



## Overview of Room Air Conditioner Markets in Africa

The **Africa Air Conditioner Market Scoping Study** is the result of CLASP’s collection and analysis of information<sup>1</sup> on split air conditioner (AC) and window AC products in nine key markets in Africa: Burkina Faso, Ghana, Kenya, Mauritius, Morocco, Nigeria, Senegal, South Africa, and Tunisia. These countries represent one of three conditions: the largest economies in terms of AC demand from each region in Africa, countries that import all of their AC equipment (i.e. without an AC manufacturing base), and countries that have demonstrated leadership on integrating energy efficiency into the refrigerant transition.

In 2017, **2.8 million ACs** were sold in Africa. In the years prior, between 2015 and 2016 the market grew 8.3%. Given that **only 10 African countries have appliance energy efficiency programs**, Africa is at risk of being saddled with inefficient, environmentally harmful, and poor quality ACs.

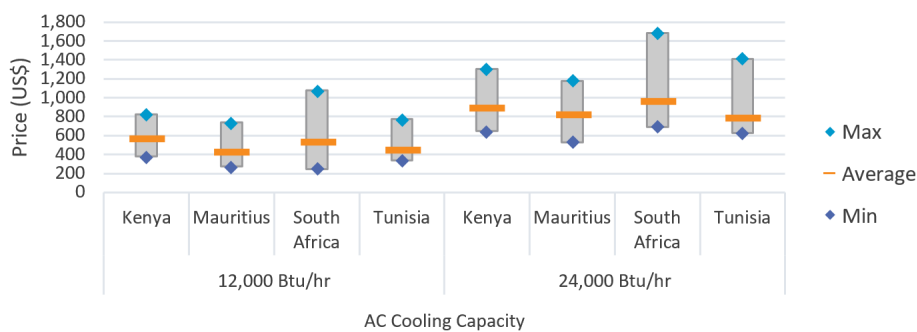
### Market Size & Brands

**Nigeria and South Africa are the two largest AC markets** out of the six countries for which AC sales data was available, accounting for 80% of total sales (Kenya, Ghana, Tunisia, and Mauritius account for the other 20%).

In most African countries, **Chinese brands, like Midea, Hisense, and Haier, and Korean brands like Samsung and LG hold the largest market share.** However, there are many small competitors sharing the African market with the popular Chinese and Korean brands; in total, 55 unique brands were identified in the region.

### Product Types & Prices

**Split units are the most popular type of AC in African markets.** The most common cooling capacities are 9,000, 12,000, 18,000 and 24,000 Btu/hr.<sup>2</sup> For ACs with the most popular cooling capacities of 12,000 and 24,000 Btu/hr, **average prices ranged from \$433-570 and \$789-960 respectively.** The penetration of inverter technologies is low in most African countries. There is a lack of consumer awareness on the advantages of this technology.

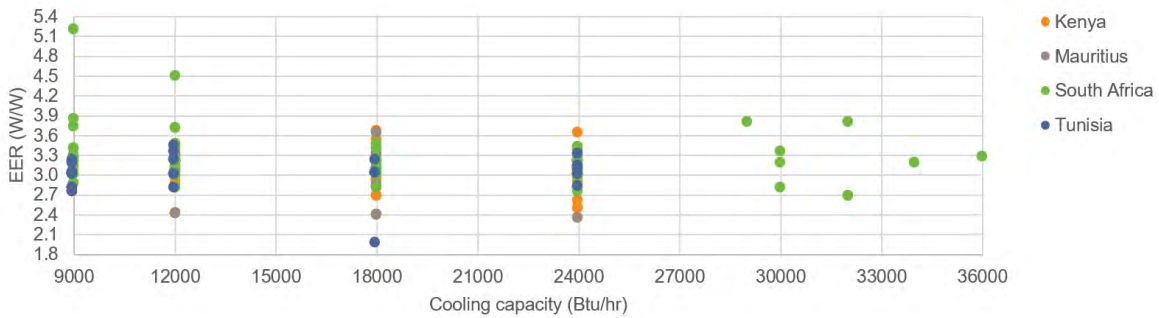


Price ranges for 12,000 and 24,000 Btu/hr ACs in four African markets (N=322)<sup>3</sup>

**R-410A is the dominant refrigerant in new ACs, while new R-22 units are still found in some markets, like Kenya and Tunisia.** In South Africa, ACs using R-410A make up almost 70% of the market, while in other countries they represent between 20% and 50%. While most African countries have regulations in place to assist HCFC phase-outs, few regulate importation of ACs that use HCFCs. According to JARN, only South Africa has implemented HCFC regulations that cover AC units. Governments may want to consider developing policies to avoid obsolete technologies and promote energy efficiency while transitioning to climate friendly alternatives.

## Energy Performance

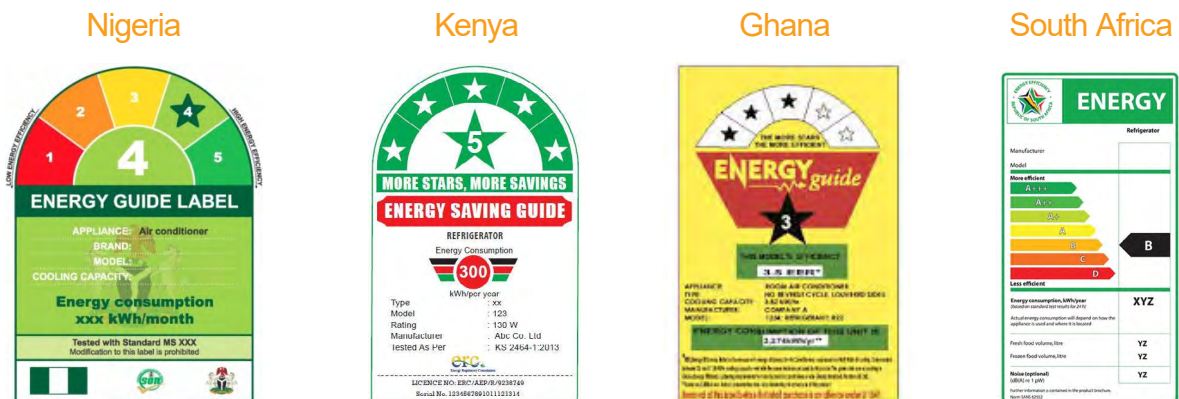
Energy performance metrics were not available for most AC units sold in the African online shops examined. Where information was available, **80% of AC units had an energy efficiency ratio (EER) between 2.8 and 3.4 W/W**. Some markets, like Nigeria and Ghana, advertise horsepower instead of capacity for ACs, making comparative analysis difficult, as horsepower does not provide a direct measure of energy efficiency. The South African market had the ACs with the highest EER rating reported (>4.0 W/W), likely because of the high penetration (40% market share) of inverter ACs, which tend to have lower market share (<20%) in most African countries.



The energy performance of ACs in four African markets (N=225)<sup>4</sup>

## Efficiency Policy

Ghana, Kenya, Nigeria, Mauritius, Tunisia and South Africa all have some combination of **standards and labeling programs or minimum energy performance standards**.



Minimum Energy Performance Standards (MEPS)	
Ghana	2.8 W/W
Kenya	2.8 W/W
Mauritius	No MEPS but ACs with efficiencies below Class D (<2.6 W/W) of the former EU efficiency classes attract a 25% customs levy
Nigeria	2.8 W/W (proposed) Information on the officially adopted MEPS was not available.
South Africa	3.0 W/W Class B of the repealed Directive 2010/30/EU (status as at 2014; under revision)
Tunisia	3.0 W/W Class B of the former EU efficiency classes (status as at 2016)

The Africa Air Conditioner Market Scoping Study was supported by the Institute for Governance & Sustainable Development. The full report is available in the CLASP Publication Library at [clasp.ngo/publib](http://clasp.ngo/publib)

<sup>1</sup>The report relies on market data from Euromonitor, the Japan Refrigeration and Air Conditioning Industry Association (JRAIA), and the Japan Air Conditioning, Heating and Refrigeration News (JARN). Market data was validated through stakeholder interviews with National Ozone Officers or local experts. Product data, including brand name, model number, cooling capacity, energy efficiency ratings, refrigerants, country of origin, and price, was collected through a search of online retailers. Data from online shops was not available for Burkina Faso, Morocco, and Senegal.

<sup>2</sup>The most common cooling capacities in kilowatts are 2.6 kW, 3.5kW, 5.3 kW and 7.0kW.

<sup>3</sup>Price data was available for 322 AC units with cooling capacities of 12,000 and 24,000 Btu/hr.

<sup>4</sup>Energy performance metrics were available for 225 AC units.