Mitigation method/Results/Conclusion

The acoustic problem originated in the mutual coupling of the switching noise of the motor. To solve this problem, it was decided to apply a common mode filter to the telecommunication line and an isolation transformer to the mains power line (see Figure 1.3-4). The isolation transformer with a filter was attached to the mains power line, and the filter was located as near as possible to the motor, so as to prevent the switching noise from travelling along the cable. The common mode filter at the MDF was attached to the telecommunication line.

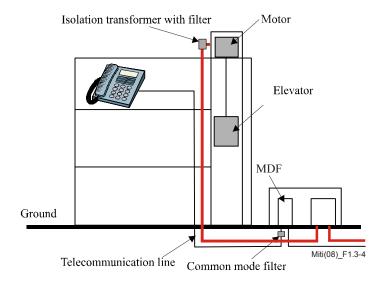


Figure 1.3-4 – Applied mitigation using common mode filter

References

Rec. ITU-T K.37; Annexes A and B.