

# Soft Loading Transfer Switch

A Soft Load Power Transfer switch is a type of closed transition power transfer switch in which the switch synchronizes the two power sources and then makes connects them in parallel so that an uninterrupted supply of power can be generated for the sensitive loads.

## Working of a Soft Loading power Transfer Switch

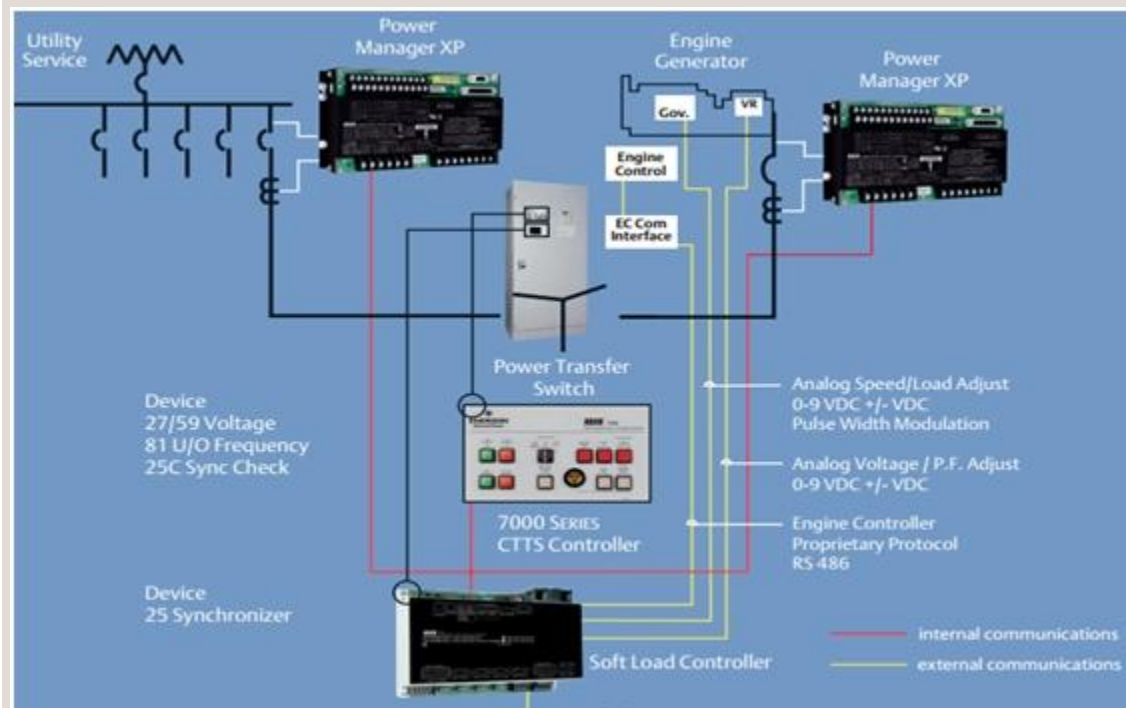
The functioning of the switch is such that it can connect both the power sources in parallel mode, as well as when a short time period has passed (almost somewhere near 100 milliseconds), it becomes able to switch to one contact only.

For e.g. if the soft loading power transfer switch has to change its contact from the primary power source to the backup set of generators, then it will synchronize the set of two power supplies and momentarily connect them in parallel, like a closed transition transfer switch momentarily closes its contact with both the power sources at such times.

Afterwards, the soft loading power transfer switch will open its contact from the primary power supply and maintain the contact with the backup generator set, after inculcating a preset load value in the generator.

So if any power supply fails in any condition, the load will automatically set to the available power, from either of the two sources, in which ever is it available.

Soft loading power transfer switch inculcated in a home unit with all the accessories is shown below:



## **Main features of a Soft loading Transfer Switch**

1. It automatically performs the power switching operation in case of failure of any unit.
2. Automatic synchronization of both the units, i.e. the backup generator set along with the main power supply source.
3. Allows inputs from the user to control the time delays according to the requirement of the load.
4. Keeps track of power factor of the generator during parallel operation to avoid any problem.

## **Advantages of a Soft Loading Power Transfer Switch**

These switches are the best solutions for a continuous, uninterrupted source of power. They serve as the safest remedy for sensitive equipment which is profound to an uninterrupted supply of power.

Better than the open transition transfer switches, which breaks the connections before making, or the closed transition passive switches, which fail to keep track of the safety features of the generator set, these soft loading switches takes care of both the things and provide the safest power supply.

They manage energy very efficiently and therefore are considered as one of the ideal solutions.

Source: <http://engineering.electrical-equipment.org/panel-building/soft-loading-transfer-switch.html>