CITADIS DUALIS

Optimized access for all
With its full low floor and wide gangways, Citadis Dualis is the first tram-train vehicle certified according to STI PRM* standards.

Passenger comfort
Citadis Dualis offers many options dedicated to passenger comfort, depending on the profile of the line served. Among the possibilities are toilets, more comfortable seats, window shades and umbrella racks...
Citadis Dualis makes on-board comfort a priority.

Operating tools
Citadis Dualis also offers anti-vandalism and passenger-counting options to optimize public transit operations for maximum vehicle availability.

Modular Design
Citadis Dualis may be configured to the needs of each operator.
Urban or peri-urban configuration, number of doors per side, interior spaces... the design and layout of your Citadis Dualis are modular to fit the type of itinerary.

* Excluding the toilet option
**4 DEGREES OF FREEDOM**

**LENGTH**
- 42 Meters and 52 Meters

**WIDTH**
- 2.4 Meters and 2.65 Meters

**ELECTRIC POWER SUPPLY**
- Dual voltage 750 Vdc / 25 KVar 50 Hz
- Or dual voltage 750 Vdc / 1500 Vdc

**INTERIOR FITTINGS**

- **Version 2.40 m**
  - Length: 42 m
  - Width: 2.4 m
  - 4 doors
  - 93 seated places
  - 141 standing places

- **Version 2.45 m**
  - Length: 42 m
  - Width: 2.65 m
  - 4 doors
  - 98 seated places
  - 163 standing places

- **Version 2.65 m**
  - Length: 42 m
  - Width: 2.65 m
  - 5 doors
  - 92 seated places
  - 159 standing places

**CAPACITIES**

**Seats + Tip-up seats**
- **CE1**
  - 18 + 2

- **CE2**
  - 32

- **CE2B**
  - 24 + 2

- **C1**
  - 18 + 2

- **CE1**
  - 18 + 2

**Total**
- 92 + 6
- 88 + 4
- 88 + 7
- 112 + 4

- **Passenger in Wheelchair space**
  - 2

- **Bicycle rack**
  - 1

- **Luggage rack**
  - 1

**Total passengers**
- **4 persons/m**
  - 251
  - 310
  - 330
  - 310

- **6 persons/m**
  - 252
  - 332
  - 334
  - 381

- **8 persons/m**
  - 239
  - 307
  - 472
# TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Type</th>
<th>Articulated – 4 to 5 car bodies</th>
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<tbody>
<tr>
<td>Length</td>
<td>4 car bodies: 42 m 5 car bodies: 52 m</td>
</tr>
<tr>
<td>Width</td>
<td>2.65 m (4 car bodies) or 2.40 m (4 or 5 car bodies)</td>
</tr>
<tr>
<td>Height</td>
<td>3.5 m</td>
</tr>
<tr>
<td>Floor height (4 pers/m² + seats folded, new wheels)</td>
<td>370 mm 405 mm 537 mm</td>
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<tr>
<td>Multiple Unit</td>
<td>Up to 3 units (MU3) with 4 car bodies</td>
</tr>
<tr>
<td>Structure</td>
<td>Compressur  Passive safety</td>
</tr>
<tr>
<td>Performance</td>
<td>800 kN  complies with standards EN12663 and EN15227</td>
</tr>
<tr>
<td>Braking</td>
<td>Maximum speed  Maximum acceleration from start up</td>
</tr>
<tr>
<td>Weight</td>
<td>&lt;771 (4 - car vehicle) 15.5 kN</td>
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<tr>
<td>Traction</td>
<td>Type  Continuous Motor power</td>
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<tr>
<td>Train Control / Command</td>
<td>Redundant MVB network / WTB Called commands for safety functions</td>
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<tr>
<td>Electric power supply</td>
<td>Dual voltage 750 V / 25 kV or 50 Hz Dual voltage 750 V / 1500 V</td>
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<tr>
<td>Auxiliary power</td>
<td>420 Vac / 700 Hz 24 Vdc</td>
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<tr>
<td>Minimum curve radius</td>
<td>25 m</td>
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<tr>
<td>Capacity in kWh (kW/h)</td>
<td>4 car vehicle 5 car vehicle</td>
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<tr>
<td>Corridor width</td>
<td>600 mm (2.65 m version)</td>
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<tr>
<td>Passenger access width</td>
<td>Double sliding door / 1,300 mm passage</td>
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<tr>
<td>Platform access</td>
<td>Fill-gap</td>
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<tr>
<td>Passenger Information</td>
<td>Base  Option</td>
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# OPTIONS

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<th>Design Options</th>
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<tbody>
<tr>
<td>Length (in m.)</td>
<td>42</td>
<td>42</td>
<td>42</td>
<td>52</td>
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<tr>
<td>Width (in m.)</td>
<td>2.65</td>
<td>2.65</td>
<td>2.4</td>
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<tr>
<td>Number of cars</td>
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<td>4</td>
<td>4</td>
<td>5</td>
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<tr>
<td>Number of doors per side</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>5</td>
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<tr>
<td>Luggage space</td>
<td>⚫</td>
<td>⚫</td>
<td>⚫</td>
<td>⚫</td>
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<tr>
<td>Bicycle space</td>
<td>⚫</td>
<td>⚫</td>
<td>⚫</td>
<td>⚫</td>
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<tr>
<td>Retractable steps</td>
<td>⚫</td>
<td>⚫</td>
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<tr>
<td>Maximum number of doors per side</td>
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<th>Contractual Options</th>
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<td>Toilets</td>
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<td>Fixed steps for the doors</td>
<td>⚫</td>
<td>⚫</td>
<td>⚫</td>
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<td>Supply and installation of passenger-counting system</td>
<td>⚫</td>
<td>⚫</td>
<td>⚫</td>
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<tr>
<td>Lengthwise umbrella rack</td>
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<tr>
<td>Exterior Ivory</td>
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<tr>
<td>Trash receptacles</td>
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<td>Passenger window shade</td>
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<td>More comfortable seats</td>
<td>(cannot be combined with anti-vandalism option)</td>
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<tr>
<td>Anti-vandalism</td>
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<td></td>
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<tr>
<td>(cannot be combined with more comfortable seat option)</td>
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**TOILET OPTION**

The toilet option* is offered aboard the CITADIS DUALIS in a suburban configuration (2 m65 in width) in order to improve passenger comfort for trips that exceed 30 minutes. This is a unique option in a tramway-type LRV. Two variants are possible for this option:

- Factory-fitted toilets,
- Preparation for toilet integration at a later time (for example in the case of a line extension)

*Option non-certified STI PRM

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**LENGTHWISE UMBRELLA RACK OPTION**

CITADIS DUALIS can also be equipped with lengthwise overhead racks. These allow passengers to put small objects, umbrellas, jackets... above their seats and also improve passenger comfort in freeing up space.

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**TRASH RECEPTACLE OPTION**

Trash receptacles can be installed as an option aboard the CITADIS DUALIS. They facilitate maintaining a high level of on-board cleanliness, improving both the trip’s ambiance and the cleaning work.

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**PASSENGER WINDOW SHADE OPTION**

Passengers are able to adjust sunlight to what’s comfortable.

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**MORE COMFORTABLE SEAT OPTION (CANNOT BE COMBINED WITH THE ANTI-VANDALISM OPTION)**

Improved seating and an added headrest offer passengers greater travel comfort.
**TECHNICAL OPTIONS**

**FIXED STEPS OPTION**
Removal of the retractable steps (standard edition) in order to reduce passenger exchange times at stations. This option requires an appropriate infrastructure.

**INDIVIDUALIZED EXTERIOR LIVERY**
To facilitate its integration in the regional landscape, the livery of the CITADIS DUALIS can be individualized with the colors of the region.

**ANTI-VANDALISM OPTION**
CITADIS DUALIS’s anti-vandalism resistance can be reinforced with an interior and exterior film protection on the car.

**BICYCLE SPACE / LUGGAGE SPACE (OPTION DEPENDS ON THE BODY CAR’ DESIGN)**

**PASSENGER COUNTING OPTION**
All vehicle accesses are equipped with a system that makes it possible to note passengers getting on and off. The number of passengers aboard is thus known at all times. This is an essential element for tram-train operations.