

BLDC BASED CEILING FAN SOLUTION



THE CLIENT

The client is a leading client fan manufacturers.



BUSINESS NEED

The client envisaged a Brushless DC (BLDC) motor based ceiling fan control solution that ensures energy efficiency and ease-of-operation.



TECHNOLOGY USED

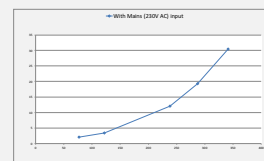
- ⦿ Sensors: Control Logic, Temperature Logic
- ⦿ Micro-controllers
- ⦿ Infrared transmitter



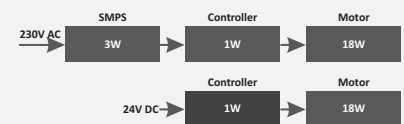
SOLUTION DELIVERED

- ⦿ Developed Control Logic for Hall sensor based speed control
- ⦿ Built Temperature sensor logic for speed variation
- ⦿ Incorporated infrared (IR) receiver for remote operation
- ⦿ Embedded short circuit and stall protection
- ⦿ Can be operated from 230V AC or 24V DC power supply
- ⦿ Built in features like Fan On/Off, Speed increase/decrease, Temperature Sensor enable/disable, etc through IR remote

Power Consumption vs Speed



Total Power Consumption breakup



BUSINESS BENEFITS

This path-breaking solution offers a number of unique benefits including:

- ⦿ 50 to 60% power savings compared to conventional ceiling fans
- ⦿ Low noise
- ⦿ Easy remote control based operation

ABOUT ALTEN CALSOFT LABS

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