

Proof of Plant Delivery and Warranty

1. Various products manufactured by the company have gone through strict quality control and inspection before they can be allowed to leave the plant. We guarantee with assurance for your utility.
2. Please keep this certificate of warranty well, and we should require your understanding that if it won't be re-issued if lost.
3. From the date this product is purchased, we will guarantee that it can function well under normal utility conditions for one year, and we will render responsibility of warranty within the year.
4. During the period of warranty, the buyer can demand the company to honor the responsibility of warranty based on the standards of the company examination report.
5. For period in excess of the above-stipulated time, we will charge the buyer, if accessory has to be replaced or changed, with the cost expense of the accessory and service fee.
6. The company has always made improvement to our products. During the period of warranty, if the buyer has to replace accessory, the company can use the improved accessory for replacement. If the buyer demands for designated brand of accessory for replacement, the company will charge for the cost expense.
7. The company won't be responsible for break-down incurred as of natural disaster, earthquake, fault of user, self modification, relocation, or overload.
8. For installation of the product, it should be done by specialized personnel based on items of administration, or the company won't be liable for liability of warranty for problems generated as of improper administration or handling.

Product Name :

MODEL :

SPECIFICATION:

MFG No :

USER'S NAME :



ECDL-SERIES

Stainless Steel Vertical Multi-stage Centrifugal Pumps Instruction Manual



*Asia Automatic Pump Co.,Ltd
<http://www.evergushpump.com.tw>*

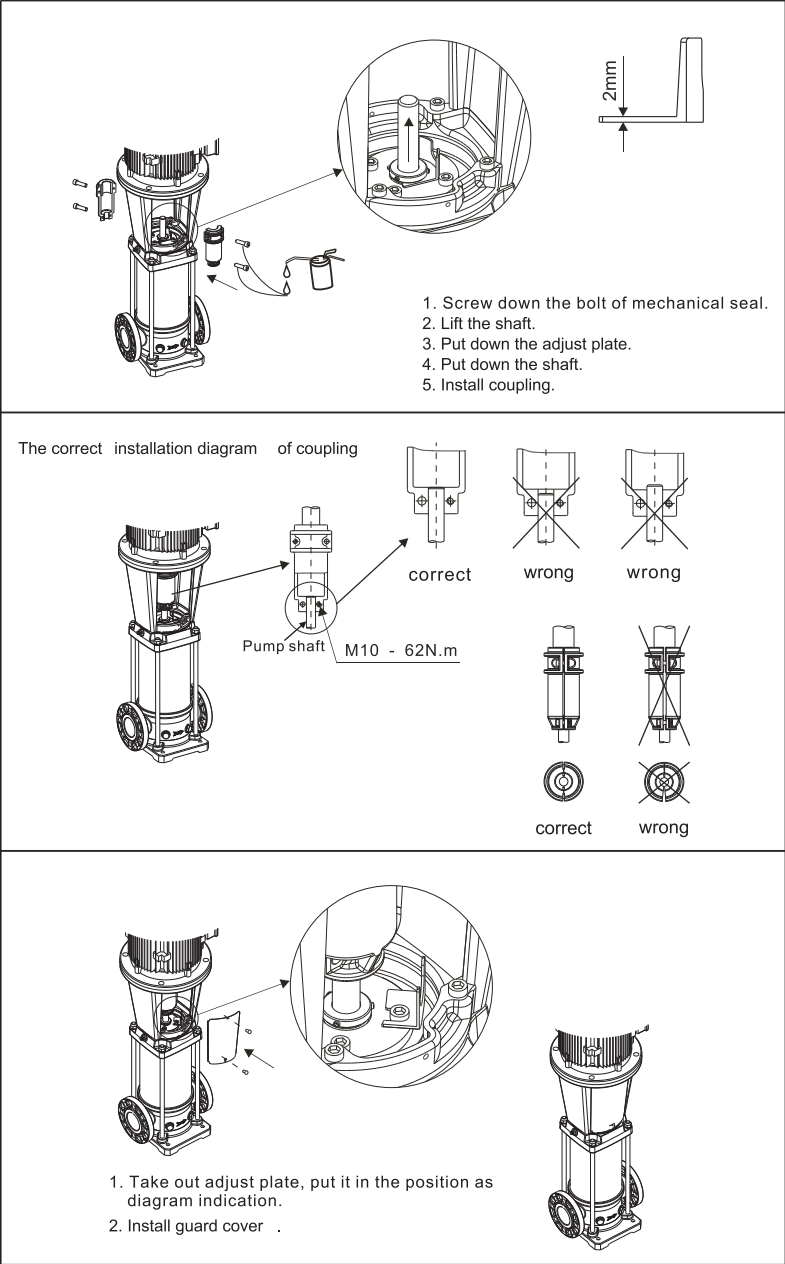
14. Troubleshooting



Before removing the terminal box cover and before any removal/dismantling of the pump. Make sure the electricity supply has been switched off and that it cannot be accidentally switched on.

Fault	Cause	Remedy
Motor does not run when started	<ul style="list-style-type: none"> - Supply failure. - Fuses are blown. - Motor starter overload has tripped out. - Thermal protection has tripped out. - Main contacts in motor starter are not making contact or the coil is faulty - Control circuit is defective. - Motor is defective 	<ul style="list-style-type: none"> - Connect the electricity supply. - Replace fuses. - Reactivate the motor protection. - Reactivate the thermal protection. - Replace contacts or magnetic coil. - Repair the control circuit. - Replace the motor
Motor starter overload trips out immediately when supply is switched on	<ul style="list-style-type: none"> - One fuse/automatic circuit breaker is blown. - Contacts in motor starter overload are faulty. - Cable connection is loose or faulty. - Motor winding is defective. - Pump Mechanically blocked. - Overload setting is too low. 	<ul style="list-style-type: none"> - Cut in the fuse. - Replace motor starter contacts. - Fasten or replace the cable connection. - Replace the motor. - Remove the mechanical blocking of the pump. - Set the motor starter correctly.
Motor starter overload trips out occasionally	<ul style="list-style-type: none"> - Overload setting is too low. - Low voltage at peak times. 	<ul style="list-style-type: none"> - Set the motor starter correctly - Check the electricity supply.
Motor starter has not tripped out but the pump does not run.	<ul style="list-style-type: none"> - Supply failure. - Fuses are blown. - Thermal protection has tripped out. - Main contacts in motor starter are not making contact or the coil is faulty - Control circuit is defective. 	<ul style="list-style-type: none"> - Connect the electricity supply. - Replace fuses. - Reactivate the thermal protection. - Replace contacts or magnetic coil. - Repair the control circuit.
Pump capacity not constant	<ul style="list-style-type: none"> - Pump inlet pressure is too low (cavitation). - Suction pipe/pump partly blocked by impurities. - Pump draws in air. 	<ul style="list-style-type: none"> - Check the Suction conditions. - Clean the pump or the pump pipe. - Check the suction conditions.
Pump runs but gives no water	<ul style="list-style-type: none"> - Suction pipe/pump blocked by impurities. - Foot or non-return valve blocked in closed position. - Leakage in suction pipe. - Air in suction pipe or pump. - Motor rotates in the wrong direction. 	<ul style="list-style-type: none"> - Clean the pump or suction pipe. - Repair the foot or non-return valve. - Repair the suction pipe. - Check the suction conditions. - Change the direction of rotation of the motor.
Pump runs back-wards when switched off.	<ul style="list-style-type: none"> - Leakage in suction pipe. - Foot or non-return valve is defective. 	<ul style="list-style-type: none"> - Repair the suction pipe. - Repair the foot or non-return valve.
Leakage in shaft seal.	<ul style="list-style-type: none"> - Shaft seal is defective. 	<ul style="list-style-type: none"> - Replace the shaft seal.
Noise	<ul style="list-style-type: none"> - Cavitation occurs in the pump. - Pump does not rotate freely(frictional resistance) because of the incorrect pump shaft position - System head and pump head ratio too low. - Frequency converter not run 	<ul style="list-style-type: none"> - Check the suction conditions. - Adjust the pump shaft. - Improve system or choose a right pump. - Check the frequency converter operation.

13.coupling installation diagram(ECDL32,45,64)



Thank you for selecting EVERGUSH vertical multi-stage pumps.

The equipment should not be used for applications other than information listed in the manual. Failure to take notice of precautions may lead to probable damage, personal injury and other accidents. In the event of probable damages and hazards, the manufacturer will not be assumed to any liability.

After reading the manual, it is recommended to preserve the manual for future use so that the information listed will be easily accessible while the equipment is operating.

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1. Construction

● Pump

ECDL pump is a kind of non-self priming vertical stainless steel multi-stage pump, the pumps are available with standard motor, the inlet and outlet are located at pump bottom at the same plane (Inline type). Pump body and wetted parts are made of AISI304.

● Motor

ECDL are fitted with a totally enclosed, fan-cooled 2 pole standard motor, from 0.37kw to 45kw(3phase), and 0.37kw to 2.2kw(single phase). The motor conforms to insulation F, IP54 protection. Users can choose EVERGUSH or TATUNG motor per request.

● Motor Protection

Single phase motor has a built-in thermal overload protector. Three phase motors must be connected to a motor starter in accordance with local regulations.

● Applications

ECDL vertical stainless steel multistage centrifugal pumps applied high quality stainless steel material, and the mechanical seal is made of hard alloy. Long service life, light-corrosion resistance and high efficiency. Therefore, it is suitable for various industries. Lesser space requirement, space-saver. It can also be equipped with related protectors to effectively prevent from dry-running, overheat, out-of-phase and overload circumstances.

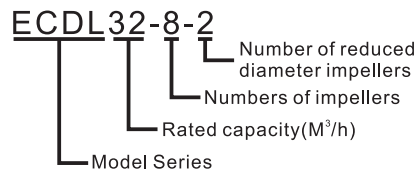
1. **Water supply:** Host water supply pipe and booster of multi-storey building.

2. **Industrial pressure boosting:** Air conditioning and cooling systems. Boiler feed and condensation systems. High pressure rinsing systems.

3. **Water treatment:** Filters and reverse osmosis systems, distillation systems, separators.

4. **Agriculture irrigation:** Large area irrigation, spray irrigation.

● Model Code



2. Working conditions

For clean non-flammable and non-explosive liquid, without solid, filamentary and abrasive matter.

Ambient temperature: 0~+50°C.

Liquid temperature: Temperature range: -20°C~+70°C.

Hot water range: +70°C~+120°C.

Max. Working pressure: 25~33 bar.

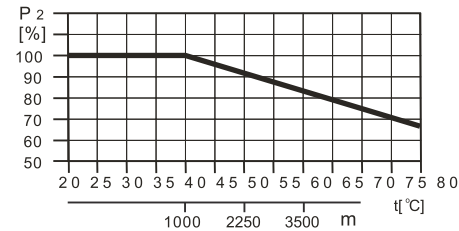
Output range: 0.5HP~60HP(0.37KW~45KW)

Remarks: If it is used for brewery or oil plants, we strongly recommend to replace standard motor for explosion proof motor.

● Ambient temperature

Ambient temperature: maximum +40°C, if the ambient temperature exceeds +40°C, or the motor is located more than 1000 meters above sea level, the motor output (P₂) must be reduced due to the low cooling effect of the air, in such cases, it may be necessary to use a motor with a higher output.

Fig.1 Relationship between motor output (P₂) and ambient temperature



Example:

Figure 1 shows that P₂ must be reduced to 88% when the pump is installed 3500 metres above sea level. At an ambient temperature of 70°C, P₂ must be reduced to 78% of the output.

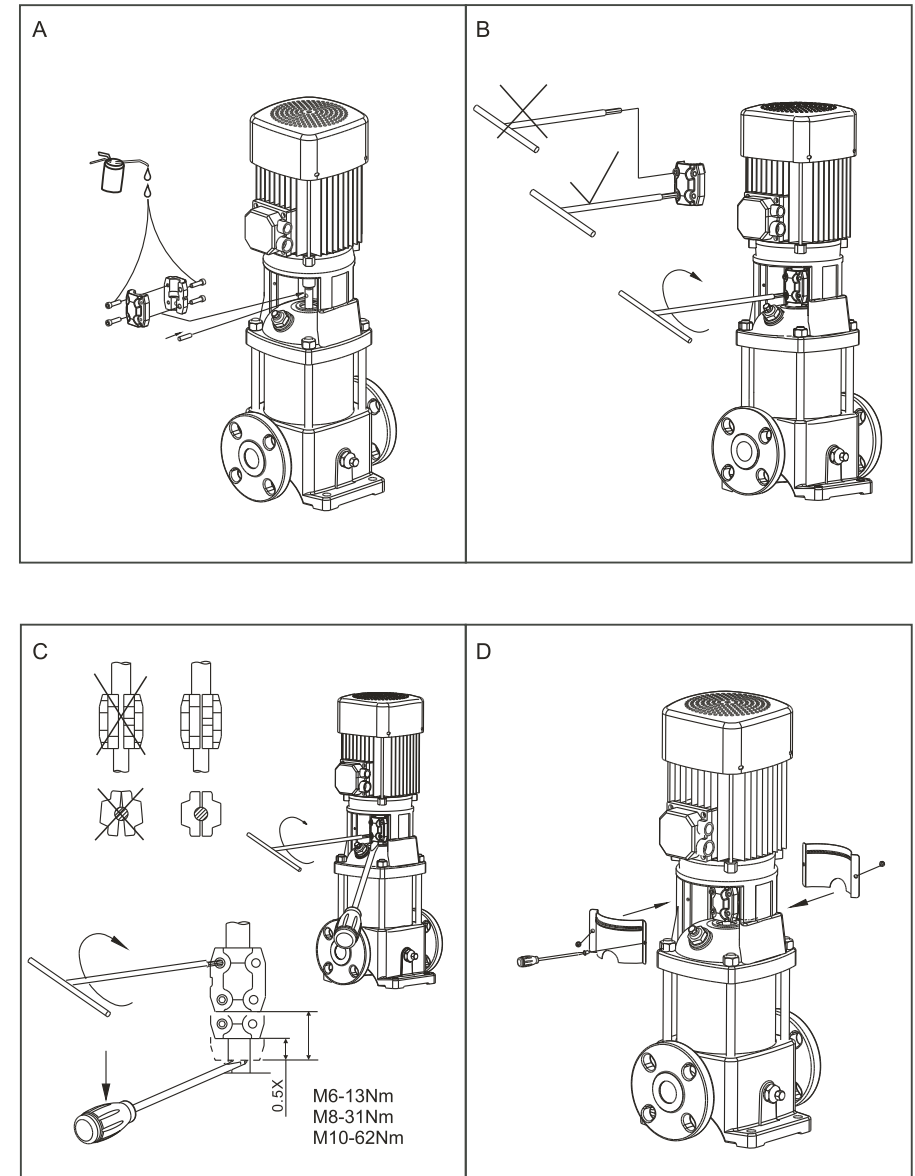
● Maximum inlet pressure

The following table shows the maximum permissible inlet pressure. However, the current inlet pressure the pressure against a closed valve must always be lower than the maximum permissible operating pressure.

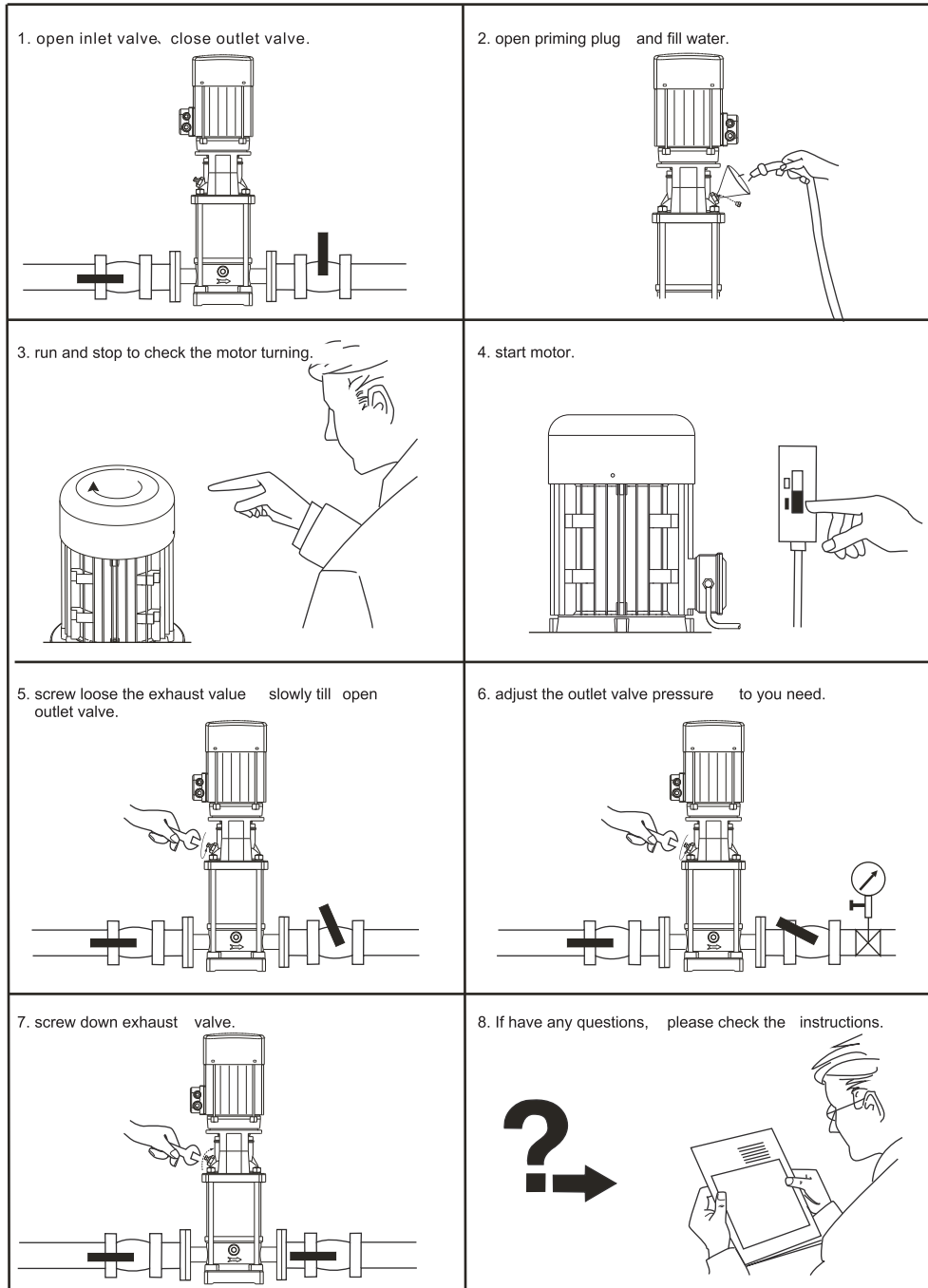
If the maximum permissible operating pressure is exceeded, the bearing in the motor may be damaged and the life of the shaft seal reduced.

ECDL2		
ECDL2-2	→ ECDL2-26	10bar
ECDL4		
ECDL4-2	→ ECDL4-22	15bar
ECDL8		
ECDL8-1	→ ECDL8-6	8bar
ECDL8-7	→ ECDL8-22	10bar
ECDL16		
ECDL16-1	→ ECDL16-3	8bar
ECDL16-4	→ ECDL16-17	10bar
ECDL20		
ECDL20-1	→ ECDL20-3	8bar
ECDL20-4	→ ECDL20-17	10bar
ECDL32		
ECDL32-1-1	→ ECDL32-4	4bar
ECDL32-5-2	→ ECDL32-10	10bar
ECDL32-11-2	→ ECDL32-14	15bar
ECDL45		
ECDL45-1-1	→ ECDL45-2	4bar
ECDL45-3-2	→ ECDL45-5	10bar
ECDL45-6-2	→ ECDL45-13-2	15bar
ECDL64		
ECDL64-1-1	→ ECDL64-2-2	4bar
ECDL64-2-1	→ ECDL64-4-2	10bar
ECDL64-4-1	→ ECDL64-8-1	15bar

13. coupling installation diagram (ECDL2,4,8,16,20)



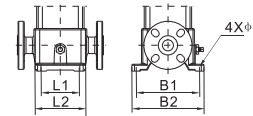
12. Starting pump step diagram:



3.ECDL Pump Range

SCOPE	ECDL2	ECDL4	ECDL8	ECDL16	ECDL20	ECDL32	ECDL45	ECDL64
Rated Capacity M ³ /h	2	4	8	16	20	32	45	64
Capacity Scope M ³ /h	1~3.2	2~4.8	5~13	9~24	10~29	14~40	20~56	30~85
Max. Efficiency %	45	58	66	68	69	77	78	80
Max. Pressure bar	25	25	25	25	25	25~30	25~33	25
Motor Power KW	0.37~3.0	0.37~4.0	0.37~7.5	1.1~15	1.1~18.5	1.5~30	3~45	4~45
Temp. Scope °C	-20°C~+120°C							
Flange DN	DN25 DN32	DN25 DN32	DN40	DN50	DN50	DN65	DN80	DN100
Colomn pipe thread	G1 G11/4	G1 G11/4	G11/2 G2	G21/2	G21/2	—	—	—
Cutting ferrule joint	G11/4 DN32	G11/4 DN32	G2 DN50	G2 DN50	G2 DN50	—	—	—

4.Pump Connections & Dimensions

MODEL	PJE			UNION			DIN-FGJ							
	L (mm)	H (mm)	D (mm)	L (mm)	H (mm)	D (inch)	L (mm)	H (mm)	DN	L1 (mm)	L2 (mm)	B1 (mm)	B2 (mm)	φ (mm)
ECDL2	210	50	42.2	210	50	1 1/4	250	75	25/32	100	150	180	220	13
ECDL4	210	50	42.2	210	50	1 1/4	250	75	25/32	130	150	180	220	13
ECDL8	261	80	60.1	261	80	2	280	80	40	130	200	215	248	13
ECDL16	261	80	60.1	261	80	2	300	90	50	130	200	215	248	13
ECDL20	261	80	60.1	261	80	2	300	90	50	130	200	215	248	13
ECDL32							320	105	65	170	226	240	298	14
ECDL45							365	140	80	190	251	266	331	14
ECDL64							365	140	100	190	251	266	331	14

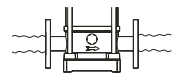
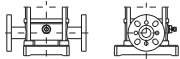
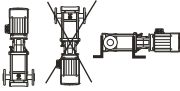
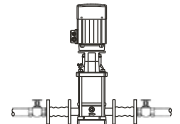
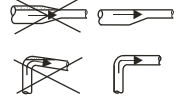
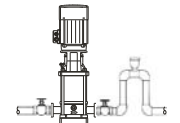

selection of pump connection depend on the rated pressure and pipework. To meet any requirement the ECDL pump offer a wide range of flexible connection such as:

- DIN frange.
- PJE coupling.
- union connection.



5.Installation

When installing the pump, please follow the procedure below in order to avoid damaging the pump.

Step	Action
	Arrows on the pump base show the direction of flow of liquid through the pump
	Page 2 shows: -Dimension of the base -Pipework connection -Diameter and position of foundation bolts
	The pump can be installed vertically or horizontal Ensure that an adequate supply of cool air reaches the motor cooling fan. However, the motor must never fall below the horizontal plane.
	To minimize possible noise from the pump, it is advisable to fit expansion joints either side of the pump and anti-vibration mountings between foundation and pump. Isolating valves should be fitted either side of the pump to avoid draining the system if the pump needs to be cleaned, repaired or replaced. The pump must always be protected against backflow by means of a non-return valve (foot valve)
	Install the pipes so that air locks are avoided, especially on the suction side of the pump.
	In the case of installation in which: -The discharge pipe slopes downwards away from the pump. -There is a risk of siphon effect -Protection against backflow of unclean liquids is necessary. A vacuum valve must be fitted close to the pump.
	The pump is available to install outside, but there is suitable protection.

6.Electrical connection



The motor should be grounding.
Before removing the terminal box cover and before any removal/dismantling of the pump, make sure that the electricity supply has been switched off.
Single phase motor incorporate a thermal protector, Three phase motor must be connected to a motor starter.
The electrical connection should be carried out by an authorized electrician in accordance with local regulations.

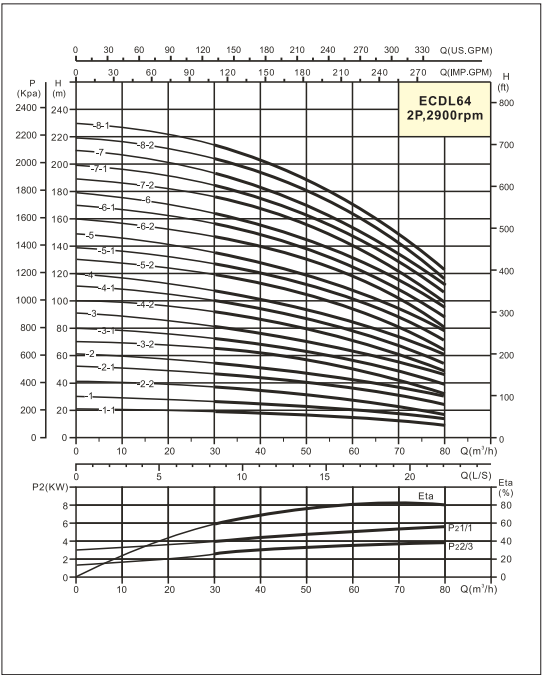
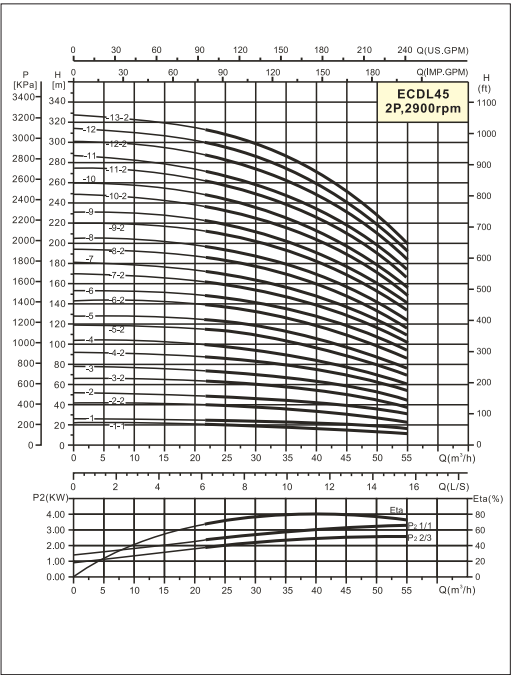
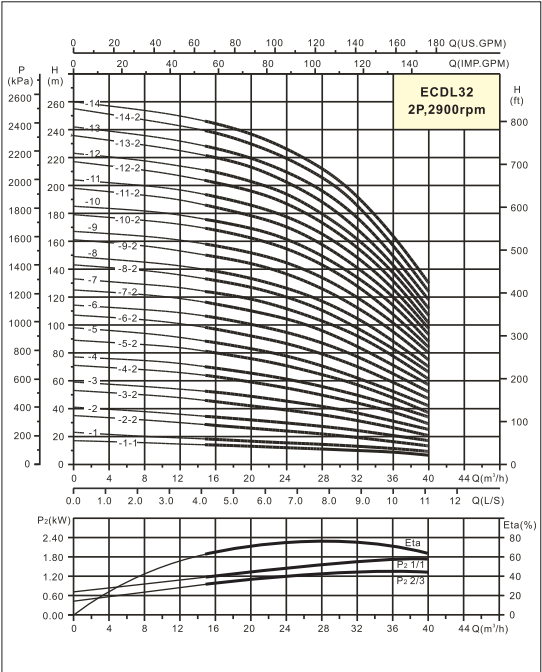
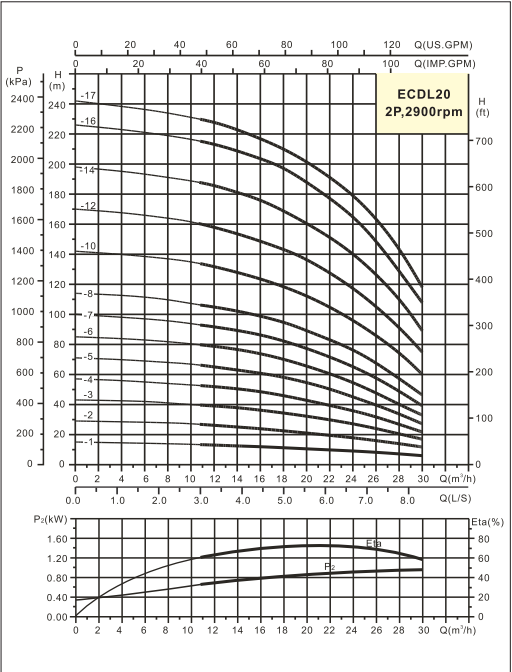


The operating voltage and frequency are marked on the motor nameplate. Make sure that the motor is suitable for the electricity supply on which it will be used.
As standard the terminal box is mounted on the suction side of the pump.
Terminal box can be turned to four positions, in 0°, 90°, 180°, 270°, steps:
1.If necessary, remove the coupling guards, Do not remove the coupling.
2.Remove the bolts securing the motor to the pump.
3.Turn the motor to the required position.
4.Replace and tighten the bolts.
5.Replace the coupling guards.
The electrical connection should be carried out as shown in the diagram inside the terminal box cover.

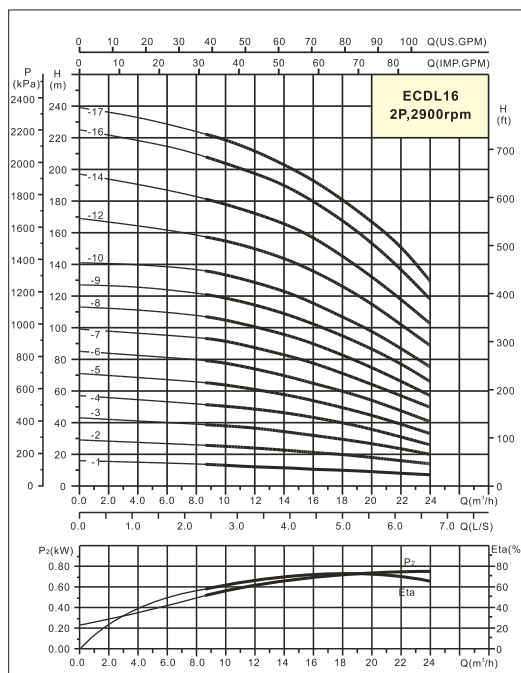
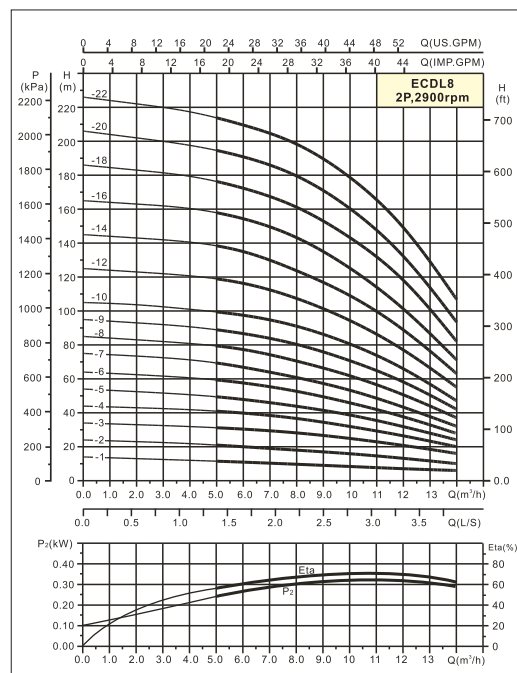
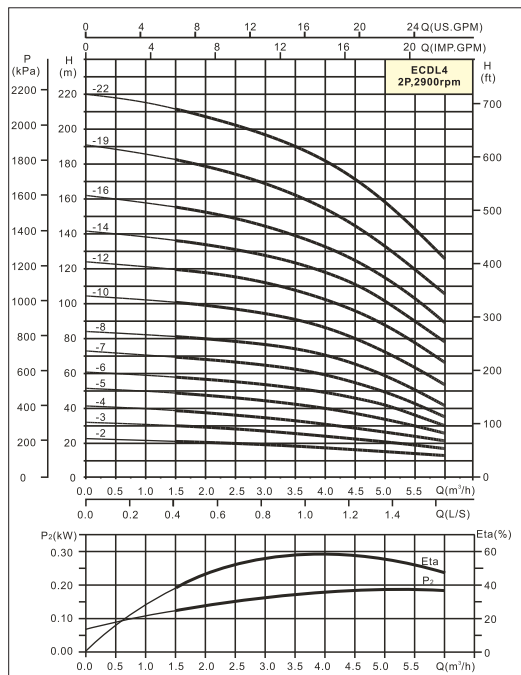
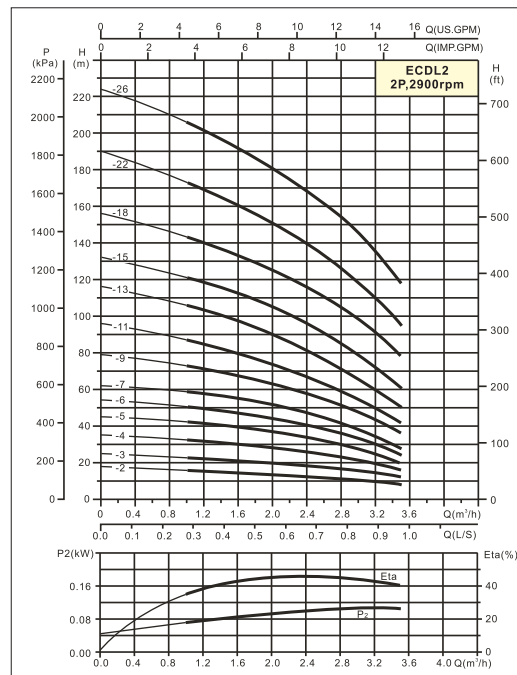
Motor noise

Motor (KW)	50HZ
	dB(A)
0.37	53
0.55	53
0.75	53
1.1	55
1.5	58
2.2	58
3.0	59
4.0	66
5.5	73
7.5	73
11	75
15	70
18.5	70
22	69
30	73
37	73
45	73

11.Performance Curves(ECDL20,32,45,64)



11. Performance Curves(ECDL2,4,8,16)



7. Start-up



Read the warning mark before start-up.

Note: Do not start the pump until it has been filled with liquid and vented. If the pump runs dry, the pump bearing and the shaft seal may be damaged.

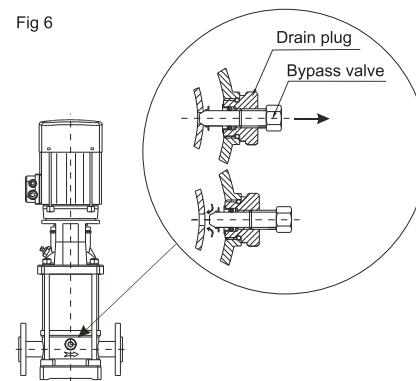


Pay attention to the direction of the vent hole and take care to ensure that the escaping water does not cause injury to persons or damage to the motor or other components. In hot-water installation, special attention should be paid to the risk of injury caused by scalding hot water. Follow the instruction Page9.

ECDL2,4

For these pumps, it is advisable to open the bypass valve during start-up. The bypass valve connects the suction and discharge sides of the pump, thus making the filling procedure easier. When the operation is stable, the bypass valve can be closed. When pumping liquids containing air, it is advisable to leave the bypass valve open if the operating pressure is lower than 6 bar. If the operating pressure constantly exceeds 6 bar, the bypass valve must be closed. Otherwise the material at the opening will be worn because of the high liquid velocity.

Fig 6



Check below procedures before starting the pump

- Tighten foundation bolt.
- Pump fill with water.
- Voltage is right.
- Turn the motor to the required position.
- All pipes are connect tightening under normal water supply.
- Inlet pipe 's valve is open; Outlet valve will be opened after pump starting.
- Heck the working pressure if installed pressure gage.
- Check controller . If pump is controlled by pressure switch, check and adjust on/off pressure. Through pressure switch, check motor's Ampere that no more than admitted Ampere.

8. Maintenance



Before starting work on the pump, make sure that all power supplies to the pump have been switched off and that they cannot be accidentally switched on.

Pump bearings and shaft seal are maintenance-free.

Motor bearing

Motors which are not fitted with grease nipples are maintenance-free. Motor fitted with grease nipples should be lubricated with high-temperature lithium-based grease. See the instruction on the fan cover . In the case of seasonal operation (motor is idle for more than 6 months of the year). It is recommended to grease the motor when the pump is taken out of operation.

Intall the pump according to the instruction makes pump work effectively and less maintenance.

-Mechanical seal auto adjust, interface between stationary ring and rotation ring lubricated and cooled by the pumping liquid.

-Sliding bearing lubricated by the pumping liquid.

9. Frost Protection



Pumps which are not being used during periods of frost should be drained to avoid damage.

Drain the pump by loosening the vent screw in the pump head and by removing the drain plug from the base. Care must be taken to ensure that the escaping water does not cause injury to persons of damage to the motor or other components. In hot-water installations, special attention should be paid to the risk of injury caused by scalding hot water. Do not tighten the vent screw and replace the drain plug until the pump is to be used again.

ECDL2,4

Before replacing the drain plug in the base, screw the bypass valve out against the stop. See fig.6. Fill the drain plug by tightening the large union nut followed by the bypass valve.

10.Model & Power(ECDL2,4,8,16,20)

Model	Power P ₂ (kW)	Voltage (V)
ECDL2-2	0.37	1 × 220-240V/3× 220/380V
ECDL2-3	0.37	1 × 220-240V/3× 220/380V
ECDL2-4	0.55	1 × 220-240V/3× 220/380V
ECDL2-5	0.55	1 × 220-240V/3× 220/380V
ECDL2-6	0.75	1 × 220-240V/3× 220/380V
ECDL2-7	0.75	1 × 220-240V/3× 220/380V
ECDL2-9	1.1	1 × 220-240V/3× 220/380V
ECDL2-11	1.1	1 × 220-240V/3× 220/380V
ECDL2-13	1.5	1 × 220-240V/3× 220/380V
ECDL2-15	1.5	1 × 220-240V/3× 220/380V
ECDL2-18	2.2	1 × 220-240V/3× 220/380V
ECDL2-22	2.2	1 × 220-240V/3× 220/380V
ECDL2-26	3.0	3 × 220/380V

Model	Power P ₂ (kW)	Voltage (V)
ECDL8-1	0.37	1 × 220-240V/3 × 220/380V
ECDL8-2	0.75	1 × 220-240V/3 × 220/380V
ECDL8-3	1.1	1 × 220-240V/3 × 220/380V
ECDL8-4	1.5	1 × 220-240V/3 × 220/380V
ECDL8-5	2.2	1 × 220-240V/3 × 220/380V
ECDL8-6	2.2	1 × 220-240V/3 × 220/380V
ECDL8-7	3.0	3 × 220/380V
ECDL8-8	3.0	3 × 220/380V
ECDL8-10	3.0	3 × 220/380V
ECDL8-9	4.0	3 × 380/660V
ECDL8-12	4.0	3 × 380/660V
ECDL8-14	5.5	3 × 380/660V
ECDL8-16	5.5	3 × 380/660V
ECDL8-18	7.5	3 × 380/660V
ECDL8-20	7.5	3 × 380/660V
ECDL8-22	7.5	3 × 380/660V

Model	Power P ₂ (kW)	Voltage (V)
ECDL20-1	1.1	1 × 220-240V/3 × 220/380V
ECDL20-2	2.2	1 × 220-240V/3 × 220/380V
ECDL20-3	4.0	3 × 380/660V
ECDL20-4	5.5	3 × 380/660V
ECDL20-5	5.5	3 × 380/660V
ECDL20-6	7.5	3 × 380/660V
ECDL20-7	7.5	3 × 380/660V
ECDL20-8	11	3 × 380/660V
ECDL20-10	11	3 × 380/660V
ECDL20-12	15	3 × 380/660V
ECDL20-14	15	3 × 380/660V
ECDL20-17	18.5	3 × 380/660V

Model	Power P ₂ (kW)	Voltage (V)
ECDL4-2	0.37	1 × 220-240V/3 × 220/380V
ECDL4-3	0.55	1 × 220-240V/3 × 220/380V
ECDL4-4	0.75	1 × 220-240V/3 × 220/380V
ECDL4-5	1.1	1 × 220-240V/3 × 220/380V
ECDL4-6	1.1	1 × 220-240V/3 × 220/380V
ECDL4-7	1.5	1 × 220-240V/3 × 220/380V
ECDL4-8	1.5	1 × 220-240V/3 × 220/380V
ECDL4-10	2.2	1 × 220-240V/3 × 220/380V
ECDL4-12	2.2	1 × 220-240V/3 × 220/380V
ECDL4-14	3.0	3 × 220/380V
ECDL4-16	3.0	3 × 220/380V
ECDL4-19	4.0	3 × 380/660V
ECDL4-22	4.0	3 × 380/660V

Model	Power P ₂ (kW)	Voltage (V)
ECDL16-1	1.1	1 × 220-240V/3 × 220/380V
ECDL16-2	2.2	1 × 220-240V/3 × 220/380V
ECDL16-3	3.0	3 × 220/380V
ECDL16-4	4.0	3 × 380/660V
ECDL16-5	4.0	3 × 380/660V
ECDL16-6	5.5	3 × 380/660V
ECDL16-7	5.5	3 × 380/660V
ECDL16-8	7.5	3 × 380/660V
ECDL16-9	7.5	3 × 380/660V
ECDL16-10	11	3 × 380/660V
ECDL16-12	11	3 × 380/660V
ECDL16-14	11	3 × 380/660V
ECDL16-17	15	3 × 380/660V

10.Model & Power(ECDL32,45,64)

Model	Power P ₂ (kW)	Voltage (V)
ECDL32-1-1	1.5	3 × 220/380V
ECDL32-1	2.2	3 × 220/380V
ECDL32-2-2	3.0	3 × 220/380V
ECDL32-2	4.0	3 × 380/660V
ECDL32-3-2	5.5	3 × 380/660V
ECDL32-3	5.5	3 × 380/660V
ECDL32-4-2	7.5	3 × 380/660V
ECDL32-4	7.5	3 × 380/660V
ECDL32-5-2	11	3 × 380/660V
ECDL32-5	11	3 × 380/660V
ECDL32-6-2	11	3 × 380/660V
ECDL32-6	11	3 × 380/660V
ECDL32-7-2	15	3 × 380/660V
ECDL32-7	15	3 × 380/660V
ECDL32-8-2	15	3 × 380/660V
ECDL32-8	15	3 × 380/660V
ECDL32-9-2	18.5	3 × 380/660V
ECDL32-9	18.5	3 × 380/660V
ECDL32-10-2	18.5	3 × 380/660V
ECDL32-10	18.5	3 × 380/660V
ECDL32-11-2	22	3 × 380/660V
ECDL32-11	22	3 × 380/660V
ECDL32-12-2	22	3 × 380/660V
ECDL32-12	22	3 × 380/660V
ECDL32-13-2	30	3 × 380/660V
ECDL32-13	30	3 × 380/660V
ECDL32-14-2	30	3 × 380/660V
ECDL32-14	30	3 × 380/660V

Model	Power P ₂ (kW)	Voltage (V)
ECDL45-1-1	3.0	3 × 220/380V
ECDL45-1	4.0	3 × 380/660V
ECDL45-2-2	5.5	3 × 380/660V
ECDL45-2	7.5	3 × 380/660V
ECDL45-3-2	11	3 × 380/660V
ECDL45-3	11	3 × 380/660V
ECDL45-4-2	15	3 × 380/660V
ECDL45-4	15	3 × 380/660V
ECDL45-5-2	18.5	3 × 380/660V
ECDL45-5	18.5	3 × 380/660V
ECDL45-6-2	22	3 × 380/660V
ECDL45-6	22	3 × 380/660V
ECDL45-7-2	30	3 × 380/660V
ECDL45-7	30	3 × 380/660V
ECDL45-8-2	30	3 × 380/660V
ECDL45-8	30	3 × 380/660V
ECDL45-9-2	30	3 × 380/660V
ECDL45-9	37	3 × 380/660V
ECDL45-10-2	37	3 × 380/660V
ECDL45-10	37	3 × 380/660V
ECDL45-11-2	45	3 × 380/660V
ECDL45-11	45	3 × 380/660V
ECDL45-12-2	45	3 × 380/660V
ECDL45-12	45	3 × 380/660V
ECDL45-13-2	45	3 × 380/660V

Model	Power P ₂ (kW)	Voltage (V)
ECDL64-1-1	4.0	3 × 380/660V
ECDL64-1	5.5	3 × 380/660V
ECDL64-2-2	7.5	3 × 380/660V
ECDL64-2-1	11	3 × 380/660V
ECDL64-2	11	3 × 380/660V
ECDL64-3-2	15	3 × 380/660V
ECDL64-3-1	15	3 × 380/660V
ECDL64-3	18.5	3 × 380/660V
ECDL64-4-2	18.5	3 × 380/660V
ECDL64-4-1	22	3 × 380/660V
ECDL64-4	22	3 × 380/660V
ECDL64-5-2	30	3 × 380/660V
ECDL64-5-1	30	3 × 380/660V
ECDL64-5	30	3 × 380/660V
ECDL64-6-2	30	3 × 380/660V
ECDL64-6-1	37	3 × 380/660V
ECDL64-6	37	3 × 380/660V
ECDL64-7-2	37	3 × 380/660V
ECDL64-7-1	37	3 × 380/660V
ECDL64-7	45	3 × 380/660V
ECDL64-8-2	45	3 × 380/660V
ECDL64-8-1	45	3 × 380/660V