

XVI. APUs



Diesel APU EcoPower 3500

There's a lot to gain from a good night's sleep

Made in the USA, the EcoPower 3500 is an auxiliary power system that provides heating, cooling and electrical power during downtime. Stop idling, power on the APU and save thousands of dollars annually in engine wear, fuel consumption and lodging costs.

The EcoPower 3500 is lightweight, compact and easy to install with minimal cab disruption. It operates totally independent of the truck's electrical and coolant system

Whether in heating or cooling mode, the EcoPower 3500 draws no electrical power from the vehicle. Patented technology enables the system to provide 10,000 Btu/hr (3kW) heating without utilizing the vehicle's coolant circuit. The fully integrated compressor drives 18,000 Btu/hr (5kW) of cooling capacity. The system is compromised of a diesel power unit, in cab HVAC unit, radiator, condenser, and multiple ducting kit options to accommodate a wide variety of sleeper cab configurations.



Markon single phase 120 Volt Alternator

Control relays

Donaldson high capacity air filter

Oil dipstick

HVAC compressor

Oil fill tube

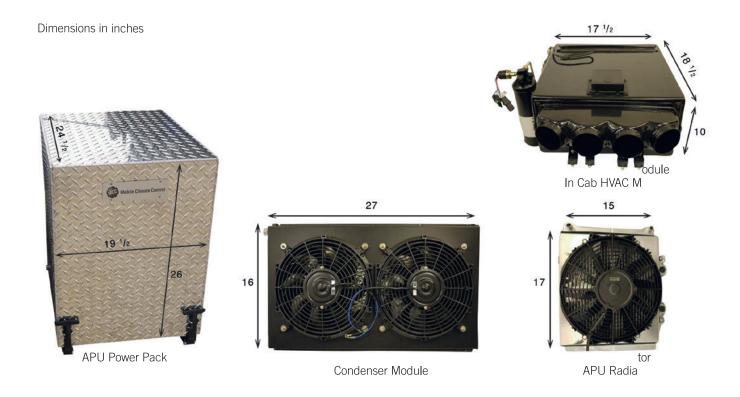
Automatic self adjustment belt tensioning system

Features

- High cooling/heating capacity
- 3500 Watts of electrical power
- Low initial cost
- Fast payback
- Small compact system
- Easy to install

- Minimal cab disruption
- Lower weight than comparable capacity systems
- Low maintenance
- Meets anti-idling regulations
- Standalone heating, cooling and electric power generation
- · CARB approved, high durability 1-cyl Kubota engine





Technical Data

| Cooling capacity (ARI)[1] | 18000 Btu/hr (5 kW) | | | |
|---------------------------|------------------------|--|--|--|
| Heating capacity | 10000 Btu/hr (3 kW) | | | |
| Refrigerant | R134a | | | |
| Airflow | 260 CFM (442 m³/hr) | | | |
| Battery | 60 Amp battery charger | | | |
| Weight | 418 lbs (190 kg) | | | |
| Oil change interval | 1000 hr | | | |

[1] ARI conditions: 95°F (35°C) / 80°F (27°C) / 50% RH



Electric APU EcoSleeper Lite

Stay comfortable and save while you rest

Relax in peace and quiet, without engine noise. The MCC EcoSleeper Lite will always give you comfortable sleeping temperature during your down time, whether the heat of the day or warm nights.

Turn off the engine, set the climate with the Electronic Climate Controller and you turn down operating costs.

The MCC battery powered A/C system maintains an even temperature without using the truck's engine. The system is comprised of an Evaporator Unit, a Condenser Unit, a Compressor Unit and an Electronic Climate Controller.

It is easy to both install and maintain.





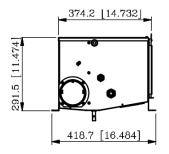
Features

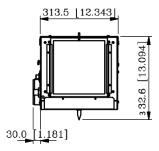
- Meets stringent anti-idling regulations
- Quiet operation less than 65dB
- Stand alone electronic climate control
- Unit run-time 8 hours (Using four AGM batteries)
- Simple unit installation and low maintenance operation
- Reduce engine wear
- Low battery voltage protection
- Fast payback

- Low weight
- Easy installation
- Low maintenance
- No fuel burned during cooling
- Advanced electronic climate controlth built in system
- Aluminum enclosure for durability
- Robust mounting kit options

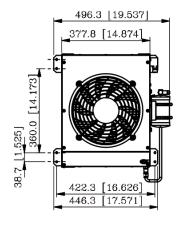


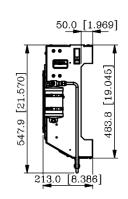
Ducted evaporator unit



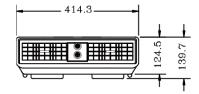


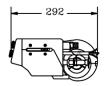
Condenser unit





Non-ducted evaporator unit





Technical Data

Cooling capacity (@95°F)
Run time (hrs)
Refrigerant
Number of batteries
Voltage
Number of major components
Power Requirements
Air flow

Approx. system weight without batteries

| EcoSleeper Lite 8500 | EcoSleeper Lite 13000 |
|------------------------------------|-----------------------|
| 8500 Btu/hr (2.5 kW) | 13000 Btu/hr (4 kW) |
| Up to 8 | Up to 8 |
| R134a | R134a |
| 4 | 4 + truck batteries |
| 12V | 24V |
| 4 | 4 |
| 700 Watts Max | 1200 Watts Max |
| 300 CFM (509.7 m ³ /hr) | 300 CFM (509.7 m³/hr) |
| 55 lbs (25 kg) | 55 lbs (25 kg) |
| | |

^{*}Truck alternator must be a minimum of 220 Amp capacity



EcoPower 3500

| P/N 090-00611 | Photo | Model EcoPower 3500 APU Complete System with Auto Start | |
|--|-------|---|--|
| | | Complete APU Assembly Package | |
| | | | |
| 089-00019 | 1 | APU | |
| | 0 | | |
| 093-00838 | | Condenser Kit | |
| 093-00840 | | Install Kit | |
| 093-00842 | 10 9 | Radiator Kit | |
| 093-00841 | | Duct Kit | |
| 093-00839 | 88 | Hose Kit | |
| 090-00615 | 3.0 | System Heat/Cool Kit | |
| Required Condenser Mounting Kit - Choose One | | | |
| 093-00849 | | Cab Mounting Condenser Bracket Kit | |



093-00850

093-00851

Y72-25001-01 10" Frame No Drill Install Kit

Optional APU Mounting System

Frame Mounting Condenser Bracket Kit

Headache Rack Mounting Condenser Bracket Kit



EcoSleeper Lite

| EcoSleeper Lite 3500 King Leo 8500 12V 2V-25-00039-00 EcoSleeper Lite 13000 Bitzer w/ 24V - 12V DC to DC converter 13000 12V 2V-25-00041-00 EcoSleeper Lite 13000 Bitzer w/ 24V - 12V DC to DC converter 13000 24V 24V 2V-25-00041-00 EcoSleeper Lite 13000 Bitzer w/ 24V - 12V DC to DC converter 13000 24V 24V 2V-25-00041-00 EcoSleeper Lite 13000 Bitzer w/ 24V - 12V DC to DC converter 13000 24V 24V 24V 2V-25-00041-00 EcoSleeper Lite 13000 Bitzer w/ 24V - 12V DC to DC converter 13000 24V | P/N | | Model | Btu/kW | Input Voltage |
|--|---------------|---------|---|--------|-----------------|
| Page | A | | | | |
| Second S | | | | | |
| Covers | | | • | | |
| Plain Cover Not Required when using integrated condenser cover assy N/A | Y-25-00041-00 | | EcoSleeper Lite 13000 King Leo | 13000 | 24V |
| N/A | В | E | | | |
| Not Required when using integrated condenser cover assyl | V-24-00142-00 | | Plain Cover | | NI/A |
| Cover Assembly with Integrated Condenser 12V 24V | 1-24-00142-00 | • | [Not Required when using integrated condenser cover assy] | | IV/A |
| Cover assembly with integrated Condenser 24V | OR | | | | 101/ |
| Evaporator and Condenser Modules 12V 12V 13/26 12V 12V | | 1 80 80 | | | |
| Rooftop based on "Ecoflex 6+" with evaporator and condenser | Y-54-00002-00 | | Cover assembly with integrated Condenser | | 24V |
| Rooftop based on "Ecoflex 6+" with evaporator and condenser | C | | Evaporator and Condenser Modules | | |
| Rooftop based on "Ecoflex 6+" with evaporator and condenser 24V | 50-1327 | | | | 12V |
| Day-cab plastic evaporator with louvers 12V | 50-1326 | ED2 | | | |
| Day-cab plastic evaporator with louvers 24V | OR | | | | |
| 13-2221 | 13-0223 | | Day-cab plastic evaporator with louvers | | 12V |
| 13-2221 | 13-0224 | | Day-cab plastic evaporator with louvers | | 24V |
| 13-2222 | OR | | | | |
| Remote condenser 12V Remote condenser 12V Remote condenser 12V Remote condenser 12V 24V Remote condenser 12V 24V Remote condenser 12V 24V Remote condenser 12V 24V 24V | 13-2221 | | Under-bunk evaporator | | 12V |
| 14-4317 | 13-2222 | 201 | Under-bunk evaporator | | 24V |
| Name | AND | | | | |
| OR 14-4319 | 14-4317 | | Remote condenser | | 12V |
| 14-4319 Undercab condenser 12V 14-4304 Undercab condenser 24V 0 Compressor Box Mounting kit Y-19-IK0002-00 Floor Mount through floor of compressor box N/A Y-19-IK0002-01 Back wall mount through back wall of compressor box N/A Y-19-IK0002-03 Frame/Wall bracket with HD support brackets N/A E Rerfrigerant Hose/Elec Harness Kit Y-19-IK0001-10 10 foot Kit Class-8 Truck with Cond Jumper 12V/24V Y-19-IK0001-25 25 Foot Kit Deliver Van with Cond Jumper 12V/24V F Driver Control MVC (Mini Vehicle Controller) 12V/24V G MCC Recommended battery boxes In-Frame Aluminum (4 battery Merritt 258) 12V/24V Y-24-00122-00 Side-Frame Aluminum (4 battery Merritt 3505) 12V/24V MCC Recommended Shore Power — | 14-4316 | OF | Remote condenser | | 24V |
| 14-4304 | OR | Neil | | | |
| Compressor Box Mounting kit Y-19-IK0002-00 Y-19-IK0002-01 Back wall mount through back wall of compressor box N/A Y-19-IK0002-03 Frame/Wall bracket with HD support brackets N/A Frame/Wall bracket with HD support brackets N/A E Rerfrigerant Hose/Elec Harness Kit Y-19-IK0001-10 10 foot Kit Class-8 Truck with Cond Jumper 12V/24V Y-19-IK0001-25 Driver Control MVC (Mini Vehicle Controller) 12V/24V G MCC Recommended battery boxes In-Frame Aluminum (4 battery Merritt 258) Y-24-00122-00 MCC Recommended Shore Power | 14-4319 | | Undercab condenser | | 12V |
| Floor Mount through floor of compressor box N/A | 14-4304 | | Undercab condenser | | 24V |
| Pack wall mount through back wall of compressor box N/A | D | | | | |
| Y-19-IK0002-03 Frame/Wall bracket with HD support brackets N/A E Rerfrigerant Hose/Elec Harness Kit Y-19-IK0001-10 10 foot Kit Class-8 Truck with Cond Jumper 12V/24V Y-19-IK0001-25 25 Foot Kit Deliver Van with Cond Jumper 12V/24V F Driver Control MVC (Mini Vehicle Controller) 12V/24V G MCC Recommended battery boxes 12V/24V Y-24-00121-00 In-Frame Aluminum (4 battery Merritt 258) 12V/24V Y-24-00122-00 MCC Recommended Shore Power MCC Recommended Shore Power | | | | | |
| E Rerfrigerant Hose/Elec Harness Kit Y-19-IK0001-10 10 foot Kit Class-8 Truck with Cond Jumper 12V/24V Y-19-IK0001-25 25 Foot Kit Deliver Van with Cond Jumper 12V/24V F Driver Control MVC (Mini Vehicle Controller) 12V/24V G MCC Recommended battery boxes 12V/24V Y-24-00121-00 In-Frame Aluminum (4 battery Merritt 258) 12V/24V Y-24-00122-00 Side-Frame Aluminum (4 battery Merritt 3505) 12V/24V MCC Recommended Shore Power — | | | | | |
| Y-19-IK0001-10 | | 2008/2 | | | N/A |
| Y-19-IK0001-25 25 Foot Kit Deliver Van with Cond Jumper 12V/24V F Driver Control MVC (Mini Vehicle Controller) 12V/24V G MCC Recommended battery boxes | = | | | | 1 0 1 / 0 4 1 / |
| Driver Control | | | · | | |
| MVC (Mini Vehicle Controller) 12V/24V | | | | | 124/244 |
| MCC Recommended battery boxes Y-24-00121-00 In-Frame Aluminum (4 battery Merritt 258) 12V/24V Y-24-00122-00 Side-Frame Aluminum (4 battery Merritt 3505) 12V/24V H MCC Recommended Shore Power | = | 72° | | | 12V/24V |
| Y-24-00121-00 In-Frame Aluminum (4 battery Merritt 258) 12V/24V Y-24-00122-00 Side-Frame Aluminum (4 battery Merritt 3505) 12V/24V H MCC Recommended Shore Power | G | | | | |
| Y-24-00122-00 Side-Frame Aluminum (4 battery Merritt 3505) 12V/24V H MCC Recommended Shore Power | - | | | | 12V/24V |
| MCC Recommended Shore Power | Y-24-00122-00 | | | | |
| | Н | | · | | |
| | 35-1046 | | Charles Charger (120 VAC to 12 VDC 100 amp) | | N/A |