# **CNC Customized Industrial Grade Aluminum Profile Enclosure with Customized Dimension for Electrical Housing**

# **Basic Information**

· Certification: ISO Minimum Order Quantity: 100 Price: 1.99



# **Product Specification**

• Material: Aluminium Alloy 6063, 6061, 6082, 6005

• Temper:

Anodized, Powder Coated, Electrophoresis, Surface Treatment:

Sand Blasting

. Color Options: Silver, Black, Gold, Champagne, Custom

• Processing Method: **CNC** Milling • Alloying Ingredient: 6063

. Tensile Strength: ≥ 160Mpa (T5), ≥ 205Mpa (T6) . Yield Strength: ≥ 110Mpa (T5), ≥ 180Mpa (T6)

• Elongation: ≥ 8%

100,000 Tons/year • Production Capacity: Extrusion Diameter: Up To 350mm

• Maximum Profile Diameter: 600mm

 CNC Machining Length: Up To 6 Meters . Punching Thickness: Over 5mm



# More Images









# **Product Description**

#### **CNC Customized Aluminum Profile Enclosure Shell Electrical Housing**

#### **About Metalplus**

Metalplus specializes in aluminum industrial profile design and manufacturing with a production base of more than 100,000 square meters and annual capacity exceeding 100,000 tons.

#### **Product Navigation**

Aluminum Profile Aluminum Fan Blade Profiles

Aluminum Profile System

Aluminum Extrusion Enclosure

LED Aluminum Extrusion Profiles

Aluminum Frame

Customized Aluminum Profile

Aluminum Heat Sink

Electric Motor Housing Aluminum profile

Construction Aluminum Profile

Aluminum Extrusion Tube

**Die Casting** Die Casting Led Housing

Stainless Steel Casting

**Aluminum Casting** 

ACP Aluminum Composite Panel

## **Product Specifications**

Material: Aluminum alloy 6063, 6061, 6082, 6005 or according to requirement

Temper: T5, T6

Quality standard: GB5237-2008

Surface treatment: Mill finish, anodized, powder coated, electrophoresis, sand blasting etc. PVDF coating, wood grain painting, matted,

polishing bright

Color available: Silver, Bronze, champagne, Matte, Natural for anodizing, Ral for powder coating

Packing details: Protected film inside and shrinking film outside

Samples time: two weeks after receiving the mold fee

Delivery: 20 days after deposit

Production Capacity: 100,000 tons/year

MOQ: 1 TONS

Payment terms: 1) T/T 2) L/C at sight

Port: SHANGHAI PORT 17 press extruder OEM & ODM service

#### **Manufacturing Process**

 $\mbox{Die design} \rightarrow \mbox{Die making} \rightarrow \mbox{Extruding} \rightarrow \mbox{Cutting} \rightarrow \mbox{CNC Machining} \rightarrow \mbox{Surface treatment} \rightarrow \mbox{Packing}$ 

#### **Product Advantages**

# **Superior Heat Dissipation**

The aluminum alloy motor housing maintains temperature within optimal range during continuous operation due to aluminum's excellent thermal properties.

#### **Lightweight Construction**

Aluminum extrusion products significantly reduce weight for easier transportation and installation while maintaining structural integrity.

#### **Excellent Plasticity**

Aluminum alloys offer superior ductility and plasticity compared to steel and cast iron, allowing for more design flexibility.

#### **Environmental Benefits**

Our aluminum housing motors feature waterproof, dustproof, and corrosion-resistant properties with energy-efficient performance and long service life.

#### **Technical Parameters**

#### **Chemical Composition**

| Alloy | Si      | Fe      | Cu       | Mn   | Mg       | Cr        | Zn   | Ti   | Impurity | Al   |
|-------|---------|---------|----------|------|----------|-----------|------|------|----------|------|
| 6063  | 0.2-0.6 | 0.35    | 0.1      | 0.1  | 0.45-0.9 | 0.1       | 0.1  | 0.1  | 0.15     | Rest |
| 6061  | 0.4-0.8 | 0.7     | 0.15-0.4 | 0.15 | 0.8-1.2  | 0.04-0.35 | 0.25 | 0.15 | 0.15     | Rest |
| 6060  | 0.3-0.6 | 0.1-0.3 | 0.1      | 0.1  | 0.35-0.6 | -         | 0.15 | 0.1  | 0.15     | Rest |
| 6005  | 0.6-0.9 | 0.35    | 0.1      | 0.1  | 0.40-0.6 | 0.1       | 0.1  | 0.1  | 0.15     | Rest |

#### **Mechanical Properties**

| Alloy | Temper | Tensile strength | Yield strength | Elongation |
|-------|--------|------------------|----------------|------------|
| 6063  | T5     | ≥ 160Mpa         | ≥ 110Mpa       | ≥ 8%       |
| 6063  | Т6     | ≥ 205Mpa         | ≥ 180Mpa       | ≥ 8%       |
| 6061  | Т6     | ≥ 265Mpa         | ≥ 245Mpa       | ≥ 8%       |

### **Technical Support**

Our team provides comprehensive design support including CAD drawings and 3D models for customer confirmation, followed by custom mold creation and precision extrusion.

For clients with existing designs, our R&D team optimizes for production efficiency and cost-effectiveness while maintaining performance requirements.

Our one-stop service covers product design, mold customization, aluminum bar melting, extrusion profiling, precision machining, and surface treatment with strict quality control throughout the process.

# **Production Capabilities**

### **Extrusion**

With 44 aluminum extrusion lines including a 6800 ton unit, we produce industrial profiles up to 600mm diameter for applications including radiators, fan blades, motor enclosures, and solar cell frames.

#### **Anodizing**

Our 6 anodizing lines produce uniform oxidation films that enhance corrosion resistance, hardness, and wear resistance. Available in silver, black, gold, champagne, and imitation steel colors with custom options available.

### **Painting**

Four powder spraying lines using Swiss Gema nozzles apply environmentally friendly paint with excellent adhesion and color retention.

#### **CNC Machining**

12 PRATIC machining centers handle complex profiles up to 6 meters

Wegoma automatic cutting machines for precision cutting

| 30 punching machines (50-100 ton capacity) for thick profiles  |
|--|
| 10 stretch bending machines for precise angle bending  |
| 10 milling machines for various plane machining  |
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| Packing & Shipping   |
| Finished products are carefully packaged with protective film and undergo strict quality inspection before shipment. Our organized warehouse system ensures accurate product tracking. |
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| Certifications   |
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| Company History  |
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| 2004: Recognized Brand of the Building Industry Material Market  |
| 2006: Certificate for Product Exemption from Quality Surveillance Inspection & ISO9001   |
| 2009: Advanced Company, Jiangsu Famous Brand Certificate, Credible Product of Quality in Jiangsu Province  |
| 2012: Established business relationships with Panasonic and LG   |
| 2015: Became innovative producer and supplying partner for European clients  |
| 2017: Developed new baseboard heater products  |
| 2019: Partnered with world's largest heater manufacturers as aluminum shell supplier   |
| 2023: Expanding overseas distribution network for mutual benefits  |
| Notable Projects   |
| Soccer City Stadium, Johannesburg: As main aluminum supplier for Africa's largest stadium (94,000 seats), our products contributed to this landmark project.                           |
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| Lobster Trailers: Our optimized aluminum solutions for this Nordic trailer manufacturer demonstrate our design and production capabilities.  |
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| School Furniture Project: Supplied aluminum legs for school desks, showcasing our ability to support local education initiatives.  |
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