

Heavy duty add-on air conditioning for Mining operating equipment

Available in 12 - 24 Vdc

DC Airco's products operate trouble free in hard environments ranging from hot and dirty mining applications to hot and dusty deserts. These DC powered direct current air conditioners are robust and reliable, ideal for use on vibrating vehicles.

Besides providing an comfortable, safe and healthy work environment for the operator, there are more benefits that our products offer:

- Decrease stock of different spare parts
- Minimise expensive down time
- If maintenance is unable to be carried out due to safety concerns
- Anti-idling fuel saving 30 40%

<u>Decrease stock of different HVAC spare parts</u>

This way, companies can reduce maintaining large stock of expensive air conditioning parts for every operating machine and vehicle, by using one type of unit. Our unit will fit on almost all movers, drills, cranes, waste trucks and forklifts. Start decreasing your stock of different spare parts and transport expenses.



Minimise expensive down time

Every air conditioner comes with a simple diagnostics interface for maintenance engineers to help support them with system health and possible error code information. This way it is easy and simple to help minimise down time when maintenance is needed



Premium controller interface



Rooftop air conditioner type DC9001 12-24 Vdc

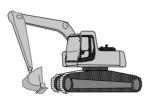
If maintenance is unable to be carried out due to safety concerns

Just by disconnecting 2 power cables and 4 mounting bolts it is easy to swap one rooftop air conditioning unit with another one within 1 hour. So operators can resume their job quickly and will give engineers the time to complete checking and do repairs in the workshop without time pressure and in a safe environment.



Anti-idling - fuel saving

In hot environments, operators must keep their vehicles idling when not operated for safety and health reasons. This idling affects fuel consumption and the engine wear unnecessarily and is not needed when using our highly efficient DCAirco air conditioners. Because they are battery powered without the need to keep the engine running. Thus maintain more safety for workers and decrease fuel consumption by more than 30%.



Idling example 1.

20-ton class Hydraulic Excavator

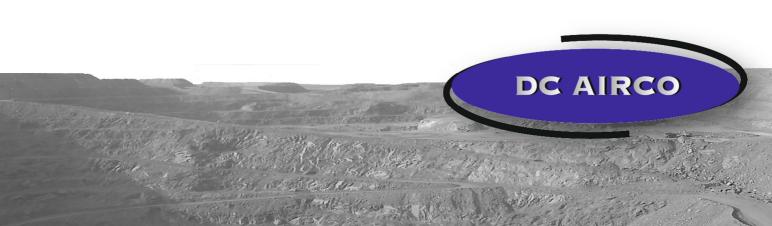
The average fuel consumption when idling is 3.30 L/H

Operating time (a year)	Idling percentage Of operating time	Idling consumption Liter /hour)	Fuel price in Dollars*	Idling fuel cost (a year) in US Dollars**
8000 hours	40%	3.30 L	1,03	10876,80
6000 hours	40%	3.30 L	1,03	8157,60
4000 hours	40%	3.30 L	1,03	5438,40
2000 hours	40%	3.30 L	1,03	2719,20
8000 hours	30 %	3.30 L	1,03	8157,60
6000 hours	30 %	3.30 L	1,03	6118,20
4000 hours	30 %	3.30 L	1,03	4078,80
2000 hours	30 %	3.30 L	1,03	2039,40

^{*}Average global fuel price

^{**}Expenses to be saved by using a DCAirco product.

Engine wear when idling is not included in the figures.



Idling example 2.

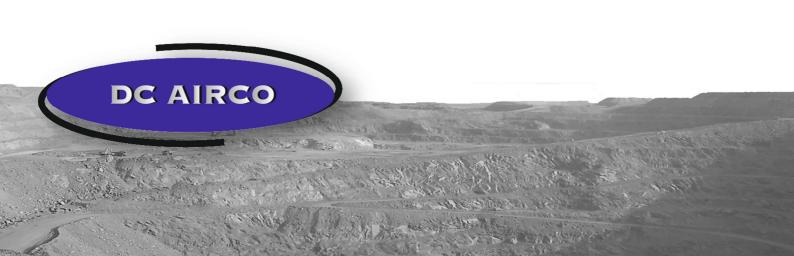


3.4m3 bucket size class Wheel Loader

The average fuel consumption when idling when is 4.2 L/H

Operating time (a year)	Idling percentage Of operating time	Idling consumption Liter /hour)	Fuel price in Dollar*	Idling fuel cost (a year) in Dollars**
8000 hours	40%	4.2 L	1,03	13843,20
6000 hours	40%	4.2 L	1,03	10382,40
4000 hours	40%	4.2 L	1,03	6921.60
2000 hours	40%	4.2 L	1,03	3460,80
8000 hours	30 %	4.2 L	1,03	10382,40
6000 hours	30 %	4.2 L	1,03	7786,80
4000 hours	30 %	4,2 L	1,03	5191,20
2000 hours	30 %	4,2 L	1,03	2595,60

^{*}Average global fuel price



^{**}Expenses to be saved by using a DCAirco product.

Engine wear when idling is not included in the figures.



Idling example 3.

90-ton class dump truck

The average fuel consumption when idling when is 8L/H

Operating time (a year)	Idling percentage Of operating time	Idling consumption Liter /hour)	Fuel price in Dollar*	Idling cost (a year) in Dollars**
8000 hours	40%	8 L	1,03	26368,-
6000 hours	40%	8 L	1,03	19776,-
4000 hours	40%	8 L	1,03	13184,-
2000 hours	40%	8 L	1,03	6592,-
8000 hours	30 %	8 L	1,03	19776,-
6000 hours	30 %	8 L	1,03	14832,-
4000 hours	30 %	8 L	1,03	9888,-
2000 hours	30 %	8 L	1,03	4944,-

^{*}Average global fuel price

Summary:

By using our DCAirco products you can:

- Provide a comfortable, safe and healthy working environment
- Cut down expensive stock
- Minimise maintenance and down time
- Start saving money on fuel through anti-idling



^{**}Expenses to be saved by using a DCAirco product.

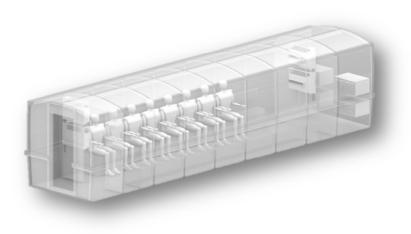
Engine wear when idling is not included in the figures.

Other mining applications:

Underground refugee shelters

Our specially designed mining units are built to cool underground refuge chambers on a 24 VDC battery pack. Powered by sufficient batteries these air conditioners offer up to 4 days of cooling to miners trapped after a disaster.

In many mines the temperature is between 28 C and 33 C with a high humidity. If the trapped miners are sitting in a closed refuge chamber /steel container the temperature and humidity rise to unacceptable high levels. Therefore many refuge chambers are equipped with air conditioning units to lower the indoor temperature and remove the excess humidity.





Mining telecommunication stations

Modern off grid BTS stations are wind and/or solar powered. The battery banks are charged with these DC voltage power sources. DCAirco products they can be connected directly to the batteries without any need of an inefficient inverter. So no waste of important energy.

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