

## **Smart Solutions** for a Green Future®

# **Compressors and Controls**

Sole agent and distributor in Europe for leading brands









Stock available:























# Since 1986 @ your side for **HVAC** and Refrigeration projects

We offer full HVAC-R solutions both for Mid and Low temp applications with Natural and HFC refrigerants. Our manufacturing experience will allow us to assist you during all project phases. We selected the top refrigeration compressor manufacturers to offer you the best possible solution for your needs.

### **Panasonic**

#### SCROLL / ROTARY

Production: 1,6 million units. World leader in CO, Hermetic compressors.

## **GMCC**

#### ROTARY / Reciprocating

Production: 110 million units. Part of Midea Group 30% of global market share.



#### Refrigeration ROTARY

Production: 8 million units. Specialized in refrigeration compressors Part of Panasonic Group.



#### CO, SCROLL Compressors

Specialists in transcritical, single stage CO<sub>o</sub> inverter scroll compressors.



#### **Inverter Drivers**

+15 years of experience in Inverter Driven applications.



#### Motors and fans

Specializing in ECM and shaded pole motors, designed to operate at low temperatures with high efficiency.







# Refrigeration

# 500gr limit charge approved

The new EN IEC 60335-2-89 allows charging up to 494g without extra safety measures. Only a risk assessment is needed, with no space restrictions under EN 378.



### F-gas restrictions for commercial refrigeration

Application	Limitation	Starting date	Allowed refrigerants	Safety Exception
Commercial refrigerators and freezers (self contained)	GWP<150	1/01/2025	R290 Propane/R744 CO2 R454C/R455A	-
Self contained refrigeration equipment except chiller	GWP<150 except for safety reasons	1/01/2025	R290 Propane/R744 CO2 R454C/R455A except for safety reasons	R448-9A/R513A
Defrigaration equipment	GWP<2500 except for safety reasons	1/01/2025	R448-9A/R513A	R448-9A/R513A
Refrigeration equipment except chillers and below -50°C	GWP<150 except for safety reasons	1/01/2025	R290 Propane/R744 CO2 R454C/R455A except for safety reasons	R448-9A/R513A









# Commercial Refrigeration Product range



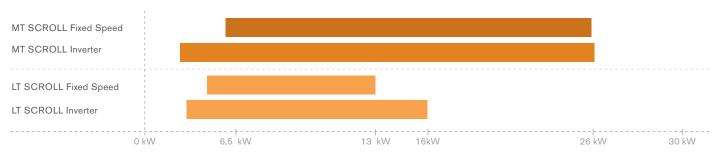


May be used as safety exception refrigerant

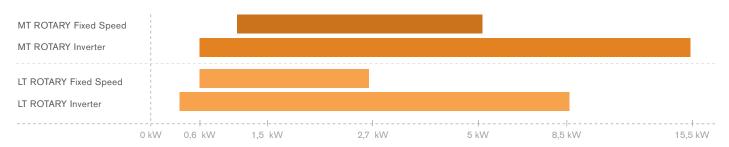








MT SCROLL: Tev -6,5°C Tcond 40,5 °C – 30Hz min/75-100Hz max for Inverter range LT SCROLL: Tev -15°C Tcond 50 °C – 30Hz min/90Hz max for Inverter range



MT & LT ROTARY also available in horizontal design

MT ROTARY: Tev -10°C Tcond 54,4 °C – 15rps min/100rps max for Inverter range LT ROTARY: Tev -23°C Tcond 54,4 °C – 15rps min/100rps max for Inverter range

#### R454C-R455A solutions

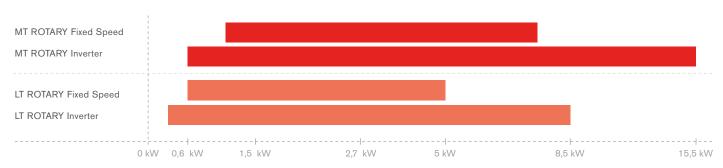








MT SCROLL: Tev -6,5°C Tcond 40,5 °C – 30Hz min/75-100Hz max for Inverter range



MT & LT ROTARY also available in horizontal design

MT ROTARY: Tev -10°C Tcond 54,4 °C – 15rps min/100rps max for Inverter range LT ROTARY: Tev -23°C Tcond 54,4 °C – 15rps min/100rps max for Inverter range













# Commercial Refrigeration Product range

Scan to view our the product range

GWP=3







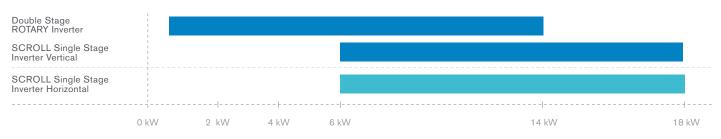
MT & LT ROTARY horizontal design

MT ROTARY / SCROLL: Tev -10°C Toond 54,4 °C - 15rps min/120rps max for Inverter range LT ROTARY: Tev -23°C Tcond 54,4 °C - 15rps min/120rps max for Inverter range

#### R744/CO<sub>2</sub> Solutions







Double stage ROTARY and SCROLL also available in horizontal design. Double stage ROTARY: Tev -10°C Gas Cooler out 32°C SCROLL Single Stage Inverter Horizontal: Tev -10°C Gas Cooler out 32°C SCROLL Single Stage Inverter Vertical: Tev -10°C Gas Cooler out 32°C

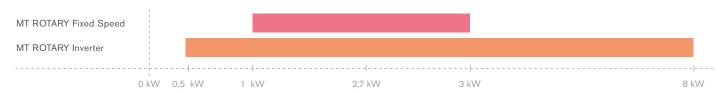
### R513A solutions

( GWP=629 May be used as safety exception refrigerant





MT SCROLL: Tev -6,5°C Tcond 40,5 °C - 30Hz min/75-110Hz max for Inverter range



MT & LT ROTARY also available in horizontal design

MT ROTARY: Tev -10°C Tcond 54,4 °C - 15rps min/100rps max for Inverter range













# Light Commercial Product Range



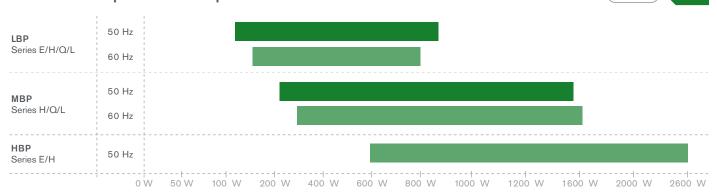
GWP=3

Natural



R290





LBP: Tev -23°C Tcond 54,4°C MBP: Tev -6,7°C Tcord 54,4°C HBP: Tev -7,2°C Tcord 54,4°C

#### Propane

### R290/Propane Variable speed (VCC)

GWP=3 Natural



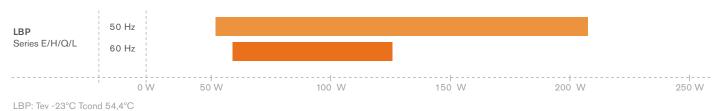


LBP: Tev -23°C Tcond 54,4°C

## R600A/Isobutane Fix speed

GWP=3 Natural





## R600A/Isobutane Variable speed (VCC)







LBP: Tev -23°C Tcond 54,4°C













# **Heat Pump**





# F-gas restrictions for heat pump

Application	Limitation	Starting date	Allowed ref	Safety exception
Self contained A/C and Heat Pump	GWP<150 <50kW except for safety reasons GWP<750	1/1/27	R290 Propane/R744 CO2 R454C/R455A except for safety reasons	R410A/R407C R513A
	NO HFC <12kW except for safety reasons GWP<750	1/1/32	R290 Propane/R744 CO2 except for safety reasons	R410A/R407C R513A
	GWP<150 >50kW except for safety reasons GWP<750	1/1/30	R290 Propane/R744 CO2 R454C/R455A except for safety reasons	R410A/R407C R513A
Split system	Single Split GWP<750 <3kg of charge	1/1/25	R290 Propane/R744 CO2 R32/R454B/R454C/R455A/R513A	-
	Split Air to Air GWP<150 <12kW except for safety reasons	1/1/27	R290 Propane/R744 CO2 R454C/R455A except for safety reasons	R410A/R407C R513A
	Split Air to Water GWP<150 <12kW except for safety reasons	1/1/29	R290 Propane/R744 CO2 R454C/R455A except for safety reasons	R410A/R407C R513A
	Split system NO HFC <12kW except for safety reasons	1/1/35	R290 Propane/R744 CO2 except for safety reasons	R410A/R407C R513A











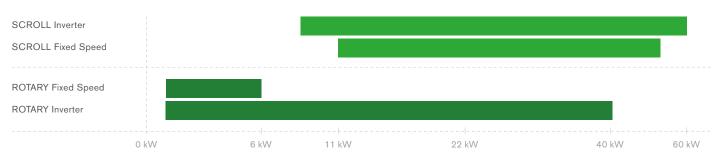
## Product range

Scan to view our the product range



### R290/Propane Solutions



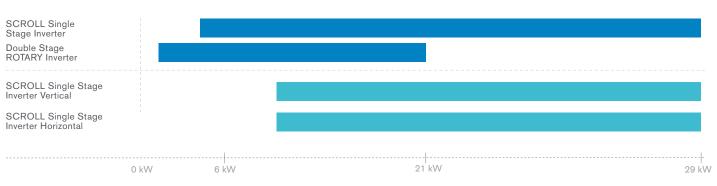


ROTARY / SCROLL Tev 7,2°C Toond 54,4 °C (Heating capacity) - 15rps min/120rps max for Inverter range

#### R744/CO<sub>2</sub> Solutions







Double stage ROTARY and SCROLL also available in horizontal design.

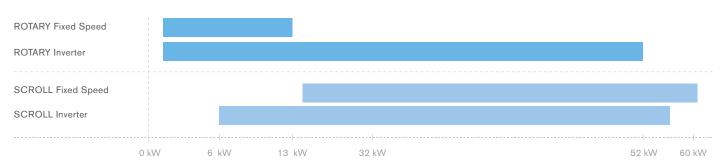
Double stage ROTARY (Heating Capacity): Tev -10°C Gas Cooler out 32°C

SCROLL Single Stage Inverter (Heating Capacity): Tev -10°C Gas Cooler out 32°C

### **R32 Solutions**

GWP=675





ROTARY (Heating Capacity): Tev  $7.2^{\circ}$ C - Tcon  $54.4^{\circ}$ C - 15 rps min/120 rps max for Inverter range SCROLL (Heating Capacity): Tev  $7.2^{\circ}$ C - Tcon  $54.4^{\circ}$ C - 15 rps min/120 rps max for Inverter range











## Product range

Scan to view our the product range



#### R454B Solutions

GWP=465





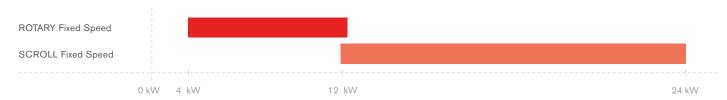
SCROLL (Heating Capacity): Tev 7.2°C - Tcon 54.4°C - 15 rps min/120 rps max for Inverter range

#### R454C-R455A Solutions

(GWP=145)







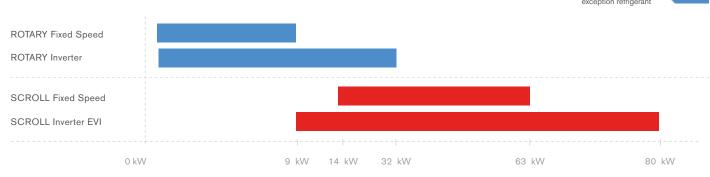
ROTARY (Heating Capacity): Tev 7,2°C Tcond 54,4°C SCROLL (Heating Capacity): Tev 7.2°C - Tcon 54.4°C

### **R410A Solutions**

GWP=2.088

May be used as safety exception refrigerant





ROTARY (Heating Capacity): Tev 7.2°C - Tcon 54.4°C - 15 rps min/120 rps max for Inverter range SCROLL (Heating Capacity): Tev 7.2°C - Tcon 54.4°C - 15 rps min/120 rps max for Inverter range SCROLL EVI (Heating Capacity): Tev -7°C Tcond 50°C - 30rps min/90rps max for Inverter range













#### **Smart Solutions** for a Green Future®

## Product range



#### GWP=629

exception refrigerant



#### **R513A Solutions**

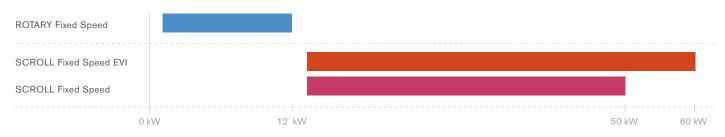


ROTARY (Heating Capacity): Tev 7,2°C Tcond 54,4°C SCROLL (Heating Capacity): Tev 7.2°C - Tcon 54.4°C - 20Hz rps min / 80Hz max for Inverter range

#### **R407C Solutions**

( GWP=1.774 ) May be used as safety exception refrigerant





ROTARY (Heating Capacity): Tev 7,2°C Tcond 54,4°C SCROLL (Heating Capacity): Tev 7.2°C - Tcon 54.4°C - 15 rps min/120 rps max for Inverter range SCROLL EVI (Heating Capacity): Tev -7°C Toond 50°C

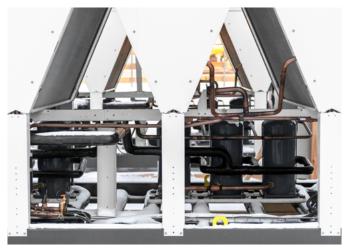








# **AC & Chiller**





# F-gas restrictions for AC & Chiller

Application	Limitation	Starting date	Allowed ref	Safety exception
Chillers	GWP<150 <12kW except for safety reasons	1/1/27	R290 Propane/R744 CO2 R454C/R455A except for safety reasons	R410A/R407C R448-9A/R513A
	NO HFC <12kW except for safety reasons	1/1/32	R290 Propane/R744 CO2 except for safety reasons	R410A/R407C R448-9A/R513A
	GWP<750 >12kW except for safety reasons	1/1/27	R290 Propane/R744 CO2 R32/R454B/R454C/R455A/R513A except for safety reasons	R410A/R407C R448-9A/R513A
Split system	Single Split GWP<750 <3kg of charge	1/1/25	R290 Propane/R744 CO2 R32/R454B/R454C/R455A/R513A	-
	Split Air to Air GWP<150 <12kW except for safety reasons	1/1/27	R290 Propane/R744 CO2 R454C/R455A except for safety reasons	R410A/R407C R513A
	Split Air to Water GWP<150 <12kW except for safety reasons	1/1/29	R290 Propane/R744 CO2 R454C/R455A except for safety reasons	R410A/R407C R513A
	Split system NO HFC <12kW except for safety reasons	1/1/35	R290 Propane/R744 CO2 except for safety reasons	R410A/R407C R513A







Natural



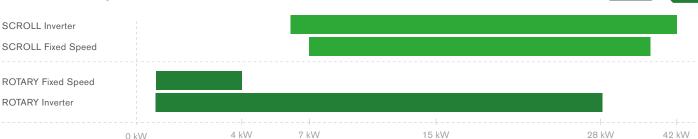
## Product range







0 kW

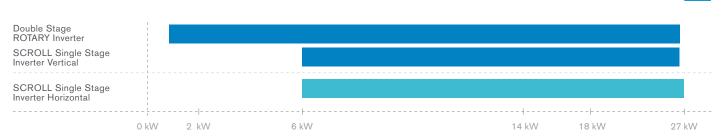


ROTARY / SCROLL Tev 7,2°C Tcond 54,4 °C - 15rps min/120rps max for Inverter range

#### R744/CO<sub>2</sub> Solutions





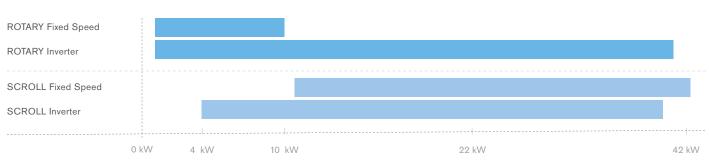


Double stage ROTARY and SCROLL also available in horizontal design. Double stage ROTARY: Tev 5°C Gas Cooler out 32°C SCROLL Single Stage Inverter Horizontal: Tev 5°C Gas Cooler out 32°C SCROLL Single Stage Inverter Vertical: Tev 5°C Gas Cooler out 32°C

### **R32 Solutions**







ROTARY: Tev 7.2°C - Tcon 54.4°C - 15 rps min/120 rps max for Inverter range SCROLL: Tev 7.2°C - Tcon 54.4°C - 15 rps min/120 rps max for Inverter range













# Smart Solutions for a Green Future®

## Product range





#### R454B Solutions







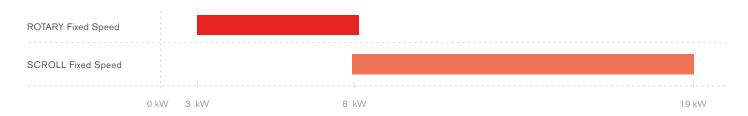
SCROLL: Tev 7.2°C - Tcon 54.4°C - 15 rps min/120 rps max for Inverter range

#### R454C-R455A Solutions









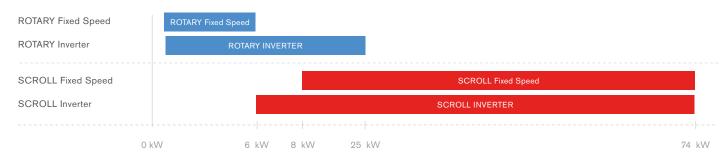
ROTARY: Tev 7,2°C Tcond 54,4°C

SCROLL: Tev 7.2°C - Tcon 54.4 °C - 15 rps min/120 rps max for Inverter range

#### **R410A Solutions**







ROTARY: Tev 7.2°C - Tcon 54.4°C - 15 rps min/120 rps max for Inverter range SCROLL: Tev 7.2°C - Tcon 54.4°C - 15 rps min/120 rps max for Inverter range SCROLL: Tev -7°C Tcond 50°C - 30rps min/90rps max for Inverter range









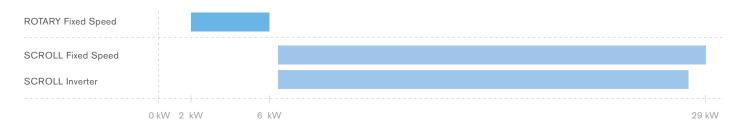


## Product range



#### **R513A Solutions**





ROTARY: Tev 7,2°C Tcond 54,4°C

SCROLL: Tev 7.2°C - Tcon 54.4°C - 20Hz rps min / 80Hz max for Inverter range

#### **R407C Solutions**







ROTARY: Tev 7,2°C Tcond 54,4°C

SCROLL: Tev 7.2°C - Tcon 54.4°C - 15 rps min/120 rps max for Inverter range









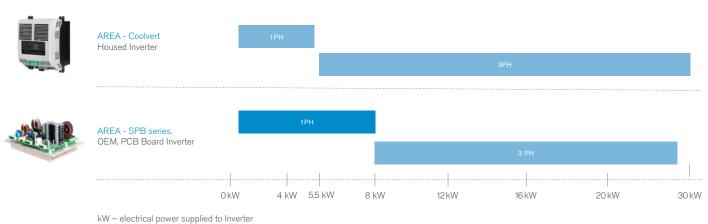


### **Inverter Driver**

#### **Product Range**

Driver solutions for inverter compressors







# We support you in identifying the most suitable Inverter Drive for your application

Over 15 years' experience in inverter technology. Remote control and preventive maintenance features.

We provide technical support and documentation in your language to develop your next generation of products.

Direct involvement in your projects.

Presential, or via the web, phone, mail, chat and videoconferencing.









#### Fans

#### **Product Range**

Wide range of EC and AC fans and motors available in stock.

Scan and learn more















# Our standard range of fans and motors include:

- 250 910mm AC Axial Fans (sucking, grid frame version)
- 230V (1-Phase) and 400V (3-Phase) supply
- AC shaded pole and EC motors
- Fan blades and grids up to 300mm diameter

#### Fans on Request:

- Blowing versions
- Square, cylinder and round-frame versions
- EC axial fans
- DC axial fans













### What can we do for you?

Identify your present and future requirements as a manufacturer, contractor or end-user.

Share with you our experiences and our vision of the market.

Handle all commercial & financial issues.

Organize logistics.

Provide technical support and warranty.

# Search engine for cross references

Check out our website to find our calculation software and a complete list of all updated equivalent products

- 1) Go to cross references search engine
- 2 Search for a model
- 3 Find your equivalent
- 4 Consult our product



Scan to access





# Easy online selection with our Calculation software

Search for your products based on your needs and access in one click to the Technical Information of our compressors, including Capacities and Working Envelopes.



Scan to access