



EURO9000 Battery

Technische Daten | Technical Information

Landerzulassungen | Country homologations **AT, BE, CH, DE, IT, NL**

Locomotive type	HYBRID: Electric– Batteries
Area of use	Germany, Austria, Switzerland, Italy, Netherland and Belgium (*)
Axle layout	Co’-Co’
Environmental conditions	EN 50125-1 Class T1 / Class A1 -25°C / +40°C / 1400 m
Coupling	UIC Coupler (1350 kN) + UIC Buffers. Optionally DAC integration
Weight in working order	120 tons ± 3%
Gauge	EN 15273-2: ref. profile G1 (upper area), G12 (lower area) (80 mm)
Minimum horizontal radius in workshops or yards	90m
Main Dimensions	
Maximum length over buffers	23.020 mm
Width	2.900 mm
Height (pantograph folded)	4.265 mm
Main performances	
Maximum speed	120 km/h
Maximum starting tractive effort	500 kN
Effort Continuous regimen	430 kN
Maximum power @ wheel	9000 kW in 25 kVac and 15 kVac catenary 6400 kW in 3 kVdc catenary 4500 kW in 1.5 kVdc catenary 1000 kW in battery mode 7400 kW in Hybrid 3kVdc + Battery (Boost) 5500 kW in Hybrid 1,5kVdc + Battery (Boost)

Electric Power supply System	
Line Voltages	25kVac 50 Hz, 15kVac 16,7 Hz,3 kVdc, 1,5 kVdc
Pantographs	4
Energy Measuring System	YES
Battery System	
Type	Li Ion LTO chemistry ABB Pro 10C-1050 (20Ah cells)
Nominal capacity	Overall capacity 18 packs x 35,3 kWh = 635,4 kWh
Charge / Discharge Power	1200 kW
Electric System	
Traction type	Electric AC-AC with IGBTs
Traction motors	6 AC asynchronous motors force ventilatd, bogie frame mounted
Tractoin control	Axle control
Brake System	
Electric Brake	Regenerative max.9000 kW, rheostatic 1500kW & blended.
Pneumatic Brake	UIC with two distributors G/P
Parking brake	40 ‰
Bogie	
Bogie Type	3 axles fabricated frame
Gauge	1.435 mm
Axle distance	3.600 mm (1800 – 1800}
Wheel diameter	1.100 mm / 1020 mm
Control System	
Multiple Unit control	WTB trainline Multiple Unit not homologated (option)
Remote Control	YES
Safety and Communication Systems	
Safety System ETCS	ETCS Baseline 3.4.0 (MR1) Level 2
Safety systems Class B	Germany PZB Austria PZB Switzerland – Italy SCMT, RSC Netherland ATB EG Belgium TBL1+
Radio	GSM-R MESA 26
Supplies	
Sand	480 l