

Nidec

Global Appliance



**GA
Company Profile**



We are part of Nidec Corporation



Founded in
1973



HQ:
Kyoto, Japan



340+
Companies



40+
Countries



Over 70 M&A
(Mergers & Acquisitions)



110,000+
Employees
worldwide



\$16.2B
Net Sales (FY 23)



Information Technology



Vehicles



Robotics



Power Generation



Appliance

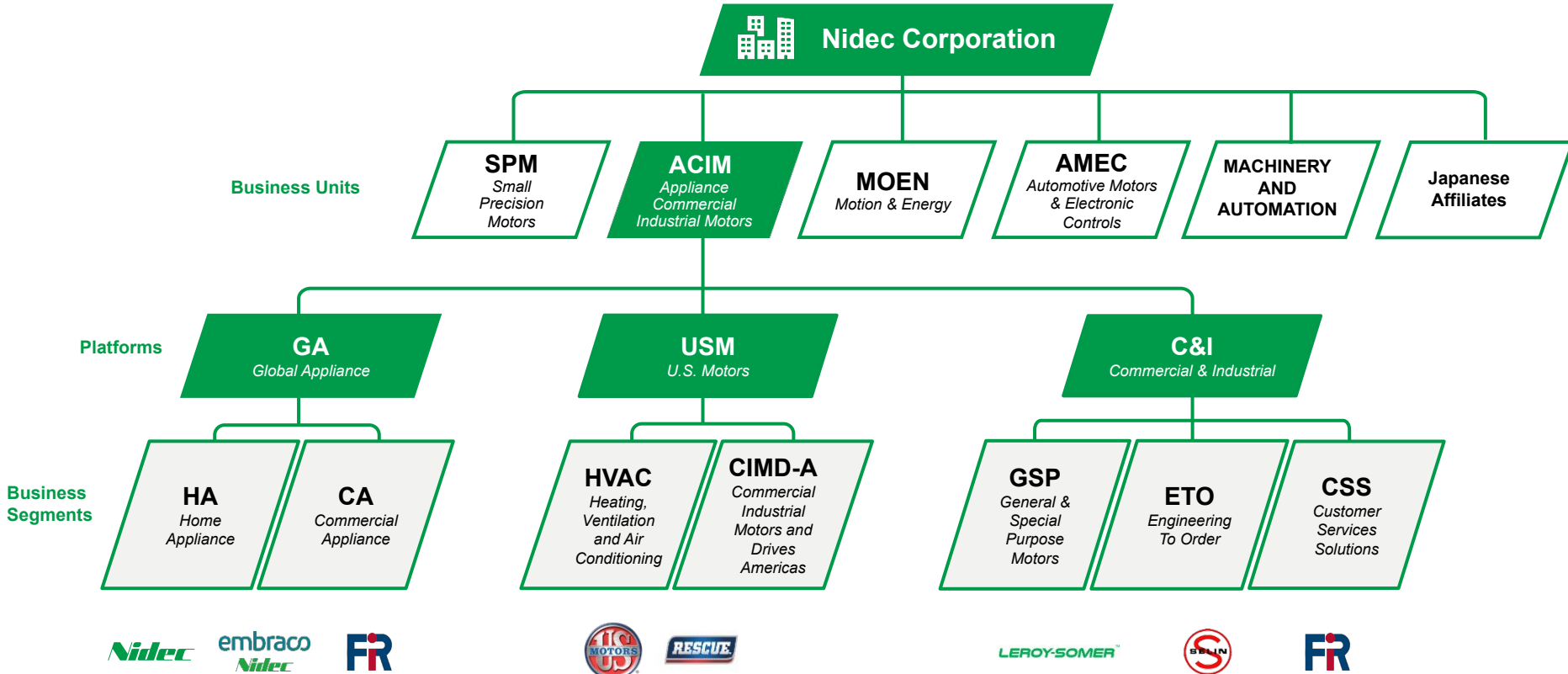


Industry

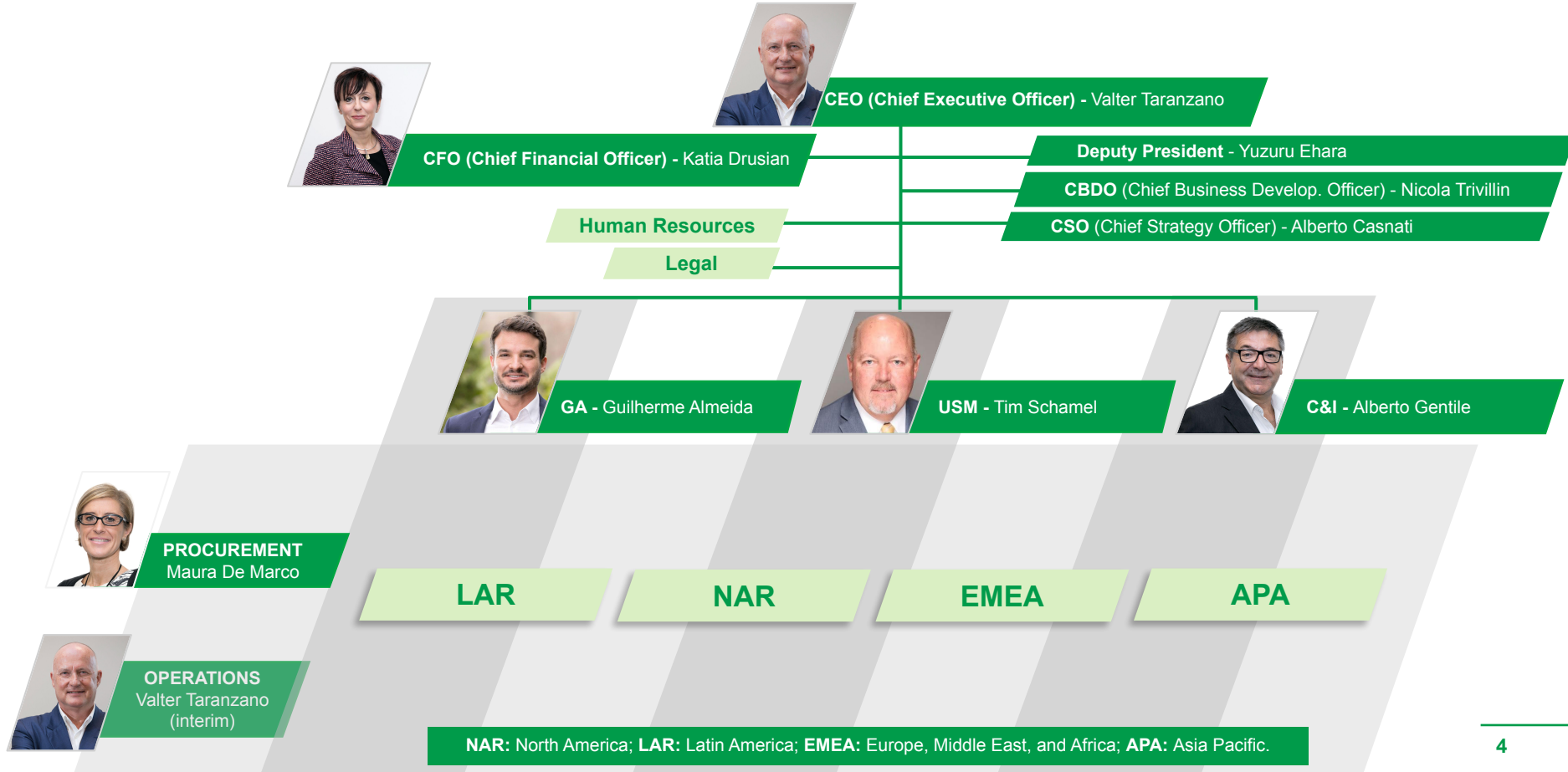
ACIM

ACIM

NIDEC CORPORATION STRUCTURE



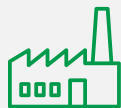
ACIM STRUCTURE



ACIM AT A GLANCE

We develop highly-efficient solutions

that empower people and industries to move towards a more sustainable world.



37
manufacturing sites



~30
business offices



+25
countries



+18,000
people



Headquarter
in Pordenone (Italy)



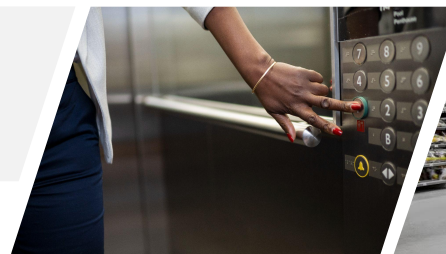
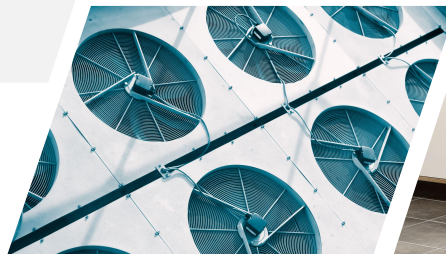
\$3B
Net Sales (FY 23)



70,000,000
products sold/year



+4,000
customers worldwide



ABOUT GA

NIDEC GLOBAL APPLIANCE

We are a global partner for **home and commercial** appliances industries

Portfolio of motors, compressors and condensing units designed to deliver the best-in-class performance, differentiated by **low noise, reliability and high energy efficiency levels.**

HA



CA



OUR BRANDS



GA PLATFORM DETAILS



HQ: Joinville (Brazil)



10,000 employees



12 manufacturing plants and **4** business offices across **9** countries



Annual production capacity of **80 million** motors and compressors



8 R&D Centers worldwide and **500+** engineers



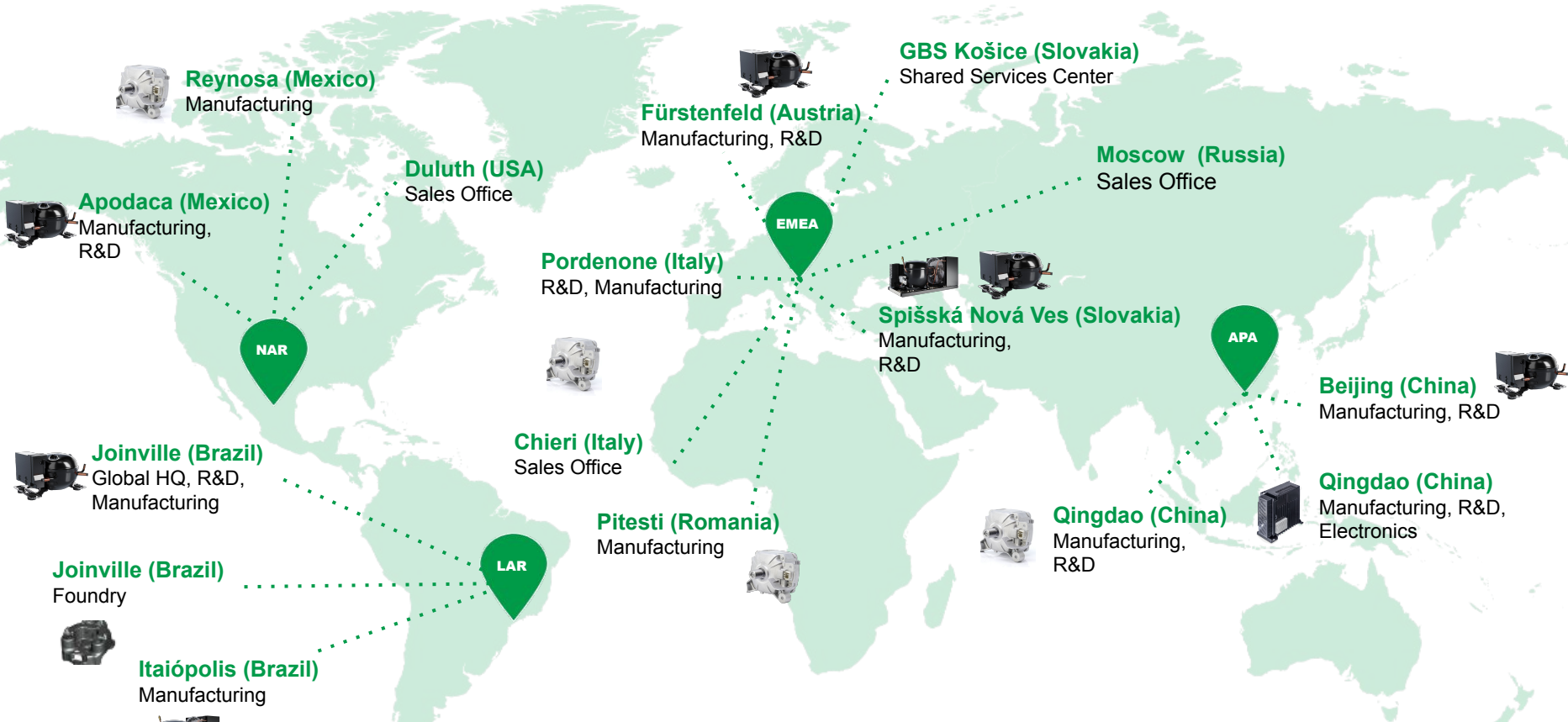
90 countries served by our products



\$1.5B
Net Sales (FY 23)

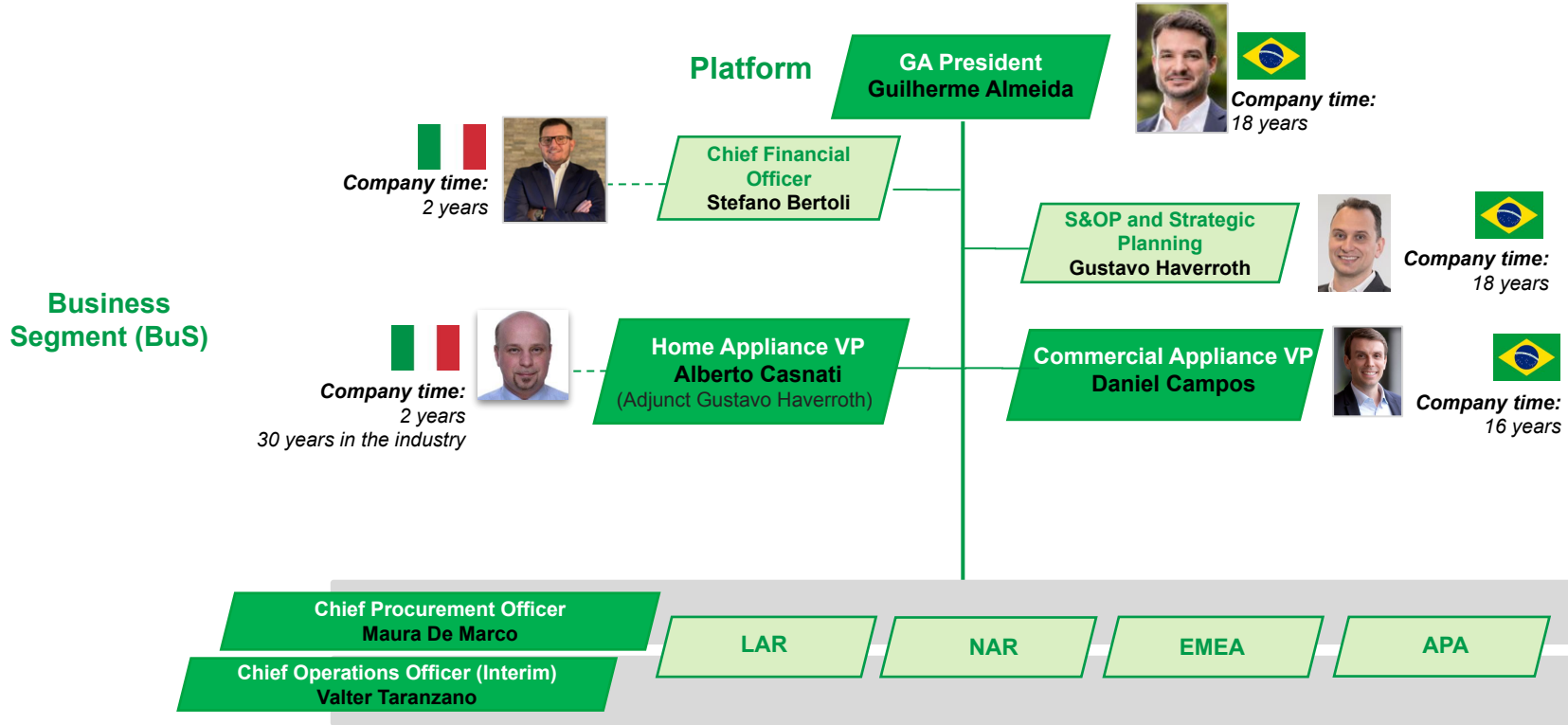


GA GLOBAL PRESENCE



NAR: North America; **LAR:** Latin America; **EMEA:** Europe, Middle East, and Africa; **APA:** Asia Pacific.

GA STRUCTURE





Energy
efficiency

Technology that enables **reduction of energy** consumption



Natural
Refrigerants

Portfolio designed to deliver the **best in class performance**, under the safest conditions with Natural Refrigerants



Miniaturization

Size reduction combined with **embedded technology**



Low noise

Low noise in motors and compressors is key to **keep the consumer experience positive**

We are differentiated by a **deep expertise in Research & Development**, capable of **delivering technology and innovation** that anticipates trends.



Robust structure for innovation

with 8 Research & Development Centers



Partnerships with Universities

in different regions in the world



Local engineering support teams

with labs and application engineers available worldwide



+500 valid patents and +4,500 in the history

Innovation is a continuous process

ABOUT GA

BUSINESS SEGMENTS AND BRANDS



Nidec
Global Appliance

Home Appliance

Solutions for Refrigerators,
Washing Machines,
Dishwashers and Dryers



Commercial Appliance

Compressors and
Condensing Units for
Refrigerators and Cooling
Systems



GA BUSINESS SEGMENT

HOME APPLIANCE

Two steps ahead of the trends to drive appliances to a more sustainable future



Nidec

Motors for washing machines, dryers and dishwashers



embraco
Nidec

Compressors for refrigerators



We offer innovation through a complete portfolio of **motors for Washing machines, Dryers and Dishwashers**

Excelling in technologies for **low noise, compact and energy efficient solutions**



PORTFOLIO FOR WASHING MACHINES, DRYERS AND DISHWASHERS

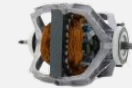
- ✓ Experts in the **OEM process**
- ✓ Deep understanding of the **market regulations worldwide**
- ✓ Highly advanced R&D
- ✓ **Tailored solutions**

Washing Machines

Dryer

Dishwasher

Traditional Motors



BPM Motors



We are differentiated by our **co-development** methodology with customers, which means:

- **Cost savings and improvements** in the customer's production line.
- **Working closely with customers** in the product development process to **provide proposals** with high added value.
- Formulate the **best solution** for each of our customers' products.



Washing Machine motors in all types of technologies

Our range of motors for washers covers the requirements for all regions and types of appliances.

Available also as IMAC (Integrated Motor and Control).



HAWM
Horizontal axis washing machine



VAWM
Vertical axis washing machine



Universal



CIM



CIM - IMAC



BPM



BPM - IMAC



DD



DDM



DDM gear drive



PSC

Dryers motors:
from classic
solutions **to**
second
generation
BPM models



DRY
Tumble
dryer



PSC



Split-Phase



BPM



BPM -
IMAC

Complete portfolio of motors for dishwashers, also available with electronic board and integrated heater

DW
Dishwashers



PSC
pump



PSC & integrated
heater



BPM
with integrated heater and
electronics

Count on our
competence
in electronic
drives



WM drives



- Client dedicated communication HW/SW
- Proprietary unbalance control algorithm
- Integrated or modular

Dryer motor drives



- Modular version

Dishwasher drives



- Integrated on pump



Solutions for Residential Refrigeration

- ★ **High-quality and high-performance**
- ⚡ **Efficiency through constant innovation**
- 🔊 **Low noise**
- ↕ **More internal cabinet space**
- 💰 **Cost Competitive**



EMBRACO PORTFOLIO FOR HOME APPLIANCE

An **innovative** and **efficient** portfolio



FIXED SPEED

Reliability: Product life extension



EL



ES



EM



EG

VARIABLE SPEED

Highest efficiency standards and world class low noise



FMS



FMX



VES



VEM



VEG

FUTURE:
High performance with simplification

Standardization to cover all applications' range



FMS



FMX



VES

Renowned fixed speed

Portfolio differentiated by low noise, reliability and high efficiency levels



EM3: wide performance range

EM FAMILY

Best Seller

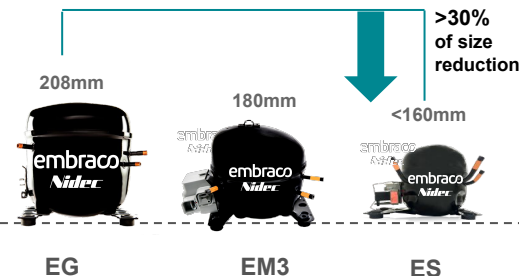
Years of expertise and non-stop evolution in more than

100M compressors sold in natural refrigerants

ENERGY EFFICIENCY

30 – 40%* increase over recent years

Size reduction journey with fixed speed compressors



LOW GWP SOLUTIONS:
SINCE 1994, THE PIONEER
IN ANTICIPATING FUTURE
CHALLENGES

Extra efficiency and temperature stability for refrigeration



Lowest energy consumption: up to 50%* lower energy consumption



Miniaturization: small on size, but large on its application range



Fast Cooling: target temperature reached faster, ensuring better food preservation



Low noise

Ready to attend the most restrictive regulations

208mm

123mm

>40% of size reduction

embraco Nidec

embraco Nidec

VEG

FMS

Designed to deliver high cooling capacity with small size

*in comparison to the conventional compressor.
Efficiency indexes based on internal tests.

Delivering market trends with breakthrough technology

embraco
Nidec

Key Drivers

★ Optimized performance

↕ More internal
cabinet space



°C Temperature control

💰 Cost Competitive



⚡ High energy efficiency

🔊 Low noise



GA BUSINESS SEGMENT

COMMERCIAL APPLIANCE

SOLUTIONS FOR COMMERCIAL APPLIANCES



Naturally Efficient: solutions ultra low GWP



Energy efficiency: robust portfolio with low energy consumption



Innovation: tailor-made solutions for the system needs.



Reliability: product life extension



High-quality and high performance



WIDE APPLICATION RANGE FOR COMMERCIAL REFRIGERATION



LBP

HBP



Naturally Efficient



Energy Efficiency



Reliability

FIXED SPEED

Extended cooling capacity



EL



EM



EH



F



NE



NT



NJ



SCROLL

VARIABLE SPEED

Excellence in energy efficiency



FMX



VEM



VES



FMF



VEH



VNE



VNEX



SCROLL

CONDENSING UNITS

Optimized design for better performance



Standard portfolio



Plug n' Cool



Sliding



BIOMA



Monoblock

FMF SERIES

The most efficient compressor for the commercial segment



Ideal for supermarkets and special applications



Reduces energy consumption by up to 40 % in comparison to fixed (on-off) compressor



Extended cooling capacity allows reducing the quantity of SKUs



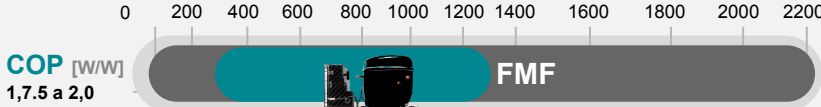
SDI, Dual Voltage and PFC ready



Low noise



High temperature stability



Available in

Made in Brazil



R290



CONDENSING UNITS: ease of installation and maintenance services

Reliable portfolio of cooling solutions



Covering multiple applications



Cold room



Display cases

LESS COMPLEXITY: complete pre-assembled high pressure side solution simplifies production process and maintenance.



Customization capabilities: standard portfolio covering a wide range of applications.



Optimized condenser-compressor design leading to improved performance and reliability.



Approved for natural refrigerants use

All components rely on Embraco quality.

BIOMA: Products customized to the market's needs


Easy maintenance, fast installation and easy cleaning for refrigeration professionals.



Designed for cold rooms and outdoor applications



Urban areas of the European market require a product that is.

 Silent

 Stackable

Smart design with three access doors



Up to 50% of noise reduction versus next best alternative

**For an in-depth look about
our company and solutions,
follow our pages:**



Nidec

Global Appliance