



Siberian AE

Roof top AC unit for electrical buses

As a consistent further development of the Siberian product platform, MCC developed a highly efficient and reliable electrical AC variant to specifically meet the varied demands in the future global bus and coach market. The Siberian AE as a self-contained AC unit with scroll compressor technology including glycol battery cooling and PTC heating option will suit all

typical medium and large bus roof mount applications. Microchannel Heat Exchangers (MCHX), aluminum evaporator coil and piping allows lowest possible weight. High part similarity with all members of the product family, the same interface to the bus roof and optimal accessibility to service parts perfectly meet bus producer and bus operator expectations.

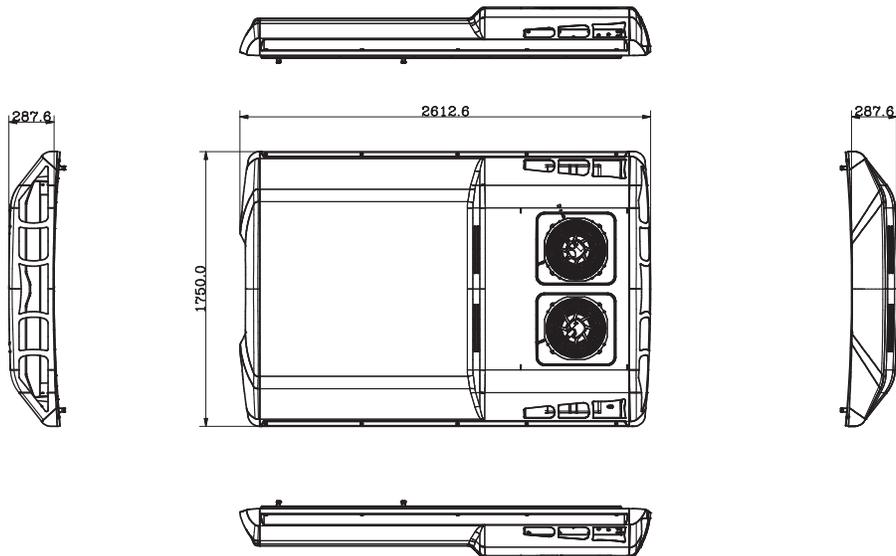


Features

- Many common parts with the conventional unit and heat pump
- Slim design (max height 290mm)
- Integrated scroll compressors 750VDC / condensing section designed for optimal airflow / high flexible control logic
- Access to the air filter, filter dryer, TXV from return air opening. Access of other internal parts through the hinged one-piece cover
- Brushless evaporator blowers, 380mm fans
- Full aluminum refrigerant circuit, MCHX condenser
- One roof interface for all-electric and heat pump variant
- Options: PTC heater (10/15kW), integrated battery cooler, 20 or 40% FA, central air variant, different MCC controllers from basic to high end
- Heating (glycol), battery cooler (glycol), front box connection flexible left or right

Benefits

- Fewer part numbers reduced the spare part variety
- Modern appearance reduced total bus height
- Allows high efficient, silent operation and best performance in high ambient conditions. No additional inverter needed.
- Best serviceability. Saves time for seasonal maintenance or other service
- High reliability and efficiency, up to 40.000 hours life cycle
- Low weight, environmentally friendly
- No change of fixation points or roof structure needed
- Multiple options, high flexibility
- Easy to apply to any bus model, variant



Technical Data

Siberian AE	
Cooling capacity MAX ^[1]	22 kW
Cooling capacity ARI ^[2]	16 kW
Heating capacity coolant (Q80)	18 kW
Heating capacity electrical* (750VDC)	10 / 15 kW
Length x Width x Height	2610 mm x 1750 mm x 220/290 mm
Weight	160 kg
Air flow (Max)	4400 m ³ /h
Current draw Max (24VDC)	64 A
Current draw Nom (24VDC)	42 A
Current draw compressor (750VDC)	16 A
Current draw heating (750VDC)	13 / 20 A
Refrigerant	R134a

* Optional

[1] Maximum cooling condition (MAX) ti 40 °C/ ta 35 °C/ 50%

[2] Nominal cooling condition (ARI) ti 27 °C/ ta 35°C/ 50%



Mobile Climate Control