

# Report

[www.bsria.co.uk](http://www.bsria.co.uk)

## Large Packaged and Close Control

### Brazil

Report 53053/1C  
October 2009

#### A multi client study

**Compiled by:** Michela Cressotti

**No. of pages:** 39 of text

**Appendix:** A - C

**Quality Approved:** *Anette Meyer Holley*

This report must not be reproduced except in full without the written approval of an executive director of BSRIA. It is only intended to be used within the context described in the text.

**BSRIA Limited**

Old Bracknell Lane West, Bracknell, Berkshire RG12 7AH UK

**T:** +44 (0)1344 465600 **F:** +44 (0)1344 465626

**E:** [bsria@bsria.co.uk](mailto:bsria@bsria.co.uk) **W:** [www.bsria.co.uk](http://www.bsria.co.uk)

## CONTENTS

|       |                                                         |    |
|-------|---------------------------------------------------------|----|
| 1     | INTRODUCTION.....                                       | 1  |
| 1.1   | Methodology .....                                       | 1  |
| 1.2   | Definitions .....                                       | 2  |
| 2     | SUMMARY .....                                           | 3  |
| 3     | MARKET SIZE, STRUCTURE AND SEGMENTATION .....           | 7  |
| 3.1   | Market size .....                                       | 7  |
| 3.2   | Rooftops .....                                          | 9  |
| 3.3   | Indoor packaged (self contained).....                   | 11 |
| 3.4   | Close control .....                                     | 13 |
| 3.4.1 | Close control analysed by size .....                    | 14 |
| 4     | PACKAGED AIR CONDITIONING BY TYPE OF REFRIGERANTS ..... | 15 |
| 5     | MAJOR COMPANIES.....                                    | 16 |
| 5.1   | Overview.....                                           | 16 |
| 5.2   | Indoor packaged and rooftops .....                      | 18 |
| 5.2.1 | Key company information/trends .....                    | 18 |
| 5.3   | Product matrix of key suppliers .....                   | 19 |
| 6     | HISTORICAL TREND AND FORECASTS .....                    | 20 |
| 6.1   | Historical trends.....                                  | 20 |
| 6.2   | Forecasts .....                                         | 21 |
| 6.2.1 | Unitary air conditioning.....                           | 21 |
| 6.2.2 | Close control .....                                     | 21 |
| 6.3   | Construction & macroeconomic factors.....               | 23 |
| 6.3.1 | Economy and construction.....                           | 23 |
| 6.3.2 | New house building .....                                | 24 |
| 7     | INTER EU AND OVERSEAS TRADE.....                        | 27 |
| 7.1   | Production .....                                        | 27 |
| 7.1.1 | Trends in manufacturing .....                           | 27 |
| 7.2   | Imports .....                                           | 28 |
| 7.3   | Exports .....                                           | 29 |
| 8     | DISTRIBUTION .....                                      | 30 |
| 9     | PRICING, DISCOUNTS AND MARGINS .....                    | 31 |
| 10    | END USER SECTORS AND APPLICATION .....                  | 32 |
| 11    | SPECIFICATION TRENDS.....                               | 33 |
| 11.1  | The specification process .....                         | 33 |
| 11.2  | Equipment and brand specification.....                  | 33 |

## APPENDICES

|                    |                                               |    |
|--------------------|-----------------------------------------------|----|
| <b>APPENDIX: A</b> | ADDRESSES OF AIR CONDITIONING SUPPLIERS ..... | 35 |
| <b>APPENDIX: B</b> | END USER/ APPLICATIONS - NEW DEFINITIONS..... | 37 |
| <b>APPENDIX: C</b> | MINISPLIT AND VRF DEFINITIONS.....            | 39 |

## TABLES

|            |                                                                                                                          |    |
|------------|--------------------------------------------------------------------------------------------------------------------------|----|
| Table 3.1  | Volume of the market for packaged air conditioning (units), 2007-2009(E).....                                            | 7  |
| Table 3.2  | Value of the market for packaged air conditioning (BRL million), 2007-2009(E) .....                                      | 8  |
| Table 3.3  | Value of the market for packaged air conditioning (US\$ million), 2007-2009(E).....                                      | 8  |
| Table 3.4  | Market for rooftops by size and mode, volume (units), 2007 .....                                                         | 10 |
| Table 3.5  | Market for rooftops by size and mode, volume (units), 2008 .....                                                         | 10 |
| Table 3.6  | Market for rooftops by size and mode, volume (units), 2009(E) .....                                                      | 10 |
| Table 3.7  | Rooftops analysed by size, volume (units), 2007-2009(E) .....                                                            | 10 |
| Table 3.8  | Market for indoor packaged, volume (units), 2007-2009(E) .....                                                           | 11 |
| Table 3.9  | Market for indoor packaged, value (BRL million), 2007-2009(E).....                                                       | 11 |
| Table 3.10 | Market for indoor packaged, value (US\$ million), 2007-2009(E) .....                                                     | 11 |
| Table 3.11 | Market for indoor packaged analysed by mode and size, volume (units), 2007 .....                                         | 12 |
| Table 3.12 | Market for indoor packaged analysed by mode and size, volume (units), 2008 .....                                         | 12 |
| Table 3.13 | Market for indoor packaged analysed by mode and size, volume (units), 2009(E).....                                       | 12 |
| Table 3.14 | Close control market analysed by application, volume (units), 2007-2009(E) .....                                         | 13 |
| Table 3.15 | Close control market analysed by application, value (BRL million), 2007-2009(E) .....                                    | 13 |
| Table 3.16 | Close control market analysed by application, value (US\$ million), 2007-2009(E) .....                                   | 13 |
| Table 3.17 | Close control market by size, volume (units), 2007-2009(E).....                                                          | 14 |
| Table 4.1  | Large packaged & close control by type of refrigerants, % sales by volume, 2008.....                                     | 15 |
| Table 5.1  | Indoor packaged, US ducted splits and rooftop markets analysed by major companies, by value, 2008/2009 .....             | 18 |
| Table 5.2  | Close control market analysed by major companies, by value, 2008/2009 .....                                              | 18 |
| Table 5.3  | Matrix of suppliers, 2008 .....                                                                                          | 19 |
| Table 6.1  | Large packaged & close control, historical trend by product, volume (units), 2004-2008. ....                             | 20 |
| Table 6.2  | Large packaged air conditioning, historical trend by product, value at current prices (BRL million), 2004-2008.....      | 21 |
| Table 6.3  | Large packaged & close control, forecast by product, outdoor units, volume (units), 2007-2013 .....                      | 21 |
| Table 6.4  | Large packaged & close control, forecast by product, outdoor units, value (BRL million in 2008 prices), 2007-2013 .....  | 22 |
| Table 6.5  | Large packaged & close control, forecast by product, outdoor units, value (US\$ million in 2008 prices), 2007-2013 ..... | 22 |
| Table 6.6  | Large packaged & close control, forecast by product, outdoor units, average BRL MSP in 2008 prices, 2007-2013 .....      | 22 |
| Table 6.7  | Large packaged & close control, forecast by product, outdoor units, average US\$ MSP in 2008 prices, 2007-2013.....      | 22 |
| Table 6.8  | Macro-economic forecasts, 2007-2013.....                                                                                 | 25 |
| Table 7.1  | Manufacturer information on major suppliers.....                                                                         | 28 |
| Table 7.2  | Foreign trade (derived), volume (units), 2008.....                                                                       | 29 |
| Table 7.3  | Local manufacturers of large packaged & close control (descending order), 2008 .....                                     | 29 |
| Table 8.1  | Distribution of large packaged & close control, first point of sale, % by volume, 2008....                               | 30 |

|                                                                                                   |    |
|---------------------------------------------------------------------------------------------------|----|
| Table 9.1 Examples of average list prices (US\$) by product type, 2008 .....                      | 31 |
| Table 10.1 End users, large packaged & close control, % sales by value, 2008.....                 | 32 |
| Table 10.2 Applications, large packaged & close control, % of sales by value, 2008.....           | 32 |
| Table 11.1 Specification of type of equipment, large packaged & close control, % by value, 2008.. | 33 |
| Table 12.2 Specification of brand of equipment, large packaged & close control, % by value, 2008  | 33 |

## FIGURES

|                                                                                                            |    |
|------------------------------------------------------------------------------------------------------------|----|
| Figure 2.1 Map of Brazil .....                                                                             | 3  |
| Figure 2.2 Overview of packaged air conditioning market by product type, % by volume and value, 2008 ..... | 6  |
| Figure 3.1 Packaged air conditioning, volume, 2008 .....                                                   | 9  |
| Figure 3.2 Packaged air conditioning, value (US\$ million), 2008 .....                                     | 9  |
| Figure 3.3 Rooftops analysed by size and mode, volume (units), 2008.....                                   | 10 |
| Figure 3.4 Indoor packaged analysed by size, volume (units), 2008 .....                                    | 12 |
| Figure 3.5 Close control market analysed by size, volume (units), 2008.....                                | 14 |
| Figure 6.1 Trend for packaged air conditioning, value (US\$ million), 2007-2013.....                       | 23 |