



In Collaboration with:



FANS: DRAFT MEPS REGULATION

ECREEE / GIZ

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OVERVIEW OF THE MARKET

Based on available data and regional comparison:

- Over 3,6 million fans of all types sold per year (11 Mio by 2030) and currently over 21 Mio installed
- The three main types are: desk, standing, and ceiling fans. Standing is the most popular.
- Each unit averages about 115 kWh per year.
- Estimated total annual electricity consumption of 2,46 TWh.

Note: These are estimated based on available data (national survey not yet completed).

OVERVIEW OF THE MARKET

Based on available data:

- There can be a large number of different brands.
- Many of them are 'value' or second-tier brands, which are not household names.
- In some ECOWAS member states, the market consist mainly of imported fans.

TEST PROCEDURES & STANDARDS

Relevant IEC standards include:

- *IEC 60879:1986 “**Performance** and construction of electric circulating fans and regulators”.*
- *IEC 62301:2011 Ed 2 “Household Electrical Appliances: **Measurement of standby power**”.*

→ Both test standards are well established and used as reference for most of the fans MEPS in the world

→ choice of test procedure is clear for fans

In addition: *IEC 60335-3:2008 “Household and similar electrical appliances – Safety”.*

OVERVIEW MEPS IN THE WORLD

Following countries have implemented MEPS:

- *China (GB 32049-2015)*
- *USA*
- *South Korea*
- *ASEAN region*
- *EU (EC 1253/2014): only for large one (< 125 W)*

Scope:

- Households fans, usually < 125 W
- Ceiling, desk & standing Fans

DRAFT MEPS: APPROACH

Possible regulation to be considered as basis to draft an ECOWAS regulation: ASEAN, since:

- Harmonized and new fan MEPS in ASEAN.
- Similar market types of both imported and domestically-produced products.
- Many imported products are from China.
- Locally-produced products are made using less sophisticated production techniques.

MEPS IN THE ASEAN REGION

Requirements for Ceiling Fans

Fan Sweep (in mm)	Minimum Efficiency (m ³ /minute/W)
<900	2.75
900<1050	2.79
1050<1200	2.93
1200<1300	3.04
1300<1400	3.15
1400<1500	3.33
1500<1600	3.33
1600<1800	3.33
>1800	3.33

Requirements for Desk & Standing Fans

Fan Sweep (in mm)	Minimum Efficiency (m ³ /minute/W)
200<230	0.54
230<250	0.64
250<300	0.74
300<350	0.80
350<400	0.90
400<450	1.00
450<500	1.10
500<600	1.20
>600	1.30

Requirements for off and stand-by modes (if equipped):

- Maximum power, off mode ≤ 0.5 W
- Maximum power, stand-by mode ≤ 0.5 W (for reactivation function only)
- Maximum power, stand-by mode ≤ 1 W (for reactivation function and only an indication of enabled reactivation function, and/or information or status display).

DRAFT MEPS: INFO REQUIREMENT

Information requirements on the packaging:

1. General information (on the top of the label)

- › Manufacturer
- › Model reference
- › Type of fan, that is:
 - Ceiling (fixed)
 - Desk/Table/Stand (portable)

DRAFT MEPS: INFO REQUIREMENT

2. MEPS values (central position)

- › Minimum Efficiency for this type (ceiling or desk/table/stand) of appliance (in the test conditions)
- › Specific efficiency value for the specific appliance (in the test conditions)

3. Estimated annual energy consumption in kWh per year (in the test conditions) at 14 hours per day.

4. Technical characteristics (on the bottom of the label)

- › Nominal power (W)
- › Nominal voltage (V)
- › Frequency (Hz)



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