DATA SHEET

GREEN AIR **SOLUTION**

R290 technology

THE IDEAL NATURAL REFRIGERANT SOLUTION

Wabtec Green Air Solution are HVAC units using R290 refrigerant. It is an ideal environmentally friendly alternative to synthetic refrigerant solutions.

For all climatic zones

For most types of railway vehicles

Available for new builds, as well as aftermarket applications

Efficient heat pump option available

Similar cooling performance as existing synthetic refrigerant-based solutions with same train power supply

KEY CUSTOMER BENEFITS

Dramatically reduces the global warming impact vs standard synthetic solutions

High-energy efficient natural refrigerant solution

Cost efficient

Easy-to-switch technology (from other existing standard synthetic solution)

No obsolescence risk

Technology proven

GREEN AIR SOLUTION

TOPIC	TECHNICAL SPECIFICITIES

GWP and Obsolescense

+ Low GWP vs synthetic alternatives

Refrigerant	GWP
R22	1810
R134a	1430
R513a	631
R290	**3**

Cost Efficiency

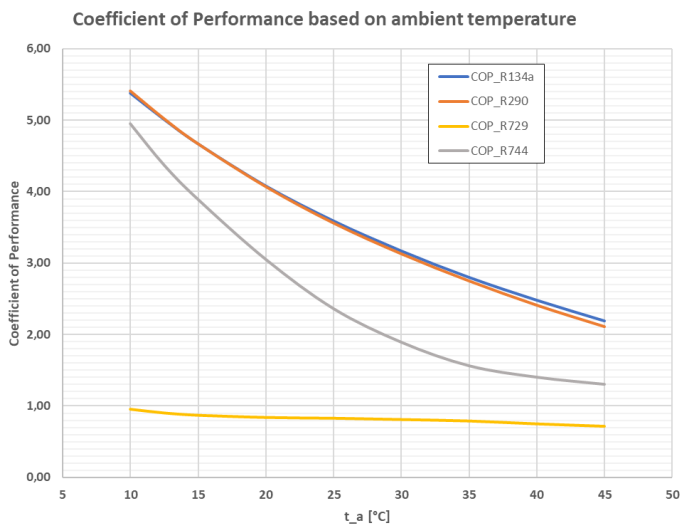
+ 10% weight savings (80kg/unit) measured vs CO_2 on regional train application
+ Lower filling charge (for R290 reduction of approx. 50 % expected vs. R134a)
+ R290 predictable sourcing price

Technology Switching Aspect

+ Similar pressure level in cooling circuit vs synthetic solutions
+ Similar train auxiliary power supply needed vs synthetic solutions
+ For most applications identical mechanical interfaces work for R290 and synthetic with same capacity

Energy Efficiency

+ Coefficient of performance (COP) over ambient temperature for a theoretical unit: similar performance vs R134a and better than CO_2 (R744) and Air-cycle (R729)



Technology Proven

+ Checked and tested by internal and external experts (e.g. BAM/TÜV)
+ Units running in daily passenger operations since July 2020 with the Deutsche Bahn

CONTACT

Wabtec Corporation
30 Isabella Street
Pittsburgh, PA 15212 - USA
Phone: 412.825.1000
Fax: 412.825.1019