

# TECHNICAL SPECIFICATIONS

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**PROTECTION LEVEL:** Ballistic: **CEN Level B6/NIJ III** (7.62 x 51 M80 Nato Ball @ 2,750 ft./s.)  
Blast: Detonation of **2 DM-51 German Ordinance Grenades**  
or Equivalent of **Light Anti-Personnel Mine**



## 1. Main Features:

- Unmatched Weight/Power Ratio in its class (**48 HP/ton**)
- Spacious Cabin & troop carrying capacity: 2 + 2 + 6 seating configuration
- Protective Ballistic Steel Shell integrated into the custom vehicle body
- Advanced Mobility on the Road and Rough Terrain
- Ease of Maintenance
- Ease of Transportability
- Multi-Layered Floor Protection from Light Anti-Personnel Mines
- Variety of armaments available
- Wide-Range of Optional Equipment available

## 2. Power Plant Specifications

ENGINE	
Engine type	6.7 CUMMINS TURBO DIESEL
No of cylinders & arrangement	Inline 6 Cylinders
Valve mechanism	OHV, 4 valve per cylinder, solid lifter shaft
Block material	Cast iron
Head material	Cast iron
Bore & stroke (mm)	4.21" x 4.88"
Displacement/capacity (cc)	408 Cubic Inches, 6.7 Liters
Compression ratio	17.3 : 1
Fuel system	Common rail
Injection pressure (bar)	Direct Injection, 26000 psi
Max. power (bhp @ rpm)	385 @ 2,800
Max. torque (lb-f @ rpm)	865 @ 1,700
PERFORMANCE	
Max. speed (kmh)	120
Acceleration 0-62mph (sec)	9
TRANSMISSION	
Transmission Type	Six-speed automatic, full-time four- wheel drive

## 3. Chassis Specifications

Wheelbase	3,180 mm
Ground Clearance	320 mm
Drive Configuration	4 x 4
Seating Capacity	10 Persons (2+2+6)
Suspension	Heavy Duty Reinforced Components
Brakes	Front: Ventilated Discs      Rear: Drums
Steering	Hydraulic Booster

#### 4. Vehicle Weight

- Curb Weight: 7,570 kg
- Payload: 1,200 kg
- Combat Weight: 8,770 kg

#### 5. Armoring Details

##### Description of Protection - Level CEN B6:

The below table represents the ballistic protection level ratings according to **CEN** (Central European Normalization System issued by European Committee for Standardization):

Class	Type of Weapon	Calibre	Type	Mass g	TEST CONDITIONS		
					Bullet Velocity m/s	Nr. of strikes	Triangular Pattern mm
<b>BR1</b>	Rifle	0,22 LR	L/RN	2,6	360 ± 10	3	120
<b>BR2</b>	Hand gun	9 mm Luger	FJ1)/RN/SC	8,0	400 ± 10	3	120
<b>BR3</b>	Hand gun	0,357 Magnum	FJ1)/CB/SC	10,2	430 ± 10	3	120
<b>BR4</b>	Hand gun	0,44 Rem. Magnum	FJ2)/FN/SC	15,6	440 ± 10	3	120
<b>BR5</b>	Rifle	5,56 x 45*	FJ2)/PB/SC	4,0	950 ± 10	3	120
<b>BR6</b>	<b>Rifle</b>	<b>7,62 x 51</b>	<b>FJ1)/PB/SC</b>	<b>9,5</b>	<b>830 ± 10</b>	<b>3</b>	<b>120</b>

##### Opaque Armor:

- The entire habitable compartment forms a monocoque that is protected with 6.5mm ballistic steel plating to defeat high-powered rifle fire, **7.62 x 51 M80 NATO Ball @ 2,750 fps.** to meet CEN level B6 and NIJ III as specified in the table above.
- Vehicle armoring is constructed in such a way as to ensure that a projectile following a linear or angled path shall not enter the vehicle's interior without contacting the armor material. In addition to this, the possibility of a projectile entering the vehicle's interior due to a ricochet from the armor is minimized.
- Floor protection: Floor is fitted with Double 6mm cold roll steel blast protection to protect occupants against fragmentation from simultaneous detonation of **2 DM-51 German ordnance hand grenades** or equivalent.
- Entire engine bay of the vehicle is protected from ballistic threats by 6.5 ballistic steel that meets CEN level B6 and NIJ III standard, while providing sufficient air flow for efficient cooling of the engine at any speed of operation.
- Fuel tank: armored with 6.5mm ballistic steel box construction that meets CEN level B6 and NIJ III standards.
- Bolt on ballistic steel protection is fixed under passenger area.

### **Transparent Armor:**

- **CEN Level B6** ballistic protection – **39-42 mm** thickness 5-layer glass is fitted on all openings of the ballistic shell. The transparent armor is Polycarbonate and Mylar bonded to ensure anti-spalling shield protection against shattering glass and shards;
- Multiple impact protection (three shots);
- Finest optical quality with Minimal distortion;
- No delamination;
- No discoloration from UV rays.

### **Doors:**

- Armor overlap on all door openings to prevent penetration through door posts and pillars;
- Door pillars and Heavy Duty hinges reinforced for maximum strength retention;
- Dead-bolts are installed in each door accessible only from the inside
- Heavy Duty steel door handles are fitted on all doors to prevent failure
- Doors are equipped with Heavy Duty Locks to ensure reliable life-long operation
- All transparent armor utilized on doors is protected by a steel removable mesh screen
- Water run-off groove mounted above the door opening in order to prevent leakage into the cab or onto operating personnel.

### **Suspension:**

Reinforced suspension elements are used to increase vehicle payload carrying capacity, optimize performance on all terrain types and eliminate chassis tilt effect, causing roll-overs:

- **Front:** Heavy Duty Coil Spring & Shock Absorbers
- **Rear:** Reinforced additional Leaf Springs with Shock Absorbers

### **Run-flat/Tire System:**

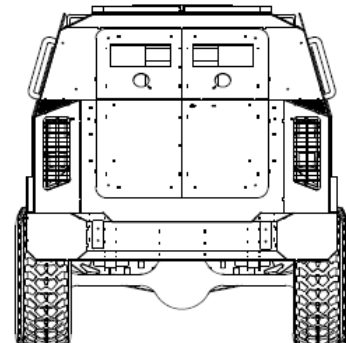
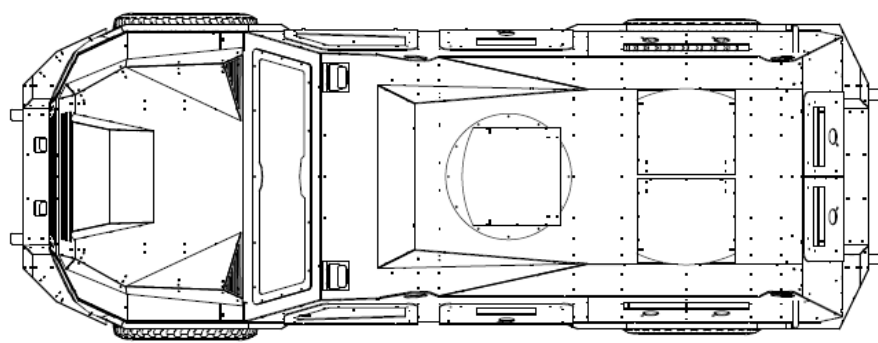
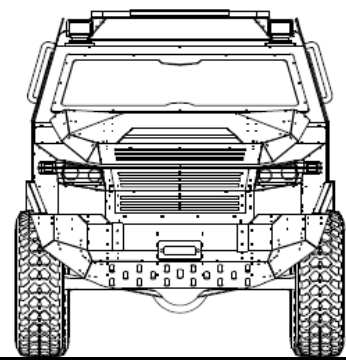
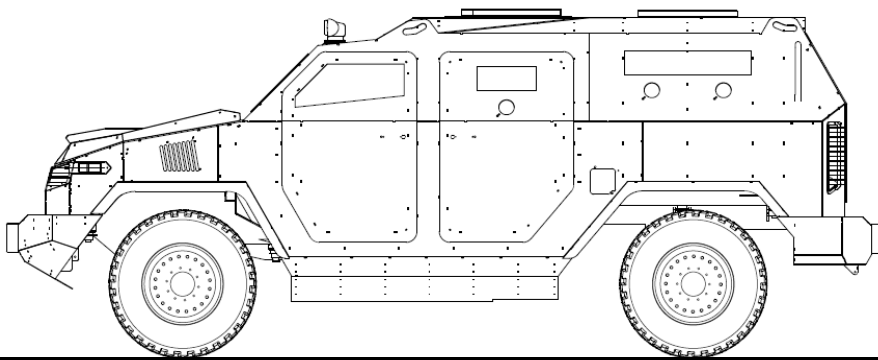
- All tires (including spares) will be fitted with a Hutchinson Composite Runflat insert system, conforming with the NATO/FINABEL running distance standard of 50 Km at the speed of 50 Km per hour. And Military Rims.



### **Other Features:**

PHANTOM comes with a number of standard safety features incorporated into basic design of the vehicle in order to guarantee protection and most efficient operation of the vehicle.

- 6 Twist-Action Gun Ports (Left, Right & Rear)
- Run Flat Tires
- Ballistic steel-case fuel tank protection
- Heavy-Duty front and rear ram bumpers
- Roof Mounted Escape Hatches
- Rear View Camera with Display
- Self-Recovery Winch
- Heavy-Load Tubeless 335/80 R20 All-terrain Tires, Rated 2,575kg each



## 6. DIMENSIONS

PHANTOM APC was designed with the best agronomical and functional design in mind for ease and convenience in application of the vehicle. The design accommodates compact dimensions to allow for vehicle application in tight urban setting and reduced profile on the open terrain.

VEHICLE DIMENSIONS	
Length (mm)	6,040
Height (mm)	2,420
Width (mm)	2,210
Wheelbase (mm)	3,189
OFF-ROAD PERFORMANCE	
Approach angle (°)	38
Departure angle (°)	65
Ramp angle (°)	60
Rollover angle (°)	35

