

Pumps

Safe use advice for electric pumps for liquids having a temperature not exceeding 90 degrees Celsius intended for household and similar use. Rated voltage is no more than 250V for single phase appliances and 480V for other appliances.

Appliances not intended for normal household use, but which nevertheless may be a source of danger to the public—such as appliances intended for use by lay persons in shops, light industry and on farms—are covered by this advice.

Examples of these appliances:

- submersible pumps
- vertical wet pit pumps
- sludge pumps
- aquarium pumps
- pumps for garden ponds.

Submersible pumps for use in swimming pools when persons are in the pool must be Class III with the rated voltage not exceeding 12 Volts.

Other submersible pumps must either Class I (Earthed) or Class III (Extra Low Voltage eg 12 Volts).

Aquarium pumps may be Class II (Double Insulated).

When using the appliances:

This advice is not intended to replace specific manufacturer's information but can be used as a general guide.

This advice does not cater for young children or people who are physically weak.

- Earthed (class I) portable pumps for cleaning and other maintenance of swimming pools must not be used when people are in the water and when used must be supplied through a residual current device (safety switch) with a rated residual operating current not exceeding 30 mA.
- Earthed (class I) pumps for operating swimming pools shall be supplied by an isolating transformer, or supplied through a safety switch.
- For double insulated (class II) pumps intended to be fixed near a swimming pool or near a garden pond or similar place, the pump is to be located where flooding cannot occur. A sump without an adequate outlet for the liquid is considered to be a place where flooding is likely to occur.
- For pumps intended for use in outdoor fountains, garden ponds and similar places, the pump is required to be supplied through a safety switch.
- Note that in submersible pumps and vertical wet pit pumps containing lubricants, the liquid could become polluted through leakage of lubricants.
- If the pump is marked with a water temperature and operating time, do not exceed the maximum temperature or period marked.

- Stationary three-phase motors may require a protective device to be installed in the fixed wiring if not incorporated in the motor.

You are urged to:

- Use the appliance only for its intended purpose.
- If the appliance is for indoor use only, do not use outdoors.
- Do not immerse the appliance in water unless it is designed for this purpose.
- Keep hands, fingers, feet, toes and hair away from dangerous moving parts, cutting blades and the like.
- Do not use electrical appliances in the rain.
- Make sure you have dry hands when operating an electrical appliance.
- Do not use a damaged appliance.
- An appliance may not be intended for use by children or people with an illness or disability without supervision.
- Young children should not be allowed to play with the appliance.
- Some appliances require special precautions for installation or user maintenance or both.
- The plug must be removed from the socket-outlet before any cleaning or maintenance is done.
- Do not place cord extension sockets or portable power outlet boards where they may be splashed or where moisture may get in.
- Ensure ventilation holes or outlets are not blocked or partially obstructed.
- If a fixed appliance does not have a supply cord and plug or other means for disconnection from the supply, a means for disconnection must be incorporated into the fixed wiring according to the Wiring Rules.
- If the supply cord or plug is damaged:
 - The manufacturer or its service agent or a similarly qualified person must replace the cord to prevent an accident.
 - Appliances with specially prepared cords must be replaced by a special cord or assembly available from the manufacturer or its service agent.
 - Other appliances that have a supply cord that cannot be replaced, should be scrapped.
- The appliance should be maintained in order to ensure a long, useful life and to protect the operator against electric shock or mechanical mishaps.
- A safety switch can enhance electrical safety when using electrical appliances