

**Table 502.01 (1): Minimum Efficiency Requirements for Chillers**

Chillers Equipment Type	Size Category	Minimum Efficiency (T1)	Minimum Efficiency (T3)	Test Procedure
Air cooled, with condenser, electrically operated	All capacities	2.8 COP 3.05 IPLV	1.9 COP	T1-ARI 550/590 T3-ISO 5151
Air cooled, without condenser, electrically operated	All capacities	3.1 COP 3.45 IPLV	2.1 COP	
Water cooled, electrically operated, positive displacement (reciprocating)	All capacities	4.2 COP 5.05 IPLV	2.75 COP	T1-ARI 550/590 T3-ISO 5151
Water cooled, electrically operated, positive displacement (rotary screw and scroll)	<150 tons	4.45 COP	2.9 COP	T1-ARI 550/590 T3-ISO 5151
	>=150 tons and <300 tons	4.9 COP	3.2 COP	
	>= 300 tons	5.6 COP	3.6 COP	
Water cooled, electrically operated, centrifugal	<150 tons	6.0 COP		T1-ARI 550/590
	>=150 tons and <300 tons	6.5 COP 7.1 IPLV		
	>= 300 tons	6.5 COP 7.68 IPLV		
Air cooled absorption single effect	All capacities	0.7 COP		ARI 560
Water cooled absorption single effect	All capacities	0.7 COP		
Absorption double effect indirect-fired	All capacities	1.1 COP 1.1 IPLV		
Absorption double effect direct-fired	All capacities	1.2 COP 1.2 IPLV		

- The chiller equipment requirements apply to all chillers, including where the design leaving fluid temperature is < 4.5° C.

## SIGNIFICANCE

HVAC systems are the main energy consuming sources in a building. Selection of energy efficient system not only reduces energy consumption but also increases overall lifespan of the equipment. Further this leads to operating cost savings, faster payback periods and reduced environmental pollution.

The energy efficiency standardization and labelling (EESL) program encourage the manufacturers to develop new technologies for higher efficiency levels and it continuously raises the efficiency bar of the appliances.

## APPLICABILITY

This regulation is applicable to all building types. Refer to Table 101.07(1) in Section One - Administration for detailed applicability levels.