

NEW Mandatory Energy Labelling Scheme (MELS) & Minimum Energy Performance Standards (MEPS) Requirements for Single-Phase Air-Conditioners, Refrigerators, and Clothes Dryers

With effect from 1 Jan 2022, new MEPS and Standby Power requirements for single-phase air-conditioners, refrigerators, and clothes dryers will be introduced, as illustrated in the tables below:

MEPS for Casement or Window Type Air-conditioners

Capacity	Current MEPS	Revised MEPS
Up to 8.8kW	$COP_{100\%} \geq 2.9$	$COP_{100\%} \geq 3.78$

- "COP" means Coefficient of Performance

MEPS for Split Type Air-conditioners

Type	Cooling capacity	Current MEPS	Revised MEPS
Single/Multi Split (inverter)	Up to 17.6kW	$COP_{100\%} \geq 3.34$	$COP_{100\%} \geq 3.34$
		$COP_{weighted} \geq 3.78$	$COP_{weighted} \geq 4.04$
Single/Multi Split (non-inverter)		$COP_{100\%} \geq 3.78$	$COP_{100\%} \geq 4.04$

- $COP_{weighted} = 0.4 \times COP_{100\%} + 0.6 \times COP_{50\%}$

Stand-by Power Requirements for Split Type Air-conditioners

Tick		2-tick	3-tick	4-tick	5-tick
Energy efficiency rating		Fair	Good	Very Good	Excellent
Single-split	inverter/non-inverter (Up to 17.6kW)	Standby power (in Watts)	N.A.	Current requirement: N.A Revised requirements: $\leq 9 \times N$	$\leq 2 \times N$
Multi-split					Current requirement: $\leq 9 \times N$ Revised requirements: $\leq 7 \times N$

- N = number of indoor and outdoor units

MEPS for Refrigerators

Type of Refrigerators	Adjusted Volume, $V_{adj\ tot}$	Current MEPS	Revised MEPS
Without freezer	Up to 900L	$AEC \leq [(368 + 0.892 \times V_{adj\ tot}) \times 0.551]$	$AEC \leq [(368 + 0.892 \times V_{adj\ tot}) \times 0.461]$
With freezer	Up to 300L	$AEC \leq [(465 + 1.378 \times V_{adj\ tot}) \times 0.553]$	$AEC \leq [(465 + 1.378 \times V_{adj\ tot}) \times 0.427]$
	> 300L to 900L	$AEC \leq [(465 + 1.378 \times V_{adj\ tot}) \times 0.506]$	
With freezer and through-the-door ice dispenser	Up to 900L	$AEC \leq [(585 + 1.378 \times V_{adj\ tot}) \times 0.485]$	$AEC \leq [(585 + 1.378 \times V_{adj\ tot}) \times 0.409]$

- $V_{adj\ tot}$ is defined as the sum of the adjusted volumes of the refrigerator compartments.
- "Through-the-door ice dispenser" means an automatic ice maker coupled with a device that delivers ice on demand externally through a door.
- "AEC" means Annual Energy Consumption.

MEPS for Clothes Dryers

Capacity	Current MEPS	Revised MEPS
Up to 10kg	$EC \leq [\text{Rated Capacity} \times 0.67]$	$EC \leq [\text{Rated Capacity} \times 0.55]$

- "Rated Capacity" means the mass in kilograms of a particular type of dry textiles which, according to the instructions of the manufacturer of the clothes dryer, can be treated in a particular drying programme suitable for drying the particular type of dry textile.
- "EC" means Energy Consumption in kWh per wash.