

# ENERGY



สถาบันไฟฟ้าและอิเล็กทรอนิกส์  
ELECTRICAL AND ELECTRONICS INSTITUTE

## Test Services

### ■ Performance Requirements

- Total Cooling Capacity
- Sensible Cooling Capacity
- Latent Cooling Capacity
- Heating Capacity

### ■ Safety Requirements

- Insulation Resistance
- Withstanding Voltage of Insulation
- Insulation Distance

## Products Covered and Standards

### ■ Air - Cooled Split Type

- Wall Mounted Type
- Floor and Ceiling Type

### ■ Air - Cooled Window Type

- Window Type
- Splash Type
- Sling - Up Type

TIS 1155, TIS 2134, ISO 5151, JIS B 8615  
JIS B 8616, JIS B 9612, SSA 385  
Energy Label No. 5 (EGAT)

## Measurements

### ■ Balanced Ambient Room-Type Calorimeter

## Measurement Item

1. Total Cooling Capacity or Heating Capacity
2. Sensible Cooling Capacity
3. Latent Cooling Capacity
4. Power Input
5. Power Source Frequency
6. Source Voltage
7. Source Current
8. COP of EER
9. Refrigerant Pressure
10. General Purpose Temperature



Energy Label  
No. 5 (EGAT)



Calorimeter Control Panel



Calorimeter

### Rating Capacity

1. Cooling Capacity : 4,000 - 40,944 BTU/hr
2. Heating Capacity : 4,000 - 44,000 BTU/hr

### Capability

4-6 Samples / day

### Repeatability

Test results repeatables within 1.5%

### Heat Balance

Heat Balance within 4% for UUT capacities

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# REFRIGERATOR / FREEZER

## Test Services

- Pull down test
- Energy - Consumption Test
- Testing the airtightness of door or lid seal
- Testing the opening force of door or lid
- Testing the durability of hinges and handles of door and lid
- Testing the mechanical strength of shelves and similar component
- Testing the storage temperatures
- Temperature rise test
- Freezing test
- Ice making test
- Storage volume



## Products Covered and Standards

- Refrigerators without freezer
- Refrigerator / Freezer
- Commercial Closed Food and Beverage Coolers
- Closed Food Freezers

TIS 455, TIS 1235, ISO 7371, ISO 8561, ISO 8187  
AS/NZS 4474, EN 441, Energy Label No. 5 (EGAT)  
Green Label (Thailand)



Roomy Chamber (walk-in Type)



Energy Label No. 5 (EGAT)



Temperature Sensor

## Measurements

### ■ Roomy Chamber (Walk-In Type)

1. Temperature range : 0-80 °C  
Controllable range : Within  $\pm 0.5$  °C
2. Humidity range : 30 - 80 % RH  
Controllable range : Within  $\pm 3-5$  °C  
Capability : 9 Samples / Times

For more information, please send your queries or contact us at the following:

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