



# REFRIGERATED VAN/TRUCK 32 CUM

**2WD - DIESEL**

**Advanced, Secure & Efficient Cold Chain Solution**

**MVAN-04**



**Quality, Management, Environment, Health & Safety Standards**



CDSCO Certified



USFDA Listed



European CE



ISO 13485:  
NABCB/IAF



ISO 9001: IAF



7 Electric Safety  
Certifications

## APPLICATIONS



Designed for temperature-controlled vaccine transport over long distances.



3-phase motor compressor cooling unit (440V) mounted above the driver's cabin.



Diesel generator-powered compressor with an external power option for emergencies.



High-quality copper refrigeration coils ensure durability and efficiency.

## PRECISION TEMPERATURE RECORDING



Maintains +2°C to +8°C in all conditions, regardless of load.



Temperature differential  $\leq +2^{\circ}\text{C}$  between any two points.



Continuous monitoring system with dashboard display for real-time alerts.



Hard & soft copy records stored for 3 years to ensure full traceability.

## HIGH-PERFORMANCE INSULATED BODY & STRUCTURE



**Dual-panel construction:** CR sheet, stainless steel, GRP, or aluminum.



Energy-efficient LED/fluorescent lighting with dashboard pilot light.



Reinforced vaccine compartment supports 6000 kg payload.



SS 304 grade adjustable shelving (3-4 levels) per CMVR Rule 93.



Sloped aerodynamic roof prevents rainwater accumulation.



White exterior paint reflects sunlight, minimizing heat absorption.

## ROBUST OUTER & INNER PANELS



**PUF-insulated outer panels** for durability and thermal efficiency.



**Leak-proof construction** prevents moisture damage.



**Internally reinforced walls** for air duct & blower support, ensuring uniform cooling.

## REINFORCED FLOORING FOR SAFETY & STABILITY

**3mm slip-proof aluminum** checkered plate over 19mm marine-grade wood.

**PUF-filled reinforced base** for strength & insulation.

**20mm thick non-slip rubber mat** on walking paths for enhanced safety.

## SECURE DOORS & OPTIMIZED AIRFLOW



**Two-leaf insulated doors** with FRP & EPDM rubber sealing for airtight closure.



**Minimum 270° door opening** with a locking mechanism.



**Flexible plastic strip curtain** minimizes refrigerated air loss.

## ADVANCED INSULATION FOR MAXIMUM EFFICIENCY



**High-performance polyurethane foam (PUF) insulation.**



**30 kg/m<sup>3</sup> density with superior thermal conductivity ( $\leq 0.025$  W/m·K for PUF) & (0.6 W/m<sup>2</sup>K for cargo chamber at 10°C)**

## EXTENDED HOLD OVER TIME

Maintains internal temperature below +10°C for 3 hours at +43°C ambient temperature, even when unopened.

## ECO-FRIENDLY REFRIGERATION UNIT



**CFC-free, HCFC-free refrigerant**, compliant with **Montreal Protocol**.



**Independent diesel-powered system** (unless inbuilt DG set is used).



**Automatic temperature control system** for energy efficiency.

## POWER SUPPLY & STANDBY MOTOR



**Inbuilt DG set with 24-hour continuous operation capacity.**



**Selector switch** to switch between **diesel generator & 440V 3-phase grid supply**.



**20-meter, 3-core cable (2.5 sqmm multi-strand copper, 15A capacity) included.**



**Secure cable storage mechanism** for transport convenience.

## SMART TEMPERATURE MONITORING & TRACKING



Multiple sensors track temperature at key points inside the chamber.



Dashboard-mounted digital display for real-time temperature monitoring.



Visual & acoustic alarm system for instant driver alerts.



GSM-based tracker with cloud monitoring & 10-year free subscription.

## INTELLIGENT DIGITAL CONTROL SYSTEM (OPTIONAL FEATURE)

### Auto & manual control over:

- Air humidity
- Temperature settings
- Defrost cycle

### Live dashboard indicators for:

- Power status
- Compressor operation
- Return & supply air temperature
- Defrost cycles

## ESSENTIAL ACCESSORIES FOR CONVENIENCE & SAFETY

- **Foldable ladder** (*custom height for AC unit access*).
- **Rear footsteps & handgrips** for easy cargo entry.
- **Secure cable hook** for standby motor inside the door.
- **High-security deadlocks** on doors & fuel caps for theft protection.

## ADVANCED DIGITAL CONTROL UNIT:

The **state-of-the-art digital, programmable controller** ensures **precise environmental management**, offering both **automatic and manual control** over: **Air Humidity** – Maintains ideal moisture levels. **Temperature Control** – Ensures consistent cooling. **Defrost Feature** – Optimizes system efficiency (*optional feature*).

## REAL-TIME VISUAL INDICATORS:

**Power Status** – On/Off confirmation. **Compressor Operation** – Active monitoring. **Return Air & Supply Air Temperature** – Ensures optimal cooling. **Return Air Fan Temperature** – Tracks ventilation efficiency. **Defrost Operations** – Ensures peak performance.

Additionally, the **DG set fuel level** is displayed **directly on the driver's dashboard** for real-time monitoring (*not applicable for inbuilt DG sets*).

This **intelligent control system** enhances **efficiency, reliability, and ease of operation**, making it the **perfect choice for precision vaccine transportation**.

## ESSENTIAL ACCESSORIES FOR SAFETY & CONVENIENCE:

**Folding Ladder** – Custom-sized for easy access to the **AC unit** (*height-dependent*). **Rear Footsteps & Handgrips** – Ensures **safe and effortless entry** into the cargo compartment. **Secure Cable Hook** – Convenient **cable storage** for the standby motor, mounted on the **inner door panel**. **Advanced Security Deadlocks** – **High-grade protection** for the **vehicle, refrigerated body doors, and all fuel caps**, preventing unauthorized access.

These **premium accessories** enhance **safety, accessibility, and operational efficiency**, ensuring **seamless vaccine transportation**.

**BASE VEHICLE SPECIFICATION:**

<b>Make</b>	MarkEn
<b>Item/Parameters</b>	Provided Technical Specifications
<b>Vehicle Model</b>	Mahindra Furio 11 CBC 4300 WB 20 Ft, Four-Wheeler ARAI Approved
<b>Frame Section</b>	Rectangular/Ladder
<b>Engine Type</b>	4 cylinder in-line water cooled direct injection diesel engine.
<b>Engine Displacement/Capacity</b>	Minimum 2900 CC
<b>Fuel Type</b>	Diesel
<b>Fuel Tank Capacity</b>	Minimum 150 L
<b>Wheel base</b>	Minimum 4200 mm
<b>Engine KW/RPM</b>	Minimum 60 KW @ 2400 RPM
<b>Cooling System</b>	Intercooled/Water Cooled
<b>Fuel Injection Pump</b>	Direct Injection, Turbo Charged
<b>Seating Capacity</b>	2 (D + 1)
<b>Ground Clearance</b>	Minimum 160mm under maximum Load.
<b>Rated RPM</b>	Above 2400
<b>Voltage</b>	12 / 24 V
<b>Battery Make</b>	Reputed Brand and easily available in market
<b>Clutch</b>	Dry Single Plate
<b>Gearbox</b>	Minimum 4 Forward and 1 Reverse with power Assisted Steering mechanism
<b>Wheel Drive</b>	2/ 4 Wheel drive (rear wheel)
<b>Turning Radius</b>	As per CMVR Rules (max upto 12 mtr)
<b>Brakes</b>	Brake System complying with CMVR rule No. 96.
<b>Front Suspension</b>	Parabolic
<b>Rear Suspension</b>	Semi elliptic
<b>Shock Absorbers Telescopic</b>	Hydraulic Double Acting Telescopic
<b>Type of Tyre</b>	Radial /Nylon (Tube/Tubeless)
<b>Gross Vehicle weight</b>	Minimum 11000 Kg.
<b>Payload Capacity in Kg</b>	Minimum 6000 Kg
<b>Emission Norms</b>	BS-VI

# CERTIFICATIONS

Quality, Management, Environment, Health & Safety Standards



**50 Products  
CDSCO Certified**



**USFDA Listed**



**8 products tested by a  
WHO-accredited laboratory**



**European CE**



**NABCB: ISO 13485**



**ISO 9001: IAF**



**ISO 14001: IAF**



**ISO 45001: IAF**



**7 Electric Safety  
Certifications**



**WHO GMP**



**BIFMA Certified,  
BIFMA Level 3**



**ASTM- Corrosion  
Free Products**



**ISO 2409**

**EN 13523-26,  
ISO 13849-1,  
IP 69, IP 65**

**& many other...**

## ALL-IN-ONE SOLUTION FOR

Cold Chain Solution  
Medical Equipment  
Blood Bank Equipment

Hospital & Scientific Equipment  
Hospital Furniture & Infrastructure  
Commercial Refrigeration



**25+**

Years of Excellence



**350+**

Product Categories



**500+**

Service center



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Committed Engineers



**1,00,000+**

Satisfied Users

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