

# Global Ultra-low Temperature Helium 3 Refrigerator Supply, Demand and Key Producers, 2023-2029

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## Abstracts

The global Ultra-low Temperature Helium 3 Refrigerator market size is expected to reach \$ million by 2029, rising at a market growth of % CAGR during the forecast period (2023-2029).

The dilution refrigerator is a high-end scientific research instrument that can provide an environment close to absolute zero. It is widely used in scientific research fields such as condensed matter physics, material science, particle physics and even astronomical detection. The dilution refrigerator was proposed in 1951 by H.London. The theory of refrigeration by superfluid  $4\text{He}$  dilution  $3\text{He}$  method. By 1965, P. Das et al. made a  $3\text{He}$ - $4\text{He}$  dilution refrigerator based on this theory, which has reached a low temperature of 1.8mK. It can maintain the temperature in the millik range for a long time, has a large cooling capacity, and has become the most important means and equipment to obtain the millik temperature.

This report studies the global Ultra-low Temperature Helium 3 Refrigerator production, demand, key manufacturers, and key regions.

This report is a detailed and comprehensive analysis of the world market for Ultra-low Temperature Helium 3 Refrigerator, and provides market size (US\$ million) and Year-over-Year (YoY) Growth, considering 2022 as the base year. This report explores demand trends and competition, as well as details the characteristics of Ultra-low Temperature Helium 3 Refrigerator that contribute to its increasing demand across many markets.

Highlights and key features of the study

Global Ultra-low Temperature Helium 3 Refrigerator total production and demand, 2018-2029, (Unit)

Global Ultra-low Temperature Helium 3 Refrigerator total production value, 2018-2029, (USD Million)

Global Ultra-low Temperature Helium 3 Refrigerator production by region & country, production, value, CAGR, 2018-2029, (USD Million) & (Unit)

Global Ultra-low Temperature Helium 3 Refrigerator consumption by region & country, CAGR, 2018-2029 & (Unit)

U.S. VS China: Ultra-low Temperature Helium 3 Refrigerator domestic production, consumption, key domestic manufacturers and share

Global Ultra-low Temperature Helium 3 Refrigerator production by manufacturer, production, price, value and market share 2018-2023, (USD Million) & (Unit)

Global Ultra-low Temperature Helium 3 Refrigerator production by Type, production, value, CAGR, 2018-2029, (USD Million) & (Unit)

Global Ultra-low Temperature Helium 3 Refrigerator production by Application production, value, CAGR, 2018-2029, (USD Million) & (Unit).

This reports profiles key players in the global Ultra-low Temperature Helium 3 Refrigerator market based on the following parameters – company overview, production, value, price, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include Bluefors Oy, Oxford Instruments NanoScience, Leiden Cryogenics BV, JanisULT, Cryomagnetics, Taiyo Nippon Sanso and Ulvac Cryogenics, etc.

This report also provides key insights about market drivers, restraints, opportunities, new product launches or approvals.

Stakeholders would have ease in decision-making through various strategy matrices used in analyzing the World Ultra-low Temperature Helium 3 Refrigerator market.

Detailed Segmentation:

Each section contains quantitative market data including market by value (US\$ Millions), volume (production, consumption) & (Unit) and average price (US\$/Unit) by manufacturer, by Type, and by Application. Data is given for the years 2018-2029 by year with 2022 as the base year, 2023 as the estimate year, and 2024-2029 as the forecast year.

#### Global Ultra-low Temperature Helium 3 Refrigerator Market, By Region:

United States

China

Europe

Japan

South Korea

ASEAN

India

Rest of World

#### Global Ultra-low Temperature Helium 3 Refrigerator Market, Segmentation by Type

Below 10mK

Between 10-20mK

Above 20mK

#### Global Ultra-low Temperature Helium 3 Refrigerator Market, Segmentation by Application

Condensed Matter Physics

Material Science

Particle Physics

Astronomical Detection

Others

#### Companies Profiled:

Bluefors Oy

Oxford Instruments NanoScience

Leiden Cryogenics BV

JanisULT

Cryomagnetics

Taiyo Nippon Sanso

Ulvac Cryogenics

#### Key Questions Answered

1. How big is the global Ultra-low Temperature Helium 3 Refrigerator market?
2. What is the demand of the global Ultra-low Temperature Helium 3 Refrigerator market?
3. What is the year over year growth of the global Ultra-low Temperature Helium 3 Refrigerator market?
4. What is the production and production value of the global Ultra-low Temperature Helium 3 Refrigerator market?

5. Who are the key producers in the global Ultra-low Temperature Helium 3 Refrigerator market?

## Contents

### 1 SUPPLY SUMMARY

- 1.1 Ultra-low Temperature Helium 3 Refrigerator Introduction
- 1.2 World Ultra-low Temperature Helium 3 Refrigerator Supply & Forecast
  - 1.2.1 World Ultra-low Temperature Helium 3 Refrigerator Production Value (2018 & 2022 & 2029)
  - 1.2.2 World Ultra-low Temperature Helium 3 Refrigerator Production (2018-2029)
  - 1.2.3 World Ultra-low Temperature Helium 3 Refrigerator Pricing Trends (2018-2029)
- 1.3 World Ultra-low Temperature Helium 3 Refrigerator Production by Region (Based on Production Site)
  - 1.3.1 World Ultra-low Temperature Helium 3 Refrigerator Production Value by Region (2018-2029)
  - 1.3.2 World Ultra-low Temperature Helium 3 Refrigerator Production by Region (2018-2029)
  - 1.3.3 World Ultra-low Temperature Helium 3 Refrigerator Average Price by Region (2018-2029)
  - 1.3.4 North America Ultra-low Temperature Helium 3 Refrigerator Production (2018-2029)
  - 1.3.5 Europe Ultra-low Temperature Helium 3 Refrigerator Production (2018-2029)
  - 1.3.6 China Ultra-low Temperature Helium 3 Refrigerator Production (2018-2029)
  - 1.3.7 Japan Ultra-low Temperature Helium 3 Refrigerator Production (2018-2029)
- 1.4 Market Drivers, Restraints and Trends
  - 1.4.1 Ultra-low Temperature Helium 3 Refrigerator Market Drivers
  - 1.4.2 Factors Affecting Demand
  - 1.4.3 Ultra-low Temperature Helium 3 Refrigerator Major Market Trends

### 2 DEMAND SUMMARY

- 2.1 World Ultra-low Temperature Helium 3 Refrigerator Demand (2018-2029)
- 2.2 World Ultra-low Temperature Helium 3 Refrigerator Consumption by Region
  - 2.2.1 World Ultra-low Temperature Helium 3 Refrigerator Consumption by Region (2018-2023)
  - 2.2.2 World Ultra-low Temperature Helium 3 Refrigerator Consumption Forecast by Region (2024-2029)
- 2.3 United States Ultra-low Temperature Helium 3 Refrigerator Consumption (2018-2029)
- 2.4 China Ultra-low Temperature Helium 3 Refrigerator Consumption (2018-2029)

- 2.5 Europe Ultra-low Temperature Helium 3 Refrigerator Consumption (2018-2029)
- 2.6 Japan Ultra-low Temperature Helium 3 Refrigerator Consumption (2018-2029)
- 2.7 South Korea Ultra-low Temperature Helium 3 Refrigerator Consumption (2018-2029)
- 2.8 ASEAN Ultra-low Temperature Helium 3 Refrigerator Consumption (2018-2029)
- 2.9 India Ultra-low Temperature Helium 3 Refrigerator Consumption (2018-2029)

### **3 WORLD ULTRA-LOW TEMPERATURE HELIUM 3 REFRIGERATOR MANUFACTURERS COMPETITIVE ANALYSIS**

- 3.1 World Ultra-low Temperature Helium 3 Refrigerator Production Value by Manufacturer (2018-2023)
- 3.2 World Ultra-low Temperature Helium 3 Refrigerator Production by Manufacturer (2018-2023)
- 3.3 World Ultra-low Temperature Helium 3 Refrigerator Average Price by Manufacturer (2018-2023)
- 3.4 Ultra-low Temperature Helium 3 Refrigerator Company Evaluation Quadrant
- 3.5 Industry Rank and Concentration Rate (CR)
  - 3.5.1 Global Ultra-low Temperature Helium 3 Refrigerator Industry Rank of Major Manufacturers
  - 3.5.2 Global Concentration Ratios (CR4) for Ultra-low Temperature Helium 3 Refrigerator in 2022
  - 3.5.3 Global Concentration Ratios (CR8) for Ultra-low Temperature Helium 3 Refrigerator in 2022
- 3.6 Ultra-low Temperature Helium 3 Refrigerator Market: Overall Company Footprint Analysis
  - 3.6.1 Ultra-low Temperature Helium 3 Refrigerator Market: Region Footprint
  - 3.6.2 Ultra-low Temperature Helium 3 Refrigerator Market: Company Product Type Footprint
  - 3.6.3 Ultra-low Temperature Helium 3 Refrigerator Market: Company Product Application Footprint
- 3.7 Competitive Environment
  - 3.7.1 Historical Structure of the Industry
  - 3.7.2 Barriers of Market Entry
  - 3.7.3 Factors of Competition
- 3.8 New Entrant and Capacity Expansion Plans
- 3.9 Mergers, Acquisition, Agreements, and Collaborations

### **4 UNITED STATES VS CHINA VS REST OF THE WORLD**

#### 4.1 United States VS China: Ultra-low Temperature Helium 3 Refrigerator Production Value Comparison

4.1.1 United States VS China: Ultra-low Temperature Helium 3 Refrigerator Production Value Comparison (2018 & 2022 & 2029)

4.1.2 United States VS China: Ultra-low Temperature Helium 3 Refrigerator Production Value Market Share Comparison (2018 & 2022 & 2029)

#### 4.2 United States VS China: Ultra-low Temperature Helium 3 Refrigerator Production Comparison

4.2.1 United States VS China: Ultra-low Temperature Helium 3 Refrigerator Production Comparison (2018 & 2022 & 2029)

4.2.2 United States VS China: Ultra-low Temperature Helium 3 Refrigerator Production Market Share Comparison (2018 & 2022 & 2029)

#### 4.3 United States VS China: Ultra-low Temperature Helium 3 Refrigerator Consumption Comparison

4.3.1 United States VS China: Ultra-low Temperature Helium 3 Refrigerator Consumption Comparison (2018 & 2022 & 2029)

4.3.2 United States VS China: Ultra-low Temperature Helium 3 Refrigerator Consumption Market Share Comparison (2018 & 2022 & 2029)

#### 4.4 United States Based Ultra-low Temperature Helium 3 Refrigerator Manufacturers and Market Share, 2018-2023

4.4.1 United States Based Ultra-low Temperature Helium 3 Refrigerator Manufacturers, Headquarters and Production Site (States, Country)

4.4.2 United States Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production Value (2018-2023)

4.4.3 United States Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production (2018-2023)

#### 4.5 China Based Ultra-low Temperature Helium 3 Refrigerator Manufacturers and Market Share

4.5.1 China Based Ultra-low Temperature Helium 3 Refrigerator Manufacturers, Headquarters and Production Site (Province, Country)

4.5.2 China Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production Value (2018-2023)

4.5.3 China Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production (2018-2023)

#### 4.6 Rest of World Based Ultra-low Temperature Helium 3 Refrigerator Manufacturers and Market Share, 2018-2023

4.6.1 Rest of World Based Ultra-low Temperature Helium 3 Refrigerator Manufacturers, Headquarters and Production Site (State, Country)



4.6.2 Rest of World Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production Value (2018-2023)

4.6.3 Rest of World Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production (2018-2023)

## **5 MARKET ANALYSIS BY TYPE**

5.1 World Ultra-low Temperature Helium 3 Refrigerator Market Size Overview by Type: 2018 VS 2022 VS 2029

5.2 Segment Introduction by Type

5.2.1 Below 10mK

5.2.2 Between 10-20mK

5.2.3 Above 20mK

5.3 Market Segment by Type

5.3.1 World Ultra-low Temperature Helium 3 Refrigerator Production by Type (2018-2029)

5.3.2 World Ultra-low Temperature Helium 3 Refrigerator Production Value by Type (2018-2029)

5.3.3 World Ultra-low Temperature Helium 3 Refrigerator Average Price by Type (2018-2029)

## **6 MARKET ANALYSIS BY APPLICATION**

6.1 World Ultra-low Temperature Helium 3 Refrigerator Market Size Overview by Application: 2018 VS 2022 VS 2029

6.2 Segment Introduction by Application

6.2.1 Condensed Matter Physics

6.2.2 Material Science

6.2.3 Particle Physics

6.2.4 Astronomical Detection

6.2.5 Others

6.3 Market Segment by Application

6.3.1 World Ultra-low Temperature Helium 3 Refrigerator Production by Application (2018-2029)

6.3.2 World Ultra-low Temperature Helium 3 Refrigerator Production Value by Application (2018-2029)

6.3.3 World Ultra-low Temperature Helium 3 Refrigerator Average Price by Application (2018-2029)

## 7 COMPANY PROFILES

### 7.1 Bluefors Oy

7.1.1 Bluefors Oy Details

7.1.2 Bluefors Oy Major Business

7.1.3 Bluefors Oy Ultra-low Temperature Helium 3 Refrigerator Product and Services

7.1.4 Bluefors Oy Ultra-low Temperature Helium 3 Refrigerator Production, Price, Value, Gross Margin and Market Share (2018-2023)

7.1.5 Bluefors Oy Recent Developments/Updates

7.1.6 Bluefors Oy Competitive Strengths & Weaknesses

### 7.2 Oxford Instruments NanoScience

7.2.1 Oxford Instruments NanoScience Details

7.2.2 Oxford Instruments NanoScience Major Business

7.2.3 Oxford Instruments NanoScience Ultra-low Temperature Helium 3 Refrigerator Product and Services

7.2.4 Oxford Instruments NanoScience Ultra-low Temperature Helium 3 Refrigerator Production, Price, Value, Gross Margin and Market Share (2018-2023)

7.2.5 Oxford Instruments NanoScience Recent Developments/Updates

7.2.6 Oxford Instruments NanoScience Competitive Strengths & Weaknesses

### 7.3 Leiden Cryogenics BV

7.3.1 Leiden Cryogenics BV Details

7.3.2 Leiden Cryogenics BV Major Business

7.3.3 Leiden Cryogenics BV Ultra-low Temperature Helium 3 Refrigerator Product and Services

7.3.4 Leiden Cryogenics BV Ultra-low Temperature Helium 3 Refrigerator Production, Price, Value, Gross Margin and Market Share (2018-2023)

7.3.5 Leiden Cryogenics BV Recent Developments/Updates

7.3.6 Leiden Cryogenics BV Competitive Strengths & Weaknesses

### 7.4 JanisULT

7.4.1 JanisULT Details

7.4.2 JanisULT Major Business

7.4.3 JanisULT Ultra-low Temperature Helium 3 Refrigerator Product and Services

7.4.4 JanisULT Ultra-low Temperature Helium 3 Refrigerator Production, Price, Value, Gross Margin and Market Share (2018-2023)

7.4.5 JanisULT Recent Developments/Updates

7.4.6 JanisULT Competitive Strengths & Weaknesses

### 7.5 Cryomagnetics

7.5.1 Cryomagnetics Details

7.5.2 Cryomagnetics Major Business

7.5.3 Cryomagnetics Ultra-low Temperature Helium 3 Refrigerator Product and Services

7.5.4 Cryomagnetics Ultra-low Temperature Helium 3 Refrigerator Production, Price, Value, Gross Margin and Market Share (2018-2023)

7.5.5 Cryomagnetics Recent Developments/Updates

7.5.6 Cryomagnetics Competitive Strengths & Weaknesses

7.6 Taiyo Nippon Sanso

7.6.1 Taiyo Nippon Sanso Details

7.6.2 Taiyo Nippon Sanso Major Business

7.6.3 Taiyo Nippon Sanso Ultra-low Temperature Helium 3 Refrigerator Product and Services

7.6.4 Taiyo Nippon Sanso Ultra-low Temperature Helium 3 Refrigerator Production, Price, Value, Gross Margin and Market Share (2018-2023)

7.6.5 Taiyo Nippon Sanso Recent Developments/Updates

7.6.6 Taiyo Nippon Sanso Competitive Strengths & Weaknesses

7.7 Ulvac Cryogenics

7.7.1 Ulvac Cryogenics Details

7.7.2 Ulvac Cryogenics Major Business

7.7.3 Ulvac Cryogenics Ultra-low Temperature Helium 3 Refrigerator Product and Services

7.7.4 Ulvac Cryogenics Ultra-low Temperature Helium 3 Refrigerator Production, Price, Value, Gross Margin and Market Share (2018-2023)

7.7.5 Ulvac Cryogenics Recent Developments/Updates

7.7.6 Ulvac Cryogenics Competitive Strengths & Weaknesses

## **8 INDUSTRY CHAIN ANALYSIS**

8.1 Ultra-low Temperature Helium 3 Refrigerator Industry Chain

8.2 Ultra-low Temperature Helium 3 Refrigerator Upstream Analysis

8.2.1 Ultra-low Temperature Helium 3 Refrigerator Core Raw Materials

8.2.2 Main Manufacturers of Ultra-low Temperature Helium 3 Refrigerator Core Raw Materials

8.3 Midstream Analysis

8.4 Downstream Analysis

8.5 Ultra-low Temperature Helium 3 Refrigerator Production Mode

8.6 Ultra-low Temperature Helium 3 Refrigerator Procurement Model

8.7 Ultra-low Temperature Helium 3 Refrigerator Industry Sales Model and Sales Channels

8.7.1 Ultra-low Temperature Helium 3 Refrigerator Sales Model

## 8.7.2 Ultra-low Temperature Helium 3 Refrigerator Typical Customers

# 9 RESEARCH FINDINGS AND CONCLUSION

# 10 APPENDIX

10.1 Methodology

10.2 Research Process and Data Source

10.3 Disclaimer

## List Of Tables

### LIST OF TABLES

Table 1. World Ultra-low Temperature Helium 3 Refrigerator Production Value by Region (2018, 2022 and 2029) & (USD Million)

Table 2. World Ultra-low Temperature Helium 3 Refrigerator Production Value by Region (2018-2023) & (USD Million)

Table 3. World Ultra-low Temperature Helium 3 Refrigerator Production Value by Region (2024-2029) & (USD Million)

Table 4. World Ultra-low Temperature Helium 3 Refrigerator Production Value Market Share by Region (2018-2023)

Table 5. World Ultra-low Temperature Helium 3 Refrigerator Production Value Market Share by Region (2024-2029)

Table 6. World Ultra-low Temperature Helium 3 Refrigerator Production by Region (2018-2023) & (Unit)

Table 7. World Ultra-low Temperature Helium 3 Refrigerator Production by Region (2024-2029) & (Unit)

Table 8. World Ultra-low Temperature Helium 3 Refrigerator Production Market Share by Region (2018-2023)

Table 9. World Ultra-low Temperature Helium 3 Refrigerator Production Market Share by Region (2024-2029)

Table 10. World Ultra-low Temperature Helium 3 Refrigerator Average Price by Region (2018-2023) & (US\$/Unit)

Table 11. World Ultra-low Temperature Helium 3 Refrigerator Average Price by Region (2024-2029) & (US\$/Unit)

Table 12. Ultra-low Temperature Helium 3 Refrigerator Major Market Trends

Table 13. World Ultra-low Temperature Helium 3 Refrigerator Consumption Growth Rate Forecast by Region (2018 & 2022 & 2029) & (Unit)

Table 14. World Ultra-low Temperature Helium 3 Refrigerator Consumption by Region (2018-2023) & (Unit)

Table 15. World Ultra-low Temperature Helium 3 Refrigerator Consumption Forecast by Region (2024-2029) & (Unit)

Table 16. World Ultra-low Temperature Helium 3 Refrigerator Production Value by Manufacturer (2018-2023) & (USD Million)

Table 17. Production Value Market Share of Key Ultra-low Temperature Helium 3 Refrigerator Producers in 2022

Table 18. World Ultra-low Temperature Helium 3 Refrigerator Production by Manufacturer (2018-2023) & (Unit)

Table 19. Production Market Share of Key Ultra-low Temperature Helium 3 Refrigerator Producers in 2022

Table 20. World Ultra-low Temperature Helium 3 Refrigerator Average Price by Manufacturer (2018-2023) & (US\$/Unit)

Table 21. Global Ultra-low Temperature Helium 3 Refrigerator Company Evaluation Quadrant

Table 22. World Ultra-low Temperature Helium 3 Refrigerator Industry Rank of Major Manufacturers, Based on Production Value in 2022

Table 23. Head Office and Ultra-low Temperature Helium 3 Refrigerator Production Site of Key Manufacturer

Table 24. Ultra-low Temperature Helium 3 Refrigerator Market: Company Product Type Footprint

Table 25. Ultra-low Temperature Helium 3 Refrigerator Market: Company Product Application Footprint

Table 26. Ultra-low Temperature Helium 3 Refrigerator Competitive Factors

Table 27. Ultra-low Temperature Helium 3 Refrigerator New Entrant and Capacity Expansion Plans

Table 28. Ultra-low Temperature Helium 3 Refrigerator Mergers & Acquisitions Activity

Table 29. United States VS China Ultra-low Temperature Helium 3 Refrigerator Production Value Comparison, (2018 & 2022 & 2029) & (USD Million)

Table 30. United States VS China Ultra-low Temperature Helium 3 Refrigerator Production Comparison, (2018 & 2022 & 2029) & (Unit)

Table 31. United States VS China Ultra-low Temperature Helium 3 Refrigerator Consumption Comparison, (2018 & 2022 & 2029) & (Unit)

Table 32. United States Based Ultra-low Temperature Helium 3 Refrigerator Manufacturers, Headquarters and Production Site (States, Country)

Table 33. United States Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production Value, (2018-2023) & (USD Million)

Table 34. United States Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production Value Market Share (2018-2023)

Table 35. United States Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production (2018-2023) & (Unit)

Table 36. United States Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production Market Share (2018-2023)

Table 37. China Based Ultra-low Temperature Helium 3 Refrigerator Manufacturers, Headquarters and Production Site (Province, Country)

Table 38. China Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production Value, (2018-2023) & (USD Million)

Table 39. China Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator

Production Value Market Share (2018-2023)

Table 40. China Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production (2018-2023) & (Unit)

Table 41. China Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production Market Share (2018-2023)

Table 42. Rest of World Based Ultra-low Temperature Helium 3 Refrigerator Manufacturers, Headquarters and Production Site (States, Country)

Table 43. Rest of World Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production Value, (2018-2023) & (USD Million)

Table 44. Rest of World Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production Value Market Share (2018-2023)

Table 45. Rest of World Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production (2018-2023) & (Unit)

Table 46. Rest of World Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production Market Share (2018-2023)

Table 47. World Ultra-low Temperature Helium 3 Refrigerator Production Value by Type, (USD Million), 2018 & 2022 & 2029

Table 48. World Ultra-low Temperature Helium 3 Refrigerator Production by Type (2018-2023) & (Unit)

Table 49. World Ultra-low Temperature Helium 3 Refrigerator Production by Type (2024-2029) & (Unit)

Table 50. World Ultra-low Temperature Helium 3 Refrigerator Production Value by Type (2018-2023) & (USD Million)

Table 51. World Ultra-low Temperature Helium 3 Refrigerator Production Value by Type (2024-2029) & (USD Million)

Table 52. World Ultra-low Temperature Helium 3 Refrigerator Average Price by Type (2018-2023) & (US\$/Unit)

Table 53. World Ultra-low Temperature Helium 3 Refrigerator Average Price by Type (2024-2029) & (US\$/Unit)

Table 54. World Ultra-low Temperature Helium 3 Refrigerator Production Value by Application, (USD Million), 2018 & 2022 & 2029

Table 55. World Ultra-low Temperature Helium 3 Refrigerator Production by Application (2018-2023) & (Unit)

Table 56. World Ultra-low Temperature Helium 3 Refrigerator Production by Application (2024-2029) & (Unit)

Table 57. World Ultra-low Temperature Helium 3 Refrigerator Production Value by Application (2018-2023) & (USD Million)

Table 58. World Ultra-low Temperature Helium 3 Refrigerator Production Value by Application (2024-2029) & (USD Million)

Table 59. World Ultra-low Temperature Helium 3 Refrigerator Average Price by Application (2018-2023) & (US\$/Unit)

Table 60. World Ultra-low Temperature Helium 3 Refrigerator Average Price by Application (2024-2029) & (US\$/Unit)

Table 61. Bluefors Oy Basic Information, Manufacturing Base and Competitors

Table 62. Bluefors Oy Major Business

Table 63. Bluefors Oy Ultra-low Temperature Helium 3 Refrigerator Product and Services

Table 64. Bluefors Oy Ultra-low Temperature Helium 3 Refrigerator Production (Unit), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2018-2023)

Table 65. Bluefors Oy Recent Developments/Updates

Table 66. Bluefors Oy Competitive Strengths & Weaknesses

Table 67. Oxford Instruments NanoScience Basic Information, Manufacturing Base and Competitors

Table 68. Oxford Instruments NanoScience Major Business

Table 69. Oxford Instruments NanoScience Ultra-low Temperature Helium 3 Refrigerator Product and Services

Table 70. Oxford Instruments NanoScience Ultra-low Temperature Helium 3 Refrigerator Production (Unit), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2018-2023)

Table 71. Oxford Instruments NanoScience Recent Developments/Updates

Table 72. Oxford Instruments NanoScience Competitive Strengths & Weaknesses

Table 73. Leiden Cryogenics BV Basic Information, Manufacturing Base and Competitors

Table 74. Leiden Cryogenics BV Major Business

Table 75. Leiden Cryogenics BV Ultra-low Temperature Helium 3 Refrigerator Product and Services

Table 76. Leiden Cryogenics BV Ultra-low Temperature Helium 3 Refrigerator Production (Unit), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2018-2023)

Table 77. Leiden Cryogenics BV Recent Developments/Updates

Table 78. Leiden Cryogenics BV Competitive Strengths & Weaknesses

Table 79. JanisULT Basic Information, Manufacturing Base and Competitors

Table 80. JanisULT Major Business

Table 81. JanisULT Ultra-low Temperature Helium 3 Refrigerator Product and Services

Table 82. JanisULT Ultra-low Temperature Helium 3 Refrigerator Production (Unit), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2018-2023)



- Table 83. JanisULT Recent Developments/Updates
- Table 84. JanisULT Competitive Strengths & Weaknesses
- Table 85. Cryomagnetics Basic Information, Manufacturing Base and Competitors
- Table 86. Cryomagnetics Major Business
- Table 87. Cryomagnetics Ultra-low Temperature Helium 3 Refrigerator Product and Services
- Table 88. Cryomagnetics Ultra-low Temperature Helium 3 Refrigerator Production (Unit), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2018-2023)
- Table 89. Cryomagnetics Recent Developments/Updates
- Table 90. Cryomagnetics Competitive Strengths & Weaknesses
- Table 91. Taiyo Nippon Sanso Basic Information, Manufacturing Base and Competitors
- Table 92. Taiyo Nippon Sanso Major Business
- Table 93. Taiyo Nippon Sanso Ultra-low Temperature Helium 3 Refrigerator Product and Services
- Table 94. Taiyo Nippon Sanso Ultra-low Temperature Helium 3 Refrigerator Production (Unit), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2018-2023)
- Table 95. Taiyo Nippon Sanso Recent Developments/Updates
- Table 96. Ulvac Cryogenics Basic Information, Manufacturing Base and Competitors
- Table 97. Ulvac Cryogenics Major Business
- Table 98. Ulvac Cryogenics Ultra-low Temperature Helium 3 Refrigerator Product and Services
- Table 99. Ulvac Cryogenics Ultra-low Temperature Helium 3 Refrigerator Production (Unit), Price (US\$/Unit), Production Value (USD Million), Gross Margin and Market Share (2018-2023)
- Table 100. Global Key Players of Ultra-low Temperature Helium 3 Refrigerator Upstream (Raw Materials)
- Table 101. Ultra-low Temperature Helium 3 Refrigerator Typical Customers
- Table 102. Ultra-low Temperature Helium 3 Refrigerator Typical Distributors

## **LIST OF FIGURE**

- Figure 1. Ultra-low Temperature Helium 3 Refrigerator Picture
- Figure 2. World Ultra-low Temperature Helium 3 Refrigerator Production Value: 2018 & 2022 & 2029, (USD Million)
- Figure 3. World Ultra-low Temperature Helium 3 Refrigerator Production Value and Forecast (2018-2029) & (USD Million)
- Figure 4. World Ultra-low Temperature Helium 3 Refrigerator Production (2018-2029) &

(Unit)

Figure 5. World Ultra-low Temperature Helium 3 Refrigerator Average Price (2018-2029) & (US\$/Unit)

Figure 6. World Ultra-low Temperature Helium 3 Refrigerator Production Value Market Share by Region (2018-2029)

Figure 7. World Ultra-low Temperature Helium 3 Refrigerator Production Market Share by Region (2018-2029)

Figure 8. North America Ultra-low Temperature Helium 3 Refrigerator Production (2018-2029) & (Unit)

Figure 9. Europe Ultra-low Temperature Helium 3 Refrigerator Production (2018-2029) & (Unit)

Figure 10. China Ultra-low Temperature Helium 3 Refrigerator Production (2018-2029) & (Unit)

Figure 11. Japan Ultra-low Temperature Helium 3 Refrigerator Production (2018-2029) & (Unit)

Figure 12. Ultra-low Temperature Helium 3 Refrigerator Market Drivers

Figure 13. Factors Affecting Demand

Figure 14. World Ultra-low Temperature Helium 3 Refrigerator Consumption (2018-2029) & (Unit)

Figure 15. World Ultra-low Temperature Helium 3 Refrigerator Consumption Market Share by Region (2018-2029)

Figure 16. United States Ultra-low Temperature Helium 3 Refrigerator Consumption (2018-2029) & (Unit)

Figure 17. China Ultra-low Temperature Helium 3 Refrigerator Consumption (2018-2029) & (Unit)

Figure 18. Europe Ultra-low Temperature Helium 3 Refrigerator Consumption (2018-2029) & (Unit)

Figure 19. Japan Ultra-low Temperature Helium 3 Refrigerator Consumption (2018-2029) & (Unit)

Figure 20. South Korea Ultra-low Temperature Helium 3 Refrigerator Consumption (2018-2029) & (Unit)

Figure 21. ASEAN Ultra-low Temperature Helium 3 Refrigerator Consumption (2018-2029) & (Unit)

Figure 22. India Ultra-low Temperature Helium 3 Refrigerator Consumption (2018-2029) & (Unit)

Figure 23. Producer Shipments of Ultra-low Temperature Helium 3 Refrigerator by Manufacturer Revenue (\$MM) and Market Share (%): 2022

Figure 24. Global Four-firm Concentration Ratios (CR4) for Ultra-low Temperature Helium 3 Refrigerator Markets in 2022

Figure 25. Global Four-firm Concentration Ratios (CR8) for Ultra-low Temperature Helium 3 Refrigerator Markets in 2022

Figure 26. United States VS China: Ultra-low Temperature Helium 3 Refrigerator Production Value Market Share Comparison (2018 & 2022 & 2029)

Figure 27. United States VS China: Ultra-low Temperature Helium 3 Refrigerator Production Market Share Comparison (2018 & 2022 & 2029)

Figure 28. United States VS China: Ultra-low Temperature Helium 3 Refrigerator Consumption Market Share Comparison (2018 & 2022 & 2029)

Figure 29. United States Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production Market Share 2022

Figure 30. China Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production Market Share 2022

Figure 31. Rest of World Based Manufacturers Ultra-low Temperature Helium 3 Refrigerator Production Market Share 2022

Figure 32. World Ultra-low Temperature Helium 3 Refrigerator Production Value by Type, (USD Million), 2018 & 2022 & 2029

Figure 33. World Ultra-low Temperature Helium 3 Refrigerator Production Value Market Share by Type in 2022

Figure 34. Below 10mK

Figure 35. Between 10-20mK

Figure 36. Above 20mK

Figure 37. World Ultra-low Temperature Helium 3 Refrigerator Production Market Share by Type (2018-2029)

Figure 38. World Ultra-low Temperature Helium 3 Refrigerator Production Value Market Share by Type (2018-2029)

Figure 39. World Ultra-low Temperature Helium 3 Refrigerator Average Price by Type (2018-2029) & (US\$/Unit)

Figure 40. World Ultra-low Temperature Helium 3 Refrigerator Production Value by Application, (USD Million), 2018 & 2022 & 2029

Figure 41. World Ultra-low Temperature Helium 3 Refrigerator Production Value Market Share by Application in 2022

Figure 42. Condensed Matter Physics

Figure 43. Material Science

Figure 44. Particle Physics

Figure 45. Astronomical Detection

Figure 46. Others

Figure 47. World Ultra-low Temperature Helium 3 Refrigerator Production Market Share by Application (2018-2029)

Figure 48. World Ultra-low Temperature Helium 3 Refrigerator Production Value Market

Share by Application (2018-2029)

Figure 49. World Ultra-low Temperature Helium 3 Refrigerator Average Price by Application (2018-2029) & (US\$/Unit)

Figure 50. Ultra-low Temperature Helium 3 Refrigerator Industry Chain

Figure 51. Ultra-low Temperature Helium 3 Refrigerator Procurement Model

Figure 52. Ultra-low Temperature Helium 3 Refrigerator Sales Model

Figure 53. Ultra-low Temperature Helium 3 Refrigerator Sales Channels, Direct Sales, and Distribution

Figure 54. Methodology

Figure 55. Research Process and Data Source

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