

MTGA Arctic 200 Series Trailer

The MTGA 200 series arctic trailer is a standalone, fully self-supporting unit designed to support three AP's or devices. All units are fabricated in our head office in Western Australia to ensure quality and durability in the field.

The 200 series arctic trailer is a solution designed to be mobile and towed by a light vehicle using any tow hitch required. The unit is designed to support approximately 120-160w continuous power draw with an effective redundancy up to 6 days on battery backup alone. The batteries and methanol fuel cartridges are housed in an ergonomically designed sliding drawer to provide ease of access for inspection or replacement.

This MTGA solution utilises three high efficiency 360 - 400w solar panels in a patent-pending sliding array designed for safety and ease of deployment of the panels as well as quick and easy site establishment. The sliding array means that the trailer is compact and eliminates an elaborate setup and pack down process for multiple solar panels. The Solution also uses a 400W wind generator and a 110W methanol generator to supplement the solar. The wind generator is mounted up high above the solar panels to maximise wind speed, with the option to include a second wind generator. The methanol generator is housed internally in order to keep it safe from the environment and keep it insulated.

The trailer is also able to tilt the solar panels, allowing for the seasonal change in the sun direction. This is achieved through two linear actuator connected between the solar panels and the trailers.

The trailer can utilise a 5m to 8m linear actuated mast (or other as required) for the deployment of the equipment with an optional electric rotational headstock for alignment after the mast has been deployed.

The 200 series arctic unit utilises two IP rated cabinets to house the communications equipment and the power equipment onboard the trailer. Access to communications equipment is front on and has a large internal area for mounting hardware. The communications and video offer support for WiFi, LTE and PTZ camera operation. Optional system monitoring is also available for all three power supplies, including GPS, time and trailer heading.

An innovative, intelligent and cost-effective design, the 200 series arctic unit has met and exceeded all specifications requested from our clients. The trailers are designed from the ground up to handle the rugged environment that mining can throw at them and the high demands for reliability that our customers require. This includes off-road tyres, and a fully welded and engineered robust chassis, a large outrigger footprint to ensure high wind stability and a maintenance-free 8m patented articulated linear actuated mast. The mast allows easy and safe extension of the rotatable headstock from the ground without the need to access the trailer or use a safety step. An electric rotational headstock is optional for alignment after the mast has been deployed.

We include all standard safety features such as wheel chocks, high vis powder coating and tape, indication lights, inertial braking and a night safety beacon. The 200 series arctic unit is designed specifically for low light conditions and extreme temperatures ranging from -40 to +40 degrees Celsius.

The 200 series arctic unit combines three forms of power generation, solar, wind and a methanol fuel cell with a large battery backup capacity to power multiple devices with over four days backup. This, in turn, decreases the use of non-renewable energy sources.

A solar capacity at 1.35kw of solar generation is impressive thanks to the use of class-leading high-efficiency panels. They feature an automatic tilt system via linear actuator to optimise from summer to winter. The panels are safely and easily deployed by one person in seconds on sliding linear rails.

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Specifications	
Mass	Approx. 1500-1700kg
Type	ADR Compliant Trailer
Power Output (Cont.)	120 – 160 Watts
Mast Height	5 – 14 metres
Mast Type	Linear actuator (other as requested)
Supported Headload	35 kg
Supported Wind	85km/h if deployed 120km/h stowed
Battery Redundancy	Up to 4 Days
Solar Panels	3 x 360 - 400 Watt
Batteries	8 - 12 x 12V 120Ah or 6V 225Ah Deep Cycle AGM
Battery Configuration	12V / 24V / 48V
Enclosures	2 x Mild Steel Powder-Coated (600x600x300mm) or (800x600x300)
Methanol Generator power	110W
Wind Generator Power	400W-800W

