

Dear Grok,

Which currently available chassis with a cab length of less than 8.5 feet that you know of are most suitable for use in this type of motorhome shown at [vanmansion.com](https://vanmansion.com) with an overall length of less than 18.5 feet?

Based on the design of the ATARDIS VanMansion 179-3BR (a compact, expandable Class B motorhome with retracted dimensions of 17.9 feet long, featuring slide-outs, a pop-up second floor, and amenities like 3 bedrooms, a kitchen, and bathroom), suitable chassis must support van-style conversions with expansions, have a cab length under 8.5 feet (102 inches), and allow for an overall built vehicle length under 18.5 feet (222 inches). This typically means short-wheelbase cargo vans or cab-chassis models that can be upfitted or shortened for RV use, with sufficient payload (around 3,000–4,000 lbs) and rear-wheel or front-wheel drive for stability.

From available data, the most suitable currently available (2025) chassis are those commonly used in small Class B RVs like the Jayco Comet, Winnebago Solis Pocket, and Wingamm Oasi—prioritizing compactness, ease of modification for hydraulics/expansions, and road-legal dimensions. Longer chassis can be shortened (as noted for the Ford Transit in the VanMansion design), but I focused on base models that fit the criteria without excessive modification. Cab lengths for these integrated van chassis are generally 90–98 inches (measured from front bumper to back of cab/B-pillar), based on manufacturer specs and RV build standards.

Here's a comparison of the top options, ranked by suitability (based on compactness, popularity in similar expandable RV builds, fuel efficiency, and availability for upfitters):

Chassis Model	Wheelbase	Cab Length	Base Length	Key Suitability Notes	Example RV Builds
Ram ProMaster 1500/2500	118 inches	~90 inches (estimated from total length minus cargo: 195.4" overall - 105.1" cargo)	195.4 inches (16.3 feet)	Front-wheel drive aids handling; lightweight (GVWR ~8,550 lbs); supports slide-outs and pop-ups easily due to unibody design; shortest option for urban maneuverability; can be extended slightly for expansions while staying under 18.5'. Affordable base (~\$40,000).	Winnebago Solis Pocket (17.9 feet on similar chassis); Jayco Comet 18C (17.10 feet on 136" WB variant).
Ford Transit 250/350	130 inches	95.7 inches	219.9 inches (18.3 feet)	Rear-wheel drive for better payload/towing (~9,500 lbs GVWR); robust frame for hydraulic expansions; commonly shortened for compact RVs; electric variants available for eco-friendly builds. Base price ~\$45,000.	VanMansion concept (shortened DRW version); various custom Class B conversions.

Chassis Model	Wheelbase	Cab Length	Base Length	Key Suitability Notes	Example RV Builds
Mercedes-Benz Sprinter 2500	144 inches	~98 inches (estimated from cab chassis specs: overall cab-chassis length 245.9" minus frame)	233.5 inches (19.5 feet)—requires shortening	All-wheel drive option for off-road; high build quality and diesel efficiency; supports multi-level expansions (e.g., pop-ups); cab-chassis version ideal for custom bodies under 18.5'. Premium base (~\$50,000).	Custom conversions like Wingamm Oasi 540.1 (17.7 feet on similar Fiat Ducato/ProMaster equivalent); common in expandable vans.
Chevrolet Express 2500 (Cutaway)	135 inches	~85 inches (estimated from interior cargo start: ~154" total floor minus cab)	223.95 inches (18.7 feet)—borderline, often shortened	Rear-wheel drive; affordable and durable for heavy modifications; V8 power for expansions; cutaway version allows precise body length control. Base ~\$35,000.	Older-style conversions; suitable for budget builds similar to VanMansion.

### Why These Are Most Suitable

- **Compactness and Fit:** All allow builds under 18.5 feet (e.g., ProMaster-based RVs like the Solis Pocket achieve 17.9 feet). Shorter wheelbases ensure parking ease and road legality, matching the VanMansion's retracted mode.
- **Expansion Support:** These chassis have reinforced frames for slide-outs (common in ProMaster/Transit builds) and pop-ups (e.g., hydraulic lifts in Sprinter conversions). Payload supports added weight from mechanisms (~1,000–1,500 lbs).
- **Availability:** All are 2025 models from major manufacturers, sold as cargo vans or cab-chassis for upfitters (e.g., via Winnebago or Jayco dealers).
- **Trade-offs:** ProMaster is cheapest and most agile but front-drive limits off-road; Sprinter is pricier but more refined; Express is basic but reliable for simple builds. Avoid longer wheelbases (e.g., 159" ProMaster at 236") as they exceed limits without major shortening.

If building something like the VanMansion, start with the Ram ProMaster 118" for the smallest footprint or Ford Transit 130" for durability. Consult an RV upfitter for exact modifications, as cab lengths are estimates based on standard measurements—precise values may vary by trim.