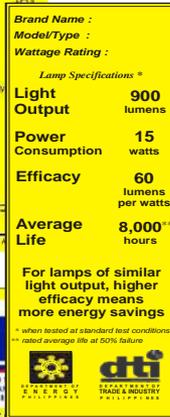


E-POWER MO with ENERGY LABELS

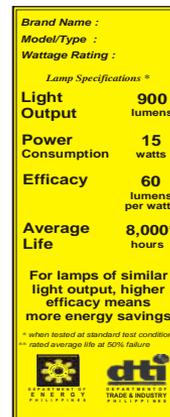
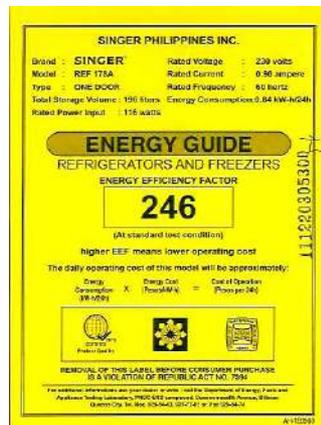
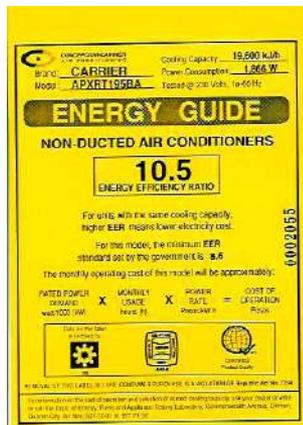


Kaycee B. Victorio, REE, RME

E-Power Mo! Communicating Efficiency Across the Energy Sector
 24 April 2018 | Hotel Supreme Convention Plaza
 111 Magsaysay Avenue, Baguio City

What is an Energy Label?

ENERGY LABELS or **Energy Guides** are yellow cards commonly seen with household appliances and lighting products. The number in Energy Labels indicates the efficiency of a product in terms of electricity consumption.



What is an Energy Label?

With **ENERGY LABELS**...

The HIGHER the efficiency rating,
The LOWER the appliance consumes electricity!

ENERGY GUIDE
NON-DUCTED AIR CONDITIONERS

10.5
ENERGY EFFICIENCY RATIO

For units with the same cooling capacity, higher EER means lower electricity cost.

For this model, the minimum EER standard set by the government is **8.6**.

The monthly operating cost of this model will be approximately:

UNITED POWER	USABILITY	SAFETY	COST OF
DRIVING	CONCEPT	SALES	OPERATION
was 1000 (P=)	have 10	check 10	Peak

0002055

ENERGY GUIDE
REFRIGERATORS AND FREEZERS

246
ENERGY EFFICIENCY FACTOR

(At standard test condition)

higher EEF means lower operating cost

The daily operating cost of this model will be approximately:

Energy Consumption	Energy Cost	Cost of Operation
X (kWh/24hr)	=	(P=per day)
18 (kWh)		

REMOVAL OF THIS LABEL BEFORE CONSUMER PURCHASE IS A VIOLATION OF REPUBLIC ACT NO. 7594

11220305300

Brand Name : SINGER
Model/Type : REF 175A
Wattage Rating : 15 watts

Lamp Specifications *

Light Output 900 lumens
Power Consumption 15 watts
Efficacy 60 lumens per watt
Average Life 8,000** hours

For lamps of similar light output, higher efficacy means more energy savings

* when tested at standard test conditions
** rated average life at 50% failure

dti

BALLAST EFFICACY FACTOR

2.6

Based on standard test condition

dti
DEPARTMENT OF TRADE AND INDUSTRY PHILIPPINES

0512-345678

Important: HIGHER BEF means HIGHER SAVINGS

Brand Name : LAMPS
Model/Type : Brightest
Light output, lumens : 2880
Wattage rating, watts : 36

EFFICACY**

80
lumens/ watt

based on standard test condition

dti
DEPARTMENT OF TRADE AND INDUSTRY PHILIPPINES

0512-345678

Important: For lamps with same wattage rating, HIGHER EFFICACY means MORE ENERGY SAVINGS

THE MINIMUM EFFICACY SET BY THE GOVERNMENT FOR THIS TYPE OF LAMP IS 70 lumens per watt



Why is **Energy Label** is important?



- Consumers will patronize products that are **certified** and with **higher efficiency rating**
- **Maintains or lower** the consumption of electricity
- Helps the **environment**



Which products have **Energy Labels**?

See energy labels on:

- **Air conditioners**
- **Refrigerators (5-8 cu. ft)**
- **Lamp ballasts**
- **Fluorescent lamps**
(compact, linear, circular)



Coming soon with:

- **TV**
- **Washing machines**
- **Small and large refrigerators**



Energy Label on Air Conditioners

- Split- and window-type air conditioners
- **Cooling capacity** from **1,340 up to 36,000 kJ/h** (or equivalent to **0.5-13.0 Hp**)
- Look for **Energy Efficiency Ratio** or **EER**
- **The higher the EER, the lower the electricity consumption!**



Energy Label on Air Conditioners

MALAMIG COOLING CORPORATION

Brand : Cool Cooling Capacity : 12,000 kJ/h
Model : MCC-123456 Power Consumption : 930 W
Type : Window-type RAC Frequency : 60 Hz/1 Phase/ 220-230 V

ENERGY GUIDE

ROOM AIR CONDITIONERS

12.9
ENERGY EFFICIENCY RATIO

For units with the same cooling,
higher EER means lower electricity cost.
For this model, the minimum EER standard
set by the government is 9.1.

The monthly operating cost of this model will be approximately:

RATED POWER DEMAND Watt/1 000 (kW)	X	MONTHLY USAGE Hours (h)	X	POWER RATE Pesos/kW-h	=	COST OF OPERATION Pesos
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Date on this label is certified by:



**REMOVAL OF THIS LABEL BEFORE CONSUMER PURCHASE
IS A VIOLATION OF REPUBLIC ACT NO. 7394**

For additional information, ask your dealer or write or call the
Department of Energy, Lighting and Appliance Testing Laboratory,
Energy Center, Rizal Drive corner 34th Street, Fort Bonifacio, Taguig City.
Tel. No. 479-2900 local 419 • Fax 840-5562

← Specifications

← EER or Energy Efficiency Ratio

← MEPS or Minimum Energy Performance Standards

← Operating Cost Computation

← For more information



Energy Label on Air Conditioners

- Choosing the right size of air conditioner, it is important to know its **cooling capacity**
- **Cooling Capacity** is the ability of the air conditioner to cool a certain space in an hour
- ***Rough Estimate Method:***
C.C. = Floor area x 500

Comparison table of Air Conditioner Compressor Ratings

Compressor Rating (Hp)	Cooling Capacity Equivalent (kJ/h)
0.75	7,385 – 8,440
1.0	9,495 – 10,550
1.5	12,660 – 13, 290
2.0	18,990 – 20,045
2.5	25,320 – 26,580



Use Air Conditioners Properly



- Position air conditioner in **appropriate place**



Use Air Conditioners Properly



- Position air conditioner in appropriate place
- Ensure there is **enough insulation**



Use Air Conditioners Properly



- Position air conditioner in appropriate place
- Ensure there is enough insulation
- Check **thermostat** of your unit



Use Air Conditioners Properly



- Position air conditioner in appropriate place
- Ensure there is enough insulation
- Check thermostat of your unit
- **Always clean** your air conditioner



Energy Label on Refrigerators

- Direct cooling and No frost cabinets
- From **5 up to 8 cu. ft.** (or equivalent to **141-227 liters**)
- Look for **Energy Efficiency Factor** or **EEF**
- **The higher the EEF, the lower the energy consumption**



Energy Label on Refrigerators

MALAMIG COOLING CORPORATION

Brand: Coolers
Model: MCC-123456
Type: Direct Cool – Two Door
Total Storage Volume: 271 Liters
Rated Power Input: 140 Watts

Rated Voltage: 230 Volts
Rated Current: 1.06 Amperes
Rated Frequency: 60 Hertz
Energy Consumption: 1.38 kW-h/24h

ENERGY GUIDE
REFRIGERATORS AND FREEZERS

ENERGY EFFICIENCY FACTORS

230

(At Standard Test Conditions)

Higher EEF means lower operating cost

The daily operating cost of this model will be approximately:

Energy Consumption (kW/24h)	X	Energy Cost Pesos/ kWh	=	Cost of Operation (Pesos/24h)
--------------------------------	---	---------------------------	---	----------------------------------

Data on this label is certified by:



REMOVAL OF THIS LABEL BEFORE CONSUMER PURCHASE IS A VIOLATION OF REPUBLIC ACT NO. 7394

For additional information, ask your dealer or write or call the Department of Energy, Lighting and Appliance Testing Laboratory, PNOC-ERDC Compound, Commonwealth Avenue, Diliman, Quezon City, Tel. Nos.: 479-2900 loc. 559 / 927-7201 • Fax: 927-7137

← Specifications

← EEF or Energy Efficiency Factor

← Operating cost computation

← For more information



Use Refrigerators Properly



- **Use the right size of refrigerator accordingly**



Use Refrigerators Properly



- Use the right size of refrigerator accordingly
- Place your unit in an **appropriate space** inside your home



Use Refrigerators Properly



- Use the right size of refrigerator accordingly
- Place your unit in an appropriate space inside your home
- Avoid **frequent opening** of your refrigerator



Use Refrigerators Properly



- Use the right size of refrigerator accordingly
- Place your unit in an appropriate space inside your home
- Avoid frequent opening of your refrigerator
- **Defrost and clean** your refrigerator regularly



Use Refrigerators Properly



- Use the right size of refrigerator accordingly
- Place your unit in an appropriate space inside your home
- Avoid frequent opening of your refrigerator
- Defrost and clean your refrigerator regularly
- Check the magnetic **rubber gasket**



Energy Label on Lamp Ballasts



What does BALLAST do?

- Serves as gateway to the light source
- Corrects the lamp voltage
- Matches line voltage to the operating voltage of the lamp
- Limits the flow of electricity in the lamp
- The ballast power should be the same with that of the *fluorescent lamp* being used



Energy Label on Lamp Ballasts

- Two types: **magnetic** and **electronic**
- Look for **Ballast Efficacy Factor** or **BEF**
- The higher the BEF, the lower the electricity it consumes!



Based on standard test condition

2.6

BALLAST EFFICACY FACTOR



0512-345678

Important: HIGHER BEF means HIGHER SAVINGS



Energy Label on CFLs

- **Compact fluorescent lamps or CFLs** are miniaturized fluorescent lamps as substitute to incandescent bulbs
- Includes **self-ballasted lamps** from **3 up to 65 watts**
- Look for the **Efficacy**
- The higher the **efficacy**, the **lower the electricity it consumes**



Energy Label on CFLs

Brand Name: **MALIWANAG**
Model/Type: **2U15W**

Lamp Specifications¹

Light Output	900 lumens
Power Consumption	15 watt
Efficacy ³	60 lumens per watt
Average Life ²	8000 hours

For lamps of similar light output, higher efficacy means more energy saving

¹ when tested at standard test condition
² rated average life at 50% failure
³ The minimum efficacy set by the Government for this type of lamp is 57 lumens per watt.

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- ← **Lighting Output** total amount of light produce by the source
- ← **Power Consumption** total amount of electricity consume by the souce
- ← **Efficacy** indicated the efficiency in which the electricity is converted into light
- ← **Average Life** expected median value of lamp expectancy of lamps affected by burning hours



The yellow label.
Empowering the
Filipino Consumers.



Use CFLs Properly

- Use **CFL** instead of incandescent bulb



25 W

500 lumens

25 W x 9 bulbs

500 lumens



Use CFLs Properly

- Use CFL instead of incandescent bulb
- Install CFL **vertical-base up**



Use CFLs Properly

- Use **CFL** instead of incandescent bulb
- Install CFL vertical-base up
- **Use proper wattage** according to your needs



Use CFLs Properly

- Use **CFL** instead of incandescent bulb
- Install CFL **vertical-base up**
- **Use proper wattage** according to your needs
- **Clean lamps and luminaires** regularly



Use CFLs Properly

- Use **CFL** instead of incandescent bulb
- Install CFL **vertical-base up**
- **Use proper wattage** according to your needs
- **Clean lamps and luminaires** regularly
- Do not use **blinking** and **uncertified lamps**



Energy Label for Other Fluorescent Lamps

- Double-capped, Triphosphor and halophosphate linear and circular fluorescent lamps
- Look for **Efficacy**
- **The higher the efficacy, the more efficient the fluorescent lamp is!**



Energy Label for Other Fluorescent Lamps

Brand Name: MALIWANAG LAMPS **EFFICACY***

Model/Type: U2-LFL

Light Output, lumens: 2880

Wattage rating, watts: 36

80



*based on standard test condition.

Important: For lamps with same wattage rating, Higher Efficacy means more saving.
THE MINIMUM EFFICACY SET BY THE GOVERNMENT FOR THIS TYPE OF LAMP IS 78 lumens per watt

001061212T36D

Brand Name: MALIWANAG LAMPS **EFFICACY***

Model/Type: U2-FFL

Light Output, lumens: 2240

Wattage rating, watts: 32

70



*based on standard test condition.

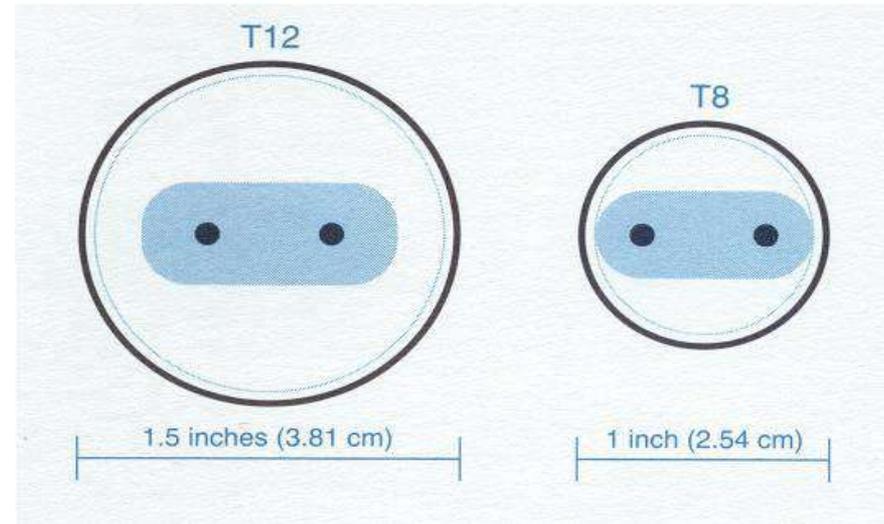
Important: For lamps with same wattage rating, Higher Efficacy means more saving.

001061212T36D



Use Fluorescent Lamps Properly

- Replace blinking lamps with **slimmer fluorescent lamp**



Use Fluorescent Lamps Properly

- Replace blinking lamps with **slimmer fluorescent lamp**
- **Dispose busted lamps** properly

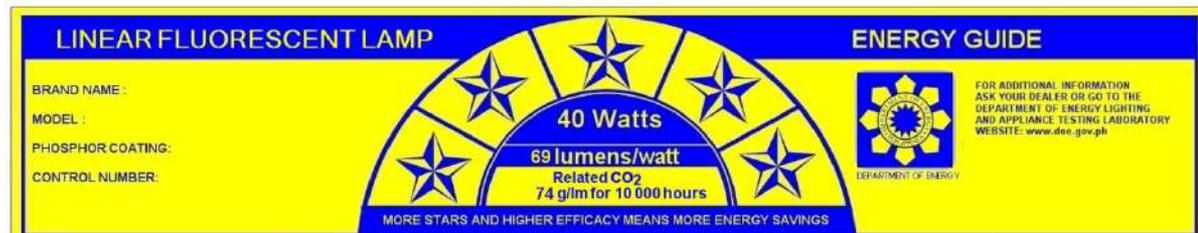
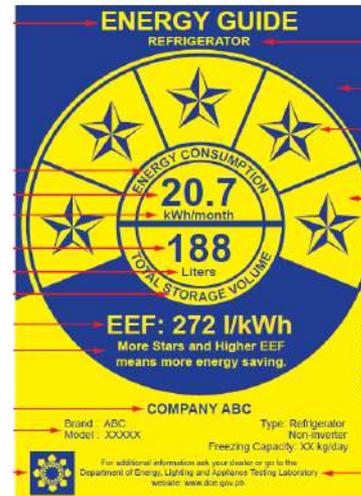


Use Fluorescent Lamps Properly

- Replace blinking lamps with **slimmer fluorescent lamp**
- **Clean lamps and luminaires** regularly
- Lighting products such as lamps, ballasts, and luminaires have **product warranties**



The Future of Energy Labels



Products with **Energy Label** has...

For our Proudly Philippine Made
and has passed the Philippine
National Standard



For imported items that has
passed the Philippine National
Standard



Visit our website – www.doe.gov.ph

www.doe.gov.ph/energy-labelling

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DEPARTMENT OF ENERGY
 TAGUIG CITY, PHILIPPINES 1632

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ENERGY EFFICIENCY

- PESLP-IG
- ENERGY EFFICIENCY
- ENERGY EFFICIENCY PROGRAM (EC WAY OF LIFE)

ENERGY LABELING 2016

- Refrigerators
- Room Air Conditioners
- Room Air Conditioners

LIST OF CERTIFIED REFRIGERATORS AS OF SEPTEMBER 2016

	BRAND	MODEL	TYPE	TOTAL STORAGE VOLUME (liters)	ENERGY CONSUMPTION (kW-h/24h)	EEF
A. Locally Manufactured Models						
1	SANYO	SR-D39TMS	Two Door/Direct Cooling	372	1.96	167
2	SAMSUNG	RT32FAJCDSP	Frost Free - Inverter Type	322	1.06	367
3	SAMSUNG	RT32FARCDSP	Frost Free - Inverter Type	322	1.11	336
4	SANYO	SR-D49T	Two Door/Direct Cooling	322	2.15	180
5	SAMSUNG	RT32K5032SL	Frost Free Inverter	321	0.89	415
6	SAMSUNG	RT29FAJBDSP	Two Door/Automatic Defrost	302	0.95	372
7	SAMSUNG	RT29FARBDSP	Frost Free Inverter	302	0.95	372
8	SAMSUNG	RT37STPN	Frost Free	304	1.44	259
9	SAMSUNG	RT41LSPN	Frost Free	327	1.47	263
10	SAMSUNG	RB29K5032UT	Frost Free	300	0.86	404
11	SAMSUNG	RT29K5032SL	Frost Free	300	0.86	404
12	SAMSUNG	RT29K5132SL	Frost Free Inverter	300	0.86	404
13	SAMSUNG	RB29FERNDSS	Frost Free - Inverter	290	1.05	356
14	SHARP	SJ-38T-SL	Frost Free	288	1.72	198
15	PANASONIC	NR-B10714B	Frost Free	288	1.36	250
16	PANASONIC	NR-B10715B	Two Door/Direct Cooling	289	1.38	250
17	CONDURA	CTD310MN	Two Door/Direct Cooling	278	1.26	267
18	CONDURA	CTD310MN-G1	Two Door/Direct Cooling	278	1.59	220
19	KELVINATOR	KTD310MN-G1	Two Door/Direct Cooling	278	1.59	220
20	CONDURA	CTD310MN-G1a	Two Door/Direct Cooling	278	1.32	258



Thank You!



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For more information

- All information stated in this presentation are available online in the Department of Energy Philippines Website. www.doe.gov.ph.
- To learn more about the lighting products, consult *Manual of Practice on Efficient Lighting*. Printed by the Institute of Integrated Electrical Engineers of the Philippines, Inc. and the Department of Energy Philippines(2011).
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- Unless otherwise stated, all pictures are taken from the internet.

