

Alpa A Class



The motorhome for travelling couples. With generous space, a huge panoramic seating group and comfortable pull-down bed, this motorhome is ideally suited for comfortable travelling as a couple. And even in freezing temperatures, because the heated double floor with frost-protected water installation makes it absolutely winterproof.

Upholstery

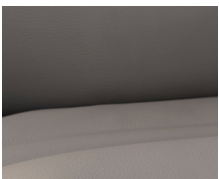


+ Upholstery Samir



+ Upholstery Melia

○

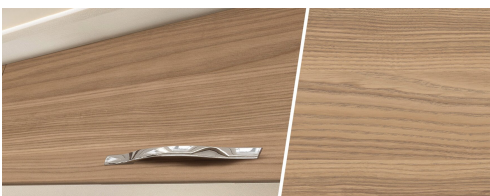


+ Real leather upholstery Colin ○



+ Real leather individual ○

Wood décor



+ Wood décor Ashton

○ optionally available

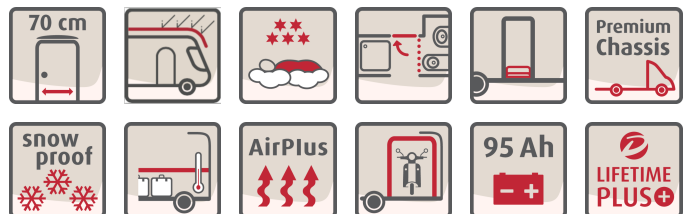
Technical info

Overall length, approx.	745 - 855 cm
Overall width, approx.	232 cm
Overall height, approx.	304 cm
Headroom in living area, approx.	208 cm

Maximum values partly not possible for all models or only in connection with certain options.

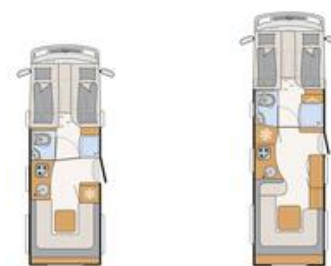
Plus factors

- + 180 hp (136 kW) Multijet engine, 8-speed torque converter automatic transmission, automatic climate control, multifunction leather steering wheel and much more.
- + Ideal driving characteristics: Premium low platform chassis with 145 mm lowering and up to 4.8 t or 5.4 t permissible total mass
- + Absolute winter resistance due to heated raised floor with installation laid frost-protected
- + Hot water heating as standard. Comfortable warmth even at the frostiest temperatures. Ideal for allergy sufferers, as no dust whirling up.
- + Lifetime Plus superstructure technology with absolutely rot-proof and durable wall construction
- + Huge panoramic round seating area with plenty of space to eat and linger
- + Exceptional: single beds pull-down bed, electrically lowerable, 2 x 210 x 75 cm lying surface, including large steps for a safe step.



Alpa A Class

Technical info



Alpa A Class		I 6820-2	I 7820-2
Standard chassis		Fiat Ducato Maxi AL-KO Low Platform	Fiat Ducato Maxi AL-KO Low Platform 3-axle
Emission standards		Euro VI-E	Euro VI-E
Overall length, approx.	cm	745	855
Overall width, approx.	cm	232	232
Overall height, approx.	cm	304 ¹⁾	304 ¹⁾
Headroom in living area, approx.	cm	208	208
Towable load braked/unbraked	kg	1750 / 750	1800 / 750
Wheelbase, approx.	mm	4250	4600
Bed dimension: Front bed, L x W, approx.	cm	2x 210 x 75 / 200 x 165	2x 210 x 75 / 200 x 165
Bed dimension: Rear bed, L x W, approx.	cm	210 x 170 - 180 ○	210 x 150 - 210 ○
Sleeping berths standard / max.		2 / 4 ○	2 / 4 ○
Standard engine		180 Multijet 3 Power	180 Multijet 3 Power
kW (bhp)		132 (180)	132 (180)
Mass in running order (+/-5%)*	kg	3510 (3335 to 3686)*	3990 (3791 to 4190)*
Manufacturer-specified mass for optional equipment*	kg	800	809
Technically permissible maximum laden mass*	kg	4500	5000
Permitted number of seats (including driver)*		2 - 4 ○	2 - 4 ○
Refrigerator volume (thereof freezer), approx.	l	136 (23) / 153 (29) ○	136 (23) / 177 (35) ○
Waste water tank, approx.	l	120	156
Fresh water tank capacity, total/ Fresh water tank capacity at driving filling	l	130 / 20	166 / 20
Measurement storage opening left (W x H)	cm	100 x 85	105 x 85
Measurement storage opening right (W x H)	cm	100 x 85	105 x 85

○ Optional equipment — Not possible ● Standard equipment ◆ Mandatory △ Not known at the time of publication



* INFO

The specified mass in running order is a default value defined in the type-approval procedure. Due to manufacturing tolerances, the actual weighed mass in running order may deviate from the value stated above. Deviations of up to ± 5 % of the mass in running order are legally permissible and possible. The permissible range in kilograms is given in brackets after the mass in running order. The manufacturer-specified mass for optional equipment is a calculated value for each type and layout that Dethleffs uses to determine the maximum weight available for factory-fitted optional equipment. The limitation of optional equipment is intended to ensure that the minimum pay-mass, i.e. the legally prescribed free mass for baggage and retrofitted accessories, is actually available for the vehicle load capacity of the vehicles delivered by Dethleffs. The real weight of your vehicle ex works can only be determined when it is

weighed at the end of the line. If, in exceptional cases, the weighing shows that the actual load capacity falls below the minimum pay-mass despite limiting the optional equipment due to a permissible weight deviation, we will check together with your trade partner and you whether we should, for example, increase the load capacity of the vehicle, reduce the number of seats or remove optional equipment before delivering the vehicle. The technically permissible maximum laden mass of the vehicle and the technically permissible maximum mass on the axle must not be exceeded. Detailed information & explanations on the subject of weight and the configuration of the vehicle can be found in the section Legal information. For a more detailed description of all mandatory technical dependencies, please refer to the explanations on the footnotes.

Standard equipment

16820-2

17820-2

Fiat chassis		16820-2	17820-2
Alloy wheel FIAT 16", black (for 3-axle)		—	●
Alloy wheel Fiat 16 ", black		●	—
Fiat Ducato Maxi ALKO low platform 3-axle (5,000 kg) Multijet 180 (2.2 l / 132 kW / 180 hp) Heavy Duty, 8-speed torque converter automatic transmission		—	●
Fiat Ducato Maxi ALKO low platform wide-track rear axle (4,500 kg) Multijet 180 (2.2 l / 132 kW / 180 hp) Heavy Duty, 8-speed torque converter automatic transmission		●	—
Fiat chassis features		16820-2	17820-2
ABS (anti-lock braking system) / EBD (electronic brakeforce distribution)		●	●
Additional protection for radiator through grille at front of vehicle		●	●
Anti-theft device		●	●
Automatic Brake Assist after a collision		●	●
Automatic cab air conditioning, digital speedometer with 7" instrument cluster and wireless phone charger in the centre console		●	●
Captain seat with integrated headrest, rotatable, height and tilt adjustable incl. two padded armrests		●	●
Crosswind Assist		●	●
Cruise control		●	●
Cup holder in the centre of the dashboard		●	●
Dashboard with aluminium application		●	●
Diesel tank 90 litre incl. 19L AdBlue tank		●	●
Driver and passenger airbags		●	●
Driver and passenger detection		●	●
ESP incl. ASR, Traction Plus, Hill Holder and Hill Descent Control		●	●
Front-wheel drive		●	●
Leather steering wheel and gear knob withleather sleeve		●	●
Low-vibration coach-style exterior mirrors that can be heated and adjusted electrically (two-piece)		●	●
Pleated blinds in the windscreen and side windows of the drive's cab for the best insulation and privacy		●	●
Reinforced spring for front axle		●	●
Steering wheel with control elements		●	●
Trailer Stability Assist		●	●
Tyre inflation kit and towing eye		●	●
Winter tyres M+S Camping (with snowflake)		●	●
Exterior features		16820-2	17820-2
70 cm wide living room door with window and blackout, electric closing aid and gas pressure damper as hold-open device		●	●
Bedroom window right and left		●	●
Dethleffs Exclusive rear light carrier with ShapeLine LED taillights and 3rd brake light integrated in rear spoiler		●	●
Double floor storage, some of which can be loaded across almost the entire vehicle width		●	●
Double-glazed flush-fitting windows with blackout & mosquito net (Privacy Black)		●	●
Driver's cab door left		●	●
Electric closing aid for habitation door		●	●
Floor thickness: 43 mm, side wall thickness: 34mm and roof thickness: 35 mm		●	●
Flyscreen habitation door		●	●
GRP roof		●	●
Habitation access with comfortable coupe entrance		●	●
Habitation access with comfortable, wide, electric step		●	●
Lifetime Plus construction technology: rot-free superstructure with no wood inserts, XPS insulation with GRP cladding on the underslung and roof		●	●
Panoramic skylight 75x105 cm above U-shaped seating		●	●
Rear garage: two garage door with one-hand operation, rear lowering (250 kg), heated, lashing rails, LED lights across the entire width, 230 V socket, GRP anti-slip flooring and fleece cove		●	●
Side panels and rear panel in smooth aluminium sheets		●	●
Exterior design		16820-2	17820-2
Exterior body painted in white		●	●
Interior design		16820-2	17820-2
Upholstery Samir		●	●
Wood décor Ashton		●	●

Standard equipment

I 6820-2

I 7820-2

Textile equipment		
Rear beds with ergonomic wooden slatted frames and 150 mm thick 7-zone premium mattresses made of climate-regulating material	●	●
Furniture layouts		
AirPlus overhead locker rear ventilation to avoid condensation	●	●
Electric pull-down bed for single-bed use (without add-on elements)	●	●
Full body mirror	●	●
Overhead locker doors with soft-close function	●	●
Overhead lockers in the rear area	●	●
U-shaped seating in the lounge with free-standing, rigid table base and surrounding seating and backrest cushions with flexible headrest	—	●
U-shaped seating with free-standing, rigid table base and surrounding seating and backrest cushions with flexible headrest	●	—
Wardrobe floor-to-ceiling with convenient linen drawers in upper area	—	●
Kitchen		
Floor-to-ceiling fridge with separate freezer compartment and automatic energy selection (AES) (136 l)	●	●
Gourmet kitchen: three-ring hob, large drawers with soft-close function, cutting board, apothecary drawers, waste bin and central locking	●	●
Kitchen overhead locker with illuminated roof lining	●	●
MultiFlex rail system incl. hooks (further accessories via Dethleffs Original Accessories)	●	●
Bathroom		
Equipped with cabinets, storage compartments, hooks, large mirrors and a height-adjustable shower head	●	●
Large bathroom with separate shower and toilet with locking door to the lounge	●	●
Shower grate	●	●
Shower panel and bathroom accessories in black	●	●
Heating		
Heating in the seating unit for optimum heat distribution, built-in	●	●
Hot-water heating with boiler, automatic drain valve and shut-off valve for the sleeping area and digital control panel	●	●
Electrical installation		
Automatic switch-on/disconnect for starter battery, leisure battery and refrigerator	●	●
Awning light 12 V	●	●
Electric block with integrated overvoltage protection and separate ground fault circuit breaker	●	●
LED lighting throughout the vehicle	●	●
Leisure battery AGM, 95 Ah	●	●
Luxus on-board control panel	●	●
Number of sockets 1x 12V, 6x 230V, 2x USB	●	—
Number of sockets 1x 12V, 7x 230V, 2x USB	—	●
Spotlights in the roof lining above the habitation door	●	●
Water supply		
Fresh water and waste water tanks installed in double floor (insulated area)	●	●
Pressurized water pump system	●	●
Switch for water pump	●	●
Gas supply		
Storage space for 2 gas bottles with a filling weight of 11 kg each, with simplified access	●	●

PACKAGES ALPA A CLASS

Package	GT Package ALPA I (13825)	GT Package Silver ALPA I (13826)
Exterior design GT (rear light moulding with black diffuser, radiator grille with chrome piping, skidplate "red")	x	x
LED low beam	x	x
High characteristic Dethleffs Exklusiv rear light carrier with ShapeLine LED taillights and 3rd brake light	x	x
Side panels in metallic titanium silver		x
Additional weight (kg)*	5.5	5.5

Package	Travel Package I 6820-2 (14587)	Travel Package I 7820-2 (14587)
Preparation for radio system incl. sound package in the driver's cabin	x	x
Light Moments: Indirect ambient lighting above the overhead lockers	x	x
Extractor fan (extracted air) with draught stopper	x	x
Rear corner steadies (2 pieces)	x	x
DAB+ radio antenna mounted on the roof	x	x
Automatic gas cylinder switchover incl. crash sensor, EisEx and gas filter	x	x
Rear view camera (single camera)	x	x
Sky Roof (2 x panoramic skylight 70x50cm crossways) over the seating lounge in the rear	x	
Central locking for the driver's cab, habitation and garage door	x	x
Sky roof (second panoramic skylight 75x105cm lengthwise over the seating lounge in the rear) incl. roof lining and lamp		x
Additional weight (kg)*	31.6	48.6

Package	Dual Battery System Package 1 (7488)	Dual Battery System Package 2 (7489)
Victron PowerAssist and PowerControl	x	x
Electric block EBL 102	x	x
Victron control panel above the habitation door	x	x
Victron Energy MultiPlus charging/inverter combination 1600W/70A	x	
168 Ah lithium battery	x	
Victron Energy MultiPlus charging/inverter combination 3000W/120A		x
336 Ah lithium battery		x
Additional weight (kg)*	63	113



* INFO

The factory installation of optional equipment increases the actual mass of the vehicle and reduces the pay-mass. The additional weight indicated for packages and optional equipment shows the additional weight compared to the standard equipment of the respective model or layout. The total weight of the selected optional equipment must not exceed the manufacturer-specified mass for

optional equipment shown in the model overviews. This is a calculated value for each type and layout that Dethleffs uses to determine the maximum weight available for factory-fitted optional equipment. Detailed information and explanations on the subject of weight can be found in the Legal information section.

Light Moments (13845)

Light Moments: Indirect wall surface ambient lighting

Light Moments: Indirect lighting in the bathroom with illuminated shower panel

Light Moments: Illuminated wardrobe

Light Moments: Pedestal lighting in the kitchen

Additional weight (kg)*

2.5

Pre-wiring kit (11350)

Pre-wiring for solar

Pre-wiring for roof A/C

Pre-wiring for satellite system

Pre-wiring for first rear view camera

Pre-wiring for second rear view camera

Additional weight (kg)*

7.6

△ Not known at the time of publication



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optional equipment shown in the model overviews. This is a calculated value for each type and layout that Dethleffs uses to determine the maximum weight available for factory-fitted optional equipment. Detailed information and explanations on the subject of weight can be found in the Legal information section.

Optional equipment**

	Included in package	Additional weight (kg)*	Code	I 6820-2	I 7820-2
Weight upgrade					
Single folding seats rear right and left incl. Isofix, bed construction seating group as well as the weight upgrade 4,800 kg with air spring HA, reinforced coil springs VA and 16" aluminium rims. ⁹⁾	—	151	1604, 1605	○	—
Weight upgrade to 4,800 kg (incl. air suspension rear axle, reinforced coil springs front axle, complete set of aluminium wheels with all-weather tyres 225/65 R16)	—	40	8460	○	—
Weight upgrade to 5,400 kg	—	0.5	7497	—	○
Fiat chassis features					
Bench with 3-point seatbelts for seats facing away from driving direction incl. bed convert for seating lounge (1944) ⁹⁾	—	36	9116	—	○
Hydraulic lifting jacks with automatic levelling and weighing function	—	70	9663	○	○
SKA captain seat with air suspension	—	20	7505	○	○
Seat heating and ventilation of the seat area ^{16) 15)}	—	0	11147	○	○
Tow bar (check permissible gross towing weight for trailer operation)	—	30	273	○	○
Exterior features					
Omnistor cassette awning 5.0 m (electric)	—	40	428	○	—
Omnistor cassette awning 5.0 m (manual)	—	40	697	○	—
Omnistor cassette awning 6.0 m (electric)	—	70	519	—	○
Omnistor cassette awning 6.0 m (manual)	—	64	560	—	○
Roof vent with fan	—	1.5	7507	○	○
Exterior design					
Side panels in metallic titanium silver	—	0	511	○	○
Interior design					
Real leather individual ^{15) 17)}	—	0	9785	○	○
Real leather upholstery Colin ¹⁵⁾	—	0	11952	○	○
Upholstery Melia	—	0	11950	○	○
Textile equipment					
Carpet, loose	—	8.1	851	○	—
Carpet, loose	—	9.5	851	—	○
Furniture layouts					
Bed convert for seating lounge transverse	—	4	1944	—	○
Bed convert for seating lounge transverse	—	5	1944	○	—
Kitchen					
Fridge (153 l), can be opened on both sides, with integrated oven	—	18.5	290	○	—
Fridge (177 l), can be opened on both sides, with integrated oven	—	18.5	290	—	○
Bathroom					
Ceramic toilet ¹⁸⁾	—	9.1	7243	○	○
Macerator toilet with waste-holding tank	—	44	1625	○	○
Toilet ventilation via the roof ¹⁸⁾	—	0.8	1681	○	○
Multimedia					
32" TV (incl. bracket) incl. soundboard	—	9	9127	○	○
Additional 22" flat screen incl. flat screen bracket	—	5.5	7490+1809	○	○
Automatic satellite system 85 Twin	—	16	1637	○	○



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explanations on the subject of weight can be found in the Legal information section. An increase of load capacity increases the manufacturer-specified mass for optional equipment. The increase results from the higher pay-mass due to the alternative chassis. The increased tare weight of the alternative chassis and, in particular, the weight for any mandatory heavier engine variants (e.g. 180 hp) must be deducted from this. For a more detailed description of all mandatory technical dependencies, please refer to the explanations on the footnotes.

Optional equipment**

	Included in package	Additional weight (kg)*	Code	I 6820-2	I 7820-2
Dethleffs Naviceiver incl. DAB+, truck navigation, wireless Apple CarPlay and Android Auto ⁶⁾	—	3.65	9582	○	○
Flat screen 22" incl. flat screen bracket	—	5.2	1799+325	○	○
Flat-screen TV bracket	—	2	325	○	○
Rear view camera (single camera)	—	1.1	1642	○	○
Second rear view camera in rear moulding	—	1	11541	○	○
Top View 360° HD camera ^{19) 20)}	—	4.5	7173	○	○
Heating					
Heat exchanger for hot-water heating	—	7.5	565	○	○
Hot-water carpet for the driver's cab	—	3.5	6709	○	○
Air Conditioning					
Roof A/C	—	38.5	609	○	○
Electrical installation					
Solar power system 100 watt	—	12.6	922	○	○
Water supply					
Outdoor shower (cold water)	—	0.5	793	○	○
Gas supply					
Automatic gas cylinder switchover incl. crash sensor, EisEx and gas filter	—	2.5	1577	○	○
Outdoor gas socket gas pressure 30 mbar	—	1.3	878	○	○
Safety					
2 kg fire extinguisher	—	4	1878	○	○
Alarm system (for door with central locking)	—	0.5	322	○	○
Safe	—	10.5	323	○	○
Smoke detector	—	0.2	1891	○	○
Packages					
Dual Battery System Package 1	—	63	7488	○	○
Dual Battery System Package 2	—	113	7489	○	○
GT Package ALPA I	—	5.5	13825	○	○
GT Package Silver ALPA I	—	5.5	13826	○	○
Light Moments	—	2.5	13845	○	○
Pre-wiring kit	—	7.6	11350	○	○
Travel Package I 6820-2	—	31.6	14587	○	—
Travel Package I 7820-2	—	48.6	14587	—	○
Miscellaneous					
Registration documents (CoC papers)	—	0	15152	◆	◆

○ Optional equipment — Not possible ● Standard equipment ◆ Mandatory △ Not known at the time of publication



The factory installation of optional equipment increases the actual mass of the vehicle and reduces the pay-mass. The additional weight indicated for packages and optional equipment shows the additional weight compared to the standard equipment of the respective model or layout. The total weight of the selected optional equipment must not exceed the manufacturer-specified mass for optional equipment shown in the model overviews. This is a calculated value for each type and layout that Dethleffs uses to determine the maximum weight available for factory-fitted optional equipment. Detailed information and

explanations on the subject of weight can be found in the Legal information section. An increase of load capacity increases the manufacturer-specified mass for optional equipment. The increase results from the higher pay-mass due to the alternative chassis. The increased tare weight of the alternative chassis and, in particular, the weight for any mandatory heavier engine variants (e.g. 180 hp) must be deducted from this. For a more detailed description of all mandatory technical dependencies, please refer to the explanations on the footnotes.

LEGAL NOTES ON WEIGHT-RELATED INFORMATION

The weight specifications and tests for **motorhomes** are uniformly regulated throughout the EU in EU Implementing Regulation No. 2021/535 (until June 2022: EU Implementing Regulation No. 1230/2012). We have summarised and explained the key terms and legal requirements from this **regulation** for you below. Our **dealers** and the Dethleffs configurator on our website offer you additional assistance in configuring your vehicle.

1. Technically permissible maximum laden mass

The **technically permissible maximum laden mass** of the vehicle (e.g. 3,500 kg) is a mass specification set by the manufacturer which the vehicle must not exceed. Information on the **technically permissible maximum laden mass** of the model you have chosen can be found in the technical data. If the vehicle exceeds the **technically permissible maximum laden mass** in everyday driving, this constitutes an administrative offence which may result in a fine.

2. Mass in running order

In simple terms, the **mass in running order** is the basic vehicle with **standard equipment** plus a legally fixed standard weight of 75 kg for the driver. This essentially includes the following items:

- the unladen weight of the vehicle together with the bodywork, including operating fluids such as greases, oils and coolants;
- the **standard equipment**, i.e. all equipment items that are included as standard in the factory-fitted scope of delivery;
- the fresh water tank filled to 100 % in driving mode (driving fill according to manufacturer's specifications;) and an aluminium gas cylinder filled to 100 %;
- the **fuel tank**, which is 90 % full, including fuel;
- the driver, whose weight – regardless of the actual weight – is generally specified as 75 kg in accordance with EU law.

Information on the **mass in running order** can be found for each model in our sales documents. It is important to note that the value for **mass in running order** given in the sales documents is a default value determined in the **type-approval procedure** and verified by the authorities. It is legally permissible and possible for the **mass in running order** of the vehicle delivered to you to deviate from the nominal value stated in the sales documents. The legally permissible **tolerance** is $\pm 5\%$. In this way, the EU legislator accounts for the fact that certain fluctuations in the **mass in running order** occur due to variations in the weight of supplied parts as well as due to processes and weather conditions.

These weight deviations can be illustrated by means of an example calculation:

- **Mass in running order** acc. to sales documents: 2,850 kg
- Legally permissible **tolerance** of $\pm 5\%$: 142.50 kg
- Legally permissible range of **mass in running order**: 2,707.50 kg to 2,992.50 kg

The specific range of permissible weight deviations can be found for each model in the technical data. Dethleffs makes great efforts to reduce weight variations to the minimum that is unavoidable for production reasons. **Deviations** at the upper and lower end of the range are therefore very rare; however, they cannot be completely ruled out technically, even

with all optimisations. The real weight of the vehicle and compliance with the permissible **tolerance** is therefore checked by Dethleffs by weighing each vehicle at the **end of the line**.

3. Mass of the passengers

The **mass of the passengers** is set a standard value of 75 kg for each seat provided by the manufacturer, regardless of the actual weight of the passengers. The **mass of the driver** is already included in the **mass in running order** (see no. 2 above) and is therefore not included again. In the case of a **motorhome** with four **permitted seats**, the **mass of the passengers** is therefore $3 * 75 \text{ kg} = 225 \text{ kg}$.

4. Optional equipment and actual mass of the vehicle

Optional equipment (also: additional equipment) includes, according to the legal definition, all optional equipment parts not included in the **standard equipment** which are fitted to the vehicle under the responsibility of the manufacturer – i.e. ex works – and can be ordered by the customer (e.g. awning, bicycle or motorbike carrier, satellite system, solar system, oven, etc.). Information on the individual or package weights of the **optional equipment** that can be ordered can be found in our sales documents. **Optional equipment** in this sense does not include other **accessories** that are retrofitted by the **dealer** or you personally after the vehicle has been delivered ex works.

The **mass of the vehicle in running order** (see no. 2 above) and the mass of the **optional equipment** fitted to a specific vehicle at the factory are together referred to as the **actual mass**. You will find the corresponding information for your vehicle after handover under item 13.2 of the Certificate of Conformity (CoC). Please note that this specification also represents a standardised value. Since the **mass in running order** – as an element of the **actual mass** – is subject to a legally permissible **tolerance** of $\pm 5\%$ (see no. 2), the **actual mass** may also deviate accordingly from the stated nominal value.

5. Pay-mass and minimum pay-mass

The installation of optional equipment is also subject to technical and legal limits: Only so much optional equipment can be ordered and fitted at the factory that sufficient free weight remains for baggage and other accessories ("pay-mass") without exceeding the technically permissible maximum laden mass. The pay-mass is calculated by subtracting the mass in running order (nominal value according to sales documents, see no. 2 above), mass of the optional equipment and the mass of the passengers (see no. 3 above) from the technically permissible maximum laden mass (see no. 1 above). The EU regulations stipulate a fixed minimum pay-mass for motorhomes, which must remain as a minimum for baggage or other non-factory-fitted accessories. This minimum pay-mass is calculated as follows:

Minimum pay-mass in kg $\geq 10 * (n + L)$

Where: "n" is the maximum number of passengers plus the driver and "L" is the overall length of the vehicle in metres.

For a motorhome with a length of 6 m and 4 approved seats, the minimum pay-mass is therefore e.g. $10 \text{ kg} * (4 + 6) = 100 \text{ kg}$.

To ensure that the **minimum pay-mass** is maintained, there is a maximum combination of **optional equipment** that can be ordered for each vehicle model. In the above example with a **minimum pay-mass** of 100 kg, the total mass of **optional equipment** for a vehicle with four **permitted seats** and a **mass in running order** of 2,850 kg should not exceed 325 kg:

3,500 kg	technically permissible maximum laden mass
- 2,850 kg	mass in running order
- 3*75 kg	mass of the passengers
- 100 kg	minimum pay-mass
= 325 kg	maximum permissible mass of optional equipment

It is important to note that this calculation is based on the default value for **mass in running order** as defined in the **type-approval procedure**, without taking into account the permissible weight deviations for **mass in running order** (see no. 2 above). If the maximum permissible value for the **optional equipment** of (in the example) 325 kg is almost or completely exhausted, an upward weight deviation can therefore result in the **minimum pay-mass** of 100 kg being met mathematically using the default value for the **mass in running order**, although in fact there is no corresponding **load capacity**. Here, too, an example calculation for a vehicle with four seats, whose real weighed **mass in running order** is 2 % above the nominal value:

3.500 kg	technically permissible maximum laden mass
- 2.907 kg	real weighed mass in running order (+ 2 % compared to the stated value of 2,850 kg)
- 3*75 kg	mass of the passengers
- 325 kg	optional equipment (maximum permissible value)
= 43 kg	actual load capacity (< minimum pay-mass of 100 kg)

In order to avoid such a situation, Dethleffs further reduces the maximum permissible weight of the total **optional equipment** that can be ordered on a model-specific basis. The limitation of **optional equipment** is intended to ensure that the **minimum pay-mass**, i.e. the legally prescribed free mass for **baggage** and retrofitted **accessories**, is actually available for the **vehicle load capacity** of the vehicles delivered by Dethleffs. Since the weight of a specific vehicle can only be determined when it is weighed at the **end of the line**, in very rare cases a situation may arise in which the **minimum pay-mass** at the **end of the line** is not guaranteed, despite this limitation of **optional equipment**. In order to guarantee the **minimum pay-mass** even in these cases, Dethleffs will check together with your **trade partner** and you before delivery of the vehicle whether, for example, the vehicle is loaded up, seats are reduced or **optional equipment** is removed.

6. Effects of tolerances of the mass in running order on the pay-mass

Regardless of the **minimum pay-mass**, you should note that unavoidable production-related fluctuations in the **mass in running order** – both upwards and downwards – have a mirror-image effect on the remaining **load capacity**: If you order our example vehicle (see no. 3. above), for example, with **optional equipment** with a total weight of 150 kg, the calculated **pay-mass** based on the default value for the **mass in running order** is 275 kg. The **load capacity** actually available may deviate from this value due to **tolerances** and may be higher or lower. If the **mass in running or-**

der of your vehicle is, for example, permissibly 2 % higher than stated in the sales documents, the **load capacity** is reduced from 275 kg to 218 kg:

3.500 kg	technically permissible maximum laden mass
2.907 kg	real weighed mass in running order (+ 2 % compared to the stated value of 2,850 kg)
3*75 kg	mass of the passengers
150 kg	optional equipment ordered for the specific vehicle
= 218 kg	sactical load capacity

As a precaution to ensure that the calculated **pay-mass** is actually given, you should therefore take the possible and permissible **tolerances** for the **mass in running order** into account when configuring your vehicle. We also recommend that you weigh the laden **motorhome** on a non-automatic scale before each journey and, taking the individual weight of the **passengers** into account, determine whether the **technically permissible maximum laden mass** and the **technically permissible maximum mass on the axle** are observed.