energy efficiency

Star Ratings in ACs

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Since early 2016, the Bureau of Energy Efficiency (BEE) has introduced a new star rating methodology called Indian Seasonal Energy Efficiency Ratio (ISEER) for air conditioners. This evolved rating methodology factors in variance in higher temperature in India and rates air conditioners accordingly.

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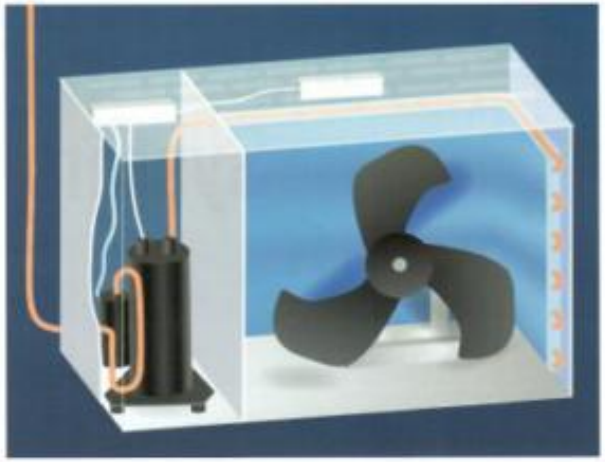
Since the introduction of Star Labelling for ACs in India, BEE continuously tightens the standards such that, the Star 5 in 2010 became Star 3 in 2015 and will become Star 1 in 2018 as per new ISEER methodology. The weighted average Energy Efficiency Ratio (EER) of AC has increased from 2.6 in 2006 to 3.26 in 2015, which is an increase of 25% in efficiency due to tightening of standards.

Since 2010, Bureau of Energy Efficiency has mandated air conditioners as a mandatory-labelled appliance under Energy Conservation Act and since then air conditioners cannot be sold without star label. Now as per latest notification, from January 2016, Star 2 is the least efficiency level to be sold in the market, hence variation in power consumption is compared between Star 5 (most efficient) and Star 2 (least efficient) air conditioners.

Air conditioning already accounts for 40-60% of summer peak load in large Indian cities such as Delhi and is on track to contribute 140 gigawatts (GW) (~30%) to peak demand in 2030. India's standards and labeling policies improved the market average efficiency of room ACs by about 35% between 2006 and 2016 (3% per year) even as inflation-adjusted room AC prices continued to decline.

As per a report by Lawrence Berkeley National Laboratory, if, starting in 2018, the market average room AC efficiency improves by 6% per year instead of the current 3% per year, about 39 GW of peak load (equivalent to about 80 power plants of 500 MW each), and more than 64 TWh per year of energy (equivalent to the current electricity consumption of the entire state of Gujarat) could be saved by 2030.

It is essential to understand that the purchase of an AC Unit has to be made considering the overall lifetime cost rather than merely the initial cost of the AC Unit, which includes cost of operations, maintenance, repair and cost of replacement. Keeping in mind the efficiency and durability of the AC, International Copper Association of India (ICA India) started a campaign on 100% Copper ACs' to arm the consumers with key points to bear in mind to make a wise and informed decision.



Make a smart investment this summer by choosing an air conditioner that meets your requirements. Also, maintaining and operating an air conditioner correctly can help you save a lot of electricity and reduce your electricity bills. So do make sure that you get your AC in right condition before the summer starts. ■

Avinash Khemka
Chief Manager – HVAC,
International Copper
Association India