

Tips for safe electricity use



Electricity is used widely and round-the-clock in our homes, for lighting, cooling, heating, and in multiple appliances for a variety of household functions. If used properly, electricity and electrical appliance/equipment usage is safe. But carelessness or not following safety practices can lead to accidents and dangerous consequences including fire and personal injury.

Given below are some practices that can be adopted for your safety.

What to do

- Install proper capacity fuse wire, Miniature Circuit Breaker (MCB) and Earth Leakage Circuit Breakers (ELCB) to ensure protection from voltage surges, overload and faulty equipment/wiring. It is mandatory to use an ELCB for loads of 2KW and above.
- Ensure that proper capacity fuse wire is used and proper earthing is done at your premises.
- Install such protective devices at an easily accessible place so they can be turned off in case of any emergency.
- Ensure that your wiring is in order and there is no loose/exposed wiring in your premise.
- Use ISI mark appliances, equipments, cables, wires, switches, protective devices etc.
- In case of any electrical fault or damage of electrical lines/equipments, don't touch any live part and immediately inform the electricity company.
- Use only CO2 or Dry Chemical Powder extinguishers for dousing electrical fires. Always keep fire extinguishers in working order.
- Turn off the switch before plugging in or removing or repairing any electrical appliance, or while replacing lamps (bulbs/tubes etc.).
- Use only one plug in a socket. Overloading the socket can be dangerous.
- Try to keep extension boards from away of children's reach. Don't keep plugs open.

- Use power cable with three pin plug electrical appliances
- Educate your children to not play with plugs, sockets, wires or other electrical equipments.
- Keep electrical appliances away from water.
- Replace loose switches and broken sockets on wall fittings immediately.

What not to do

- Don't use wires with joints, especially without proper insulation.
- Don't insert wires directly into the plug socket without appropriate sockets/ pins.
- Don't use metallic wires for hanging wet or damp clothes.
- Don't tie cloth hanging ropes with any electrical lines or supports.
- Don't touch any electrical wires / appliances with wet hands.
- Don't overload wires / appliances.
- Don't use water for extinguishing fires in the vicinity of live electrical wiring / apparatus.
- Don't carry out any construction or plant trees near overhead lines.
- Don't attend any fault in your premises yourself but get it done by licensed electrical contractor.
- Do not clean the electrical appliances with water/ do not clean blenders, LEDs, immersion water heaters, etc. with tap water in a sink/basin

Register your right electrical load



The concept of electrical load can be confusing for most of us. However, it is important to know a few things if you are planning to install and use multiple appliances/equipment which consume high electricity.

What is an electrical load?

Electrical load is the calculation of how much power is required to run everything that consumes electricity in your home. If your consumption is more than your current sanctioned electrical load, you need to increase it by applying to the DISCOM (electricity distribution company).

What is Sanctioned load?

Sanctioned Load (or connected load) is the total supply that is given to the meter. This is calculated in kW (or Kilo-Watts). It is the permissible total peak kW given based on the appliances connected to the meter. This is not your actual energy consumption.

Sanctioned load also determines if the connection will be single-phase or three-phase. Every DISCOM has a method of calculating the load to be sanctioned to an applicant. It varies widely based on factors including constructed area and assessment based on the load of the connected appliances.

In case you are installing heavy equipment like additional air conditioners, geyser, washing machine etc., get an assessment done for your load requirement. Apply to the DISCOM for increasing the connected load if required.

- Be smart while buying an appliance
- Know the exact power requirement of your appliance
- Check your usage
- Look for the right size of appliance
- Select energy efficient appliance



What is Star Label



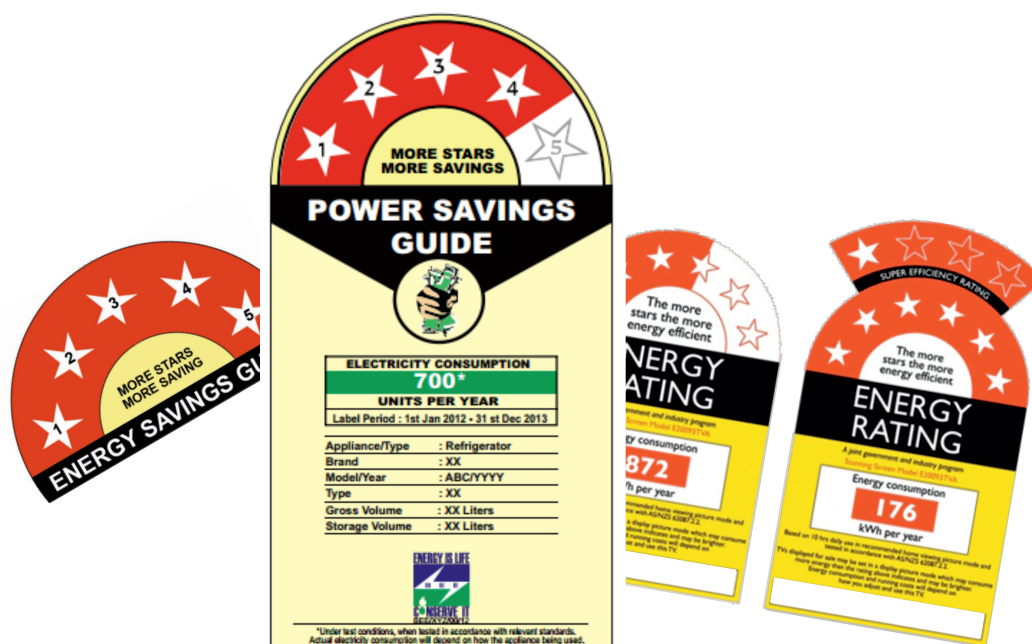
You may have seen star rating stickers on appliances such as refrigerators, air conditioners, etc. These are BEE Star Labels which show how much electricity the appliance consumes in a year. A higher star rating means a more efficient appliance, which means a lower electricity bill every month. The star labels are issued by the Bureau of Energy Efficiency (BEE), Ministry of Power.

Star labels have become an important factor while buying appliances as modern households have multiple appliances that consume a lot of electricity, such as ACs, refrigerators, geysers and even ceiling fans. If the usage of any appliance is high, such as in AC, one must go for a higher energy efficient appliance. For example, ACs can consume up to 1.5 units/hour of usage, which can be brought down to as low as 1.0 unit/hour.

Ceiling fans have a very high usage of 10-20 hours per day. Refrigerators and geysers can also contribute a lot to daily energy consumption. Therefore, purchasing energy efficient appliances with higher star ratings makes a lot of sense.

While it is mandatory for consumer appliances such as Air Conditioners, Refrigerators, Tubular Florescent Lamp, Color TVs, Electric Geysers and LED Lamps to have star label, manufacturers can voluntarily rate and give star labels to other appliances such as Ceiling Fans and Washing Machines.

A detailed guide on Star Ratings and Star Labels will be presented in a forthcoming issue of *Grahak Sathi*.



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