Fig. 7 Prediction of the ventilation system's working conditions in the Goldwind S 50/750 wind turbines installed in the Wind Farm Gibara II.

IV. CONCLUSIONS

When the wind reaches speeds that exceed 11.5 m/s, major aggregates such as the gearbox and the generator fail. Alarms and programmed actions to relate the failures in the cooling system with the technical availability of the equipment, are automatically generated. Fluctuations in the gondola's temperatures cause overexploitation of the equipment, when they reach the limits established in the unwanted condition states in their technical exploitation. The results obtained in the investigation disagree with what is established by the manufacturer. With the use of ICT tools, the forced ventilation system's working conditions can be determined preventively and automatically operated to achieve the desired heat transfer values and maintain the desired operational, technical availability.

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