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## 5 Types of Bus Air Conditioner Housing Advantage & Disadvantages

### **Recommendation:**

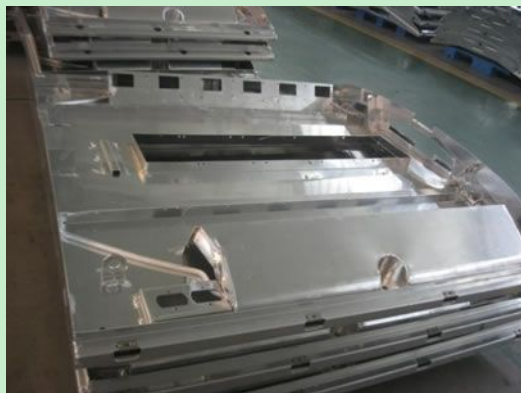
Five types of bus air conditioning shell mainly used in bus air conditioner industry, mass customization of bus air conditioner, buy bus air conditioner and want to know more about its housing's advantage/disadvantage, further more learning how to choice its housing. Learn it today

### **Bus Air Conditioner Housing Processing Technology**

As the specialized [bus air conditioner manufacturer/factory in China](#), we supply the bus air conditioner with the high quality bus A/C housing, tailored bus ac housing is feasible for your business. We provide five kinds of bus air conditioner shell, metal material housing of bus air conditioner, hand lay fiberglass shell of bus air conditioner, SMC molded housing of bus air conditioner, D-LFT molding housing processing of bus air conditioner, and aluminium profile bus air conditioner's housing.

### **The Housing of Bus Air Conditioner Category**

- ★ Metal material housing processing
- ★ Hand lay fiberglass shell processing
- ★ SMC molded housing processing
- ★ D-LFT molding housing processing
- ★ Aluminium Profile Used in Bus Air Conditioning Housing



metal material bus air conditioner



FRP bus air conditioning housing



SMC bus HVAC housing



D-LFT molding bus climate housing

## I . Metal Material Housing of Bus Air Conditioner

Advantage:

- The structure of bus air conditioning is very reliable
- good designed, to meet the different size requirements
- No special mold, high production efficiency.
- easy to install, assembly and disassembly of the bus A/C parts can be realized by using a simple structure.
- environmental protection materials, recyclable.

Disadvantages

- Complex process, low production efficiency;
- High labor costs and high material costs
- Sealing measures should be taken, such as smear the sealant.
- High insulation performance requirements, and adopting insulation measures, such as using adhesive insulation materials.



## II . Handmade Lay Fiberglass Shell of Bus Air Conditioner

Advantage

- Extremely high performance price ratio and use reliability
- Bus A/C housing is not restricted to its size and shape;

- High corrosion resistance, prolonged exposure in the sun will not fade;
- Have a high tensile strength, no distortion, no crack, good water resistance, and long service life
- High resin content, good performance
- Can be add any reinforcing materials to any places of the bus a/c housing, such as fiber mat, embedded parts, reinforced steel plate, etc, which can easy to meet the product design requirements

#### Disadvantages

- High labor-intensive
- The productivity is not very high
- Non-recyclable waste products



Metal Material Housing of Bus Air Conditioner

### III. SMC Molded Housing of Bus Air Conditioner

#### Advantage:

- Mature processing technology
- SMC material can be adjusted according to the performance requirements of the eventually product
- High corrosion resistance;
- The die-casting has strict structure, high working efficiency
- Stable in structure and long in service life.
- Low manufacture cost in mass production.

#### Disadvantages

- This housing is not very environmentally friendly (TVOC exceeded)
- The toughness of the shell is not very good.
- High cost of the mold, require one-time investment only.
- Thermoset materials, it is not good for recyclable.

项目	性能数据	项目	性能数据
拉伸强度/MPa	84-140	洛氏硬度	H50-H112
拉伸模量/GPa	6.3-14	吸湿性(24h)/%	0.1-1.0
弯曲强度/MPa	175-280	耐化学性	良-优
弯曲模量/GPa	8.8-70	弱酸	
压缩强度/MPa	105-210	强酸	一般
冲击强度(缺口)/(kg/m)	43-108	弱碱	一般
相对密度	1.7-2.0	强碱	差
热变形温度/C	177-232	有机溶剂(氯烯烃除外)	良-优
连续耐热性/C	149-177	正常玻纤含量/%	35
燃烧速率	慢-自熄		
巴氏硬度	40-80		



SMC Molded Housing of Bus Air Conditioner, SMC bus hvac shell

#### IV. D-LFT molding housing processing of Bus Air Conditioner

It is refer to Direct Long Fiber Thermoplastic (D-LFT) Molding housing

Advantage:

- Eco-friendly materials, the waste product can be recycled and reused.
- High production efficiency, high performance-to-price ratio
- High usability, this D-LFT housing has a excellent comprehensive performance.
- The comprehensive cost is very low
- D-LFT housing meet the lightweight demand
- The production processes has a high level automation

Disadvantages

- One-time-investment of the device is very high
- The surface of D-LFT housing it hard to treat.
- The surface of D-LFT housing is hard to bond.



D-LFT molding housing processing of Bus Air Conditioner

#### V. Up-to-date Technology Aluminium Profile Used in Bus Air Conditioning Housing



If the condenser housing adopts steel framed structure, it will be easy to corrode, in order to reduce the corrosion of the condenser housing, Gucehn' technology section put forward corresponding countermeasures, and develop the aluminum profiles which mainly used in condenser shell. In actual installed, the condenser shell uses aluminum profiles is significantly improve the fineness compare to the original sprayed plastic frame.

Advantage:

- A high degree of generalization
- Anti-corrosion degree is high
- The surface fineness is good;
- Lightweight condenser shell to meet the customer's demand;

Disadvantages:

- Higher raw material costs;
- The initial die cost require one-time-investment which is very high



Aluminium Profile Bus Air Conditioning Housing

## About Guchen Bus Air Conditioning Housing Manufacturer

In Guchen industry's bus air conditioning system, all of the bus air conditioner's housing are adopts the Eco-friendly material and latest technology, such as D-LFT molding housing and superior quality aluminum profile material condenser housing, we supply the customized bus air conditioning system, so if you need customized sample, in order to reduce your cost, so the bus a/c shell maybe using the LRP (glass fiber reinforced plastics), but if you need the high quality housing, such as aluminium profile bus air conditioner's housing we will offer it according to your actual business requirements, thanks for your reading.

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