

Velaro RUS

The High Speed Trainset for Russia

Transportation Systems, Trains

Velaro RUS

For the Russian Railway Company RZD

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Velaro RUS For the Russian Railway Company RZD

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- **Contract in May 2006:**
for 8 train sets and a long-term service contract
- **Main Requirements:**
 - 10 car train with 604 seats
 - wide car body
 - max. operating speed 250 kph, upgradeable to 300 kph
 - designed for extremely low ambient temperatures
- **Operation:**
on all high speed lines in the Russian Federation, starting with Moscow - St. Petersburg

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Velaro RUS Project Volume

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Development and supply of

- 4 high speed train sets 250 kph 3kV DC (Version B1)
- 4 high speed train sets 250 kph 3kV DC and 25 kV AC (Version B2) and Maintenance of the trains for 30 years

Including:

Test, certification, documentation / manuals and driver's training



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Main Milestones

- Exhibition of the mock-up at Moscow station in St. Petersburg on 3rd of August 2006
- Start of car body shell manufacture: July 2007
- Arrival of the 1st train in Russia: December 2008



Velaro RUS Impressions of the Mock-up

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Technical Data (1)



Version		B1	B2
No. of cars			10
Car width	mm		3,265
Track gauge	mm		1,520
Car body material		Aluminium	
Car body length			
End car	mm		25,535
Intermediate car	mm		24,175
Train length	m		250.3
Max. axle load	kN	170 / 180 ± 4 %	
Weight	t	651	667

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Technical Data (2)



Version		B1	B2
Floor height	mm		1,360
Accessible platform heights	mm		1,100 and 1,300
Voltage system	kV	DC 3	DC 3 / AC 25, 50 Hz
Performance at wheel rim	kW		8,000
Max. starting effort	kN		380
Max. braking effort	kN		378
Max. speed	kph		250
Temperature range	°C		(-50) -40 ... +40
Driver's cab operation			1 (+1 standing)
Seating in the tourist class			2 + 2
No. of seats			604

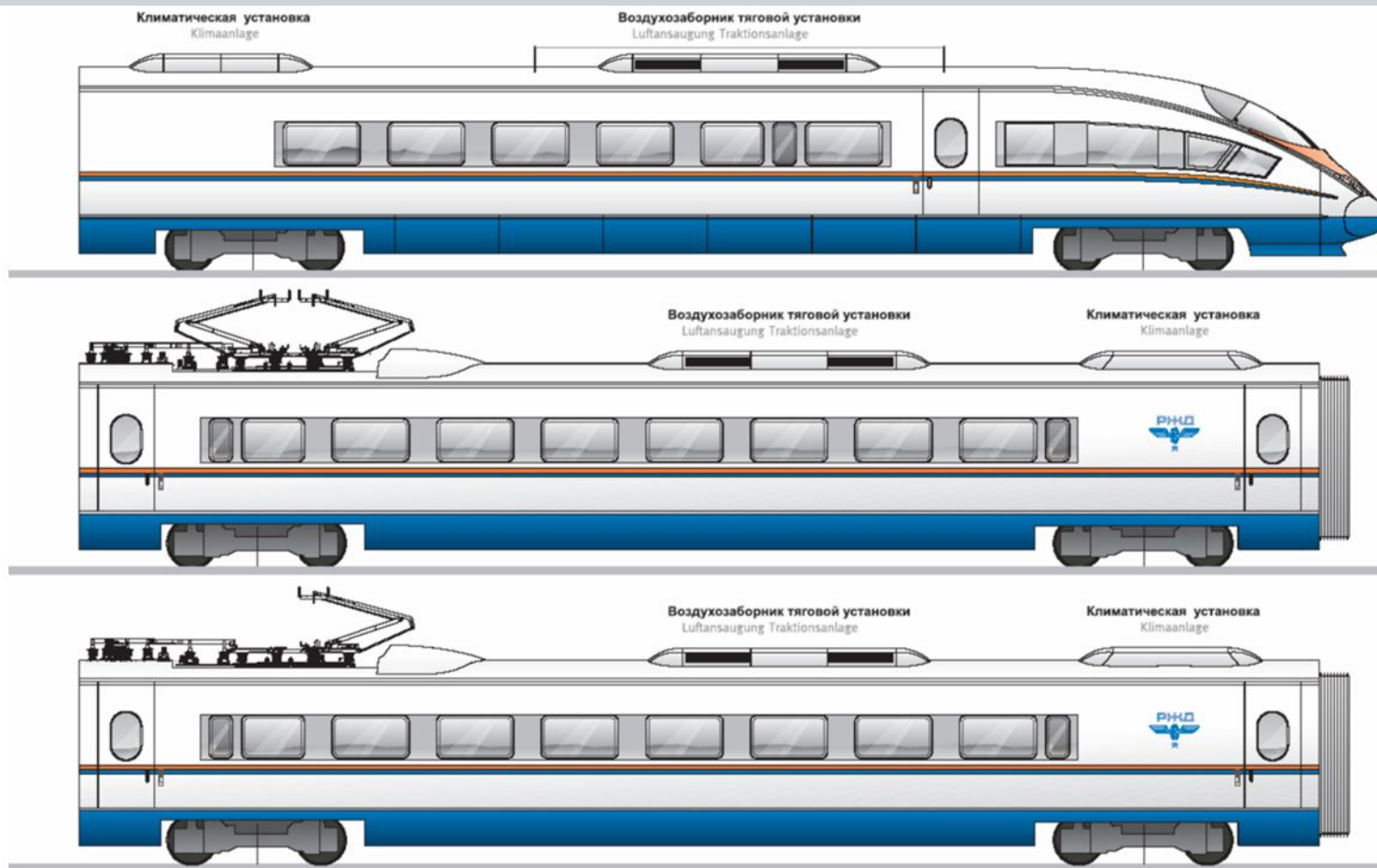
Velaro RUS Special Features

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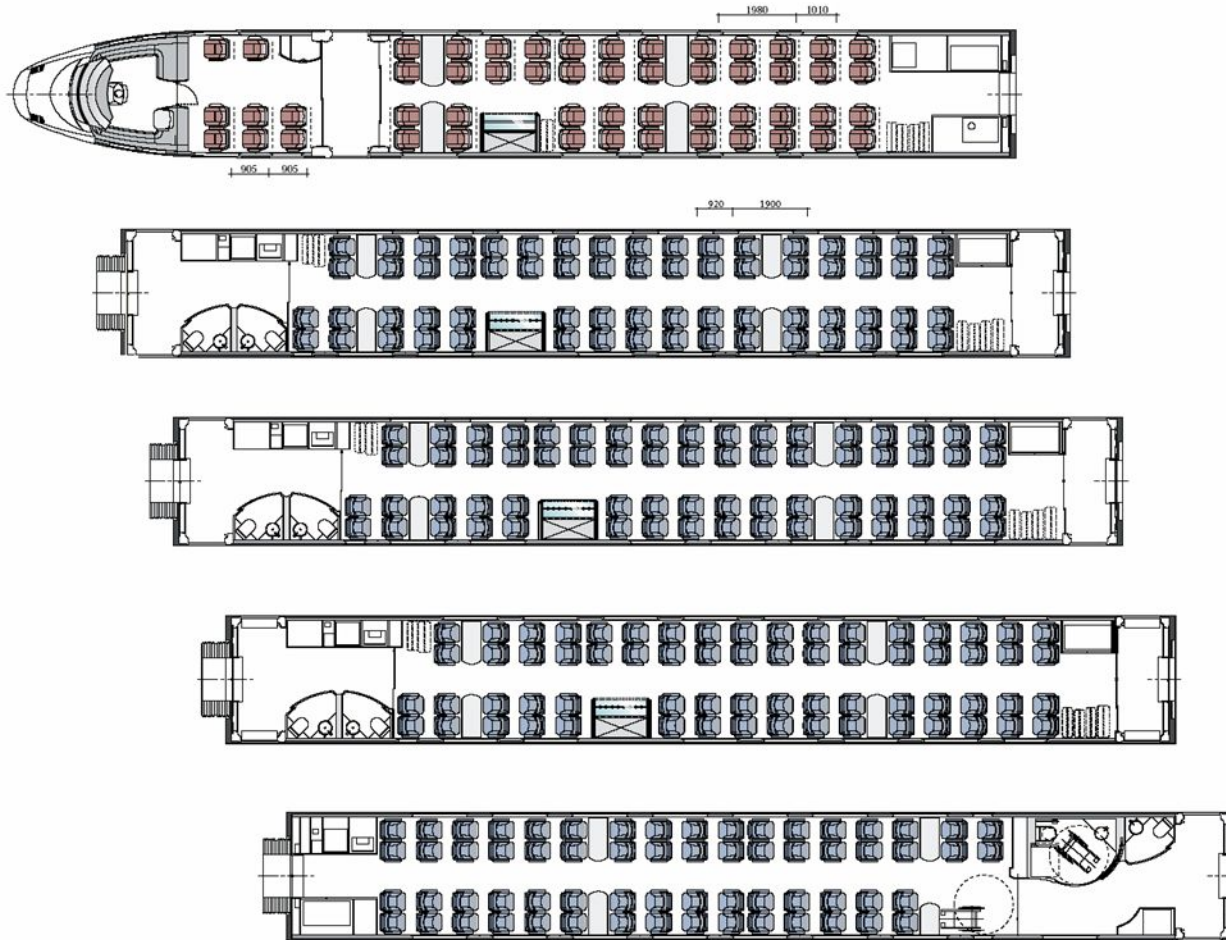


- Inside and outside video supervision
- Internet access for passengers
- EMC according to GOST 29205
- Indirect spring loaded brakes in all cars
- Galley, operation control system etc. complying with Russian standards

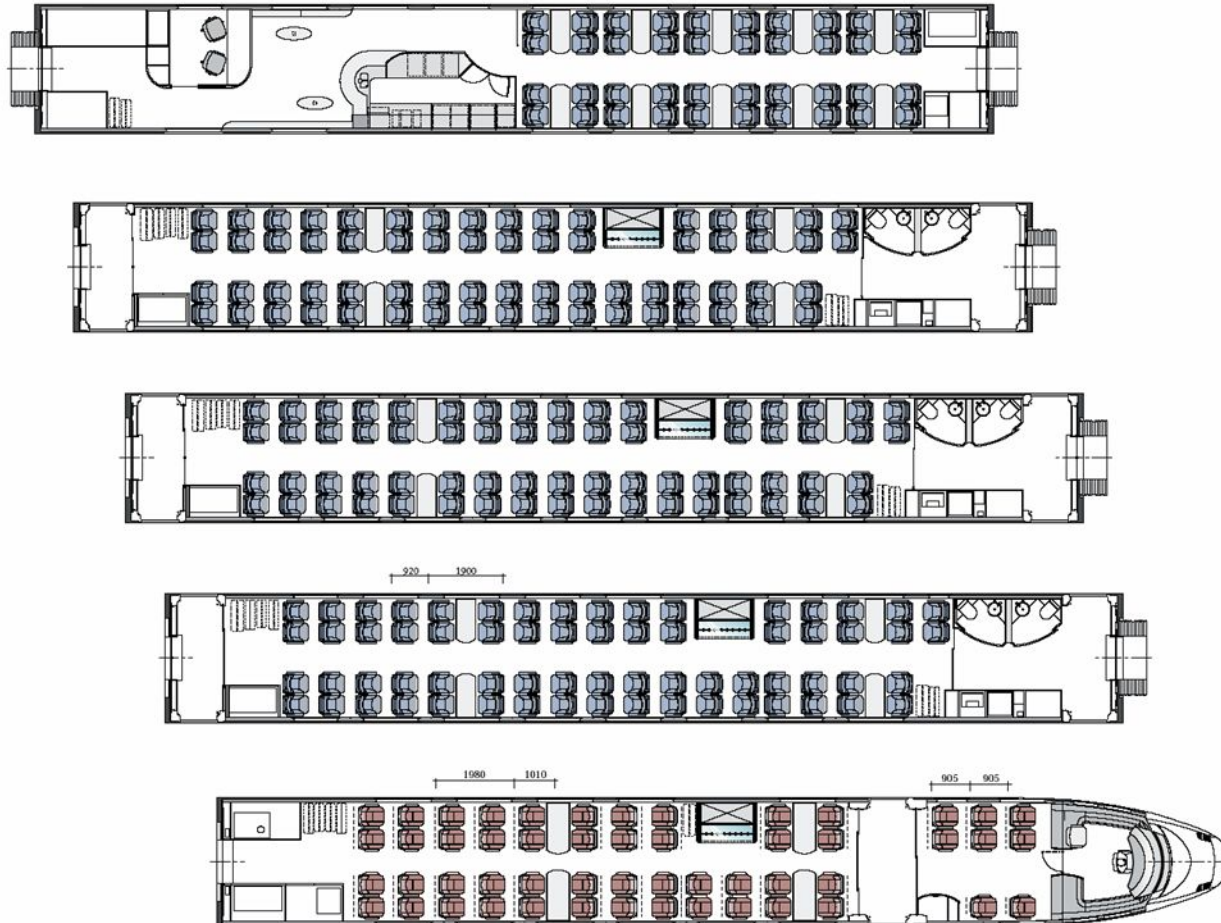
Velaro RUS Side View



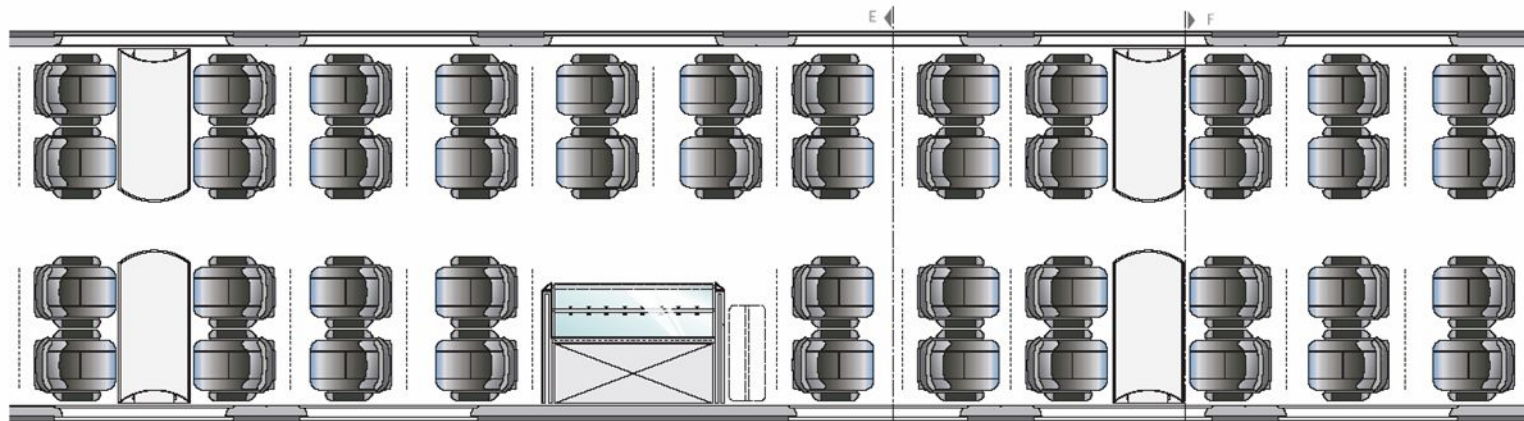
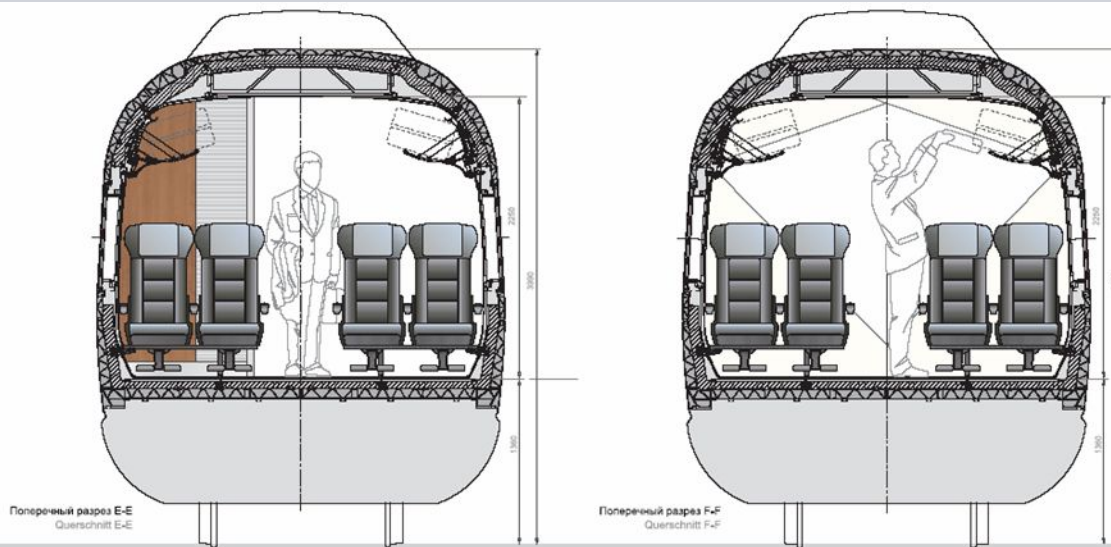
Velaro RUS Interior Furnishing (1)



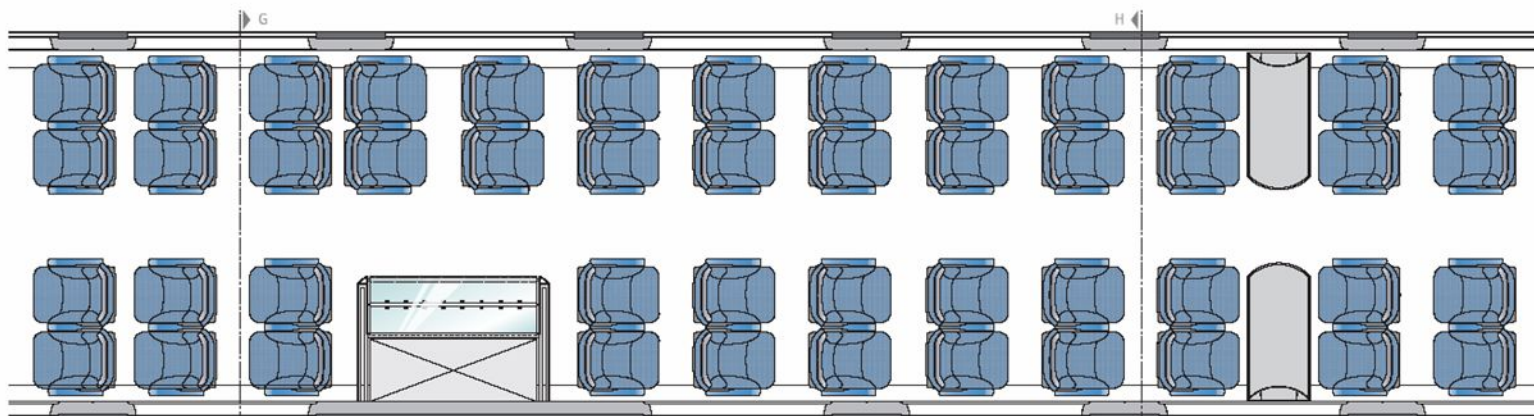
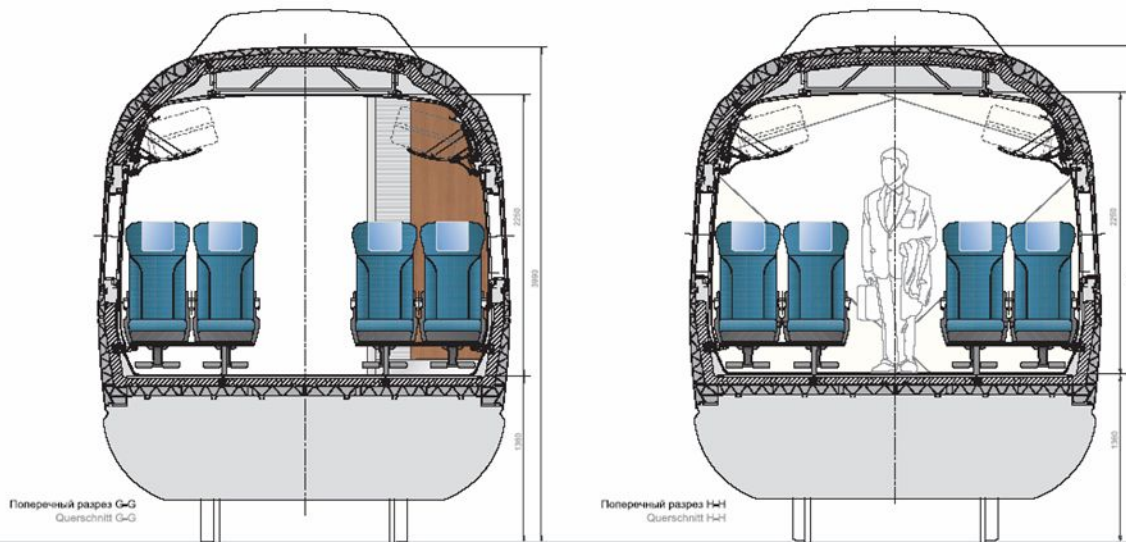
Velaro RUS Interior Furnishing (2)



Velaro RUS Car Cross Section 1st Class

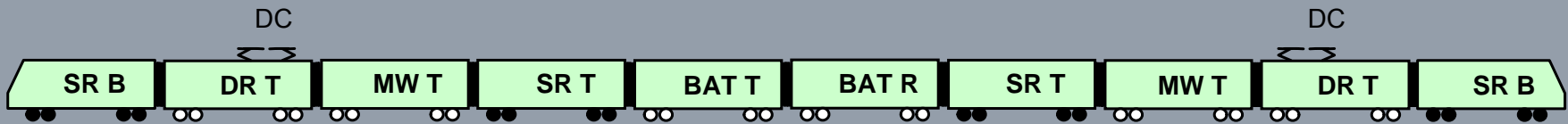


Velaro RUS Car Cross Section 2nd Class

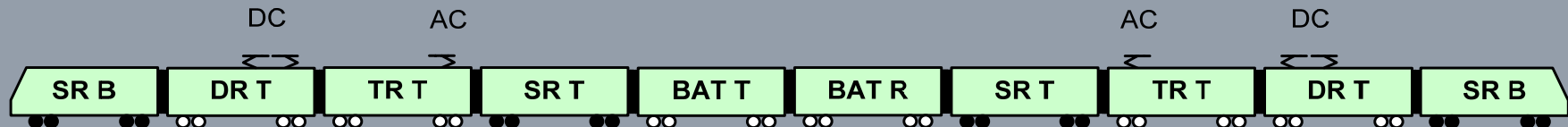


Velaro RUS Train Configuration

Version B1: DC 3 kV



Version B2: DC 3 kV / AC 25 kV

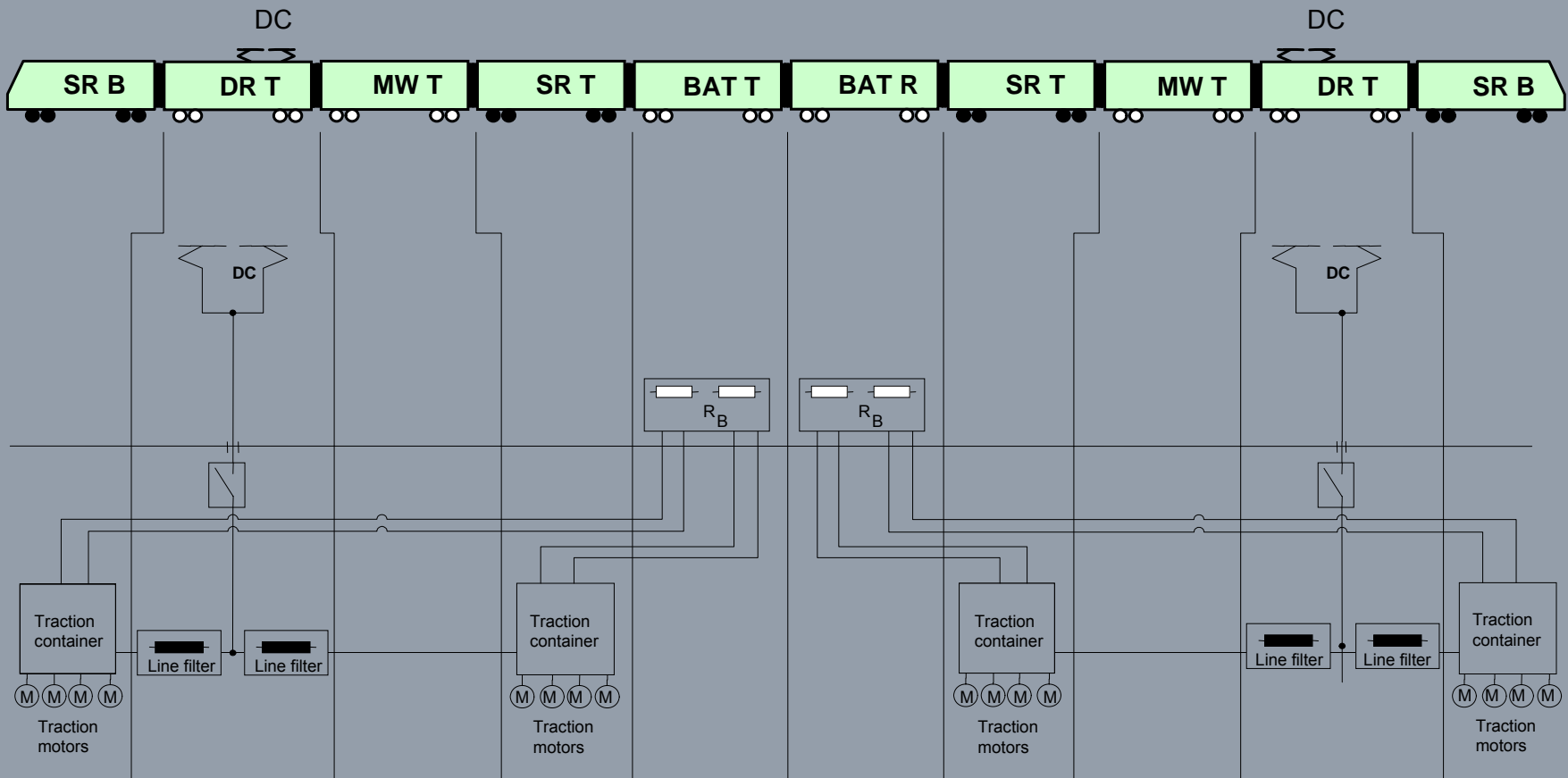


Legend:	Type of Car	Class
SR B	power converter car	business class
DR T	inductor car	tourist class
MW T	intermediate car	tourist class
SR T	power converter car	tourist class
BAT T	battery car	tourist class
BAT R	battery car	restaurant
SR T	power converter car	tourist class
MW T	intermediate car	tourist class
SR T	power converter car	tourist class

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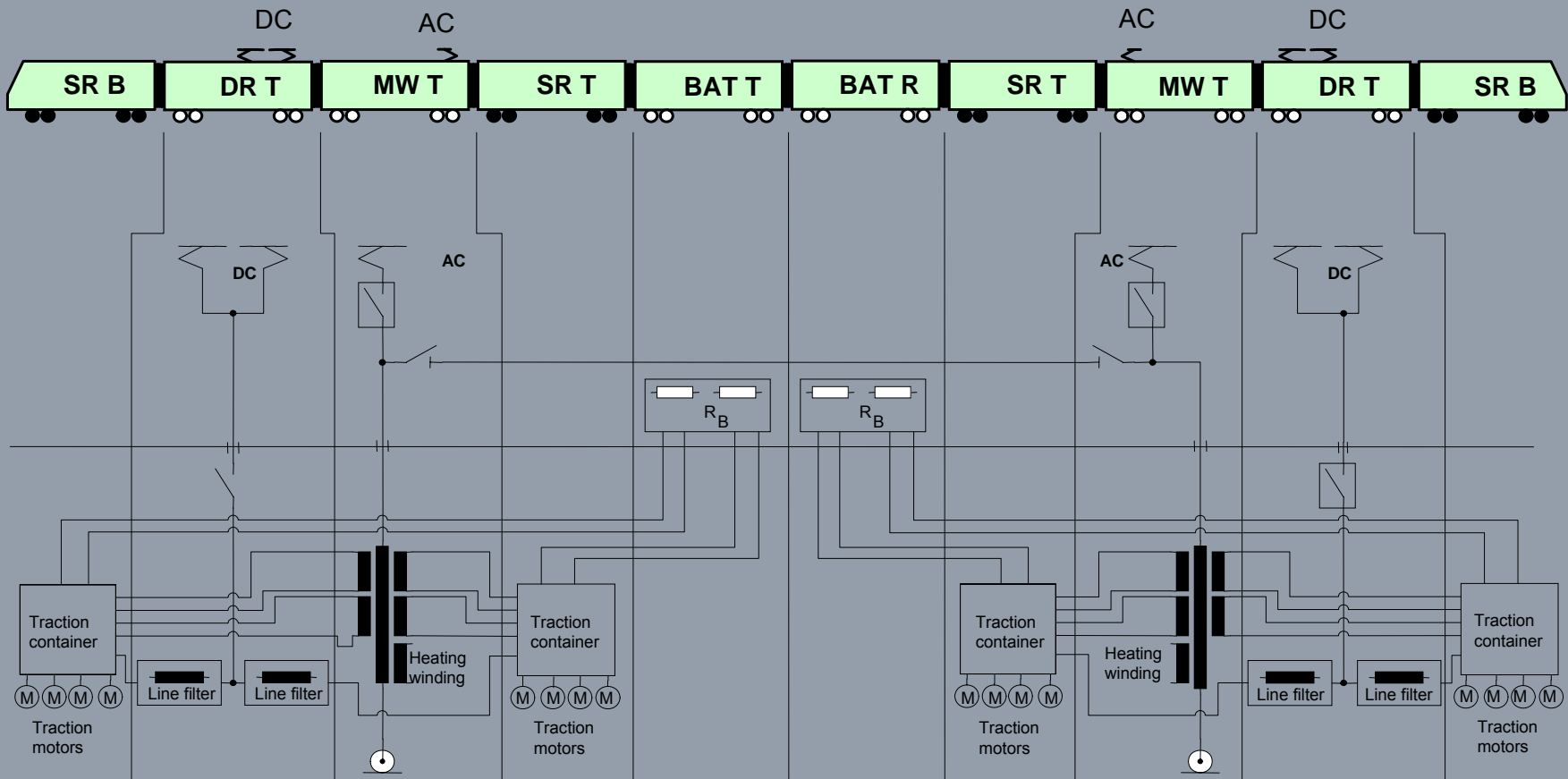
Trainset Version B1: Main Circuit (Single System)

Variante B1: DC 3 kV



Velaro RUS Trainset Version B2: Main Circuit (Dual System)

Version B2: 3 kV DC and 25 kV / 50 Hz AC



Velaro RUS Further Impressions of the Mock-up

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Further Impressions of the Mock-up

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Thank You for Your Attention!

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