

Ref: NEA-LSD-CIRCULAR-ECA-00001-2022

Date: 3-Jan-22

Designated Company Representatives, Registered Air-Conditioner, Refrigerator and Clothes Dryer Suppliers under the Energy Conservation Act (ECA)

Dear Sir/Madam

Amendments to the Energy Conservation (Regulated Goods and Registered Suppliers) Regulations 2017 under the Energy Conservation Act (ECA)

1 This circular seeks to inform you that the Gazette notification on the Energy Conservation (Regulated Goods and Registered Suppliers) Regulations 2017 (Amendment No. 2) Order 2021 was published on 30 Dec 2021 (refer to the link in the para. 3 table below).

2 With effect from 1 Jan 2022, all single-phase air conditioners, refrigerators and clothes dryers sold in Singapore must meet the revised Minimum Energy Performance Standards (MEPS) and revised standby power requirements as illustrated in the tables below:

MEPS for Refrigerators

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

- $V_{adj\ tot}$ 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	Revised MEPS
Up to 10kg	$EC \leq \text{Rated Capacity} \times 0.55$

- “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.

MEPS for Casement or Window Type Air-conditioners

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

- “COP” means Coefficient of Performance

MEPS for Split Type Air-conditioners

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

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

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.	New requirement: $\leq 9 \times N$		$\leq 2 \times N$
Multi-split						Revised requirement: $\leq 7 \times N$

- N = number of indoor and outdoor units

3 Should you require further clarifications, please contact Tel: 6731-9952 or Email: nea_energylabel@nea.gov.sg. Thank you.

Description	Link
Energy Conservation (Regulated Goods and Registered Suppliers) (Amendment No. 2) Regulations 2021	https://sso.agc.gov.sg/SL-Supp/S995-2021/Published/20211230?DocDate=20211230

Yours faithfully
(Transmitted via email)



Suresh K
Director (Carbon Mitigation Division)
For Director-General (Environmental Protection)
National Environment Agency