

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

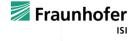
Fan Sweep (in mm)	Minimum Efficiency (m3/minute/W)
<900	2.75
900<1050	2.79
1050<1200	2.93
1200<1300	3.04
1300<1400	3.15
1400<1500	3.33
1500<1600	3.33
1600<1800	3.33
>1800	3.33

Requirements for Desk & Standing Fans

Fan Sweep	Minimum Efficiency
(in mm)	(m3/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).

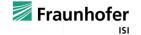




DRAFT MEPS: INFO REQUIREMENT

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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