Presentation Overview

- Research Methodology Description
- Economic Update
- Global Market Updates
  - Low Voltage Motors
  - Medium Voltage Motors
  - Low Voltage Motor Drives
  - Medium Voltage Motor Drives
- Questions?
Research Methodology Description

Base Year Data: Primary Research

- Collect sales revenues and unit shipments from leading suppliers to each product market via Excel-based questionnaires: high participation rates
- Supplement data collection with extensive interviews with strategic marketing and product management personnel
- Consult with leading industry trade, distributor and end-user associations
- Consider data from multiple quarterly trackers: Drives, PLCs, etc.

Forecasting: Primary & Secondary Research

- Economic forecasts (GDP) sourced from IMF
- Machinery Production (MP) forecasts are sourced from IMS Research’s annual Worldwide Machinery Production Yearbook study
- Interviews provide insight into which market segments will outperform or underperform in the future
Economic Growth in Developed Regions (N. Am, EU, Japan)

Developed Regions - GDP Data

GDP Growth (%)

-8.0%
-6.0%
-4.0%
-2.0%
0.0%
2.0%
4.0%
6.0%

GDP Data

Canada
US
Germany
France
Europe
Japan

IMS research
excellence in market intelligence
Economic Growth in Developing Regions (Brazil, China, India, etc.)

Developing Regions - GDP Data

- Brazil
- Rest of South America
- China
- India
- Rest of Asia
- Russia & CIS
- Middle East & Africa

GDP Growth (%)

-10.0% -5.0% 0.0% 5.0% 10.0% 15.0%

Commodity Prices

Monthly Commodity Price Indices (2005 = 100)
The World Market for Low Voltage Motors

Products Covered:

- **IE1 (Standard Efficiency)**
  Eff2 and below; Below EPAct

- **IE2 (High Efficiency)**
  Eff1; EPAct

- **IE3 (Premium Efficiency)**
  Above Eff1; NEMA Premium

- **IE4 (Super Premium Efficiency)**
  Much higher than Eff1; Above NEMA Premium

- **Other Non-classified**
  8 / 10 / 12 pole motors
  >375kW
  Submersible motors
  Fire pump motors
  All motors that fall outside NEMA and/or IEC

- **DC Motors**
≈ 44 million low voltage motors shipped in 2010
Timeline for Motor Efficiency Class Transitions Around the World

IE2: Canada & US
IE2: Mexico
IE2: Oceania
IE1: China (Grade 1,2,3)
IE2: S. Korea, Phase 1
IE2: Brazil
IE2: S. Korea, Phase 2
IE3: US
IE2: EU, Phase 1
IE3: EU, Phase 2
IE3: Canada
IE2+: China
ErP Directive signed in EU
EISA signed in US
EuP Directive signed in EU
IE3: EU, Phase 3

Source: IMS Research FEB-12
2010 Low Voltage Motors Market
Product Type Breakdown ($M)

- **IE1**: $6,833.9 (54.8%)
- **IE2**: $3,805.3 (30.5%)
- **IE3**: $401.1 (3.2%)
- **IE4**: $137.0 (1.1%)
- **DC**: $510.7 (4.1%)
- **Others**: $783.9 (6.3%)

IE1: $6,833.9 (54.8%)
IE2: $3,805.3 (30.5%)
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IE4: $137.0 (1.1%)
DC: $510.7 (4.1%)
Others: $783.9 (6.3%)
The World Market for Medium Voltage Motors

Products Covered:

- **Voltage**
  - 1kV - 2.3kV
  - 3.3kV
  - 4.16kV
  - 5kV - 7.2kV
  - 10kV - 11kV
  - Above 11kV

- **Power Rating**
  - Below 200kW
  - 200kW - 500kW
  - 501kW - 1.5MW
  - 1.6MW - 7.4MW
  - 7.5MW - 12MW
  - Above 12MW

- **Rotor Structure**
  - Asynchronous
  - Synchronous
  - DC
Medium Voltage Motors – Market Data

Medium Voltage Motors Market
Market Size ($M) and Growth

≈ 40,000 medium voltage motors shipped in 2010
Medium Voltage Motors – Market Data

2010 Medium Voltage Motors Market
Product Type Breakdown ($M)

- Below 200kW
  - Below 200kW: $93.3 (2.4%)
  - Above 12MW: $394.7 (9.9%)

- 200 - 500kW
  - 200 - 500kW: $576.7 (14.5%)

- 501kW to 1.5MW
  - 501kW to 1.5MW: $1,011.9 (25.5%)

- 1.6 to 7.4 MW
  - 1.6 to 7.4 MW: $1,277.7 (32.2%)

- Above 12MW
  - Above 12MW: $394.7 (9.9%)

IMSresearch
2010 Medium Voltage Motors Market
Regional Breakdown ($M)

- Asia Pacific: $1,437.3 (36.2%)
- EMEA: $1,349.6 (34.0%)
- Americas: $1,181.5 (29.8%)
Products Covered:

- **Compact AC Drives**
  <25kW; typically used in fan & pump applications

- **Standard AC Drives**
  <500kW; typically used in material handling and packaging applications

- **Premium AC Drives**
  1kW through largest; most demanding applications

- **DC Drives**
  SCR based drives that control DC motors

- **Software**

- **Services**
≈ 17 million low voltage motor drives shipped in 2010
2010 Low Voltage Drives Market
Product Type Breakdown ($M)

- AC Compact: $1,793.3 (17.2%)
- AC Standard: $3,953.6 (37.9%)
- AC Premium: $3,584.3 (34.4%)
- DC: $323.2 (3.1%)
- Software: $150.8 (1.4%)
- Services: $625.1 (6.0%)
2010 Low Voltage Drives Market Power Rating Breakdown ($M)

- <2.2kW: $1,661.3 (17.2%)
- 2.2kW to 7.4kW: $1,663.9 (17.2%)
- 7.5kW to 22kW: $1,854.1 (19.2%)
- 23kW to 75kW: $1,580.1 (16.4%)
- 76kW to 110kW: $1,405.3 (14.6%)
- 111kW to 500kW: $982.5 (10.2%)
- >500kW: $1,663.9 (17.2%)

2010 Low Voltage Drives Market Power Rating Breakdown ($M)

Hardware Only
Products Covered:

- Voltage
  - 1kV - 2.3kV
  - 3.3kV
  - 4.16kV
  - 5kV - 7.2kV
  - 10kV - 11kV
  - Above 11kV

- Power Rating
  - < 500kW
  - 500kW to 1MW
  - 1.1MW to 3MW
  - 3.1MW to 5MW
  - 5.1MW to 7MW
  - 7.1MW to 10MW
  - > 10MW
Medium Voltage Drives – Market Data

Medium Voltage Motor Drives Market
Market Size ($M) and Growth

≈ 8,800 medium voltage motor drives shipped in 2010
2010 Medium Voltage Drives Market
Region Breakdown ($M)

- **Americas**: $563.4 (26.9%)
- **Asia Pacific**: $935.0 (44.7%)
- **EMEA**: $499.8 (23.9%)
- **Japan**: $94.5 (4.5%)
Medium Voltage Drives – Market Data

2010 Medium Voltage Drives Market
Power Rating Breakdown ($M)

- < 500kW
  - $135.3
  - 6.5%
- 500kW to 1MW
  - $305.1
  - 14.6%
- 1.1MW to 3MW
  - $598.0
  - 28.6%
- 3.1MW to 5MW
  - $271.5
  - 13.0%
- 5.1MW to 7MW
  - $241.2
  - 10.7%
- 7.1MW to 10MW
  - $223.7
  - 10.7%
- > 10MW
  - $317.8
  - 15.2%

Total:
- $1,353.0
- 100.0%
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