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# **The Hong Kong Voluntary Energy Efficiency Labelling Scheme for Dehumidifiers**

## **Dehumidifiers**

**April 2010**

**Energy Efficiency**  **EMSD**

Electrical and Mechanical Services Department

3 Kai Shing Street, Kowloon, Hong Kong

Homepage: <http://www.emsd.gov.hk>

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## **Preface**

Under the Energy Efficiency (Labelling of Products) Ordinance, dehumidifier is a prescribed product which –

- (a) means an encased assembly for removing moisture from its surrounding atmosphere; and
- (b) includes self-contained, electrically operated and mechanically-refrigerated dehumidifiers that—
  - (i) use mains electricity as the primary power source;
  - (ii) operate by using the vapour compression cycle;
  - (iii) consist of a refrigerated surface (“evaporator”) that condenses moisture from the atmosphere; a refrigerating system, including an electric motor; an air circulating fan; and a drain system for collecting or disposing of the condensate; and
  - (iv) have a rated dehumidifying capacity not exceeding 35 litres per day.

“Dehumidifier” does not include dehumidifiers that—

- (a) may also operate by using desiccant materials; or
- (b) are room air conditioners having dehumidifying function.

Following the gazette of the Energy Efficiency (Labelling of Products) Ordinance (cited as the Ordinance) on 19 March 2010, the prescribed products as stipulated in the Ordinance are regulated under the new legislation.

There is an 18-month grace period after the Ordinance is gazetted for the trades to make the necessary preparations for complying with the new requirements. During the grace period, a prescribed product is still allowed to be supplied without reference number and energy label. The importers and local manufacturers shall apply for assignment of reference number and prepare the energy labels for their product models if they wish to continue supply these products after the grace period. The grace period ends on 18 September 2011.

With immediate effect, the voluntary Energy Efficiency Labelling Scheme for dehumidifiers (the voluntary Scheme) is revised to cover only the types of dehumidifiers not regulated under the Ordinance but included in the scope of the existing voluntary Scheme. The importers or local manufacturers are encouraged to participate in the voluntary Scheme in accordance with the existing procedures and requirements of the voluntary Scheme.

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## **1. Purpose**

This set of document is intended to give a general description on the introduction of the Hong Kong Voluntary Energy Efficiency Labelling Scheme (EELS) for Dehumidifiers.

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## **2. Background**

### **The Nature of Energy Efficiency Labelling Scheme**

- 2.1 The EELS is an energy conservation initiative that the Government of the Hong Kong Special Administrative Region (HKSAR) has adopted. Under the scheme, some common types of household appliances and office equipment will incorporate an energy label that serves to inform consumers of the product's energy consumption and efficiency. Consumers should then be able to take those factors into account in making their purchasing decision.

### **Objectives of Energy Efficiency Labelling Scheme**

- 2.2 The concept of EELS has been developed and implemented in several forms and in different stages of development. In some countries, it is a compulsory requirement for certain kinds of electrical appliances to be provided with an energy label before they can be put on the market. The labelling requirements may apply to equipment such as household refrigerators, freezers, washing machines, room coolers, clothes dryers, compact fluorescent lamps, storage water heaters, etc. The EELS generally aims to achieve the following:
- greater public awareness of energy conservation and environmental improvement needs;
  - provision of readily available, pre-purchase information on energy consumption and efficiency data, where applicable, to enable ordinary consumers to select more energy efficient products;
  - stimulation to the manufacturers/market for phasing out less energy efficient models; and
  - actual energy savings and environmental improvements, etc.

- 2.3 Hong Kong also aims at achieving the above objectives and the Hong Kong Voluntary EELS now covers eighteen types of household appliances and office equipment. Ten types of which are electrical appliances and seven types of office equipment. There is also one type of gas appliance for domestic gas instantaneous water heaters. The scope of EELS has also been extended to cover petrol passenger cars.

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### **3. Scope**

- 3.1 The scheme will only apply to the manufacturers and importers (local agents, retailers and the related parties) who have participated in the voluntary scheme.
- 3.2 The scheme will commence from 30 December 2002 and energy labels will expire on 31 December 2011 when re-registration is necessary.
- 3.3 The scope of application covers all new registered appliances to be supplied in Hong Kong with effect from the date that is declared by the participant but does not cover second-hand products, products already in use, under trans-shipment or export, etc.
- 3.4 The scheme will be operated as a 'Recognition Type' labelling system. All applied appliances will be recognised and registered provided that they can meet certain energy efficiency and performance requirements as stipulated in the scheme.
- 3.5 The provisions of this scheme shall apply to self-contained, electrically operated, and mechanically refrigerated dehumidifiers that provide daily water removal capacities not exceeding 87 litres. Appliances that have larger capacity are excluded.
- 3.6 This labelling scheme does not apply to dehumidifiers with heating function or air coolers having dehumidifying function.

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## 4. Definitions

Unless otherwise specified, the following definitions shall apply throughout this document:

<i>appliance</i>	means dehumidifiers described under Section 3 (Scope) of this scheme.
<i>Authority</i>	means the Electrical & Mechanical Services Department, the Government of the Hong Kong Special Administrative Region (HKSAR).
<i>capacity</i>	means a measure of the ability of a dehumidifier to remove moisture from its surrounding atmosphere, measured in litres of moisture removed per 24-hour period.
<i>dehumidifier</i>	means an electrical appliance that is a self-contained, electrically operated, and mechanically refrigerated encased assembly consisting of (a) a refrigerated surface (evaporator) that condenses moisture from the atmosphere; (b) a refrigerating system, including an electric motor; (c) an air-circulating fan; and (d) a drain for collecting and/or disposing of the condensate.
<i>Director</i>	means the Director of Electrical & Mechanical Services Department, the Government of the Hong Kong Special Administrative Region.
<i>energy factor</i>	means the energy efficiency of a dehumidifier that is measured in litres of water removed per kilowatt-hour (kWh) of energy consumed at a standard test condition.
<i>Government</i>	means the Government of the Hong Kong Special Administrative Region.
<i>inspecting officer</i>	means the officer authorized by the Director to carry out inspection on appliances.
<i>label</i>	means the energy label as described in Section 8 of this document.

<i>participant</i>	means the manufacturers, importers or the retailers of appliance participating in the scheme.
<i>rated frequency</i>	means the frequency marked on the nameplate or declared as such by the manufacturer or responsible distributor for the dehumidifier.
<i>rated voltage</i>	means the voltage marked on the dehumidifier.
<i>rated wattage</i>	means the wattage marked on the dehumidifier.
<i>Recognized laboratory</i>	means a laboratory that complies with the requirements as stated in Section 9 of this document and is acceptable to the Authority for carrying out tests and issuing test reports on dehumidifiers.
<i>scheme</i>	means the Hong Kong Voluntary Energy Efficiency Labelling Scheme for Dehumidifiers.
<i>water tank capacity</i>	means the maximum amount of water that can be stored in the storage tank before the dehumidifier stops operation automatically or the full tank indicator light illuminates.

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## **5. Appliance Classification**

5.1 Dehumidifiers are classified into the following two types according to water removal capacities:

(a) Standard Capacity Dehumidifiers

Dehumidifiers with daily water removal capacities are up to 35 litres.

(b) High Capacity Dehumidifiers

Dehumidifiers with daily water removal capacities are up to 87 litres.

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## 6. Technical Standards

### Specific Energy Efficiency Requirement

- 6.1 For any dehumidifiers as specified in Section 5.1, the energy factor should be equal to or greater than the corresponding minimum allowable value as indicated in Table 1 and Table 2:

**Table 1: Minimum Allowable Energy Factor for Standard Capacity Dehumidifiers**

Product Capacity (Litres/day)	Energy Factor Under Test Conditions (Litres/kWh)
Product Capacity < 10	$\geq 1.20$
$10 \leq$ Product Capacity < 15	$\geq 1.40$
$15 \leq$ Product Capacity < 20	$\geq 1.50$
$20 \leq$ Product Capacity < 25	$\geq 1.60$
$25 \leq$ Product Capacity < 35	$\geq 1.80$

**Table 2: Minimum Allowable Energy Factor for High Capacity Dehumidifiers**

Product Capacity	Energy Factor Under Test Conditions
$35 \leq$ Product Capacity $\leq 87$	$\geq 2.5$

- 6.2 The aforesaid dehumidifiers' energy factors refer to values measured in accordance with the test methods as specified in this document.

### Other Performance Requirements

- 6.3 In addition to the specific energy efficiency requirement, all types of dehumidifiers are also needed to meet the following performance requirements:
- (a) The maximum operating conditions test; and
  - (b) The low temperature test.

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## **7. Test Methodology & Standards**

### **General**

- 7.1 All test standards and specifications specified in this document are only related to checking compliance with the energy efficiency and general performance requirements. It is not the intention of this document to detail out the test standards and requirements for checking compliance with the Electrical Products (Safety) Regulation of the HKSAR. The participant should conduct appropriate tests, where necessary, in addition to those specified in this document in order to obtain Certificates of Safety Compliance for his appliances.

### **Compliance with Safety Requirements**

- 7.2 The testing standards for checking compliance with the safety requirements are based on the following international standards. For detailed requirements and procedural descriptions one should refer to the respective standards.
- (a) IEC 60335-1, Household and similar electrical appliances – Safety – Part 1: General requirements; and
  - (b) IEC 60335-2-40, Safety for electrical heat pumps, air-conditioners and dehumidifiers.
- 7.3 To the extent that definitions in the IEC standards do not conflict with the definitions of this document, the definitions in the aforesaid standards shall be included.
- 7.4 In addition to the energy efficiency performance requirements, all dehumidifiers shall comply with the Electrical Products (Safety) Regulation, Chapter 406G of the Laws of Hong Kong, and the safety standards specified under the Regulation, and all other legislations concerning the safety of the dehumidifiers, e.g. the Gas Safety Ordinance and its subsidiary legislations, as appropriate.

### **Dehumidifying Capacity Test and Energy Factor**

- 7.5 The minimum allowable energy factor (litres/kilowatt-hour) is the major criteria that determines whether a dehumidifier can meet the specific energy efficiency requirement. Therefore, it is important that a common base is used to validate the information submitted by manufacturers from different countries for their appliances.

- 7.6 The criteria of dehumidifying capacity tests shall be conducted in accordance with Clauses 4, 5 and 7 of ANSI/AHAM Standard DH-1, except that a watt-hour meter shall be used to measure dehumidifier energy consumption during the tests. The watt-hour meter shall be accurate within 0.5 percent of the indicated value and have a scale with graduations of 1 watt-hour or less. In addition, the dehumidifying capacity test shall make reference to Section 4.1 of CAN/CSA-C749.
- 7.7 In accordance with Section 4.2 of CAN/CSA-C749, the energy factor of a dehumidifier shall be determined by computing the ratio of the water removal in litres per day and the electrical energy input for the dehumidifier under the specified testing conditions. Values of energy factor shall be rounded off to the nearest 0.01 L/kWh.

### **Testing Conditions for Measurement of Dehumidifying Capacity**

- 7.8 For all types of dehumidifiers, the standard testing conditions for measurement of dehumidifying capacity shall be specified at 60% relative humidity, 26.7 °C dry-bulb temperature and 20.9 °C wet bulb temperature in accordance with the requirement of Clause 7.2 of ANSI/AHAM Standard DH-1.

### **Dehumidifying Performance Tests**

- 7.9 In addition to the capacity test, the dehumidifying performance tests, which include the maximum operating conditions test and low temperature test, shall also be performed in accordance with Clause 8.1 and 8.2 of ANSI/AHAM Standard DH-1. By conducting the maximum operating conditions test, the dehumidifier shall operate without damages to the motors or other electrical parts or wiring due to overheating and without injury to any other component from any operational cause. As for the low temperature test, the dehumidifier shall operate without damage to any component from any operational cause.

### **Performance Requirements**

- 7.10 In the test report submitted to the Director, the results of the tests carried out in accordance with the relevant clauses of ANSI/AHAM DH-1 or other equivalent international standards approved by the Director shall show that the concerned model conforms with the following performance requirements—
- (a) The measured dehumidifying capacity shall not be less than 95% of the rated dehumidifying capacity.
  - (b) The measured energy consumption shall not be greater than 105% of the rated

energy consumption.

- 7.11 The rated dehumidifying capacity and the rated energy consumption as declared by the manufacturer or importer shall meet the requirements specified in clause 7.10.

### **Number of Samples to be Tested**

- 7.12 For submission of product information of a model, a test report on one sample of the model shall be submitted.

### **Compliance**

- 7.13 During the compliance monitoring testing carried out by the Director, a listed model of dehumidifier will be accepted as conformance if the test results of a single sample of the listed model meet the following criteria:

- (a) The tested dehumidifying capacity being not less than 90% of the rated dehumidifying capacity.
- (b) The tested energy consumption being not greater than 110% of the rated energy consumption.
- (c) The dehumidifier passing the maximum operating conditions test for specified type.
- (d) The tested energy efficiency meeting either one of the following:
  - (i) The energy efficiency calculated in the compliance monitoring testing being equal to or better than the test results submitted to the Director by the participant; or
  - (ii) If the energy efficiency calculated in the compliance monitoring testing being not equal to nor better than the energy efficiency determined by the test results submitted to the Director due to decrease in energy factor, the tested energy factor calculated in the compliance monitoring testing being not less than 90% of the measured energy factor calculated by the test results submitted to the Director.

- 7.14 The Director may remove from the record the reference number of a listed model of dehumidifier, if he has reasonable grounds to believe that the dehumidifier does not conform with the specified information or a specified document, or their updates if any, submitted to the Director. The participant may provide explanation on the failure of a

product to pass the compliance monitoring testing stipulated in clause 7.13 above and apply for further testing of the concerned model for the Director's consideration.

7.15 If further testing is approved to be carried out, three samples of the same model shall be tested at the participant's own costs. A listed model of dehumidifier will be accepted as conformance if the results of further testing meet the following criteria:

- (a) The average of the tested dehumidifying capacities of all the samples being not less than 90% of the rated dehumidifying capacity.
- (b) The average of the tested energy consumptions of all the samples being not greater than 110% of the rated energy consumption.
- (c) Each sample passing the maximum operating conditions test for specified type.
- (d) The tested energy efficiency meeting either one of the following:
  - (i) The energy efficiency determined by the average of the tested energy factors of all the samples calculated in the further testing being equal to or better than the energy efficiency determined by the test results submitted to the Director by the participant; or
  - (ii) If the energy efficiency determined by the average of the tested energy factors of all the samples calculated in the further testing being not equal to nor better than the energy efficiency determined by the test results submitted to the Director due to decrease in energy factor, the average of the tested energy factors of all the samples calculated in the further testing being not less than 90% of the measured energy factor calculated by the test results submitted to the Director.

(Remark: The participant can choose to accept the results of further testing undertaken on fewer than three samples if the results of each sample subsequently tested also do not meet the acceptance criteria as stated above.)

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## **8. Energy Label**

### **General**

8.1 Energy labels are classified into the following two types:

- (a) Verification label; and
- (b) Information label.

- 8.2 A verification label indicates the appliance meets the energy performance standards as required by the scheme. It is a compulsory requirement for participant to affix this label to his registered appliances.
- 8.3 An information label contains information to guide the general public to contact the Authority regarding enquires about the scheme. The affixation of this label to registered appliances is optional.

### Labels Location

- 8.4 The labels should be self-adhesive and affixed to the appliance at a prominent location. The participant should ensure that the verification label appears on every registered appliance on display or sale and should be easily visible.

### Colour Scheme & Dimensions

- 8.5 The labels should be printed on material with white-coloured background and should have colour schemes and dimensions as shown in Annex 1. It should be printed in English and in Chinese.

### Paper Quality

- 8.6 If the label is to be affixed on a dehumidifier for display, the paper used for the label should be durable and possess good wear and tear characteristics.

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## **9. Testing Facilities, Laboratories and Accreditation Bodies**

- 9.1 The testing is carried out either by independent test institutes or by the manufacturers or by importers themselves at their own test facilities. The Authority will accept the results and certificates issued by the test laboratory, which fulfils one of the following criteria as specified in Clause 9.2, 9.3 or 9.4.
- 9.2 The laboratory is accredited by the Hong Kong Accreditation Service (HKAS) for the relevant test under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) or a

scheme for which HKAS has concluded a mutual recognition agreement, and the results are issued in a test report or certificate bearing the accreditation mark (see Note); or

- 9.3 The Authority will also consider the following arrangements:
- (a) Self-certification by original manufacturers that the operations of their in-house laboratories satisfy the requirements of ISO/IEC 17025; and
  - (b) The manufacturers are currently operating according to a recognized international quality system (such as ISO 9001); and
  - (c) The manufacturer's in-house laboratories had been successful in carrying out tests on dehumidifiers and where these tests had been evaluated and certified by internationally recognised third party certification organisations.
- 9.4 The Authority will also consider test results issued by a laboratory which is accredited by HKAS (or is accredited by an accreditation body which has concluded a mutual recognition arrangement with HKAS for testing laboratories) for laboratory testing of electrical and mechanical appliances other than testing based on the technical standards stipulated in this scheme; if the laboratory can demonstrate their capability of carrying out tests on dehumidifiers on the technical standards (i.e. ANSI/AHAM DH-1, CAN/CSA-C749-94, BS 4788, and BS EN 810).

### **Laboratory Accreditation**

- 9.5 The Government takes cognizance of the need to ensure acceptable and compatible quality standards of testing laboratories, and considers that they need to be accredited by some independent bodies.
- 9.6 The criteria of accreditation should be based on ISO/IEC 17025 and accreditation bodies should operate in accordance with ISO/IEC 17011.
- 9.7 The Authority will recognize accreditation granted by the HOKLAS and by overseas accreditation bodies which have concluded mutual recognition arrangements with HKAS for accreditation of testing laboratories. The Authority will consider accreditation by other bodies on a case-by-case basis.

### **Energy Efficiency Verification Service**

- 9.8.1 An increasing number of countries now accept, as proof of product conformance, energy efficiency verification services provided by third-party organisation that has been accredited as a certification organisation. In accordance with this trend, the Authority will consider seriously test results that have been evaluated and verified against the energy performance standards of the scheme by reputable third-party certification organisations.

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**Note:** *HKAS has concluded mutual recognition arrangements with **fifty-eight** overseas accreditation bodies for testing laboratory accreditation, namely, **UKAS** of the United Kingdom, **NATA** of Australia, **A2LA**, **NVLAP**, **IAS** and **L-A-B** of the United States, **IANZ** of New Zealand, **RvA** of Netherlands, **SAC** of Singapore, **BMwa** of Austria, **BELAC** of Belgium, **DANAK** of Denmark, **FINAS** of Finland, **COFRAC** of France, **DAP**, **DACH** and **TAG** of Germany, **INAB** of Ireland, **ACCREDIA** of Italy; **NA** of Norway,, **ENAC** of Spain, **SWEDAC** of Sweden, **SAS** of Switzerland, **CNAS** of People's Republic of China, **TAF** of (Taiwan,China), **CAI** of Czech Republic, **INMETRO** of Brazil, **IAJapan**, **JAB** and **VLAC** of Japan, **KOLAS** of Korea, **SANAS** of South Africa, **SCC** of Canada, **NABL** of India, **BoA** of Viet Nam, **LA** of Lithuania, **SNAS** of Slovakia, **KAN** of Indonesia, **ISRAC** of Israel, **DSM** of Malaysia, **ema** of Mexico, **PNAC** of Pakistan, **PAO** of Philippines, **NSC-ONAC**, **DSS** and **DMSc** of Thailand, **TUNAC** of Tunisia, **TURKAK** of Turkey, **OAA** of Argentina, **ONARC** of Cuba, **NLAB** of Egypt, **EAK** of Estonia, **ESYD** of Greece, **LATAK** of Latvia, **PCA** of Poland, **SA** of Slovenia, etc. The list of mutual recognition arrangement partners may change from time to time and the up-to-date list is available from the HKAS website of [www.info.gov.hk/itc/hkas](http://www.info.gov.hk/itc/hkas). Partners to these arrangements recognise the accreditations granted by one another as equivalent.*

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## **10. Registration and Participation**

### **Registration Procedures**

- 10.1 All manufacturers, importers and the other parties involved in the dehumidifiers business are welcomed and encouraged to participate in the scheme. For some known manufacturers and importers, invitation letters will be issued to them. However, any party may submit their applications for registration no matter whether they are invited or not.
- 10.2 The proforma letter of invitation is shown in Annex 2.
- 10.3 Applicant should submit formal application to

*Chief Engineer /Energy Efficiency A*  
*Energy Efficiency Office*  
*Electrical & Mechanical Services Department*  
*3 Kai Shing Street, Kowloon*  
*Hong Kong*

by means of an application letter through mail, facsimile or electronic mail. In order to ensure effective implementation of the scheme, the applicant must be committed to fully comply with the duties, responsibilities and obligations set out in this scheme. The proforma letter of application as shown in Annex 3 details the aforesaid obligations and should be used for application. To facilitate the application process, the application form can be downloaded from EMSD website.

### **Information/Documents to be Submitted for Registration**

- 10.4 Each make and model of a dehumidifier participating in the scheme should be provided with a test report issued by a recognized laboratory. The test report should contain energy efficiency (capacity) test and performance test results. The details of the technical information to be submitted together with the application are listed as follows:-
- (a) Information on the company:  
Name, Address, Telephone number, Fax, E-mail address, Contact person, Importer, Distributor, etc.
  - (b) Products to apply for participating in the scheme:  
Names of products, types, brand names, models, countries of origin
  - (c) Parties that will be responsible for making and fixing the Energy Labels;
  - (d) Commencement date to affix energy labels on appliance  
Year\_\_\_\_\_, Month\_\_\_\_\_
  - (e) Documentary proof that the applied dehumidifier(s) comply with  
IEC 60335-1, Household and similar electrical appliances – Safety – Part 1: General requirements; and  
IEC 60335-2-40, Safety for electrical heat pumps, air-conditioners and dehumidifiers.
  - (f) Supporting Technical Information and Calculations  
Test reports:-

Power input and water removal capacity per day  
Energy consumption for 24 hours operation  
Testing conditions (i.e. temperatures and relative humidity)  
Testing method used

***Notes: All photocopied test reports submitted to the office should be certified true copy by appropriate organization(s).***

Calculations:-

Dehumidifying capacity test and energy factor  
Maximum operating conditions test  
Low temperature test

(g) Miscellaneous Technical Information:

Product information catalogue  
Technical Specification  
Others

***Notes: Company's name and chop should be stamped on all the documents provided***

The above information can also be found in Annex 4, information to be submitted to Energy Efficiency Office.

### **Acceptance of Registration**

- 10.5 On receipt of the application, the Authority will verify whether the dehumidifier under application meets the energy efficiency and performance requirements based on the submitted data. The accuracy of the submitted data, their inconsistencies and non-compliance will be dealt with in accordance with Section 12.
- 10.6 If the application is accepted, the participants will be notified of the result in writing within 17 working days. The participants will then be allowed to affix the energy label onto the 'registered' appliances. Both manufacturers and importers of the registered appliances should ensure that the energy labels are correctly printed and affixed on the appliances in accordance with Section 8. The performa letter of acceptance is shown in Annex 5.
- 10.7 If the application is rejected, the notification letter as shown in Annex 6 will also be given within 17 working days upon receipt of all necessary information requested.

10.8 The flow chart for registration is shown in Annex 7.

### **Participant's Duties, Responsibilities and Obligations**

10.9 The participant is obliged to:

- (a) submit application and information including test results in accordance with format and procedures set out in Sections 10.3 & 10.4;
- (b) conduct tests via recognized laboratories and to comply with the specified test methodology and classification scheme;
- (c) produce and affix energy labels at his own costs;
- (d) fully inform other sales agents in his distribution network once the particular make and model of an appliance is registered under the scheme;
- (e) allow random/ad-hoc inspection to be conducted by persons authorized by the Authority on registered appliance at his premises;
- (f) conduct re-test(s) at his own costs at some recognized laboratories, if non-compliance is found on the appliance. The result of re-test(s) shall reach the Authority within the prescribed period of time specified by the Authority;
- (g) inform the Authority of any change in the technical information and data that were previously submitted to the Authority together with the application letter;
- (h) accept the fact that if appliance fails to perform in accordance with the requirements as given in Sections 5, 6 and 7 and this cannot be readily rectified, the Authority may order it be de-registered from the scheme; and
- (i) remove immediately all energy labels from appliances which had been de-registered from the scheme.

10.10 The details of the registered appliances will be kept in a register maintained by the Authority. The registration records will be regularly uploaded and maintained in the EMSD Internet for public and interested parties for access and information.

### **Termination**

10.11 Under circumstances of poor performance such as:

- (a) (repeated) failure to fulfill obligations set out under Section 10.9; or
- (b) in any other case where the Director is of the opinion that registration of an appliance is contrary to the public interest.

The Authority may de-register an appliance from the scheme with immediate effect by giving the participant notice in writing. Once an appliance is de-registered, no one is allowed to fix an energy label on it. However, participant will normally be given a grace period of three months to remove all labels from the de-registered appliances.

De-registration may occur even when there is no legal action taken under either the Trade Description Ordinance (Cap. 362) or the Copyright Ordinance.

- 10.12 Participant who decides to discontinue participating in the scheme or to withdraw any registered model from the registered appliances list shall give at least three months' advance notice to the Authority.

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## **11. Legal Provisions**

- 11.1 This is a voluntary scheme. However, a participant who abuses the scheme by giving false information on a label may contravene provisions of the Trade Description Ordinance.
- 11.2 No one could take advantage of the scheme by using the label on his appliances without authorization of the Authority as that may constitute an infringement of copyright under the Copyright Ordinance.

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## **12. Compliance Monitoring and Inspection**

### **Purpose**

- 12.1 To uphold credibility of the scheme and to maintain continuous confidence of the consumers, compliance check on energy labels on those appliances participating in the scheme are needed. Also, to avoid the unsatisfactory situation that the non-participating parties taking advantage of the scheme by using unauthorized labels, we may also carry out suitable form of inspection on appliances which have not been registered under the scheme.

### **Scope**

- 12.2 The scope of inspection includes sample checking and testing the following items:

- (a) whether the energy label is in fact placed on the registered appliance;
- (b) whether the energy label being displayed is of correct format in accordance with Section 8;
- (c) whether energy label on the registered appliance is in a prominent position;
- (d) whether unregistered appliances display unauthorized energy labels;
- (e) whether the registered appliance complies with the energy efficiency and performance requirements; and
- (f) whether the data submitted by the participants are correct by random re-testing.

12.3 The participants will be requested to take immediate remedial action and report the follow-up action taken if non-compliance is found on their appliances.

12.4 If a registered appliance carrying energy label is found not meeting the requirements specified in accordance with the test standards stipulated in Section 7, the participant will also be requested to repeat the performance tests at his own costs by an agreed testing laboratory.

12.5 If non-compliance is confirmed and no remedial action is to be taken by the applicant, the Authority may order it be de-registered from the scheme. Failure to remove energy labels from the de-registered appliances after the Director has withheld his authorization for using such labels may contravene the relevant ordinances.

### **Inspecting Officers**

12.6 The Authority will authorize inspecting officers to carry out appliances compliance monitoring and inspection. The officers will carry proper identification cards that will be produced on request during their inspection operations. However, the officer will not inform the participants in advance of their intended inspection operation.

12.7 It is the participants' duty to allow the inspecting officers to gain access to their premises to carry out inspection.

### **Mode of Inspection**

12.8 Inspections will be carried out on registered appliances under the scheme on random basis. Based on the record of the registration, random inspection programmes will be developed.

- 12.9 In addition to the random inspections, the inspecting officers will carry out ad-hoc inspections in response to complaints. The items to be inspected in such a case will depend upon the nature of complaint and may include all types of inspection as stated in Section 12.2.
- 12.10 Inspections will normally be carried out at the retail outlets and appliances showrooms. Where necessary, inspection will also be done at warehouses.
- 12.11 The inspection results will be properly recorded for future analysis as well as on evaluation of the effectiveness of the scheme.

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## **13. Complaints and Appeal**

- 13.1 The Authority will be responsible for dealing with complaints from participant and other parties against matters related to the scheme.

### **Complaints Handling Procedure**

- 13.2 The Director shall ensure that complaints are properly recorded and handled without undue delay.
- 13.3 The Authority shall carry out preliminary investigation on complaints and reply to the complainants within a reasonable time. For complaints that require site inspection and laboratory test, the complainant shall be notified through an interim reply.
- 13.4 The Authority shall inform the complainant of the results or decisions made on the complaint.

### **Appeal Procedure**

- 13.5 A participant who is aggrieved by a decision or action taken by the Authority may appeal to the Director in writing stating the reason for the appeal.

- 13.6 The Director may decide to suspend the decision or action given by the Authority from the day on which the appeal is made until such appeal is disposed of, withdrawn or abandoned unless such suspension would, in the opinion of the Director, be contrary to public interest.
- 13.7 The Director may by notice to the appellant require that appellant to attend meeting with him or his representative and provide documents and give evidence relevant to the appeal.
- 13.8 The Director shall notify the appellant of his decision and reasons for it. The decision will be final and binding.

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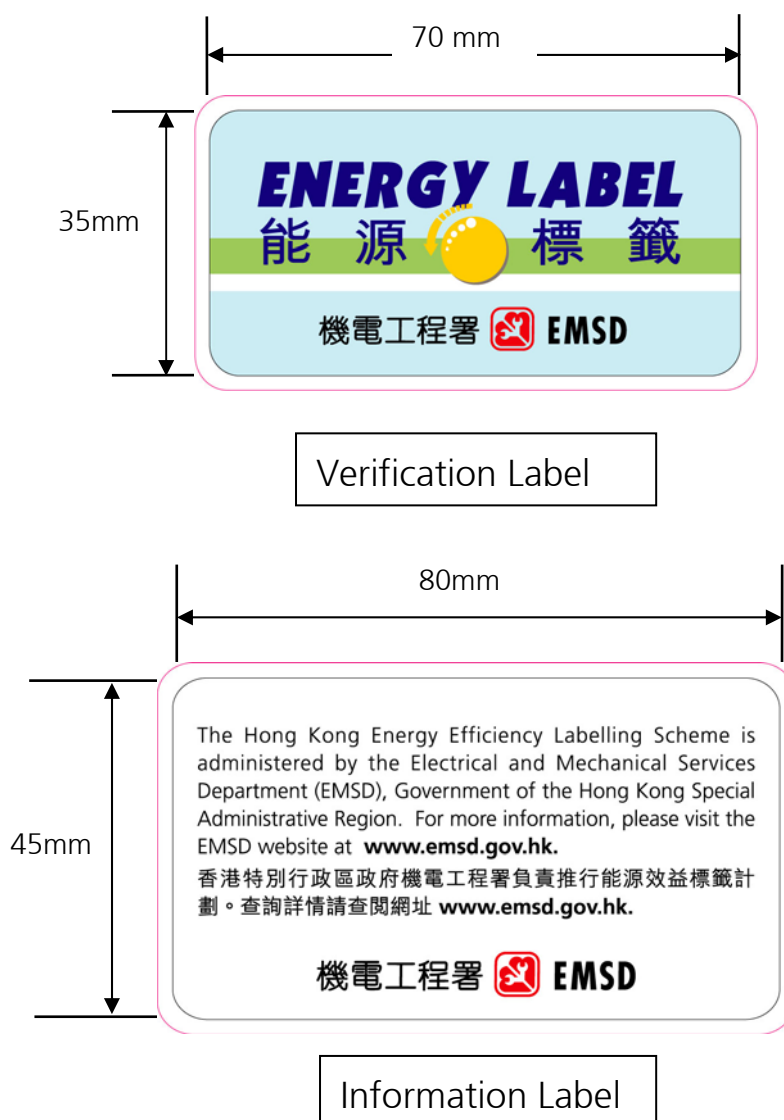
## **14. Maintenance of Scheme**

- 14.1 To ensure that the scheme can continue to operate effectively and efficiently after its introduction, a proper system of maintenance is needed.
- 14.2 The maintenance system consists essentially of:
- (a) Continuous updating of the lists of participants in the scheme as follows:
    - (i) Registered appliances with details such as registration number in the scheme, date of registration or de-registration if it occurs, energy efficiency data, performance data, make, model, category and other related information; and
    - (ii) Registered importers, manufacturers, local agents etc. in the distribution network with details such as address, date of registration or de-registration if it occurs, etc.
  - (b) Periodic review of the test methodology, and procedures for application registration and compliance monitoring, etc. to bring them in line with the latest needs of the manufacturers, importers and retailers, etc.
  - (c) Continuous evaluation of the effectiveness of the scheme and assessment of what changes are necessary.

## **15. Future Development**

- 15.1 It is hoped that following implementation of the scheme, the market will phase out models of low efficiency and public awareness of using energy efficient products will be improved.
  
- 15.2 To further facilitate the public in choosing energy efficient appliances and raise public awareness on energy saving, the Government has introduced a mandatory Energy Efficiency Labelling Scheme (EELS) through the Energy Efficiency (Labelling of Products) Ordinance.
  
- 15.3 Under the mandatory EELS, energy labels are required to be shown on prescribed products for supply in Hong Kong to inform consumers of their energy efficiency performance. Five types of prescribed products covered in the mandatory EELS are room air conditioners, refrigerating appliances and compact fluorescent lamps, washing machines, dehumidifiers.

## **Energy Label Format**



Soft copies of these labels can be obtained from Energy Efficiency Office, Electrical and Mechanical Services Department.

## **Proforma Letter of Invitation**

Our ref. EEO/LB/12

Your ref.

Tel.

Fax.

Date

[Name and Address of  
Manufacturers/Importers/Agents]

Dear Sir/Madam,

### **Invitation of Application for Registration to Participate in Voluntary Energy Efficiency Labelling Scheme for Dehumidifiers**

Having gone through the necessary consultations and duly considered the views from various concerned parties, the government has decided to introduce a voluntary energy efficiency labelling scheme for dehumidifiers to Hong Kong with effect from (\_\_\_\_\_). The details of the scheme<sup>①</sup> have been finalized and I enclose herewith a guide of the scheme for your reference.

Being one of the major dehumidifier manufacturers / importers / agents<sup>②</sup> in Hong Kong, you are invited to participate in the scheme so as to take part in promoting public awareness in energy conservation and environmental improvement to Hong Kong. If you are interested to participate in the scheme, please apply in accordance with the proforma letter of application (Annex 3) and submit details including technical information in accordance with the attached Annex 4 to the 'Chief Engineer / Energy Efficiency A' at the following address.

Energy Efficiency Office  
Electrical and Mechanical Services Department  
3 Kai Shing Street, Kowloon  
Hong Kong

Please be reminded to submit accurate test data to support your application. Under this Scheme, routine compliance monitoring and checking will be performed and if a registered dehumidifier is found to be non-compliant, we may consider deregistering the dehumidifiers from the Scheme.

Should you need further clarification or information, you are most welcome to contact the undersigned or Mr. \_\_\_\_\_, at the telephone number \_\_\_\_\_.

Yours faithfully,

for Director of Electrical & Mechanical Services

(Note: <sup>①</sup> 'scheme' means 'The Voluntary Energy Efficiency Labelling Scheme for Dehumidifiers'

<sup>②</sup> delete as appropriate)

## **Proforma Letter of Application**

Your ref. EEO/LB/12  
Our ref.

Tel.

Date

Chief Engineer/Energy Efficiency A  
Electrical & Mechanical Services Department  
3 Kai Shing Street, Kowloon  
Hong Kong

Dear Sir/Madam,

### **Application for Registration to Participate in Voluntary Energy Efficiency Labelling Scheme for Dehumidifiers**

Our company is the (manufacturer/importer/agent\*) of \_\_\_\_\_ in Hong Kong. We support the introduction the labelling scheme to Hong Kong and would like to be one of the participants in the scheme to promote energy efficiency.

I understand fully the obligations and duties stated in the scheme and will comply with all relevant requirements, in particular those specified below:

- i) conduct tests via recognized laboratories and to comply with the specified test standards;
- ii) produce and affix specified labels at my own costs;
- iii) allow random/ad-hoc inspection to be conducted by persons authorized by the issuing Authority on registered appliance at my premises;
- iv) conduct re-test(s) at my own costs at some recognized laboratories, if the results of inspection suggest inaccurate energy label information being displayed. The result of re-test(s) shall reach the Authority within the prescribed period of time specified by the Authority;
- v) inform the Authority of any change in the technical information and data that were previously submitted to the Authority together with the application letter; and
- vi) accept the fact that if appliance fails to perform in accordance with the required energy efficiency standards and performance as given in Section 7 and this cannot be readily rectified, the Authority may order it be de-registered from the scheme.

The details of information of those appliances which we intend to register with the Authority are shown in the attached document, (Annex 4) and are submitted herewith for your vetting.

Yours faithfully,

(Manufacturer/Importer/Agent's Name and Company Chop)

\_\_\_\_\_  
\* *delete as appropriate*

## **Information to be Submitted to Energy Efficiency Office**

1. Information on the company:  
  
Name, Address, Telephone number, Fax, E-mail address, Contact person, Importer, Distributor, etc.
  
2. Product to apply for participating in the scheme:  
  
Name of products, types, make, model references, countries of origin
  
3. Parties will be responsible for making and fixing the Energy Label
  
4. Commencement date to affix Energy Labels on appliance  
Year \_\_\_\_\_, Month \_\_\_\_\_
  
5. Detailed test reports providing at least the following relevant technical data for the applied appliances:
  - (a) Power input and dehumidifying capacity;
  - (b) Energy consumption;
  - (c) Energy factor of the dehumidifier;
  - (d) Result of dehumidifying capacity test and energy factor;
  - (e) Result of maximum performance test; and
  - (f) Result of low temperature test.
  
6. Documentary proof that the applied appliance(s) comply with the Electrical Products (Safety) Regulation of the Hong Kong Special Administrative Region.

*Note: Company's name and chop should be stamped on the all documents provided.  
All test reports submitted to the office should be certified true copy by appropriate organization.*

## **Proforma Letter of Acceptance**

Your ref.  
Our ref.        EEO/LB/12

Tel:  
Fax:

Date

[  
Manufacturers/Importers/Agents

]

Dear Sir/Madam,

### **Acceptance of Application for Registration to Participate in Voluntary Energy Efficiency Labelling Scheme for Dehumidifiers**

With reference to your letter of ref. \_\_\_\_\_ dated \_\_\_\_\_, I am pleased to inform you that your application to participate in the captioned scheme has been accepted.

I enclose herewith the registration certificates of dehumidifiers registered. The registered dehumidifiers are as follows :

<u>Brand/Make/Model</u>	<u>Registration No.</u>	<u>Effective date</u>
( _____ )	( _____ )	( _____ )

You are allowed to affix a specified energy label onto each and every appliance registered under the scheme. The contents of the energy label should be based on the information that you have provided in your application ref. \_\_\_\_\_ and dated \_\_\_\_\_.

Should you have any queries regarding the scheme, please contact this office.

Yours faithfully,

for Director of Electrical & Mechanical Services

## **Proforma Letter of Rejection**

Our ref. EEO/LB/12  
Your ref.

Tel.  
Fax.

Date

[  
Manufacturers/Importers/Agents

]

Dear Sir/Madam,

### **Rejection of Application for Registration to Participate in Voluntary Energy Efficiency Labelling Scheme for Dehumidifiers**

With reference to your letter of application ref. \_\_\_\_\_ dated \_\_\_\_\_, I regret to inform you that your application for registration to participate in the scheme has not been accepted for the following reasons:-

1. \_\_\_\_\_ etc.

You are most welcome to submit new application again in future, when you have the necessary documents / information to support your application.

Yours faithfully,

for Director of Electrical & Mechanical Services

## **Flow Chart for Registration**

