



## **Arctic Cat M 400 ALPHA ONE 397cc Deep Snow Snowmobile M-400- ALPHA-ONE**

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**SKU:** M-400-ALPHA-ONE

**Categories:** [Arctic Cat](#)

### **Product Description**

#### **Arctic Cat M 400 ALPHA ONE 2027 397cc Snowmobile**

If you ride deep powder, you need a snowmobile that's built to a higher standard. With the ultra-agile CATALYST™ platform and your choice of ALPHA ONE® mono-rail or twin-rail suspension, this lineup floats, climbs and carves with purpose. The M 400 ALPHA ONE offers competitive specification for its class and benefits from Arctic Cat's legacy of snowmobile innovation. Whether you are a seasoned enthusiast or a rider building hours in their home riding area, the M 400 ALPHA ONE brings a proven combination of chassis engineering, powertrain capability, and standard equipment to the trails.

Arctic Cat has been producing snowmobiles since 1962 and the M series continues that tradition with a machine that reflects current engineering priorities while remaining true to the brand's commitment to rider-focused design. The ALPHA ONE rear suspension is a central feature of this model, offering a single-beam design that reduces weight and improves deep snow float and maneuverability, setting it apart from conventional tracked suspension layouts. The 397cc engine at the core of the M 400 ALPHA ONE powers it through a wide range of conditions with consistency and character.

The M 400 ALPHA ONE is intended for experienced riders who regularly venture into deep snow environments, mountain terrain, and backcountry zones. It performs best in untracked powder, steep sidehills, and high-elevation riding areas where conventional trail sleds fall short. Riders who prioritize powder performance, sidehill capability, and the ability to navigate variable deep snow terrain will find the M 400 ALPHA ONE an honest and capable machine for the most demanding backcountry days. The M 400 ALPHA ONE is backed by a 12 Months warranty.

#### **Engine and Powertrain**

The M 400 ALPHA ONE is powered by a 2-Stroke engine, liquid cooled, with electronic fuel injected (efi) fuel delivery. The bore and stroke dimensions of 85 x 70 mm give the engine its distinctive power character. Clutch duties are handled by a CVTech Trailbloc / CVTech In Vance setup, calibrated to deliver smooth and efficient power transfer across the power range. The exhaust system, apv with tuned pipe, pipe sensor, manifold and stainless steel muffler, contributes to the engine's overall performance character. A minimum octane rating of 91 is recommended to maintain proper engine performance.

- Displacement: 397cc
- Engine type: 2-Stroke
- Cooling: Liquid
- Cylinders: 1
- Bore x stroke: 85 x 70 mm
- Fuel delivery: Electronic Fuel Injected (EFI)

- Drive clutch: CVTech Trailbloc
- Driven clutch: CVTech In Vance
- Reverse: Push-button Engine
- Fuel capacity: 10.4 gal
- Minimum octane: 91
- Starter: Turnkey Electric Start

## Track and Suspension

The M 400 ALPHA ONE runs a 146 in x 15 in Challenger track with a 2.00 in lug height and 2.86 in pitch. In deep snow applications, the track configuration is a critical factor in overall performance, and the M 400 ALPHA ONE is set up to maximize float, bite, and control in powder conditions. The front suspension features Arctic Mountain Suspension (AMS) with 8.3 in of travel, while the rear suspension uses ALPHA-ONE Rear Suspension with 14.75 in of travel for the intended riding style.

- Track length: 146 in
- Track width: 15 in
- Track type: Challenger
- Lug height: 2.00 in
- Pitch: 2.86 in
- Front suspension: Arctic Mountain Suspension (AMS)
- Front travel: 8.3 in
- Rear suspension: ALPHA-ONE Rear Suspension
- Rear travel: 14.75 in
- Ski type / width: G2 ProClimb - 7 in
- Ski stance: 35.5-37.5 in - Adjustable
- Brakes: Stealth Hydraulic Master Cylinder

## Chassis and Dimensions

The chassis of the Arctic Cat M 400 ALPHA ONE is designed to balance rigidity with weight management. With the weight budget being carefully managed for maximum deep snow float and maneuverability. The heat exchanger configuration is front/long tunnel, designed for consistent cooling across typical operating temperatures.

- Overall chassis length: 128 in
- Overall chassis width: 42.5-44.5 in
- Overall chassis height: 48 in
- Heat exchanger: Front/Long tunnel

## Features and Standard Equipment

The Arctic Cat M 400 ALPHA ONE comes equipped with a range of standard features selected to enhance the riding experience from the moment you take delivery. Lighting is provided by halogen 1-bulb for strong visibility on early morning or evening rides. The 4" low windshield offers appropriate wind and weather protection for the intended riding category. The hooked w/grab handle handlebar design positions the rider comfortably for the intended riding posture. Available in Black, the M 400 ALPHA ONE presents a distinctive and purposeful appearance.

Standard accessories include: Hand & Thumb Warmers, Standard Brake Disc, Standard Steering, Tether Switch.

- Lighting: Halogen 1-Bulb
  - Windshield: 4" Low
  - Handlebars: Hooked w/grab handle
  - Seating style: Lightweight Mountain
  - Available colors: Black
  - Starter: Turnkey Electric Start
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