



Based on B737NG and B787, the laboratory is a comprehensive power distribution laboratory built in the loop from aircraft power grid to load, enabling researchers to have an in-depth understanding of aircraft power distribution form, circuit protection form and load characteristics and other professional contents.

The first part is the traditional power distribution system, which realizes the construction of the power distribution laboratory of the traditional electro-mechanical way for line protection and centralized power distribution, including the power distribution theory and engineering simulation of the domestic mainstream B737-300/400/500/NG, B757/767-200, A320, A330 and other aircraft. Static converters are used to achieve 115V/400Hz AC power supply for aircraft. 28V DC power supply is used to realize aircraft TRU DC power supply. Electro-mechanical jump switch is adopted to realize centralized layout of jump switch panel. The rated resistance, trip resistance and motor load are used to simulate aircraft load.

The second part is automatic power distribution system, which realizes the protection of solid state automatic power distribution line for the new generation of aircraft power distribution mode and the construction of distribution laboratory for distributed power distribution mode. The system core components include automatic power distribution processor, remote power distribution component (RPDU), SSPC, and etc. By using distributed distribution technology and load automatic

management technology, the power distribution theory and engineering simulation of B787 and A380 are well realized.