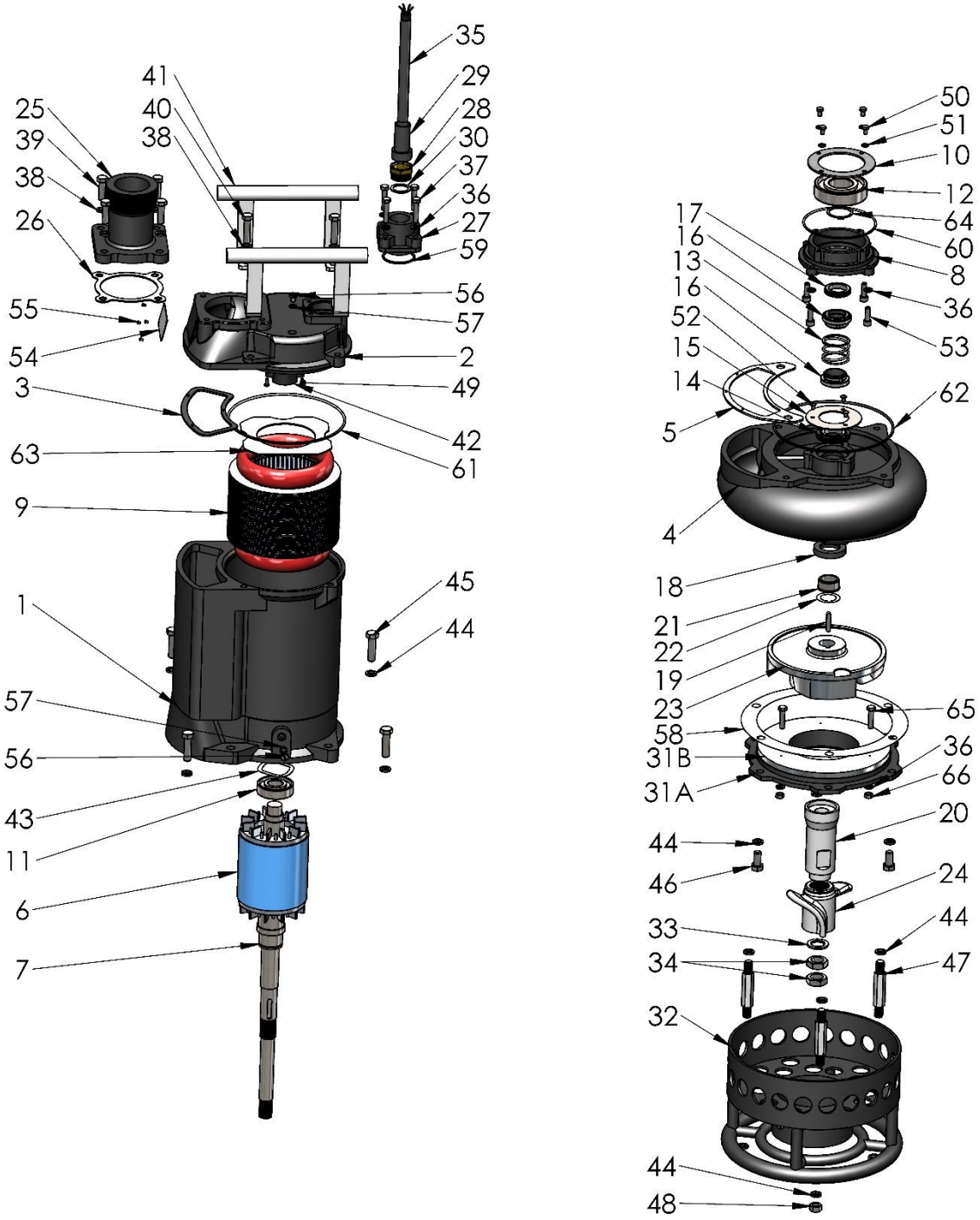
A) H.P. Enklo oil 46/48

B) Shell Tellus 29.

C) Chevron Superla FDA Approved White # 10

USE NON-CONDUCTING & NON-FOAMING OIL ONLY

MLS3-4/5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31B
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31A
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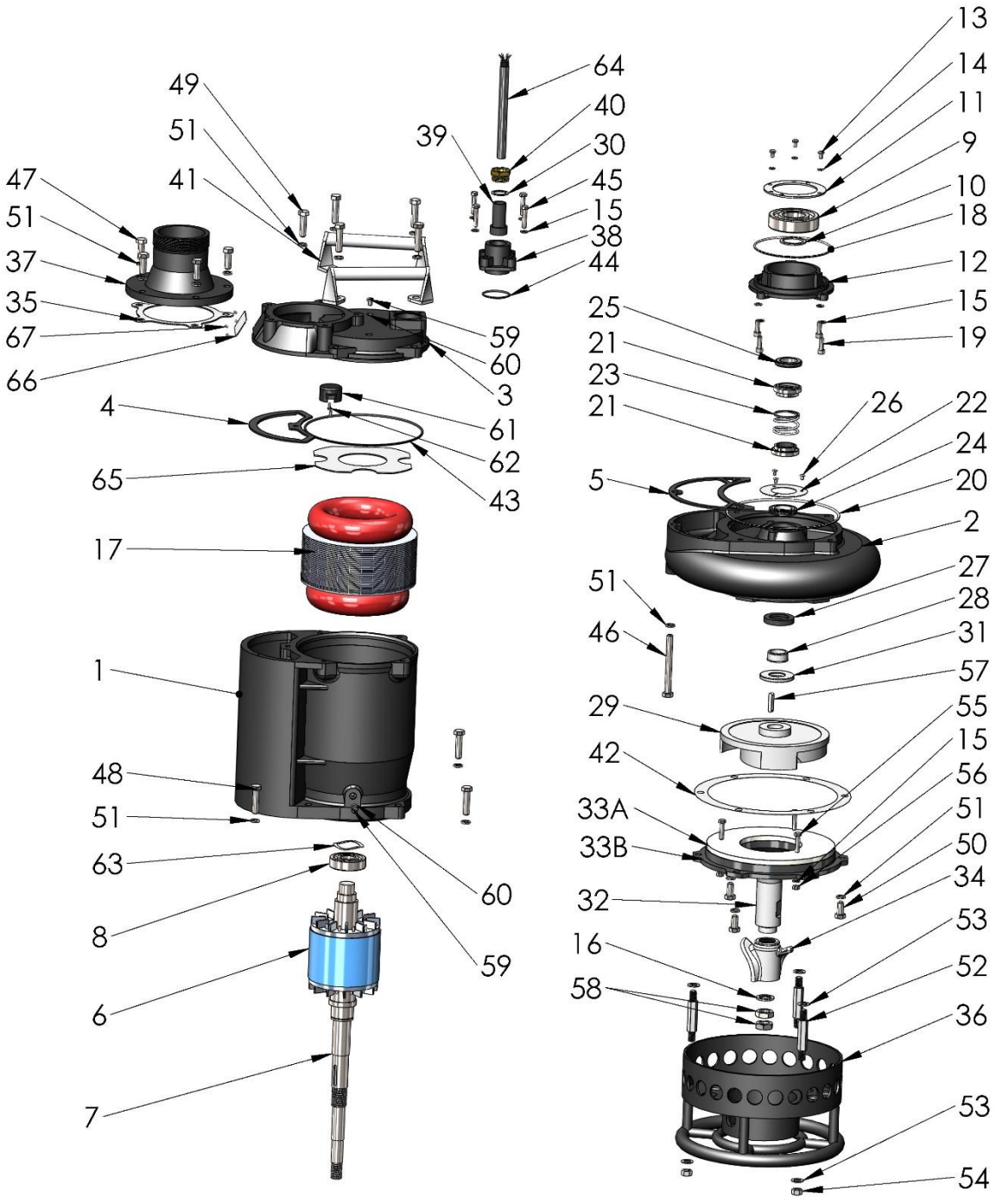
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	625-500-01	MLS3 stator casing	1
2	035-500-01	MLS3 Top Bracket	1
3	220-500-66	MLS3 Top Gasket	1
4	050-500-01	MLS3 Volute	1
5	220-501-66	MLS3 Bottom Gasket	1
6	480-500-00	MLS3 Rotor stack	1
7		MLS3 Rotor shaft	1
8	035-501-01	MLS3 Bearing Bracket	1
9	619-600-00	MLS3 stator	1
10	037-500-21	MLS3 Bearing cover	1
11	020-007-07	Upper bearing 6305Z	1
12	020-500-07	Lower bearing 6308Z	1
13	535-500-00	Seal Spring 30mm shaft	1
14		Lower Stationary Seal 30mm shaft	1
15		Seal Holder Plate 30mm shaft	1
16		Rotary Seal 30mm shaft	2
17		Upper Stationary Seal 30mm shaft	1
18	390-500-66	Lip Seal	1
19	320-500-22	Impeller key	1
20	600-500-21	MLS3 Stub Shaft	1
21	585-500-21	Shaft sleeve for lip seal	1
22	600-501-21	MLS3 27mm trimming spacer	1
23A	300-501-03	MLS3 Impeller 60HZ	1
23B	300-500-03	Impeller 50 HZ	*
24	300-510-03	MLS3 Agitator	1
25A	405-500-01	MLS3 Outlet R1	1
25B	405-501-01	NPT Outlet	*
26	220-502-66	MLS3 Outlet Gasket	1
27	235-500-01	Cable Gland Base	1
28	230-500-40	Cable Gland	1
29	260-500-66	Grommet ID 21, OD 34	1
30	700-500-21	Cable Washer 26mm	1
31A	715-500-01	Wear Plate	1
31B	720-500-03	MLS3 Wear ring	1
32	640-500-04	MLS3-4 Pump Strainer	1
33	705-501-21	Spring washer M22	1
34	370-500-21	M22x2.5 impeller hex nut	2

35		Cable	1
36	705-004-21	Spring washer M8	8
37	045-504-21	Hex bolt M8x1.25-40	4
38	705-001-21	Spring washer M10	8
39	045-506-21	Hex Bolt M10x1.5-35	4
40	045-507-21	Hex BoltM10x1.5-45	4
41	270-500-21	MLS3-4 Pump handle	1 Set
42	660-600-00	MLS3-4 Motor Protection	1
43	600-507-04	Spring wave washer 50ID, 60OD mm	1
44	705-005-21	Spring washer M12	13
45	045-039-21	Hex Bolt M12x1.75-45	4
46	045-508-21	Hex Bolt M12x1.75-25	3
47	650-500-21	MLS3-4 Stud	3
48	370-009-21	Hex nut M12	3
49	525-007-21	C. H. SCREW M4x0.7-10	2
50	045-003-21	Hex Bolt M6x1.0-10	4
51	705-003-21	Spring washer M6	4
52	525-502-21	P. HEAD PAN SCREW M5x0.8-8	3
53	520-500-21	S. head. cap screw M8x1.25-25	4
54	350-046-21	Name Plate	1
55	465-006-24	Rivet	4
56	525-500-21	Oil Plug M8x1.25-10	2
57	380-500-66	Oil Plug O-Ring 8x3mm	2
58	220-503-50	MLS3-4 Wear Plate Gasket(230mm)	1
59	380-502-66	O-Ring 50x3mm	1
60	380-506-66	O-Ring120x3mm	1
61	380-510-66	O-Ring195x3.5mm	1
62	380-060-66	O-Ring 200x3mm	1
63	037-505-50	Plastic Wiring Plate	1
64	080-500-21	Circlip 40mm, 1.75TH	1
65	045-010-21	Hex bolt M8x1.25-35	3
66	370-006-21	Hex nut M8	3

MLS4-6/8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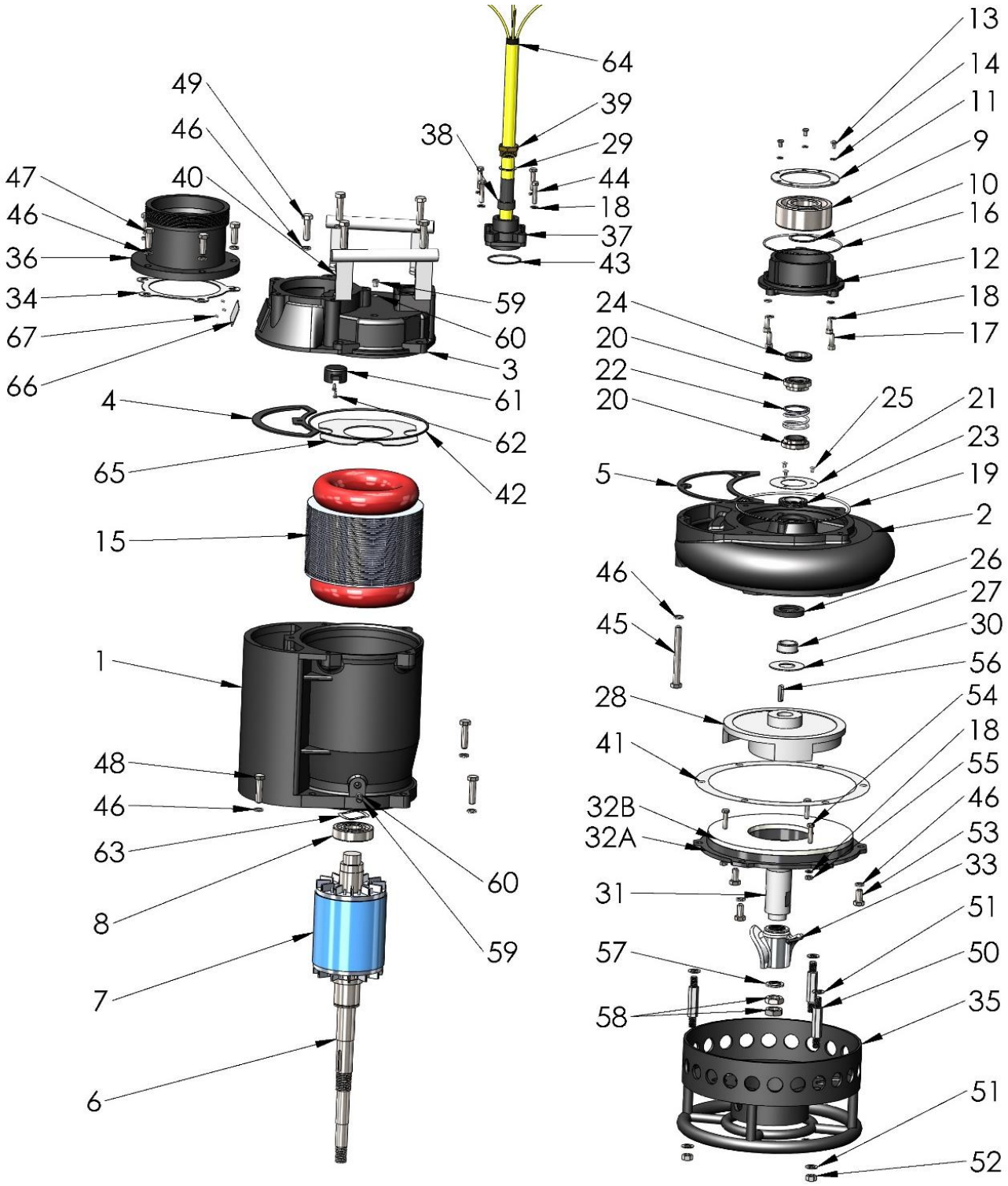
ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	625-501-01	Stator Casing	1
2	050-501-01	MLS4-6 Volute	1
3	035-502-01	MLS4-6 Top bracket	1
4	220-504-66	Gasket top	1
5	220-505-66	Gasket bottom	1
6	480-501-00	MLS4-6 Rotor stack	1
7		MLS4-6 shaft	1
8	020-011-07	Bearing 6306Z	1
9	020-501-07	Bearing 6309Z-C3	1
10	080-017-21	Circlip 45mm	1
11	037-501-21	MLS4-6 Bearing cover	1
12	035-503-01	MLS4-6 Bearing Bracket	1
13	045-003-21	Bolt M6x1.0-10	3
14	705-003-21	Spring washer M6	3
15	705-004-21	Spring washer M8	11
16	705-501-21	Spring washer M22	1
17	619-601-00	MLS4-6 Stator	1
18	380-508-66	O-Ring 150x3mm	1
19	520-500-21	S. head. cap screw M8x1.25-25	4
20	380-512-66	O-Ring 220x4mm	1
21	535-501-00	Rotary Seal 35mm shaft	2
22		Seal Holder Plate 35mm shaft	1
23		Seal Spring 35mm shaft	1
24		Lower Stationary Seal 35mm Shaft	1
25		Upper Stationary Seal 35mm shaft	1
26	525-502-21	P. HEAD PAN SCREW M5x0.8-8	3
27	390-501-66	Lip Seal	1
28	585-501-21	Shaft sleeve for lip seal	1
29A	300-503-03	MLS4-6 Impeller 60 HZ	1
29B	300-502-03	Impeller 50 HZ	*
30	700-500-21	MLS 26mm Washer	1
31	600-503-21	MLS 32mmx1TH Spacer	1
32	600-502-21	MLS Stub Shaft	1
33A	720-501-03	MLS4-6 Wear Ring	1
33B	715-501-01	MLS4-6 Wear Plate	1
34	300-510-03	Agitator	1
35	220-506-66	Outlet Gasket	1
36	640-501-04	MLS4-6 Pump Strainer	1

37A	405-502-01	MLS4-6 Outlet	1
37B	405-503-01	NPT Outlet	*
38	235-500-01	Cable Gland Base	1
39	260-500-66	Grommet ID 21, OD 34	1
40	230-500-40	Cable Gland	1
41	270-501-21	MLS Pump handle	1
42	220-507-50	MLS4-6 Wear Plate Gasket(261mm)	1
43	380-513-66	O-Ring 231.5x3.5mm	1
44	380-502-66	O-Ring 50x3mm	1
45	045-504-21	Hex bolt M8x1.25-40	4
46	045-511-21	Hex bolt M12x1.75-120	1
47	045-509-21	Hex bolt M12x1.75-35	5
48	045-052-21	Hex bolt M12x1.75-50	8
49	045-039-21	Hex bolt M12x1.75-45	1
50	045-508-21	Hex bolt M12x1.75-25	3
51	705-005-21	Spring washer M12	18
52	650-500-21	MLS4-6 Stud	3
53	700-008-21	Flat washer M12	6
54	370-009-21	Hex nut M12	3
55	045-010-21	Hex bolt M8x1.25-35	3
56	370-006-21	Hex nut M8	3
57	320-501-22	Impeller key	1
58	370-500-21	Impeller hex nut M22x2.5	2
59	525-500-21	Oil Plug M8x1.25-10	2
60	380-500-66	Oil Plug O-Ring 8x3mm	2
61	660-601-00	Motor Protection	1
62	525-007-21	C. H. SCREW M4x0.7-10	2
63	600-508-04	Spring wave washer 60ID-71OD MM	1
64		CABLE	1
65	037-506-50	Plastic Wiring Plate	1
66	350-046-21	Name plate	1
67	465-006-24	Rivet	4

MLS6-9/12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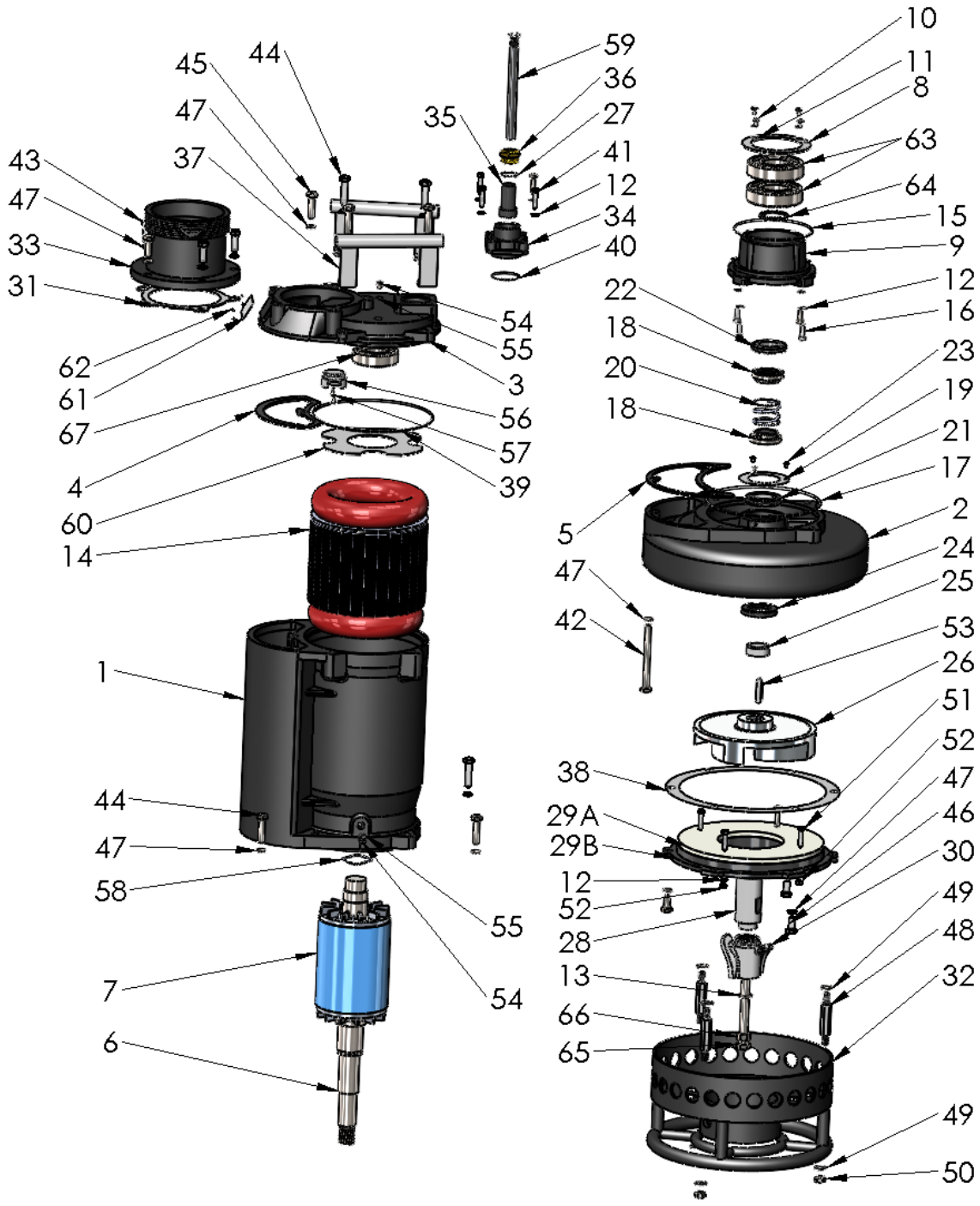
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	625-501-01	Stator Casing	1
2	050-502-01	MLS6-9 Volute	1
3	035-504-01	MLS6-9 Top Bracket	1
4	220-504-66	Gasket top	1
5	220-505-66	Gasket bottom	1
6	480-502-00	MLS6-9 shaft	1
7		MLS6-9 Rotor stack	1
8	020-502-07	Upper Bearing 6307Z	1
9	020-503-07	Lower Bearing 3310B	1
10	080-011-21	Circlip 50mm	1
11	037-502-21	MLS6-9 Bearing cover	1
12	035-505-01	MLS6-9 Bearing Bracket	1
13	045-003-21	Hex Bolt M6x1.0-10	3
14	705-003-21	Spring washer M6	3
15	619-602-00	MLS6-9 stator	1
16	380-508-66	O-Ring 150x3mm	1
17	520-500-21	S. head cap screw M8x1.25-25	4
18	705-004-21	Spring washer M8	11
19	380-512-66	O-Ring 220x4mm	1
20	535-501-00	Rotary Seal 35mm shaft	2
21		Seal Holder Plate 35mm shaft	1
22		Seal Spring 35mm shaft	1
23		Upper Stationary Seal 35mm shaft	1
24		Lower Stationary Seal 35mm shaft	1
25	525-502-21	P. head. Pan screw M5x0.8-8	3
26	390-501-66	Lip Seal	1
27	585-501-21	Shaft sleeve for lip seal	1
28A	300-504-03	MLS6-9 Impeller 50 Hz	1
28B	300-505-03	MLS6-9 Impeller 60 Hz	1
29	700-500-21	26mm Washer	1
30	600-504-21	32mm x2mm spacer (optional)	1
31	600-502-21	Stub Shaft	1
32A	715-502-01	MLS6-9 Wear plate	1
32B	720-502-03	MLS6-9 Wear Ring	1
33	300-510-03	Agitator	1
34	220-506-66	Outlet Gasket	1

35	640-502-04	MLS6-9 Pump Strainer	1
36A	405-504-01	MLS6-9 6" NPT Outlet	1
36B	405-505-01	MLS6-9 6" Hose Outlet	*
37	235-501-01	Cable Gland Base	1
38	260-500-66	Grommet ID 21, OD 34mm	1
39	230-500-40	Cable Gland	1
40	270-501-21	Pump Handle	1 Set
41	220-508-50	MLS6-9 293mm Gasket	1
42	380-513-66	O-Ring 231.5x3.5mm	1
43	380-503-66	O-Ring 60x3mm	1
44	045-504-21	Hex Bolt M8x1.25-40	4
45	045-511-21	Hex Bolt M12x1.75-120	1
46	705-005-21	Spring washer M12	18
47	045-509-21	Hex Bolt M12x1.75-35	5
48	045-052-21	Hex Bolt M12x1.75-50	8
49	045-039-21	Hex Bolt M12x1.75-45	1
50	650-501-21	MLS6-9 Stud	3
51	700-008-21	M12 flat washer	6
52	370-009-21	M12 hex nut	3
53	045-508-21	Hex Bolt M12x1.75-25	3
54	045-010-21	Hex bolt M8x1.25-35	3
55	370-006-21	M8 hex nut	3
56	320-501-22	Impeller key	1
57	705-501-21	Spring washer M22	1
58	370-500-21	M22x2.5 impeller hex nut	2
58	525-500-21	oil Plug M8x1.25-10	2
60	380-500-66	Oil Plug O-Ring 8x3mm	2
61	660-602-00	MLS6-9 Motor Protection	1
62	525-007-21	C.H. screw M4x0.7-10	2
63	600-509-04	Spring wave washer 70ID-79ODmm	1
64		Cable	1
65	037-506-50	MLS6-9 Plastic wiring cover	1
66	350-046-21	Name plate	1
67	465-006-24	Rivet	4

MLS6-11/15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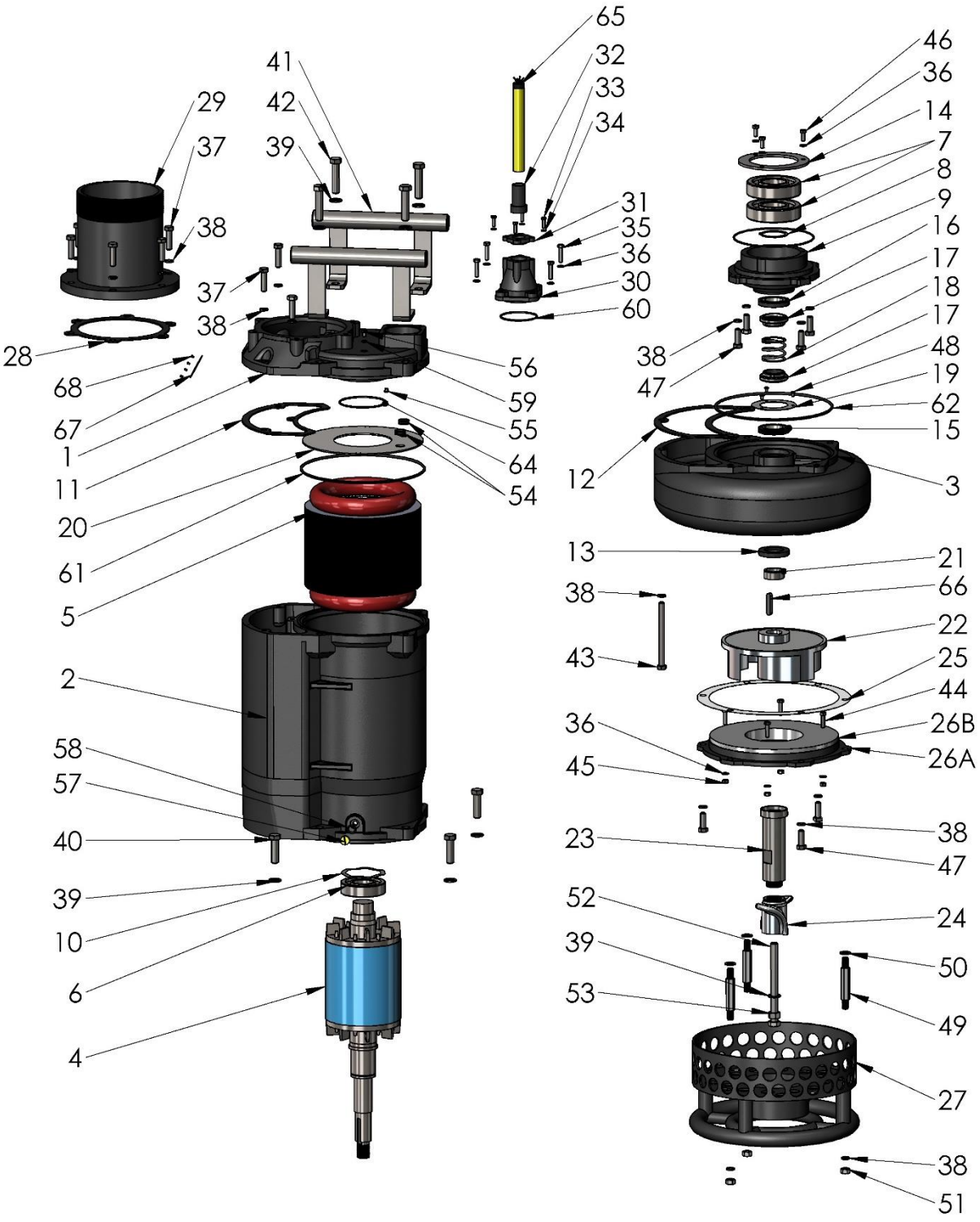
ITEM NO.	PART NUMBER	DESCRIPTION	
1	625-504-01	Stator Casing	1
2	050-505-01	Volute	1
3	035-510-01	Top Bracket	1
4	220-516-66	Gasket Top	1
5	220-517-66	Gasket Bottom	1
6	480-505-00	Rotor Stack	1
7		Shaft	1
8	037-502-21	Bearing Cover	1
9	035-511-01	Lower Bearing Bracket	1
10	045-003-21	Hex Bolt M6x1x10	4
11	705-003-21	Spring washer M6	4
12	705-004-21	Spring washer M8	12
13	705-500-21	Spring washer M16	1
14	480-605-00	Stator	1
15	380-508-66	O-Ring 150mm	1
16	520-500-21	S head screw M8x25	4
17	380-512-66	O-Ring 220mm	1
18	535-502-00	Rotary Seal 40mm	2
19		Seal Holder Plate 40mm	1
20		Seal Spring 40mm	1
21		Upper Stationary Seal 40mm	1
22		Lower Stationary Seal 40mm	1
23	525-025-21	Screw	3
24	390-502-66	Lip Seal	1
25	585-502-21	Shaft sleeve for lip seal	1
26	300-512-03	Impeller 60 HZ	1
26	300-511-03	Impeller 50 HZ	1
27	700-500-21	Washer for cable 26ID-34OD	1
28	600-507-21	Stub Shaft	1
29B	715-502-01	MLS6-9 Wear plate	1
29A	720-502-03	MLS6-9 Wear Ring	1
30	300-510-03	Agitator	1
31	220-506-66	Gasket for Outlet	1
32	640-502-21	Pump Strainer	1
33	405-504-01	Hose Outlet	1
33	405-505-01	NPT Outlet	1
34	300-512-03	Cable Gland Base	1
35	260-500-66	Cable Grommet	1

36	230-500-40	Cable Gland	1
37	270-501-21	Pump Handle	1
38	220-512-50	Gasket Wear Plate	1
39	380-513-66	O-Ring 231.5mm	1
40	380-503-66	O-Ring 60mm	1
41	045-010-21	Hex Bolt M8x1.25-35	4
42	045-514-21	Hex Bolt M12x1.75-130	1
43	045-509-21	Hex Bolt M12x1.75-35	5
44	045-514-21	Hex Bolt M12x1.75-50	8
45	045-039-21	Hex Bolt M12x1.75-45	1
46	045-508-21	Hex Bolt M12x1.75-25	3
47	705-005-21	M12 spring washer	18
48	650-501-21	MLS6-11KW Stud	3
49	700-008-21	M12 flat washer	6
50	370-009-21	M12 hex nut	3
51	045-010-21	Hex bolt M8x35	4
52	370-006-21	M8 hex nut	4
53	320-502-22	Impeller Key	1
54	525-500-21	Oil Plug M8x10	2
55	380-500-66	O-Ring M8 Oil Plug	2
56	660-603-21	Motor Protection	1
57	525-007-21	Screw	2
58	600-511-04	spring wave washer	1
59		Cable	1
60	037-506-50	Wire Cover	1
61	350-046-21	Name Plate	1
62	465-006-24	Rivet	4
63	020-506-07	Lower bearing	2
64	020-500-07	Upper bearing	1
65	080-011-21	circlip 50mm	1
66	045-516-21	Hex Bolt M16x2.0-125-130	1
67	370-015-21	M16 Hex Nut	1

MLS8-15/20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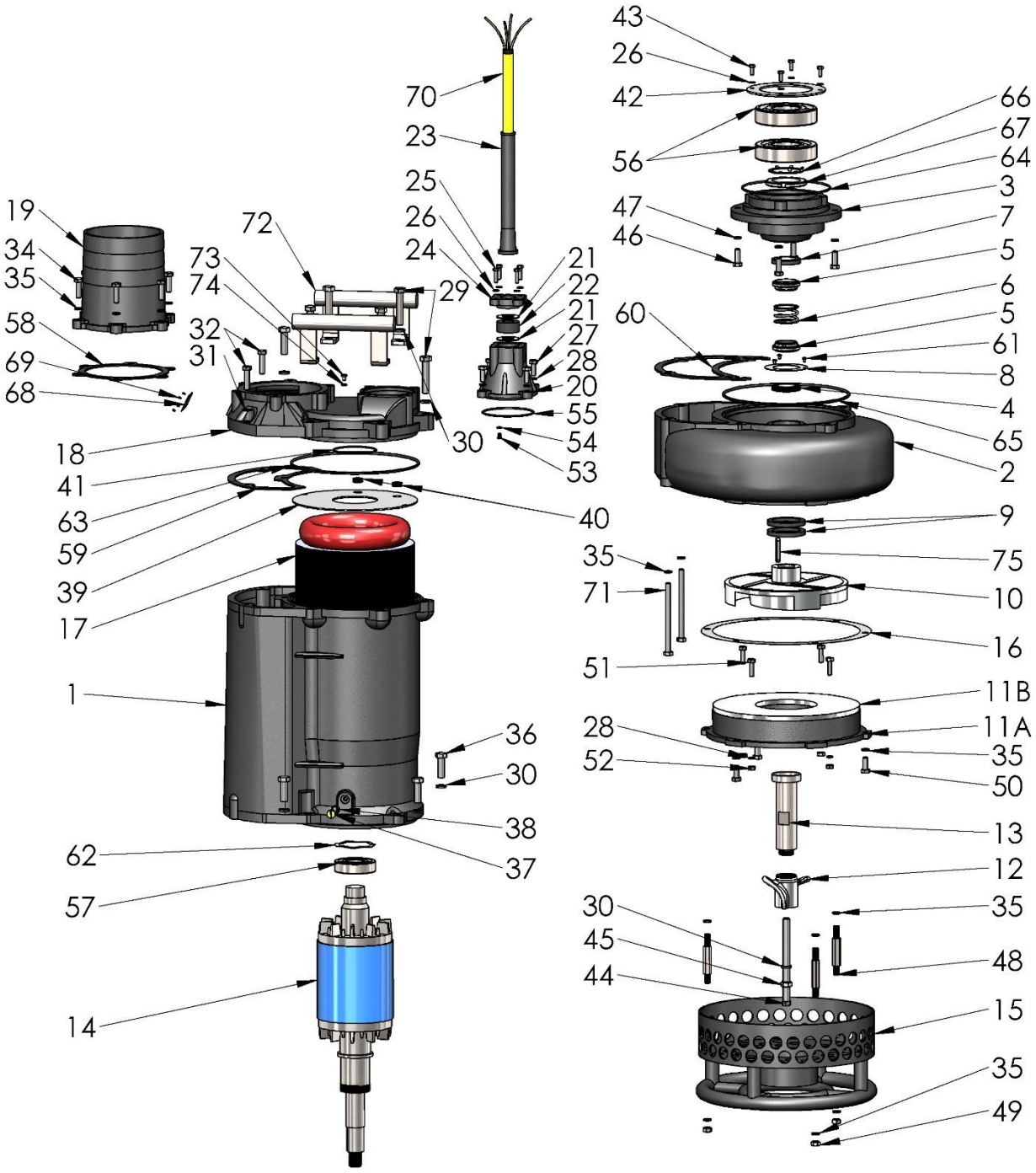
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	035-506-01	MLS8-15 Top Bracket	1
2	625-502-01	MLS8-15 Stator Casing	1
3	050-503-01	MLS8-15 Volute R1	1
4	480-503-00	MLS8-15 Rotor Shaft	1
5	619-603-00	MLS8-15 Bare Stator	1
6	020-501-07	Upper Bearing 6309Z	1
7	020-504-07	Lower Bearing 6311Z	2
8	080-018-08	Circlip 55mm, 2TH	1
9	035-507-01	MLS8-15 Bearing Bracket	1
10	600-510-04	Spring wave washer 78ID, 98OD, 0.5TH	1
11	220-509-66	MLS8 Top Gasket	1
12	220-510-66	MLS8 Bottom Gasket	1
13	390-502-66	Lip Seal 45mm shaft, 78 bores, 10 height	1
14	037-503-21	MLS8 Bearing cover	1
15	535-502-00	Lower Stationary Seal 40mm shaft	1
16		Upper Stationary Seal 40mm shaft	1
17		Rotary Seal 40mm shaft	2
18		Seal Spring 40mm shaft	1
19		Seal Holder Plate 40mm shaft	1
20	037-507-04	MLS8-15 Wiring Cover Plate	1
21	585-502-21	Shaft Sleeve 35mm	1
22	300-506-03	MLS8-15 Impeller 50Hz	1
22	300-507-03	MLS8-15 Impeller 60Hz	1
23	600-505-21	MLS8-15 Stub Shaft	1
24	300-510-03	Agitator	1
25	220-512-50	MLS8-15 290mm Gasket	1
26A	715-503-01	MLS8-15 Wear Plate	1
26B	720-503-03	MLS8-15 Wear Ring	1
27	640-503-04	MLS8-15 Pump Strainer	1
28	220-511-66	MLS8 Outlet Gasket	1
29A	405-180-01	MLS8- 8" NPT Outlet	1
29B	405-507-01	MLS8- 8"Hose Outlet	*
30	235-502-01	Cable Gland Base	1

31	230-501-40	MLS8-15 Cable Gland	1
32	260-501-66	MLS8-15 Grommet 24 ID, 36 OD	1
33	045-500-21	HEX BOLT M6x1.0-20	4
34	705-003-21	Spring washer M6	4
35	045-010-21	HEX BOLT M8x1.25-35	4
36	705-004-21	Spring washer M8	11
37	045-039-21	HEX BOLT M12x1.75-45	9
38	705-005-21	Spring washer M12	20
39	705-500-21	Spring washer M16	9
40	045-515-21	HEX BOLT M16x2.0-55	4
41	270-502-21	MLS8-15 handle	1
42	045-516-21	HEX BOLT M16x2.0-70	4
43	045-512-21	HEX BOLT M12x1.75-145	1
44	045-503-21	HEX BOLT M8x1.25-30	4
45	370-006-21	HEX NUT M8	4
46	045-502-21	HEX BOLT M8x1.25-20	3
47	045-509-21	HEX BOLT M12x1.75-35	7
48	525-502-21	P. head. Pan screw M5x0.8-8	3
49	650-502-21	MLS8-15 Stud	3
50	700-008-21	M12 FLAT WASHER	3
51	370-009-21	HEX NUT M12	3
52	045-519-21	HEX BOLT M16x2.0-180	1
53	370-015-21	HEX NUT M16x2.0	1
54	260-507-66	MLS8-15 Stator Grommet	2
55	525-019-21	C.H. Slotted screw M6x1.0-10	1
56	520-500-21	Oil Plug M8x1.25-10	1
57	520-501-40	Oil Plug M12x1.75-10	1
58	380-501-66	Oil Plug O-Ring 14x3mm	1
59	380-500-66	Oil Plug O-Ring 8x3mm	1
60	380-504-66	O-Ring 78x3mm	1
61	380-515-66	O-Ring 270x5mm	1
62	380-514-66	O-Ring 255x5mm	1
63	380-509-66	O-Ring 175x3mm	1
64	380-505-66	O-Ring 100x3mm	1
65	065-016-79	Cable	1
66	320-502-22	MLS8-15 Impeller Key	1
67	350-046-21	Name Plate	1
68	465-006-24	Rivet	4

MLS8-22/30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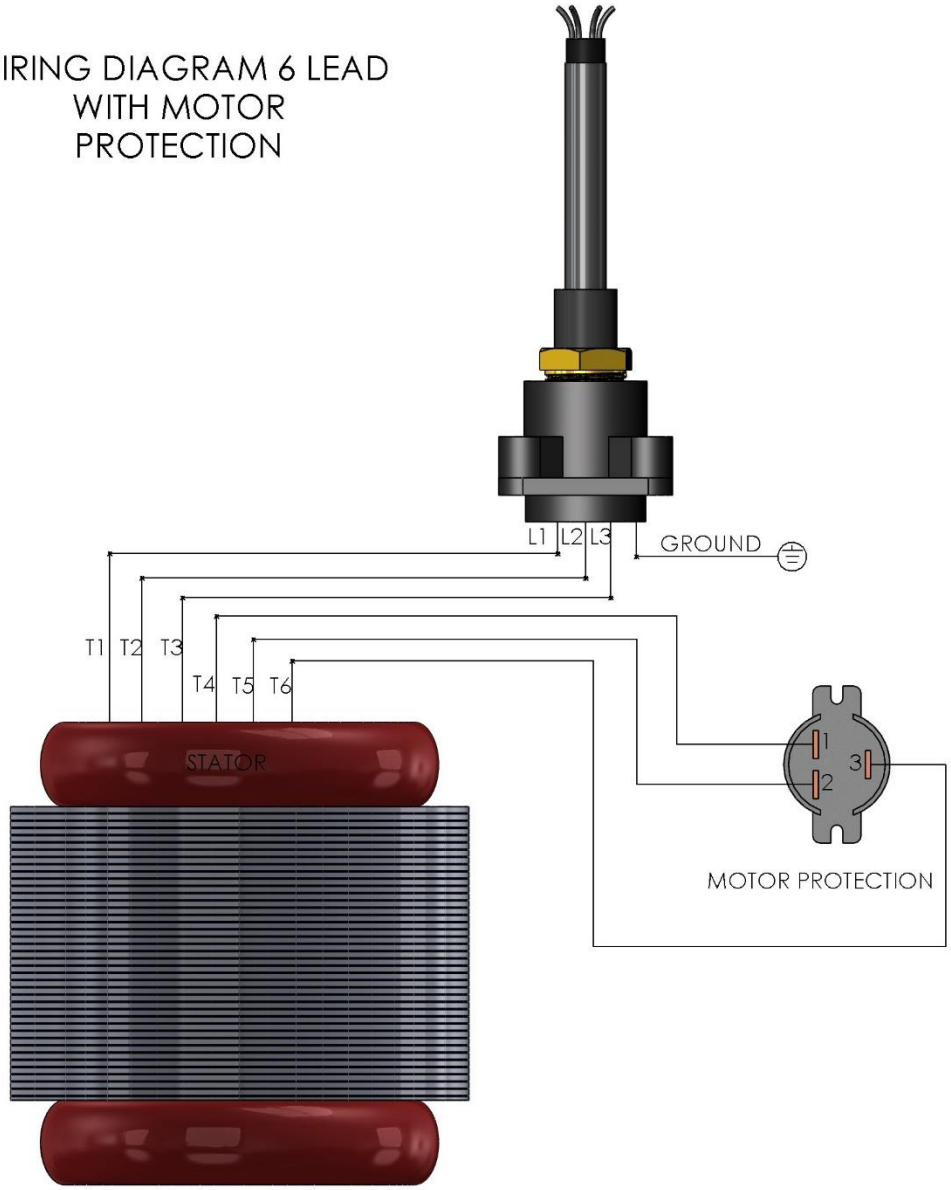
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	625-503-01	MLS8-22 Stator Casing	1
2	050-504-01	MLS8-22 Volute	1
3	035-509-01	MLS8-22 Bearing Bracket	1
4	535-503-00	Lower Stationary Seal 45mm Shaft	1
5		Rotary Seal 45mm Shaft	2
6		Spring 45mm Shaft	1
7		Upper Stationary Seal 45mm Shaft	1
8		Seal Plate Cover 45mm Shaft	1
9	390-503-66	MLS8-22 Lip Seal	1
10A	300-508-03	MLS8-22 Impeller 50Hz	1
10B	300-509-03	MLS8-22 Impeller 60Hz	*
11A	715-504-01	MLS8-22 Wear Plate	1
11B	720-504-03	MLS8-22 Wear ring	1
12	300-510-03	MLS6-9 Agitator	1
13	600-506-21	MLS8-22 Stub Shaft	1
14	480-504-00	MLS8-22 Rotor Shaft	1
15	640-504-04	MLS8-22 Strainer	1
16	220-515-50	MLS8-22 Wear Plate Gasket	1
17	619-604-00	MLS8-22 Bare Stator	1
18	035-508-01	MLS8-22 Top Bracket	1
19A	405-180-01	MLS8- 8" NPT Outlet	1
19B	405-507-01	MLS8- 8"Hose Outlet	*
20	235-503-01	Cable Gland Base	1
21	700-501-21	MLS8-22 ID28 OD55 TH2 Washer	2
22	260-502-66	MLS8-22 Grommet ID28, OD55	1
23	227-500-66	MLS8-22 Cable grip	1
24	230-502-01	MLS8-22 Cable Gland	1
25	045-503-21	Hex bolt M8x1.25-30	4
26	705-004-21	Spring washer M8	8
27	045-505-21	Hex Bolt M10x1.5-30	4
28	705-001-21	M10 Spring Washer	8
29	045-517-21	Hex Bolt M16x2.0-80	5
30	705-500-21	M16 Spring Washer	11
31	700-008-21	M12 Flat Washer	2
32	045-052-21	Hex Bolt M12x1.75-50	2
33	045-515-21	Hex Bolt M16x2.0-55	1
34	045-510-21	Hex Bolt M12x1.75-40	6
35	705-005-21	M12 Spring Washer	17

36	045-514-21	Hex Bolt M16x2.0-50	4
37	525-501-40	Oil Plug M12x1.75-10	1
38	380-501-66	O-Ring 14x3mm	1
39	037-508-04	MLS8-22 Wire Plate Cover	1
40	260-507-66	MLS8-22 Stator Grommet	2
41	380-505-66	O-Ring 100x3mm	1
42	037-504-21	MLS8-22 Bearing Cover	1
43	045-502-21	Hex Bolt M8x1.25-20	4
44	045-520-21	Hex Bolt M16x2.0-205	1
45	370-015-21	M16 Hex Nut	1
46	045-509-21	Hex Bolt M12x1.75-35	4
47	705-005-21	M12 spring washer	4
48	650-503-21	MLS8-22KW Stud	3
49	370-009-21	M12 Hex Nut	3
50	045-033-21	M12x1.75-30	3
51	045-506-21	M10X1.5-35	4
52	370-008-21	Hex Nut M10	4
53	525-019-21	C.H. Slotted screw M6x1.0-10	1
54	700-002-21	M6 Flat Washer	1
55	380-507-66	O-Ring 120x3.5mm	1
56	020-505-07	Lower Bearing 6314Z	2
57	020-501-07	Upper Bearing 6309Z	1
58	220-511-66	MLS8 Gasket for Outlet	1
59	220-513-66	MLS8-22 top gasket	1
60	220-514-66	MLS8-22 Bottom Gasket	1
61	525-502-21	P. head. Pan screw M5x0.8-8	3
62	600-510-04	wave washer 78ID- 98OD-0.5TH	1
63	380-517-66	O-Ring 305x5.5mm	1
64	380-511-66	O-Ring 210x4mm	1
65	380-516-66	O-Ring 300x5.5mm	1
66	695-500-21	MLS8-22 Bearing Lock Washer	1
67	365-500-21	MLS8-22 Bearing Nut	1
68	350-046-21	Name Plate	1
69	465-006-24	Rivet	4
70	065-016-79	Cable	1
71	045-513-21	Hex Bolt M12x1.75-170	2
72	270-503-21	MLS8-22 Pump Handle	1
73	525-500-21	Oil Plug M8x1.25-10	1
74	380-500-66	Oil Plug O-Ring 8x3mm	1
75	320-503-22	MLS8-22 Impeller key	1

WIRING DIAGRAM 6 LEAD WITH MOTOR PROTECTION



CONNECT		
POWER L1 (RED)	——-——	T1 (BROWN)
POWER L2(WHITE)	——-——	T2 (BLUE)
POWER L3(BLACK)	——-——	T3 (BLACK)
GROUND (GREEN)	——-——	GROUND
MOTOR PROTECTION — TERMINAL 1	——-——	T4(BROWN)
MOTOR PROTECTION — TERMINAL 2	——-——	T5(BLUE)
MOTOR PROTECTION — TERMINAL 3	——-——	T6(BLACK)

mody Pumps

LIMITED WARRANTY

WARRANTY PERIOD: We warrant that our pumps, when installed and maintained in accordance with our instructions, will be free of defects in material and workmanship under normal use and service, during the following time: **One (1) year from the date of installation, or (18) months from the date of shipment, whichever occurs first**

WARRANTY CLAIM PROCEDURE: Within the above Warranty Period, we will evaluate claims under this warranty, provided that such claims are submitted in the following sequential steps:

(a) Customer submits to Mody Pumps, Inc. - via fax, e-mail attachment, or trackable mail service - a completed Warranty Evaluation Form (WEF) within five (5) days after discovery of the claimed defect;

(b) Mody Pumps, Inc. issues the Customer a **written** Return Material Authorization (RMA), via fax or e-mail, within seven (7) business days of receiving the Customer's WEF;

(c) No later than five (5) business days after the date recorded on the RMA, the subject pump must either be received at, or placed in the shipper's possession for transport to, Mody Pumps, Inc. or its Authorized Service Center. A warranty-claimed pump can only be received at Mody Pumps, Inc. or its Authorized Service Center if it is returned with a valid RMA from Mody Pumps, Inc.

VOIDING FACTORS: This warranty shall not apply when damage is caused by such factors as, but not limited to: (a) improper installation, (b) improper voltage, (c) lightning, (d) sand or other abrasive materials, (e) scale or corrosion build-up due to excessive chemical content, (f) errors in specifications, (g) errors in bills of materials, (h) any modification of the product. We will not be responsible for loss, damage, or labor and other related costs that result from interruption of service caused by defective parts. Neither will we accept charges incurred by others without our prior written approval. This warranty is void if our inspection reveals that the product was used in a manner inconsistent with normal industry practice and/or our recommendations or instructions. The Customer is responsible for communicating all vital information about the application and use of the product. **THE SOLE AND EXCLUSIVE REMEDY FOR A VALID CLAIM ON ANY AND ALL PRODUCT WARRANTIES SHALL BE PRODUCT REPLACEMENT OR REPAIR AT OUR ELECTION, FOB POINT OF MANUFACTURE OR AUTHORIZED REPAIR STATION, OF SUCH PRODUCTS AND/OR PARTS AS PROVEN DEFECTIVE.**

Any additional guarantees involving special, unusual or extraordinary performance specifications must be in writing, and such writing must be signed by an authorized representative of Mody Pumps, Inc., BEFORE the subject pump is used under such additional guarantees. Whenever user-commissioned field testing results differ from our field-conditions-adjusted lab results, our laboratory results shall control. Components or accessories that come with our pumps, but have been manufactured by others, are subject only to the original manufacturer's warranty. Recommendations for special applications, or those based on our systems analyses and evaluations, will be based on our best available experience and published or generally accepted industry standards. **SUCH RECOMMENDATIONS DO NOT CONSTITUTE A WARRANTY OF SATISFACTORY PERFORMANCE, AND NO SUCH WARRANTY IS EVER GIVEN.**

THIS WARRANTY RELATES ONLY TO OUR PRODUCT. WE WILL VIGOROUSLY DEFEND AGAINST ANY CLAIM OF OUR LIABILITY FOR DAMAGES AND COSTS THAT FLOW FROM FACTORS BEYOND OUR DIRECT AND PROXIMAL CONTROL, INFLUENCE, AND RESPONSIBILITY, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, LOST INCOME, LABOR CHARGES, OR DELAYS IN PRODUCTION. THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

No rights extended under this warranty shall be assigned to any person, whether by operation of law or otherwise, without our prior written approval. This warranty is subject to change without notice.

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