

Company Profile



WHO WE ARE

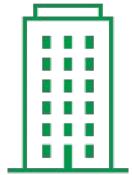
We are part of Nidec Corporation



Founded in 1973



HQ: Kyoto, Japan



330+
Companies



Mergers & Acquisitions (M&A) are the
driving power behind growth.
So far, there have been over 60 M&As.



40+
Countries



\$1 B
2019 Group Operating Profit



120,000
Employees Worldwide



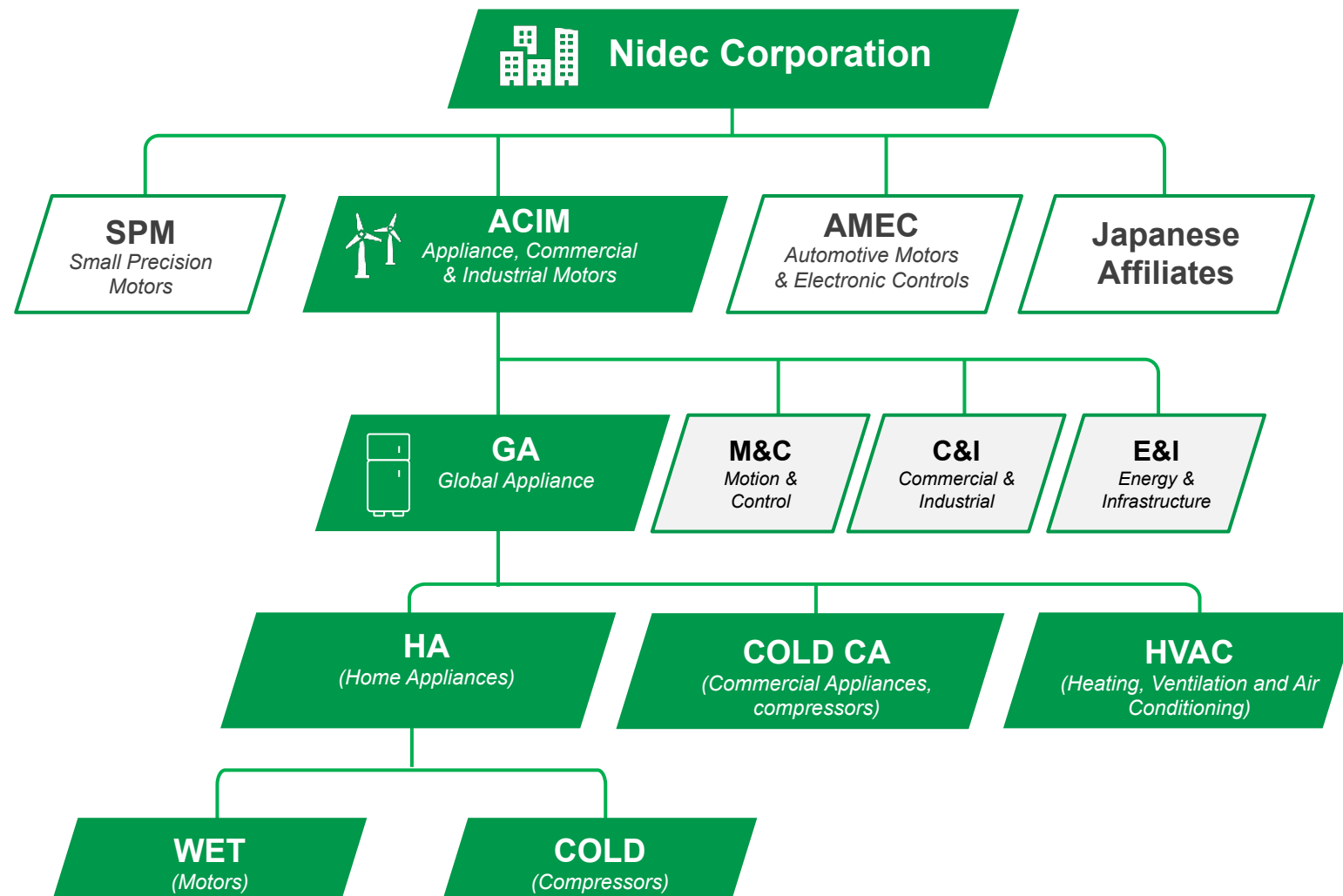
\$14.4 B
2019 Group Turnover



Shigenobu Nagamori

Founder, Chairman of
the Board & CEO
at Kyoto HQ

Business structures



Nidec Global Appliance is part of ACIM, a Nidec business division focused on appliance, commercial and industrial motors.

We are Nidec Global Appliance, a global partner for home and commercial appliances industries



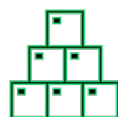
HQs: Joinville (Brazil) and Pordenone (Italy).



15,000+ employees.



14 manufacturing plants and 4 business offices across 9 countries.



Annual production combined capacity of **70 million** motors and compressors.



9 R&D Centers worldwide and **600+** engineers.



80+ countries served by our products.



Nidec GA organizational history

Timeline

2014

- Qingdao Wet is integrated into the Global Appliance division

2017

- First compressor business is acquired
- Reynosa plant integrated into the Global Appliance division

2020

- Incorporation of HVAC
- Acquisition of Delta's (Austria) compressors product line

2010

- Acquisition of ACC's household motors business

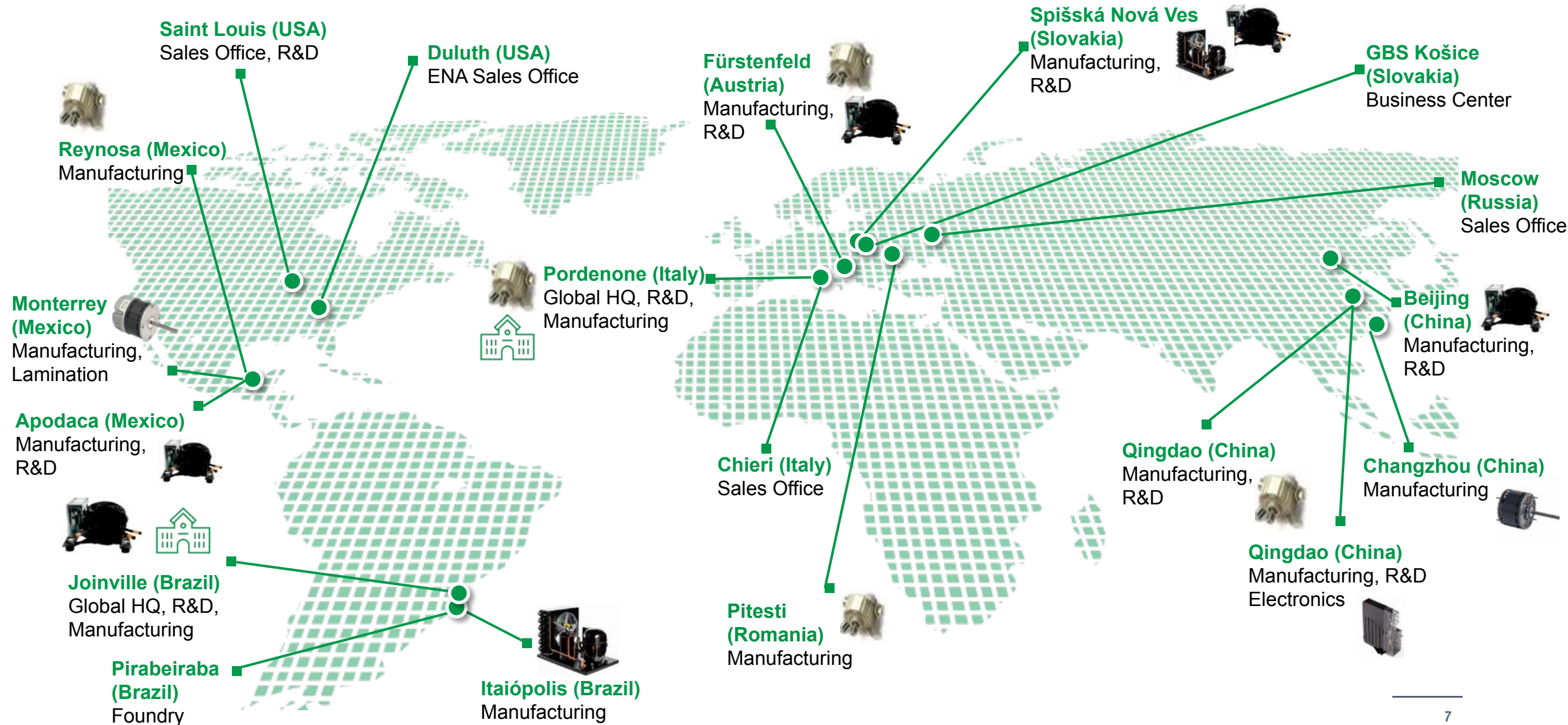
2016

- Acquisition of ANA IMEP, manufacturing plant located in Romania

2019

- Acquisition of Embraco, a global company of over 49 years
- New logo, brand architecture and brand portfolio

Nidec GA Global Presence



Our purpose: Why we exist

To give life to essential appliances, turning people's day-to-day lives into healthier and more comfortable experiences.

Our vision: What we aim for

To be the leading partner in Home & Commercial Appliances and Air Conditioning industries by 2025.

Our culture: How we do it everyday

*Challenge
cost & grow
for the future*

*Collaborate
without
barriers*

*Act with
agility &
correctness*

*Innovate
ourselves for
differentiation*

*Be active
learners &
developers*

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

Innovation Drivers



Energy efficiency



Natural Refrigerants



Miniaturization

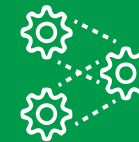
R&D Capabilities



9 Research & Development Centers.



Partnerships with universities worldwide.



Co-development together with our customers.



1500 valid patents under Nidec GA.

BUSINESS UNITS AND BRANDS

Our Business Units and Brands

Nidec
Global Appliance

Nidec
Global Appliance

Home Appliances

Solutions for Refrigerators
Washing Machines,
Dishwashers and Dryers.

Nidec

embraco
Nidec

Commercial Appliances

Compressors and Condensing
Units for commercial refrigeration
equipment.

embraco
Nidec

HVAC

Motors and Components for Heating,
Ventilation and Air Conditioning
systems



HOME APPLIANCES

Solutions for Home Appliances

Nidec
Global Appliance

Nidec

Motors for washing machines,
dryers and dishwashers.



embraco
Nidec

Compressors for refrigerators.





**Motors for washing machines,
dryers and dishwashers.**

**Recognized as energy-efficient and
reliable**, we are differentiated by our
co-development methodology, delivering
technologies that are fit for the exact
purpose of the customer.



Complete Portfolio for Washing Machines, Dryers and Dishwashers

Nidec motors meets a variety of customer's requirements in terms of size, weight, low noise, efficiency, design and technology.

- Experts in the **OEM process**;
- Deep understanding of demands, characteristics and regulations of **different markets**;
- R&D area with sophisticated **testing and analysis** capabilities;
- Rapid **sample delivery**;
- **Tailored solutions**.



Washing Machine motors to attend a wide range of market specifications

Our range for Washers covers the requirements for all Regions and type of Appliance. 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

Different technologies for different needs



DRY
Tumble
dryer



PSC



Split-Phase



BPM



BPM - IMAC

A truly global presence and highly advanced R&D

Integration of heater on motor pumps as well as electronic drive on our range of high efficient BPM solutions provides additional value to Nidec offer.

DW
Dishwashers



PSC
pump



PSC & integrated
heater



BPM pump -
IMAC

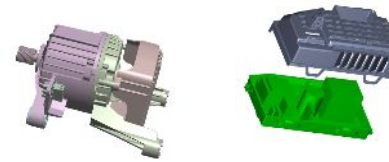


BPM
& integrated heater

Count on our
competence
in electronic
drives.



WM drives



- Client dedicated communication HW/SW
- Proprietary unbalance control algorithm
- Potted



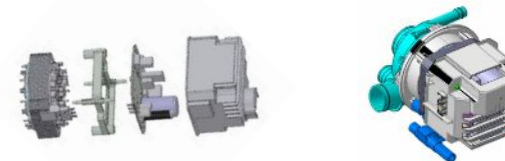
Dryer motor drives



- Suitable for “explosive gas applications” environment (e.g. R290 – propane - in heat pump dryers)



Dishwasher drives





Compressors for Refrigerators



High-quality and high-performance



Efficiency through constant innovation



Low noise



More internal cabinet space



Cost Competitive



An innovative and efficient portfolio



Fixed Speed

- **Reliability:** Product life extension
- **Efficiency** and robustness



DELTA



ES



EM



EG

Variable Speed

- **Highest efficiency** standards
- World class **low noise**
- Precise **temperature control**



FMS



FMX



VES



VEM

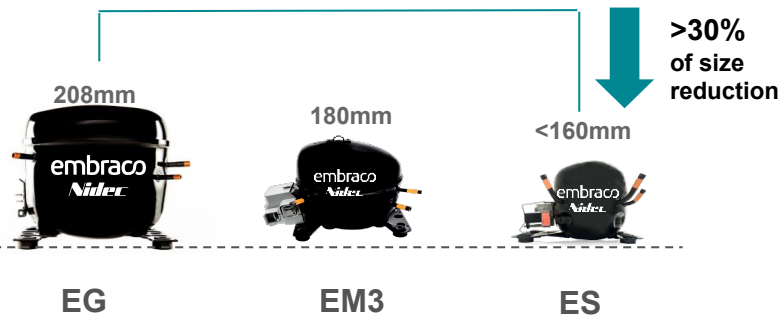


VEG

Best Seller

Fixed speed portfolio is differentiated by low noise, reliability and high efficiency levels

Platform Evolution



LOW GWP SOLUTIONS: FOR 25 YEARS, THE PIONEER IN ANTICIPATING FUTURE CHALLENGES



Fixed Speed

Energy efficiency

30 – 40%* increase over recent years

Best Seller

Years of expertise and non-stop evolution in more than 500M compressors sold



Efficiency and temperature stability for refrigeration

Variable Speed



Lowest energy consumption due to inverter technology, up to 45%* lower energy consumption



Miniaturization: Platforms that are small on size, but large on its application range



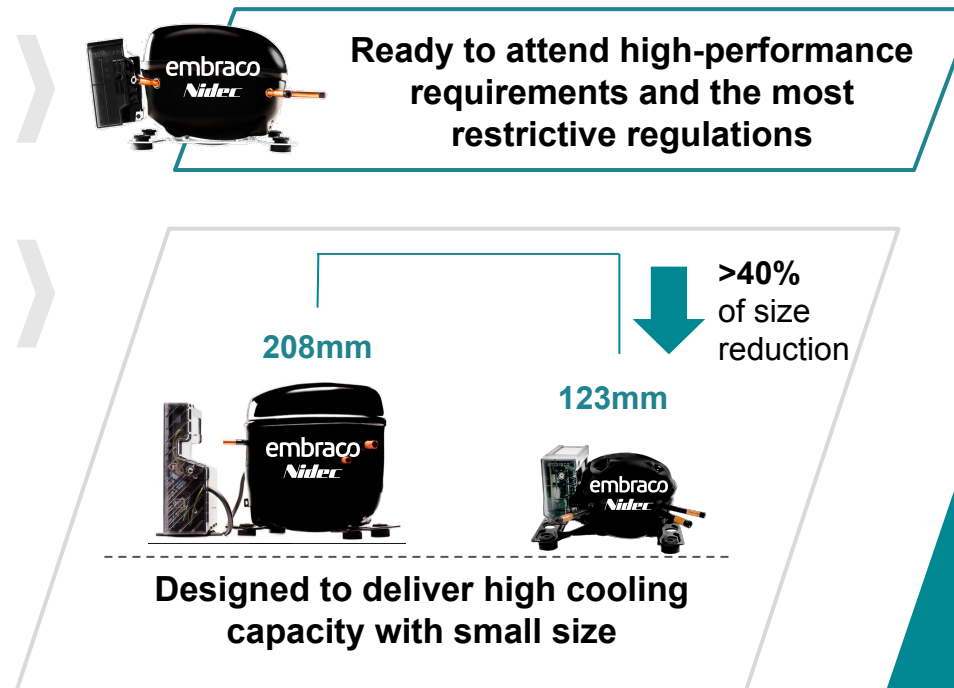
Fast Cooling: Target temperature reached faster, ensuring better food preservation



Low noise



**LOW GWP
SOLUTIONS**



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



COMMERCIAL APPLIANCES



Solutions for Commercial Appliances



Naturally Efficient: ultra low GWP and better performance.



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



Embraco portfolio for commercial refrigeration



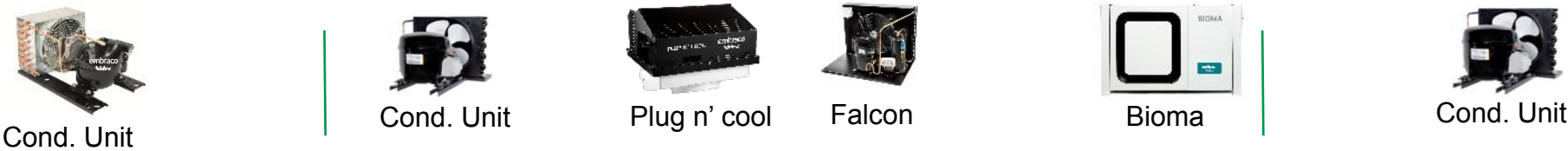
Fixed
Speed



Variable
Speed



Condensing
Units /
systems



RECIPROCATING: 2-38CC | SCROLL: 2-13HP AVAILABLE FOR LBP, MBP, HBP APPLICATIONS

Food Retail & Food Service: Products customized to the market's needs

BIOMA

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



embraco
Nidec

Designed for cold
rooms and outdoor
applications

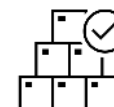


Up to **50% of noise
reduction** versus
next best alternative

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



Silent



Stackable

Smart design with
three access doors



Plug n' Cool

Easy maintenance for cold storage

A complete plug in (self-contained) solution designed for food retail, differentiated by a low total cost of ownership



embraco
Nidec

Perfect fit
for reach in



Accelerates the installation process in 70%*



Energy efficient: it reduces energy consumption by 30%*



Modular design, it's great for small family business as well as large wholesalers



LOW GWP SOLUTION: for 25 year, the pioneer in anticipate market trends

**Efficiency indexes based on customer inputs.*

Condensing Units

Reliable portfolio of cooling solutions

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



embraco
Nidec

Covering multiple applications



Cold room



Display cases



Standard portfolio covering a wide range of applications. Embraco also has customization capabilities.



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



With options approved for natural refrigerants use

All components rely on Embraco quality.

FMF series

The most efficient compressor for the commercial segment.

The variable speed technology keeps the temperature stable and modulates the capacity, according to the application demand.



Ideal for supermarkets and special applications



Reach-in



Medical refrigeration



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



High temperature stability



Low noise



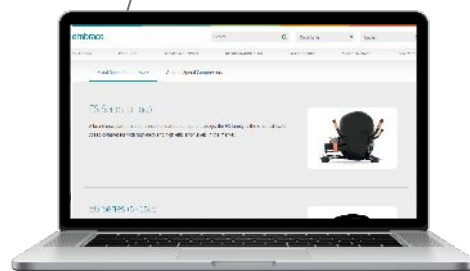
Dual-voltage (110V-220V / 50-60Hz).



Designed to operate with natural refrigerants (R290)

Embraco Digital Tools for Refrigeration Market

Website



www.embraco.com

Website in 11 languages:
focused on product application.

Technical Blog for refrigeration market



<http://refrigerationclub.com/>

Refrigeration Club:
educational and technical content

Product Selector Software



<http://products.embraco.com/>

Product Selector (PSS):
online catalog

Embraco Toolbox App



Audience:
Free tool for installers
Main content:
7 features / 10
languages available for
Android and iOS.

Social Media channels



HVAC



Rely on **US**

Heating, Ventilation and Air Conditioning (HVAC)

With roots dating back to 1908, our motor brands are leaders in the North American market, offering a full complement of induction or EC motors designed for single or three phase applications.

Get to know the main attributes of our portfolio of components for the HVAC industry:



Technology & Innovation



Reliability



Low lead time



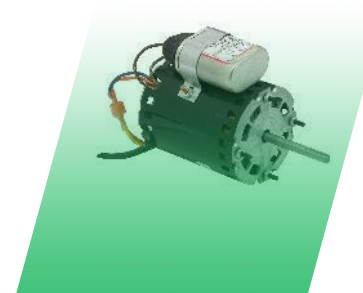
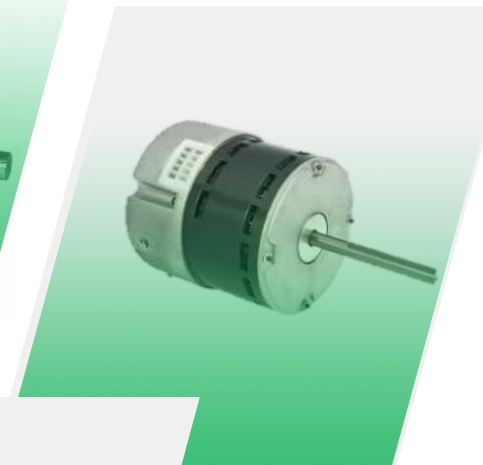
The industry leader in reliability, distribution and support for Residential and Commercial applications

In an energy-conscious world, the U.S. MOTORS® brand continues to be a leader in innovation of new BLDC and other leading technology motors.

U.S. MOTORS® has stood for quality and innovation for more than a century. A broad product offering provides stock motors for most applications, but for specialized motors, our talented engineers will develop a specific solution for the customer.



Rely on **US**TM



Heating



Ventilation



Air Conditioning



Refrigeration

The **RESCUE®** line of HVAC motors is part of the **U.S. MOTORS®** brand product family. Ask for RESCUE®, The Ultimate Truck Stock Motor™.



Premium brand

Different technologies:

ECM: 85% EFFICIENCY
higher cost / premium material inside

PSC: 60% EFFICIENCY
price fighting motors



Applications



Power Roof Ventilators



Air Filtration



**Air Curtains/
Air Doors**



**Commercial/
Industrial Blowers**



Prop Fans



**Condenser Fan /
Heat Pump**



Energy Recovery Ventilators



Air Handler



Furnace

Nidec Product Breadth in Position to Serve all OEM Motor Needs

Induction Motors

ECM

Commercial



140 Frame & Larger | 3-PH



56 Frame 1-PH, 3-PH



5.5" PSC



PEP High Eff. PSC



PerfectSpeed Constant CFM



SelectTech Constant Torque



EcoApex 48



EcoApex 56 Frame

Heat Pump & Condensing Unit



4.8" & 5.1" PSC



5.5" PSC



PEP High Eff. PSC



EcoApex 48

Furnace



Draft Inducer



PerfectSpeed Constant CFM



SelectTech Constant Torque



Rescue Ecotech



FER-BPM (2020)

Air Handler



5.5" PSC



PEP High Eff. PSC



PerfectSpeed Constant CFM



SelectTech Constant Torque



Rescue Ecotech

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



Nidec

Global Appliance