

Mini **COOL**

Top Performance Independent
Air Conditioning System



MINI COOL COMPACT
NEW NIGHT & DAY

DIRNA presents the first A/C Parking Cooler for Night and Day application

:: www.bycool.com
:: www.dirna.com

dirna
Air conditioning for vehicles



MINICOOL: AIR CONDITIONING PARKING COOLER

Minicool products are the consequence of the request of an engine off air conditioning system with compressor.

It is an independent air conditioning system with electric compressors in a closed circuit. Minicool units are fully automatic and use a **second generation inverter technology**. Cooling capacity is controlled automatically with a minimum electric consumption.

Minicool systems are the perfect solution to rest inside the truck cab by night (parking cooler) or even with some of our models to keep a comfort temperature inside the cab during loading and unloading operations, during logistical and reglamentary stopovers to rest.

Minicool avoids to keep the engine of the vehicle idling and helps saving fuel expenses.

:: Saving fuel

The use of the units while night resting periods allows to save the fuel expenses of having the engine of the vehicle at idle to keep the cab of the truck cool in order to sleep or rest comfortably during the summer months inside the truck's cab.

It is the same way with logistic stops for loading and unloading operations during the day. In this application the user can keep the cab refrigerated with our new model "Night & day" of 3.000 watt of cooling capacity.



:: Ecologic system

As **Minicool** units avoid CO₂ emissions to atmosphere they are the perfect allied for the environment and are compatible with the anti idling recommendations of the EPA (Environmental Protection Agency) and EU (Parking cooler).

Also by allowing a repairing and comfortable sleep by refrigerating the cab while the engine is off, **Minicool** helps in making driving safer.

Consult in our Website how much fuel you will save!



ELECTRIC UNITS

Top Performance Independent Air Conditioning System

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Mini **cool!**

DAY AND NIGHT APPLICATION



:: Night&Day

NEW MINI COOL COMPACT NIGHT & DAY

DIRNA presents the first AC Parking Cooler for Night and Day application.

NIGHT APPLICATION



:: Compact



:: Dinamic



MINI COOL NIGHT & DAY

Top Performance Independent Air Conditioning System **Roof mounted units**

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OPERATING MODES

MANUAL MODE

:: Power and performance selected by the user.

AUTOMATIC MODE

:: The system measures and detects automatically the following conditions:

- a) 1. If the engine of the vehicle is On, the system will adjust automatically in order to be able to work up to the maximum power as there will be no risk of discharging the battery. This mode is indicated for use while driving, whether it is at day or night time.
2. If the engine of the vehicle is Off, the system will regulate the performance to avoid any possible battery discharge. This mode is indicated for several hours of night resting periods inside the cab of the truck.
- b) In any of the functioning modes, the unit will measure the recirculation temperature inside the cab and will adapt the cooling capacity to the temperature in cabin, making the air conditioning coherent with the electrical consumption. Second generation inverter technology.

ADDITIONAL APPLICATIONS

:: Electrical vehicles, agricultural machinery, off road machinery, as a substitute of traditional A/C integrated in the engine, road sweepers, cranes, etc.

AVAILABLE IN 24 V

3000 WATTS

Mini **COOL**
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THE PRODUCT

- :: Minicool Compact Night & Day is an Air Conditioning system to be used during the day or night with the engine of the vehicle On or Off.
- :: Its main application is refrigerating the cab of the truck during the resting periods of the driver, loading and unloading operations as well as while driving. With 3.000 watt of cooling capacity it is able to function during the day with sun radiation while its only power source is the battery of the vehicle itself.

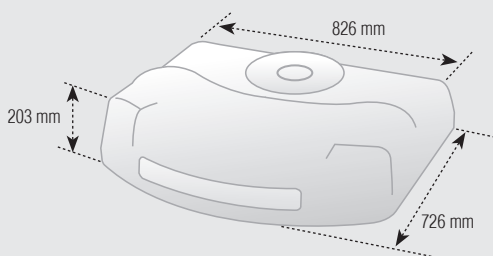


Control of all functions from radio frequency remote control or from electronic keyboard



Electronic display

New upholstery with air distributors and control panel



TECHNICAL FEATURES

3,0 kW (BTU 10236) Tested under JIS (*) standar at 33% humidity.
Night Mode (max. 23,5 A/hour - min. 12,6 A/hour) * at 35° external temp.
Day Mode (max. 38,2 A/hour - min. 29,4 A/hour) * at 42° external temp.
38 kg / 530 m³/hour.
Compressor's battery protection (when a certain level is reached, the compressors stop until the voltage of the battery is re-established)
Total disconnection of the unit when certain level of the battery is reached.

The kit is pre charged with Gas and fits into the roof hatch **without drilling the cab.**



- ... Power
- ... Power requirement
- ... Weight and maximum air flow
- ... Double battery protection
- ... Ultra fast installation

176 m

MINI COOL COMPACT

Top Performance Independent Air Conditioning System

Roof mounted units

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OPERATING MODES

F0 MODE: Manual function

- :: The system starts working with both compressors during 17 minutes. After that, one compressor is disconnected automatically.
- :: This allows the system to work at its maximum power and when the user starts sleeping, Minicool Compact moderates the consumption disconnecting one of the compressors.
- :: Any functioning condition can also be changed manually at any time by the user.

F4 MODE: Automatic function

- :: The system starts working with both compressors and depending on the temperature inside the cab, it regulates automatically the air flow and the compressors power.
- :: It is fully automatic depending on the temperature, with no need to regulate it manually obtaining in a simple way a great comfort advantage.
- :: Other feature of F4 mode is that the compressors don't stop, so the battery is protected against starting current peaks.
- :: The compressor and the pressurizer blower can work between 30% and 100% of the total performance depending on the temperature requirements.

AVAILABLE IN 12 V AND 24 V

Mini **COOL!**
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Air conditioning for vehicles

THE PRODUCT

- :: Minicool Compact is a standalone & Engine Off Air Conditioning system for night application allowing the user to sleep comfortably at night inside the cab of the truck making rest more repairing.
- :: It is a 2 compressor unit with 2 separate circuits of evaporator and condenser acting as two air conditioning systems in one taking its power from the battery of the truck.

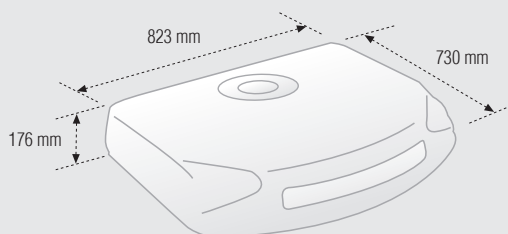


Control of all functions from radio frequency remote control or from electronic keyboard



Electronic display

New upholstery with air distributors and control panel



TECHNICAL FEATURES

1,4 kW Tested under JIS standar at 33% humidity.

Mode F4 (max. 17 A - min. 12,2 A).

28 kg.

530 m³/hour.

Compressors' battery protection (when a certain level is reached, the compressors stop until the voltage of the battery is re-established).
Total disconnection of the unit when certain level of the battery is reached.

The kit is pre charged with Gas and fits into the roof hatch **without drilling the cab.**

Power

Power requirement

Weight

Maximun air flow

Double battery protection

Ultra fast installation

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DINAMIC

Back wall mounting

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OPERATING MODES

F0 MODE: Manual function

:: The unit starts working at maximum power and minimum speed. The user can select the chosen speed and the temperature inside the cab.

F4 MODE: Automatic function

:: When equipment is switched on, depending on cabin temperature, it graduates air outlet and working power of compressor, always adapting itself to the selected temperature.

:: From its starting-on, compressor and blower are constantly working with powers ranking from 30% to 100% depending on cabin temperature, thus protecting battery from switching-on peaks.

AVAILABLE IN 24 V

THE PRODUCT

:: Minicool Dinamic is a back wall mounted A/C system for night application. It is suitable for those trucks that don't have roof hatch or for those whose cab height is near the standard limits.
:: It allows enjoying a repairing rest while, at the same time, it saves fuel, avoiding noises and engine wear and tear produced by idling standard A.C. use.

Mini cool
Dinamic

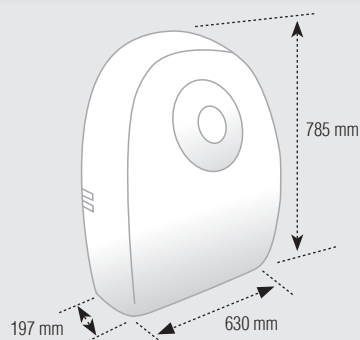
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Air conditioning for vehicles



Electronic display

New upholstery with air distributors and control panel



TECHNICAL FEATURES

1,05 kW Tested under JIS standar at 33% humidity.

F4 mode (max. 14 A -min. 9,5 A).

18 kg.

5 Fan speeds.

Total battery protection and control.

It allows to keep the original roof hatch.

Power

Power requirement

Weight

Maximun air flow

Double battery protection

Ultra fast installation



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Air conditioning for vehicles

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Created in 1980, **Dirna** is the spanish leading company in the air conditioning market for industrial vehicles in Europe.

Our market is air conditioning systems for industrial vehicles such as trucks, vans, minibuses, off road machinery, agricultural machinery, special vehicles such as ambulances, forklifts, military vehicles, road sweeper, Minicars, trains, electric vehicles, etc.

Dirna has more than two thousand designs and develops customized and tailor made solutions for any vehicle.

Furthermore **Dirna** has the widest range of products with the higher efficiency and quality of Evaporative Systems and Electric Air Conditioning Systems, ie: Bycool and Minicool range, both designed under the common focus of "no-iddle use".

In this field, **Dirna** is the only European Company that has a complete range of A/C products to satisfy customer's needs.

Dirna also has a complete catalogue of spare parts, tooling, fittings and rigid pipes that meet all costumer requests regarding to air conditioning.

We continuously work in new technology innovation and development and to improve our products and we certify the performance and quality of our designs guarantying customer satisfaction from the beginning of the process until the finished product while providing the best customer service concerning to attention, warranty, technical assistance and training.

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Please consult our range of evaporative systems Bycool

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Environmental
Friendly

Mini **COOL!**
COMPACT

Mini **COOL!**
Dinamic



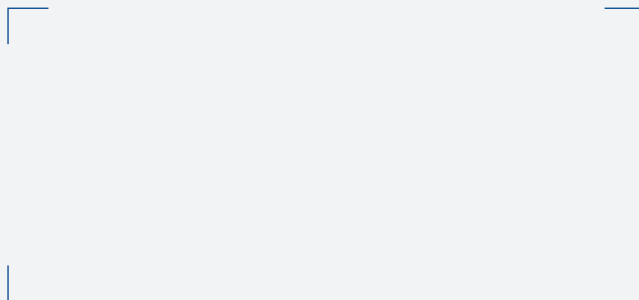
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2 YEARS WARRANTY for all the parts
TECHNICAL ASSISTANCE NETWORK

e9 Certified for European Electromagnetic
Compatibility Directive 2006/28/EC

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