

**ENERGY EFFICIENCY LABELLING SCHEME FOR
ELECTRIC CEILING FANS WITH REGULATORS
OPERATED BY
SRI LANKA STANDARDS INSTITUTION**

GUIDELINES AND PROCEDURES

1. INTRODUCTION

Sri Lanka Standards Institution (SLSI), the national standards body in Sri Lanka operates the Energy Efficiency Labelling Scheme based on the relevant Sri Lanka Standards for energy efficiency rating of appliances.

SLSI and Sri Lanka Sustainable Energy Authority (SLSEA) offer this scheme to importers and manufacturers of Electric Ceiling Fans covered under the scope of **SLS 1600** Sri Lanka Standard for Energy Efficiency Rating for Electric Ceiling Fans with Regulators. Permission to use the energy label will be granted by the SLSI only for the brand and the model of electric ceiling fan with regulator which conforms to minimum performance grading in accordance with **SLS 1600**.

2. ENERGY EFFICIENCY STANDARDS

The reference standard for minimum energy performance and energy efficiency labelling scheme is **SLS 1600**. The information on the prerequisites for energy labelling, sampling method, test methods, determination of performance grading, star rating and the format of the label are given in the **SLS 1600**.

3. PERFORMANCE GRADING & ENERGY RATING

Performance grading is the parameter that reflects the energy efficiency of the product, and energy rating is the tool for making this efficiency value comparative.

As prerequisites for energy efficiency labelling for electric fans with regulators, the safety requirements specified in **SLS 814: Part 2** shall be conformed. Originally the energy label is introduced only for electric ceiling fans having two or more blades with sweep diameter 1400 mm (56") and associated with regulators having minimum of five speed settings. However this may be extended to other types of fans as well.

For each model of electric ceiling fan power consumption, air delivery and the power factor are measured for determination of the performance grading. Upon performance grading equal or greater than thirty (30), it is divided into five categories called star rating which is denoted by stars. The products with the highest performance grading shall be assigned with five stars and as the performance grading lowers, a lesser number of stars will be assigned in accordance with the details given in **SLS 1600**. The greater the number of

stars the higher the energy efficiency of the electric ceiling fan with the regulator.

4. APPLICATION

- 4.1** A manufacturer or an importer shall make an application in respect of each model (brand, size) of the ceiling fan. If the same model is manufactured in factories at different locations a separate application shall be made in respect of each location and the model.
- 4.2** Whenever a ceiling fan has two or more regulators separate application forms shall be made in respect of each regulator.
- 4.2** Duly completed application forms shall be forwarded to the Director (Engineering) of SLSI.

5. SAMPLING AND TESTING

- 5.1** In case where importer/manufacturer shall use test facilities at University of Moratuwa random samples will be drawn by the SLSI and submitted for testing. Separate samples will be drawn from each model of electric ceiling fans with regulators. In case where the fans are imported, samples will be collected from the warehouse or at the Port, and in the case where electric ceiling fans and regulators are manufactured in Sri Lanka the samples will be drawn from the stores/warehouse located at the manufacturing plant. Sampling will be done in accordance with the details given in the **SLS 1600**.
- 5.2** Testing fee shall be borne by the importer/manufacturer.
- 5.3** After the testing, the sample of fans will be released to the supplier within a period of 2 months.

6. TEST REPORT:

- 6.1** Test report issued for a particular model (brand, size) by the University of Moratuwa or any international accredited laboratory shall be used for calculation of performance grading. The test report shall state that the sampling and testing are in accordance with **SLS 1600** and shall provide the test results of the below mentioned parameters in order to calculate the performance grading of the particular model of the electric ceiling fan with regulator.

Volume flow rate of air at each regulator setting in m³/ minute

Power consumption at each regulator setting in Watt

Service value in m³/ min/ W

Power factor

Incremental flow rate in m³/ minute

7. CERTIFICATION:

- 7.1** The Director (Engineering), SLSI or his delegate shall determine the performance grading and assign the star rating for the particular model (brand, size) of the electric ceiling fan associated with regulator, based on the test report and the formula given under clause 7 of the **SLS 1600**.
- 7.2** Upon the performance grading equal or greater than thirty (30), the Director (Engineering) of SLSI will recommend to award the 'Certificate of energy efficiency rating' (hereafter mentioned as the certificate) for the particular model (brand, size) of electric ceiling fan with regulator.
- 7.3** For each model (brand, size) of electric ceiling fan, separate certificate shall be obtained. Similarly when a fan has two or more regulators separate certificates will be awarded in respect of each regulator. The number of stars assigned to the particular ceiling fan model with the regulator model will be mentioned in the certificate.
- 7.4** When the applicant has lodged several applications in respect of fans manufactured at different locations, he/ she shall be issued with separate certificates in respect of each model of the fans manufactured at different locations.
- 7.5** The certificate shall be issued with the signature of the Director General of SLSI, authorizing the applicant to affix/ display the energy label on the product as prescribed in the certificate.
- 7.6** Before awarding the certificate, the applicant shall enter into an agreement with the SLSI.
- 7.7** The certificate shall be valid for a period of three years from the date of issue unless otherwise specified. Before the expiry of the period of validity the importer/ manufacturer shall reapply for renewal of the certificate. The period of warranty of the product shall be minimum of one year and it shall be declared by the importer/ manufacturer.
- 7.8** The details of certificate holders shall be provided by the SLSI to SLSEA enabling them to draw samples from the open market for monitoring the conformity under the process of surveillance inspection.

8. ENERGY LABEL:

- 8.1** Number of stars denoted in the energy label of a particular electric ceiling fan shall be the number of stars or the energy rating entitled to that particular ceiling fan model when operating with the regulator model, which in turn is displayed in the certificate.

- 8.2** The energy label shall always be used with the model of the product and also with the distinctive registered trademark/ brand name as prescribed in the certificate issued to the manufacturer or the importer.
- 8.3** In order to prevent the misuse of labels by any party, detailed information, with respect to the number of labels, serial numbers of the product on which the labels are used shall be made available to SLSEA.

9. PRINT & DISPLAY OF ENERGY LABEL

- 9.1** The importer/ manufacturer shall display the energy label on the ceiling fan as well as it's container.
- 9.2** The energy label shall comply with the dimensions, format and all other requirements prescribed under the clause **8** of **SLS 1600**. Maximum allowable tolerance limit for label sizing is $\pm 5\%$.
- 9.3** Printing colours of the energy label shall be in accordance with the below mentioned scheme.
CYMK
Dark Blue: C:87%, M:60%, Y:12%, K:1%
Light Blue: C:57%, M:37%, Y:6%, K:0%
Yellow: C:7%, M:0%, Y:89%, K:0%
Black: C:75%, M:68%, Y:67%, K:90%

10. CERTIFICATION FEE:

- 10.1** The certificate holder shall pay a fee of LKR 500/- for the application form, and a certification fee of LKR 30,000/- (LKR. 10,0000/- per annum) at the time of issuance of the certificate.
- 10.2** The importer/ manufacturer shall bear the total cost of test fee and the cost for sample collection at the initial testing.

11. SURVEILLANCE:

- 11.1** SLSEA shall carry out surveillance once a year with respect to each model. Random samples from the market will be drawn for testing at the laboratory of University of Moratuwa and the test results shall be forwarded to the Director (Engineering) of SLSI or his/her delegation.
- 11.2** In addition to planned surveillances, random inspections will be done on the complaints received from the general public regarding any issue related to the energy label. Such inspections will be carried out under the close supervision of an operational committee appointed by the senior management of SLSEA and SLSI.

Please note that the SLSI has the right at its discretion to amend or revise the contents of this guideline as and when it is necessary.

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