

# The Mandatory Energy Efficiency Labelling Scheme

## FOR TELEVISION



Third phase of Mandatory Energy Efficiency Labeling Scheme (MEELs) takes effective from 1 December 2019. Under the third phase of MEELs, it was implemented to include televisions, storage type electric water heaters and induction cookers. HKSTC understands the challenges faced by retailers, manufacturers, distributors and suppliers. We are full of experiences to provide testing in rapid speed to get MEELs on above mentioned products.

### For Television :

- a) that is an appliance for the reception and display of television broadcasts; and
- b) that -----
  - i. uses mains electricity as the only power source;
  - ii. has a rated visible diagonal screen size exceeding 50 centimeters but not exceeding 250 centimeters; and
  - iii. has a built-in television tuner.

### Tests Required to be Carried Out

The tests specified as below are required to be carried out, in accordance with IEC 62087, IEC 62301 or other equivalent international standards approved by the Director, in order to find out the energy efficiency and performance characteristics of a television.

- (a) On-mode power consumption test;
- (b) Standby power consumption test;
- (c) Peak luminance ratio test; and
- (d) Measurement of diagonal screen size.

### Energy Efficiency Grading

The energy efficiency grading of a television shall be determined as shown in Table 12.1, with Grade 1 having the best performance and Grade 5 having the worst performance.

Table 12.1 – Derivation of energy efficiency grades	
Energy Efficiency Index (EEI)	Energy Efficiency Grade
EEI < 0.13	1
0.13 ≤ EEI < 0.195	2
0.195 ≤ EEI < 0.265	3
0.265 ≤ EEI < 0.36	4
0.36 ≤ EEI	5
Energy Efficiency Index (EEI) = $\frac{P}{Pref \cdot A}$	

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# The Mandatory Energy Efficiency Labelling Scheme

## FOR INDUCTION COOKER



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### ▶ For Induction Cooker :

- a) that is an encased assembly using electromagnetic induction heating as the heat source for household cooking; and
- b) that -----
  - i. uses mains electricity as the only power source;
  - ii. has a rated power not less than 700 watts but not exceeding 3500 watts for each heating unit; and
  - iii. has a total rated power not exceeding 7 000 Watts.

### ▶ Tests Required to be Carried Out

The tests specified as below are required to be carried out, in accordance with GB 21456 or other equivalent international standards approved by the Director, in order to find out the energy efficiency and performance characteristics of an induction cooker. A test report required to be submitted to the Director under section 6 of the Ordinance shall contain the results of these tests:

- (a) Power input test;
- (b) Thermal efficiency test; and
- (c) Standby power consumption test.

### ▶ Energy Efficiency Grading

The energy efficiency grading of an induction cooker shall be determined as shown in Table 14.1, with Grade 1 having the best performance and Grade 5 having the worst performance.

Table 14.1 – Derivation of energy efficiency grades		
Rated and Measured Thermal Efficiency, $\eta$ (%)		Energy Efficiency Grade
Rated Power of Heating Unit > 1200W	Rated Power of Heating Unit $\leq$ 1200W	
$\eta \geq 90$	$\eta \geq 88$	1
$90 > \eta \geq 88$	$88 > \eta \geq 86$	2
$88 > \eta \geq 86$	$86 > \eta \geq 84$	3
$86 > \eta \geq 84$	$84 > \eta \geq 82$	4
$\eta < 84$	$\eta < 82$	5
$\eta = (c1 \times m1 + c2 \times m2) \times \Delta t \times 100\% / (3.6 \times 10^3 \times E)$		

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