

Vectron Dual Mode

OneVDM

The powerful four-axle Vectron Dual Mode combines the benefits of a fully fledged diesel locomotive with those of an electric locomotive. This allows it to operate flexibly on both electrified and non-electrified routes.



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The four-axle dual-power locomotive from Siemens Mobility is based on the proven Vectron concept and combines all the technical advantages and proven components of a Vectron Dual Mode. The OneVDM is equipped with the ETCS, PZB, Mirel, and SHP train control systems. This makes it suitable for use in Germany, Austria, Hungary, the Czech Republic, Poland, and Slovakia—including cross-border operations thanks to ETCS.

The **OneVDM** comes standard with certification for Germany and Austria. Starting in 2028/29, additional country packages can be activated as needed. This allows for the rapid expansion into new routes and flexible adaptation to international operating areas. The **OneVDM** is also suitable for passenger service, as it is equipped with a power supply for passenger cars.

Manufacturer	Siemens Mobility
Locomotive type	Dual-power locomotive, electric (15 kV AC; 16.7 Hz) and diesel operation
Traction power at wheel	2,400 kW (electric mode) 2,000 kW (diesel mode)
Starting tractive effort	300 kN
Operating speed	160 km/h
Tare weight	89-90 t
Length over buffers	19,975 mm
Minimum curve radius	140 m
Fuel tank net capacity	2,600 l
Train Control System	ETCS Baseline 3 Release 2, PZB 90, Mirel, SHP
Miscellaneous	Air conditioning, TBO door control, dual traction, radio remote control, GSM-R, fuel-powered pre-heating, NBÜ/ep brake
Homologation	DE, AT, SK, CZ, HU, PL

