

# TECHNICAL SPECIFICATION



**UMG CEN LEVEL B7**  
***ARMORED PERSONNEL CARRIER***

## UMG CEN LEVEL B7 ARMORED PERSONNEL CARRIER



15 years of experience engineering, manufacturing and customizing armored vehicles for use by **government, military agencies, law enforcement, private businesses and individual citizens** around the world. We will **engineer, design, build or customize** any armored vehicle for **any terrain or environment**.



**certified** armored vehicles providing **assured protection** from bullets & blasts and ensuring the highest safety to our clients. With **multiple vehicles** sent to tests in different countries and with each having passed a test of over **500** strategically placed shots and **9 different blast events** on each vehicle **without a single penetration**, we were awarded **VPAM certification**.



USA

UAE

CANADA

GERMANY

**UMG CEN LEVEL B?**  
**ARMORED PERSONNEL CARRIER**

## 3RD PARTY CERTIFIED APC



**TEST PARAMETERS:**

|                                      |                  |
|--------------------------------------|------------------|
| Maximum Speed:                       | 100 km/h         |
| Side Slope:                          | 30%              |
| Gradient Up & Down:                  | 70%              |
| Gradient (Reverse) Up & Down:        | 70%              |
| Fording:                             | 800mm            |
| Vertical Step:                       | 400mm            |
| Trench Crossing:                     | 850mm            |
| Approach Angle:                      | 30°              |
| Departure Angle:                     | 30°              |
| Breakover Angle:                     | 30°              |
| Axle Twister - Differential Testing: | Cleared Obstacle |

**Revised Curriculum (2013)**  
**Senior High School Curriculum (2013)**  
**Senior High School Curriculum (2013)**  
**Senior High School Curriculum (2013)**  
**Senior High School Curriculum (2013)**





**Test Parameters**

| Test                        | Parameter | Result |
|-----------------------------|-----------|--------|
| Maximum Speed               | 100 km/h  | Passed |
| Stable Speed                | 100 km/h  | Passed |
| Gradient Up & Down          | 100 km/h  | Passed |
| Gradient Downhill on & Down | 100 km/h  | Passed |
| Handling                    | 100 km/h  | Passed |
| Control Stop                | 100 km/h  | Passed |
| Forward Counting            | 100 km/h  | Passed |
| Reverse Counting            | 100 km/h  | Passed |
| Emergency Braking           | 100 km/h  | Passed |
| Emergency Stop              | 100 km/h  | Passed |
| Emergency Stop              | 100 km/h  | Passed |
| Emergency Stop              | 100 km/h  | Passed |

For further information and/or observation, kindly contact:



**PT. BINA SARANA INOVASI**  
 Jl. Raya A. Yani No. 100, Komplek Sahabat Kota  
 Bekasi, Jawa Barat 17133  
 Telp. (021) 8290 0000  
[www.bina-sarana-inovasi.com](http://www.bina-sarana-inovasi.com)



**PT. BINA SARANA INOVASI**  
 Jl. Raya A. Yani No. 100, Komplek Sahabat Kota  
 Bekasi, Jawa Barat 17133  
 Telp. (021) 8290 0000  
[www.bina-sarana-inovasi.com](http://www.bina-sarana-inovasi.com)



**PT. BINA SARANA INOVASI**  
 Jl. Raya A. Yani No. 100, Komplek Sahabat Kota  
 Bekasi, Jawa Barat 17133  
 Telp. (021) 8290 0000  
[www.bina-sarana-inovasi.com](http://www.bina-sarana-inovasi.com)

**UMG CEN LEVEL B7**  
**ARMORED PERSONNEL CARRIER**

**EXTERIOR**



Seats up to 10 Passengers



Rear Door &  
Roof Tire Carrier



4 Door  
Inverted Opening



Gunports & Equipment  
Storage Boxes

**UMG CEN LEVEL B7**  
**ARMORED PERSONNEL CARRIER**

**INTERIOR**



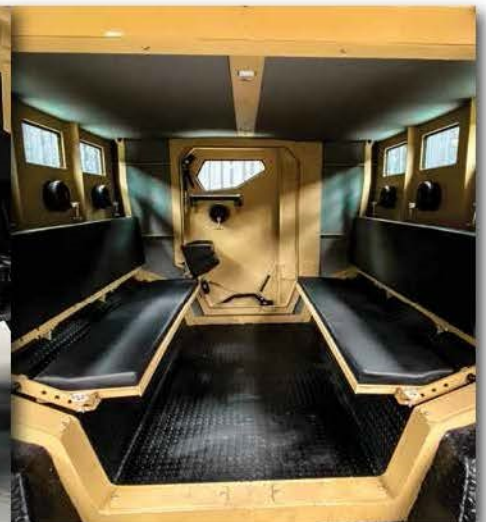
Large Viewing Angle, Seating Space & OEM Instrument Panel



Customizable Interior



Upgraded Tires & Rims  
with Runflat Inserts



Bench Seating Available

**UMG CEN LEVEL B7**  
**ARMORED PERSONNEL CARRIER**

**OPTIONAL ACCESSORIES**



Custom Paint & Decals



Riot Mesh Protection for  
Windows & Lights



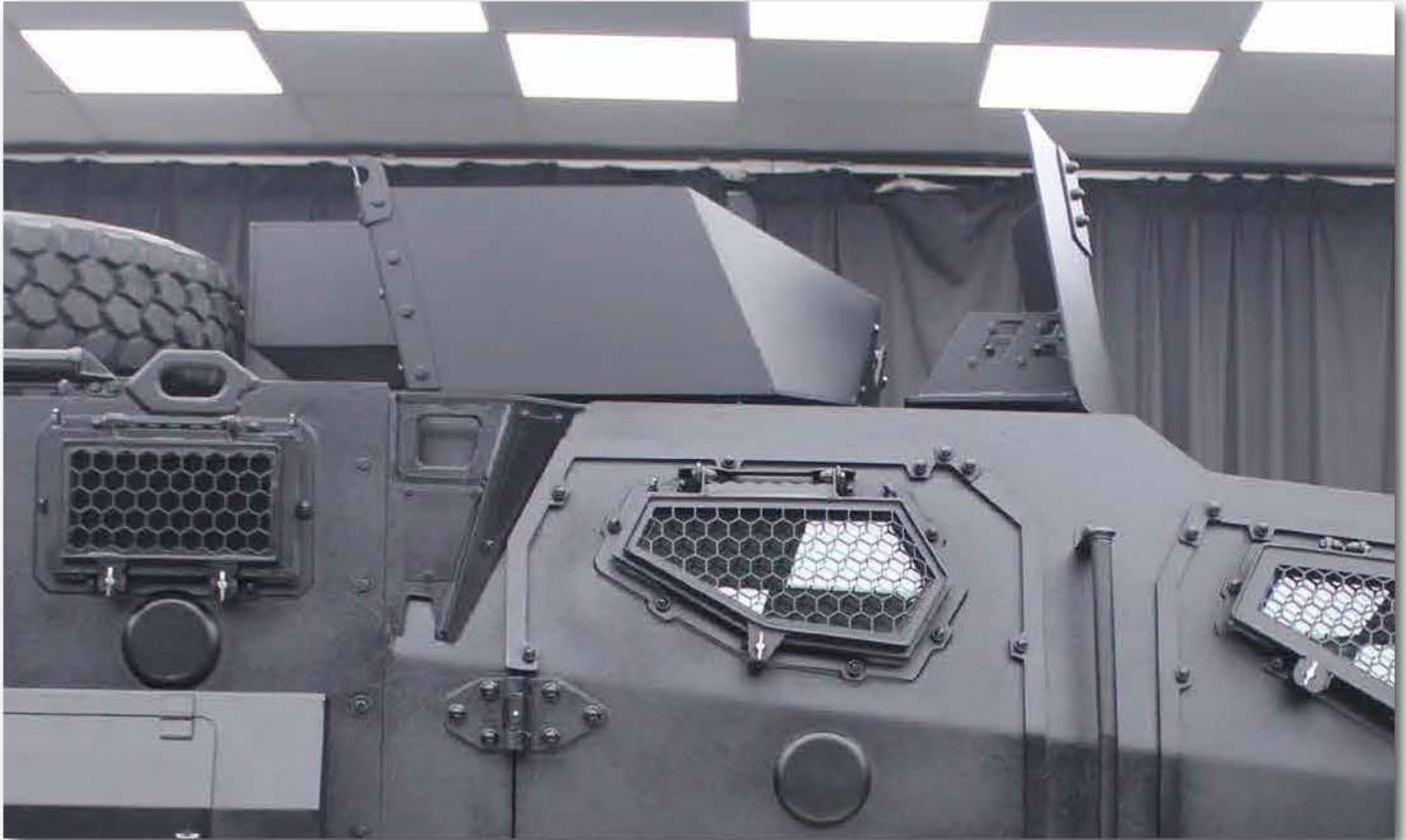
Riot Shield Rack  
& Gun Rack



Hydraulic Ram

**UMG CEN LEVEL B7**  
**ARMORED PERSONNEL CARRIER**

**OPTIONAL ACCESSORIES**



Rotating Turret



Custom Rear Storage



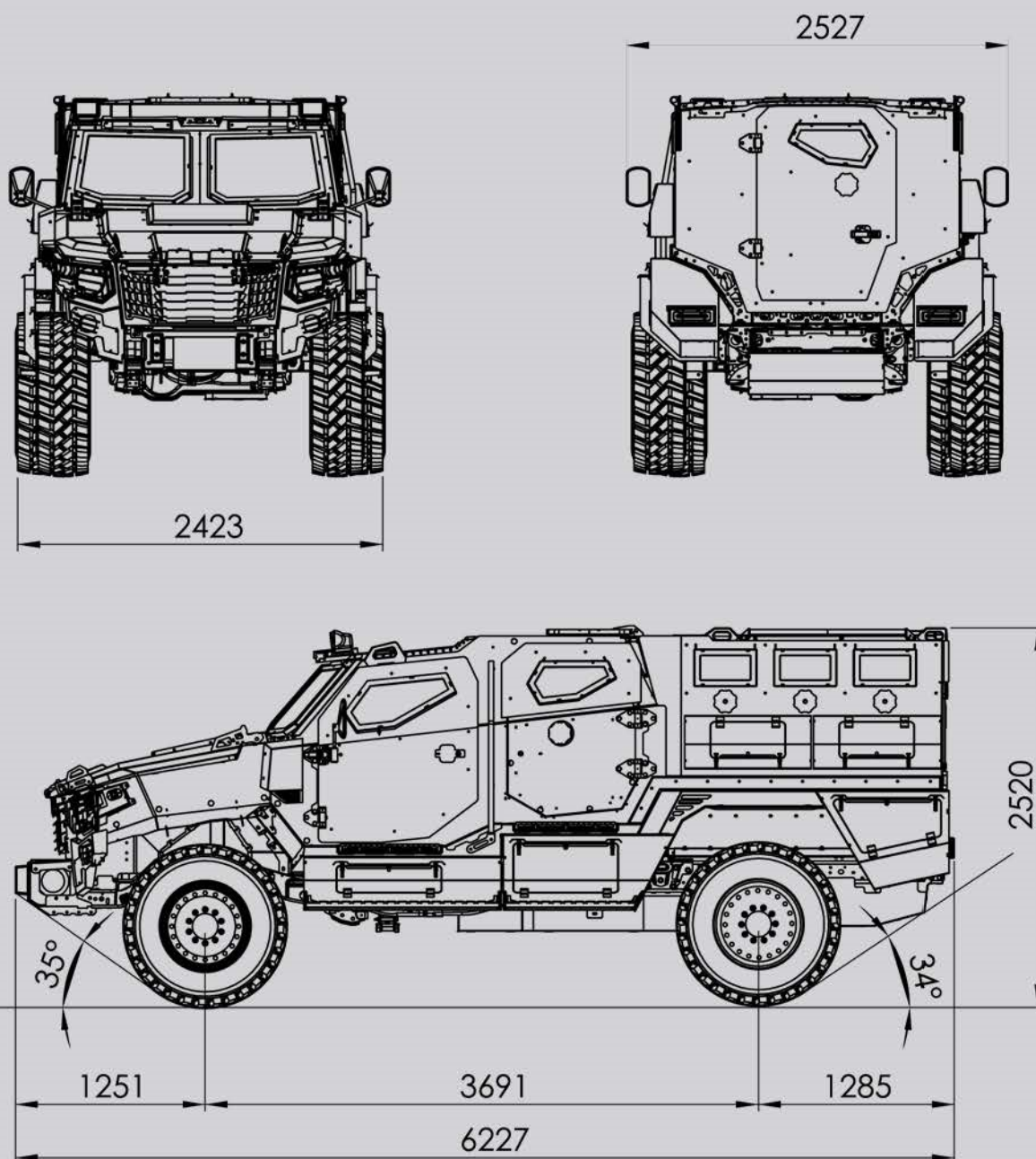
Gunner Stand



Electric Winch

**UMG CEN LEVEL B7**  
**ARMORED PERSONNEL CARRIER**

**DIMENSIONS**



## TECHNICAL SPECIFICATIONS

### Vehicle Layout:

Seating layout: 2 + 8  
Doors: 5 (2 on each side + 1 Rear)  
Roof turret: Optional (BR6)

### Weights:

Kerb weight: 10,000 kg (including turret)  
Payload: 1,500 kg  
Combat weight: 11,500 kg

### Powertrain:

Engine make: Ford  
Engine type: 6.7L Ford Powerstroke Turbo-Diesel  
Maximum Power: 330 hp  
Maximum Torque: 1016 Nm  
Fuel type: Diesel  
Transmission: 10 Speed Auto

### Running Gear:

Driveline: Selectable 4x4  
Steering: LHD / RHD Hydraulically Assisted  
Axle: Reinforced Front Axle  
Suspension: Front — Solid Twin-Coil Monobeam Axle w/ Upgraded Coils & Shocks  
Rear — Solid Axle w/ Additional Leaf Springs  
Rims: 20" Two Piece Rims  
Tires: 335/80 R20 Rated for GVWR  
Run flat inserts: Standard on all tires  
STIS: Optional  
Brakes: Front — 391mm Vented Rotors with Ceramic Pads  
Rear — 400mm Vented Rotors with Ceramic Pads

### Mobility:

Top Speed: 100 km/h  
Turning Circle: 12.95 m  
Fuel Range: 600 km  
Grade-ability: 70%  
Static Side Slope: 30%  
Vertical Step: 400 mm  
Trench Crossing: 850 mm  
Fording Depth: 800 mm  
Approach Angle: 33°  
Departure Angle: 30°

**ARMORING SPECIFICATIONS**

| VPAM | CEN | WEAPON                                                                            | CALIBER                            | WEIGHT(g)  | RANGE(M)    | SPEED(M/S) |
|------|-----|-----------------------------------------------------------------------------------|------------------------------------|------------|-------------|------------|
| VR4  | BR4 |  | .44 Magnum                         | 15.6 ± 0.1 | 5.00 ± 0.5  | 440 ± 10   |
| VR5  | BR5 |  | 5.56 x 45 mm<br>SS109 & M193       | 4.0 ± 0.1  | 10.00 ± 0.5 | 950 ± 10   |
| VR7  | BR6 |  | 7.62 x 51mm<br>M80 Nato Ball       | 9.5 ± 0.1  | 10.00 ± 0.5 | 830 ± 10   |
| VR9  | BR7 |  | 7.62 x 51MM AP<br>(Armor Piercing) | 9.8 ± 0.1  | 10.00 ± 0.5 | 820 ± 10   |

\*VPAM Certification includes ballistic and blast tests on a fully armored vehicle

**OPAQUE ARMOR**

**Passenger Cabin:** The vehicle passenger compartment is armored from four sides using certified ballistic steel to defeat high-powered rifle fire, 7.62 x 51mm AP @ 820 (±10) m/s (Meets or exceeds CEN level B7, see Ballistic Chart for reference)

**Floor & Fuel Tank:** The floor and fuel tank of the vehicle shall be armored to offer protection against simultaneous detonation of 2 X DM51 Hand Grenades or equivalent. The floor from inside is fitted with non-slippery material.

**Firewall, Door Pillars & Posts:** Armoring included on firewall, A, B, and C door pillars and posts to same level, CEN B7.

**Roof:** The roof of the vehicle is designed to protect from CEN B7 projectiles at 45°.

**Doors:** Armored to CEN B7 standard. Full armor overlap. Heavy duty Hinges.

**TRANSPARENT ARMOR**

**Glass:** Armored to CEN B7 standard.

A combination of Glass, Polycarbonate & Mylar are bonded to create ballistic certified glass. Anti-Spall Shield to Protect against Shattering Glass.

Multiple Impact Protection (Three Shots).

Total of 9 Gunports are fitted, 4 on either side and 1 on the rear door.

## **ARMORING SPECIFICATIONS**

### **SEATS**

- Total seating for 10 personnel including driver and co-driver
- Driver and co-driver (commander) seats with 3-point seat belts.
- The vehicle is fitted with individual seats to accommodate 8 people which are configured to allow for viewing, monitoring and firing through the firing ports with 4-point seat belt harnesses.

### **ELECTRICAL & INTERIOR**

- All standard electrical equipment of this vehicle shall be tested and modified as necessary to protect against the armouring process
- OEM Dashboard panels and trim will be maintained inside the vehicle
- Passenger cabin walls fitted with a soft non-flammable, thermal and noise insulating material

### **SUSPENSION**

As a result of the armouring process, the vehicle weight will increase dramatically. We upgrade the suspension components of the vehicles to provide added safety and improved performance and handling of the finished armored vehicle. This includes: Shock Absorbers, Front Coil Springs, Rear Leaf Springs, Rubber Bump Stops & Front & Rear Sway Bars.

### **INCLUDED:**

All Tires fitted with Run Flat Inserts, Tire Jack, Tool Kit, Fire Extinguisher, Battery & ECM Protection, Fuel Tank Protection, Exhaust Pipe Protection, OEM Vehicle Manuals & Documents, Material Certificates (Steel & Glass), Post-Armoring Brake Test, Before & After Weight Report, Parts List (including aftermarket parts) and Final Inspection Report.

