

# CUSTOM<sup>®</sup> DENNING

The power beneath every journey.

## CDE12.3HR.1



*Proudly Australian Designed, Engineered, and Manufactured.*



## Powering Australia's Clean Transport Future

### Sustainability Beyond Zero Emissions

At Custom Denning, sustainability means more than just no tailpipe emissions. From energy efficiency to responsible material sourcing, we design every bus with the entire lifecycle in mind.

Built locally in St Marys, our zero-emission vehicles reflect Australia's drive for cleaner, smarter transport.

We're also planning ahead — with second-life uses for our traction batteries, like energy storage for solar-powered buildings. Environmental care isn't just a promise. It's how we build.

### Built to Last. Backed for Life.

When you choose Custom Denning, you get more than a premium electric bus — you gain a committed local partner.

Our support doesn't end at delivery. With fast parts supply, tailored servicing plans, and expert technical backup, we keep your fleet moving and your business on schedule.



*Custom Denning is proudly Australian-made, and proudly with you for the long haul.*

# A New Era of Australian Engineering

At Custom Denning, we don't just build buses — we build the future of sustainable transport. The Custom Denning Chassis is proudly Australian designed, engineered, and manufactured, purpose-built to power our zero-emission fleet and meet the toughest demands of local operators.

## Sustainability Starts with the Frame

An electric bus is more than just zero tailpipe emissions. Our chassis is part of a full lifecycle commitment to sustainability, efficiency, and quality, including:

- High Energy Efficiency
- Modular battery integration
- Recyclable and locally sourced materials

## Built to Partner with You

We understand the needs of operators because we're with you for the long haul. Choosing Custom Denning means:

- Responsive Australian-based support
- Streamlined parts and service network
- Easy integration for bodybuilders
- Long-term maintenance programs
- Customisable for fleet needs and future-proofing



## Embrace electrification with Custom Denning

The newly developed Custom Denning chassis represents the cornerstone of a responsible and efficient electric bus system. It offers superior performance, reduced energy consumption, and exceptional attributes conducive to optimized bus body engineering. By selecting a Custom Denning fleet, you leverage our extensive expertise in electromobility, backed by nearly a century of leadership in heavy-duty vehicle manufacturing and supported by a comprehensive global service network.

Additionally, our commitment to rigorous safety standards ensures unmatched protection. Welcome to the Custom Denning experience.

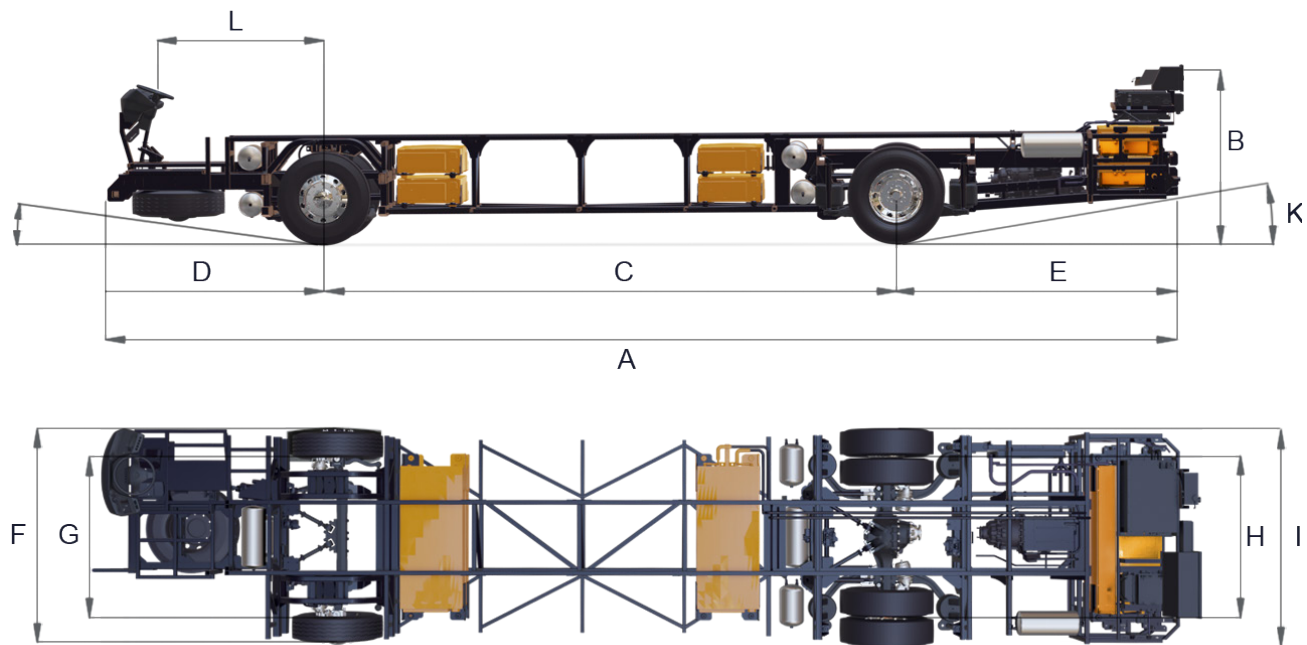


*The CDE12.3HR.1 chassis provides exceptional versatility, ensuring safe and efficient bodybuilding applications.*



# Built from the inside out by Custom Denning

Custom Denning is a proudly Australian leader in zero-emission bus manufacturing. Every chassis and driveline component is designed, engineered, and built right here in our Sydney facility, giving us full control over performance, quality, and safety. We also collaborate with trusted bodybuilders to ensure the finished product reflects the same high standards – inside and out.



Model - CDE12.3HR.1		
Overall Dimensions		
A	Overall chassis length, depending on body, up to (mm)	12,132
B	Frame height at rear structure (mm)	1,941
C	Transport wheelbase	6,400
D	Front overhang (mm)	2,479
E	Rear overhang (mm)	3,253
F	Overall width front wheels or housing (mm)	2,442
G	Track, front (mm)*	1,789
H	Track, rear (mm)*	1,845
I	Overall width rear wheels (mm)	2,497
J	Approach angle (°)	8
K	Departure angle (°)	9
L	Steering wheel position (mm)	1,931
	Wheel	315/80 R22.5
	Wheel Option	295/80 R22.5

## Model - CDE12.3HR.1

### Weights

Permitted front axle load (kg)	8,000
Permitted drive axle load (kg)	12,000
Permitted GVW (kg)	19,500

### Electrical Motor - ZF Cetrax

Output, max (kW)	ECE R 85 max 300
Continuous power (kW)	ECE R 85 30 min 170
Max torque (Nm)	4500
Max wheel torque (Nm)	20000

### RESS (Rechargeable Energy Storage System)

Available storage energy (battery capacity)	76.6 kWh
Available storage energy (4-6 batteries)	306, 383, 460 kWh
Battery chemistry type	Lithium-ion, NMC
Voltage (Nom.)	648V
Mass per battery (kg)	433 kg

### Transmission and axles

Gearbox	Single speed reduction gearbox
Front axle	ZF RL 82 A
Rear axle	ZF AV133
Differential lock	No

### Suspension and steering

Air bellows, front	2
Air bellows, rear	4
Kneeling	Optional
Max wheel angle	53
Power steering	Electric driven hydraulic steering
Steering wheel side	LHD/RHD

### Tyres and Rims (steel and aluminium rims available)

Tyres	315/80 R22.5
Tyres (optional)	295/80 R22.5
Rims	7.5 x 22.5

### Electrical System (automatic shut off of main switch at low voltage level)

Number of batteries	1 x 24 V
Type	Li-Ion LFP Ultra Deep Cycle
Battery capacity	280 Ah

## CHARGING SYSTEM

### CCS

- Industry standard solution
- Maximum charge power 250 kW
- Rear right or rear left charging

### OppCharge

- Industry standard solution
- Maximum charge power 300 kW
- Customer decision of position of rails

## ESS SAFETY

- Battery monitoring
- Safety on cell and pack level (monitoring)
- Thermal management system
  - Independence from climate system
  - Coolant level warning in instrument cluster
  - Automated control of battery temperature with energy-efficient 650 V active cooling / heating system
  - Electric driveline and auxiliaries cooling circuit
- Insulation isolation resistance monitoring
- Charging safety
- Workshop safety

## CD ALWAYS READY

- The bus will keep the batteries in working temperature, to ensure that the bus can be started directly when needed without a pre-heating period
- 24 V batteries will be charged from the 600 V battery
- Pre-heating/cooling of the interior can be done when supported by HVAC supplier

## AIR AND BRAKE SYSTEM

- Disc brakes
- Electronic Braking System (EBS 5)
- Electronic Stability Program (ESP)
- Anti-lock Braking System (ABS)
- Anti slip regulation (ASR)
- Electronic Stability Control
- Brake blending
- Hill Start
- Brake temperature warning
- Brake assistance
- Brake pad wear indication

## DRIVER'S WORKSTATION

Cluster and Controls Transit Mounted:

- Actia cluster with 12.3" digital display
- Steering wheel buttons for easy access
- Automatic headlamp switch
- Charging information

## ACTIVE SAFETY SYSTEMS (OPTIONAL)

- Forward Collision Warning
- Collision Warning with City Brake
- Emergency Stop Signal
- Intelligent Speed Assist
- Side Collision Avoidance Support
- Tyre Pressure Monitoring System
- Driver Alert System

# CUSTOM<sup>®</sup> DENNING

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