

## **IS 8148: 2018 Ducted and Package Air-Conditioners — Specification (*Second Revision*)**

This Standard specifies performance testing, the standard conditions and the test methods for determining the capacity and efficiency ratings of air-cooled air-conditioners and air-to-air heat pumps. This standard was first published in 1976 and subsequently revised in 2003. Current is the second revision of the standard.

This standard outline performance specifications, testing methods, and standard conditions for air conditioners with a cooling capacity of 3,500 watts or more. It covers both residential and commercial units, as well as split and unitary systems with air or water-cooled condensers. The methods of test for room air conditioners of capacity up to 10 500 W is specified in IS 1391 (Part 1) : 2017 'Room air conditioners — Specification: Part 1 Unitary air conditioner' and up to 18 000 W is specified in IS 1391 (Part 2) : 2018 'Room air conditioners — Specification: Part 2 Split air conditioners'.

Key tests in this Standard assess cooling and heating capacities, energy efficiency, and performance under different environmental conditions. The document emphasizes energy ratings, focusing on the Indian Seasonal Energy Efficiency Ratio (ISEER) to measure annual energy use in typical conditions. It also includes procedures for sound testing, leakage tests, and safety requirements, ensuring that all parts are durable and safe. Performance testing involves running units at full load and adjusting settings for maximum cooling and heating capabilities. Additionally, the standard provides marking guidelines for manufacturers to include essential information like model, capacity, and safety ratings on each unit.