



Average energy savings of **30%**



Improved Temperature Stability

Maintenance-Free install & forget



Only 1 Hr. to install

Helping the environment



Reduced water dripping & avoids icing up



No upper size limit

Certifications



WIPO
WORLD
INTELLECTUAL PROPERTY
ORGANIZATION

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 **COOLNOMIX**

AC-01

Air Conditioning energy optimization for cooling & heating solutions

- ⇒ Designed for refrigerant based (**DX**) Air Conditioning systems.
- ⇒ For operations between **16°C** and **31°C** (61°F to 88°F).
- ⇒ **Slashes** operating **costs** by an average **30%, without** impacting temperature.
- ⇒ For **new** and **existing** systems.
- ⇒ **ROI** generally within **12** months.
- ⇒ **Ensuring** companies deliver on **carbon footprint** and **ESG** commitments.



- ⇒ **Ideal** for :
 - **Split/Mini/Multi-split type AC** (wall-mounted & cassette etc.)
 - **Package** based systems.
 - **Ducted AC** with **AHU's**.
 - **Inverter** based (**VRV** and **VRF**).
- ⇒ **Local Bluetooth connectivity** available using **CONNECT** mobile Android app (for data access, downloading, setting modification, etc.)
- ⇒ Delivers **remote real-time IoT monitoring** and **management** using **WIFI** and **AWS** through our **GEMS*** dashboard (additional charges apply).

* Global Energy Management Service

What is COOLNOMIX ?

- **COOLNOMIX®** internationally patented technologies for Air Conditioning and Refrigeration systems **reduces energy consumption** and cuts **carbon emissions** by an impressive **30%**. These reductions **slash your operating costs, improve margins** and help your company **meet ESG commitments** while reducing the environmental footprint.
- As member of **United Nations Cool Coalition** working group, we are privileged to contribute our insights and suggestions at a global level concerning energy-efficient and climate-friendly sustainable solutions for buildings.

The **COOLNOMIX®** advantage is delivered through AI and two temperature sensors. This eliminates high heat load compressor over runs (a shortcoming in single sensor designs).

How does **COOLNOMIX AC-01** work ?

- **COOLNOMIX® retrofit technologies** are easy to fit and installed on the indoor (evaporator) component of any refrigerant based **direct expansion (DX)** AC unit.
- The energy saving magic is delivered using an AI based energy trading model and **two temperature sensors** which work together to optimise the performance of compressors, which are the main energy consuming components of air-conditioning systems.
- The two **COOLNOMIX®** temperature sensors monitor the room temperature and hot or cold supply air temperatures to decide when the indoor climate needs adjusting. In all cases maintaining required comfort levels is the primary objective. Once required temperatures have been achieved **COOLNOMIX®** then works to prevent energy wastage.
- The overall result is **improved temperature control** (typically +/- 0.5°C) and a **30% reduction** in air-conditioning **energy consumption**.
- This 30% air-conditioning energy saving can result in an **overall reduction** in energy consumption by **20% or more** (noting that AC can account for 70% of the total energy bill).

COOLNOMIX FAQ :

- **Does COOLNOMIX® have an impact on the manufacturer's warranty ?** No, our preferred **COOLNOMIX®** installation approach ensures that the **manufacturer provided control system remains fully in control** of the start-up, shutdown and speed control of sometimes multiple compressors.
- **What about warranty aspects ?** All **COOLNOMIX®** units are **warranted for 3 years**, and have an expected **lifespan of +10 yrs**.
- **Does COOLNOMIX® impact the life of the air-conditioning unit ?** No, the manufacturer's control system continues to limit the frequency of compressor operations thereby preventing short-cycling. **COOLNOMIX®** additionally has its own in-built anti short-cycling features to protect compressor operations. In practice, the lifetime of an AC compressor is largely determined by the rate at which corrosion (rust) develops in the outside unit.



≈ AC-01 Standard Configuration ≈	
Dimensions	7" x 4.4" x 1.5" (17.8cm x 11.2cm x 3.8cm) excluding temperature sensors
Unit Weight	11.7 oz (332 g)
Electrical Supply	110V - 250V AC50/60 auto-switching
Current	1 mA at 220 VAC or 2 mA at 110 VAC.
Operating Environment	0°C to 55°C, (32°F to 131°F) RH to 95%
Storage Environment	-25°C to 85°C , (-13°F to 185°F) RH 15% to 95%
Certifications	Intertek/ETL (UL 60730-2-9, UL 60730-1), CE, RoHS, FCC, MIC
Temperature Sensors	NTC type -50°C to 150°C (-58°F to 302°F) Normally CLOSED - fail safe (relay closes on power failure)
Relay	Voltage: 0 to 250V (AC or DC) Current: 10A continuous/16A peak



Energy Savings Technologies from



Group

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