Komondor RDO-3121 RSV

light armoured, radiation-shielded emergency vehicle

Technical parameters

Chassis		
1	Weights	Curb weight of base vehicle: 12 500 kg, payload: max. 4500 kg Max. operational weight 17 000 kg (ready for service)
2	Crew	2+6
3	Interior	The interior is separated to driver and passanger compartment (2+6).
4	Access of vehicle	1 doors on each side, one double in back
5	Emergency door	800 mm rotatable hatch on top
6	Observation possibilities	Front and side windows, main and additional side mirrors, camera system on both sides, front, rear and in the cab.
7	Compartment ventilation	Filtered air supply system, dual AC (front and rear of cab), filtered and over pressurized air supplied by COLPRO system
8	Defrost function	Windshield and driver/commander door windows are heated, all mirrors are heated
9	Vehicle internal network.	CAN bus (J1939) and independent network for connecting multiple displays, internal and external surveillance cameras.
10	Internal build standards of the vehicle	UNECE regulations regarding road transport vehicles
11	Design features	The base vehicle is designed to operate in harsh environment, on rough terrain and to protect the crew against fragmentation of exploded materials.

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Ballistic protection		
12	Windows	Multilayer ballistic windows lvl3 protection (STANAG 4569)
13	Hull protection	The vehicle has monocoque welded body made from armour steel. The hull made of 15 mm armour plate BR7+ (EN1063) with spall liner layer inside, "V" shaped hull button made of 20 mm armour steel provides 2a/2b mine protection (STANAG 4569).
14	Protected area	The whole crew compartment and engine bay.
15	Fuel tank/system protection	There are two separated 150 litre stainless steel tanks closed in external boxes. These boxes are made from steel which can provide protection. Vehicle can run from any of the tanks even when one of them is damaged.
16	Driveline protection	Hydraulic pipes and most of the brake pipes run inside of the armoured body. Those flexible brake and vent lines which must be outside are covered with protective bandage which gives resistance against heat and mechanical impacts up to a certain limit.
17	Fire suppression system	The base vehicle has no individual extinguisher system.
18	Safety	All seats are fitted with 4 point seat belts.
Signature		
19	Dimensions	Length: Base vehicle 5800 mm Height: 2750 mm Width: 2550 mm Wheel base: 3100 mm Track: 2110 mm
Mobility		
20	Operational terrain	The vehicle is specially designed for off-road and harsh environment conditions, but thanks to Central Tyre Inflation System (CTIS) it can be used on paved roads as well.
21	Maximum slope with maximum weight	30 degree
22	Side slope capability	28 degree
23	Approach and departure angles	Approach: 32° Departure: 60°
24	Clearance	Under axles: 350 mm Under hull: 485 mm
25	Over ramp angle	30°
26	Vertical steep climbing ability	500 mm
27	Turning radius	8.9 m
28	Fording depth without special preparation	800 mm
29	Operational reach	Depends on conditions, minimum 350 km on terrain
30	Maximum speed	105 km/h

31	Acceleration for the vehicle from 0-100 m	12.8 sec with max. load
Observation systems		
32	Vehicle Camera Systems	The vehicle is equipped with a camera system that oversees near areas and work as digital mirror. Both sides, front, rear and compartment visuals are displayed in front of the driver and commander.
Transportation		
33	Transportation	Rail and sea capable, no special authorization needed on road.
34	Fixture points for transport by air/sea?	There are welded fixing points on front, rear and the top of the vehicle.
Operation		
35	Climate zones	The vehicle is prepared for continental climate zone, but cooling is certificated to desert conditions. Dual AC system installed.
Electrical safety		
36	Electrical system interference	All electrical equipment and wires of the vehicle are specially isolated. The vehicle has EMC conformity certificate according to UN ECE 10.05
Engine		
37	Engine	Cummins ISB6,7, 6.7 litre inline 6 turbo charged diesel (360 HP, 1100 Nm)
38	Emission control	Non-rated
39	Hp/weight ratio	21 HP/t with 17000 kg weight
40	Diagnostic systems	Normal OBD connector for engine, dashboard diagnostic possibilities and individual transmission diagnostic system
Transmission/driveline		
41	Transmission	Allison 3200SP type automatic gearbox with retarder
42	Drive pattern	Permanent 4x4 driveline
43	Axles	AxleTech (Meritor) ISAS 4000 independent axles with coil spring and hydraulic absorbers
44	Differentials	All axles have cross differential locks, and there is a longitudinal one in the T-Case
45	Transfer gearbox	3 speed (road, neutral, off-road)
46	Additional systems	ABS, cruise control, retarder
47	Towing	With base vehicle: 15 000 kg
48	Steering	There is a hydraulic servo steering system with separated emergency solution.
49	Fuel tank	There are two 150 litre tanks
Brakes		
50	Braking system	Pneumatic 2 circle braking system with ABS function. Brake system was designed with the support of Knorr-Bremse company and was tested by TÜV-Rheinland.
Tires and wheels		
51	Tires	Michelin XZL 2 365/80 R20

52	CTIS	Centrally programmable CTIS is installed
Electrical system		
53	System	24 V DC (2x 145 Ah, 12 VDC batteries)
54	Connectors	Standard 7 and 15 pin trailer connectors
55	Communication	There is an aerial preparation for radio sets
56	Arials, antennas	Any required type can be installed
57	Lights	Externally all vehicle lamps which requested by Road Safety regulations (high/low beam, indicator, day running, fog, reverse, brake, marking), remotely controlled LED search reflector.
58	Internal connectors	Both 12 V and 24 V power connections are available in the vehicle cabin.
Recovery and tie down possibilities		
59	Pull and recovery attachments	Both front and rear there are pulling hooks welded on the body.
60	Self-recovery winch	Electric self-recovery winch in the front with 6800 kg rated pulling force

Radiation detection and protection		
61	Hull protection	Gamma radiation reduction factor is min. 65% (measured with Cs-137 source).
62	Compartments	Separated driver's cabin and passenger area, with sealed shielded wall in between. The passenger compartment is covered with PU coating which can be easily cleaned, decontaminated.
63	Radiation detectors	Outside detectors on the two sides of the vehicle, and inside detectors in the driver's cabin and the passenger area. Basic Detector Parameters: • Detector type: energy compensated GM-tube • Measurement range: 50 nGy/h ... 0.5 Gy/h • Indication range: 10 n … 10 Gy/h • Energy range: 50 keV ... 1.5 MeV Optionally ambient dose equivalent rate H*(10) measurement.
64	Dosimetry system	On-board dose monitoring. Separate dose measurement for the driver, the commander and the passenger area. Automatic calculation of exposure limits and remaining mission time. Alarms for radiation level and exposure limits.

Illustrations