



## FLIRT DMU HYBRID

Ente Autonomo Volturno S.R.L, Naples

EAV S.r.l., FNM S.p.A. and Stadler have signed the Agreement for the supply of 5 Diesel-electric trains for the regional railway service on the Piedimonte Matese - Naples line. The trains are part of a Framework Agreement signed by FNM S.p.A. and Stadler within the scope of which EAV received due contractual transfer for 5 units. Special attention was paid to ecological sustainability during the development of this project. The train's propulsion is provided by a special module (Power Pack) containing two new generation low-emission Diesel engines (EU stage V with SCR catalytic converter) and two sets of traction batteries. Compared to the rolling stock currently in operation, fuel consumption is estimated to be up to 30 % lower. Thanks to battery operation, acoustic emissions can also be drastically reduced during station stops. The percentage of recyclable materials amounts to over 90 %. The new bidirectional three-carriage hybrid trains offer a total of 328 places for passengers, 168 of which are seats. The new trainsets are designed to reach a top speed of 140 km/h and have a PRM toilet, LED lighting, Wi-Fi connection, 220 V sockets and USB ports, and also a modern passenger information system. Accessibility for persons with reduced mobility is easier thanks to mobile platforms that compensate the distance between the doors and the station platform. Dedicated areas for pushchairs and bicycles complete the onboard equipment.

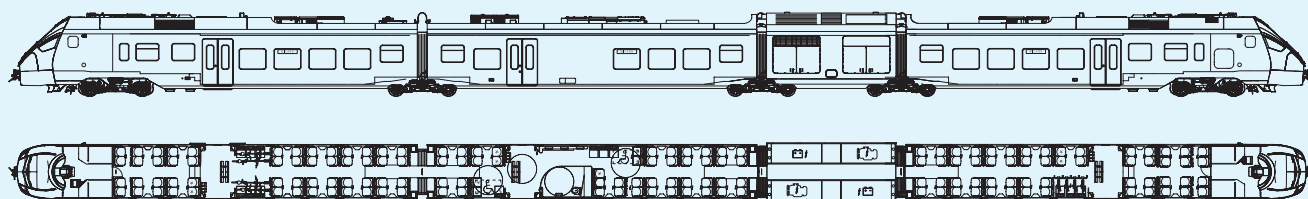
[www.stadlerrail.com](http://www.stadlerrail.com)

### Stadler Rail Group

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## Technical features

### Technology

- Traction batteries
- Fully redundant ETCS/SCMT/SSC system
- EU Stage V Diesel Engine

### Comfort

- Reduced vibrations and noise since the Diesel engines are housed inside the Power Pack
- Access to low floor
- Compartments with comfortable seats
- Spacious and luminous areas with 90 % of seats arranged face to face
- Furnishings design coordinated by Giugiaro Architettura

### Personnel

- Ergonomic and comfortable driver's desk
- Separately adjustable air conditioning system

### Reliability/Availability/Maintainability/Safety

- 4 independent traction chains (redundancy 75 %)
- Automatic train stopping device that is fully redundant (fully redundant ETCS system/ SCMT/SSC)

## Vehicle data

|                                     |                                                 |
|-------------------------------------|-------------------------------------------------|
| <b>Customer</b>                     | EAV S.r.l.                                      |
| <b>Area where used</b>              | Campania Region                                 |
| <b>Gauge</b>                        | 1435 mm                                         |
| <b>Name</b>                         | ATR 803                                         |
| <b>Propulsion system</b>            | Diesel-electric + Batteries                     |
| <b>Axle arrangement</b>             | Bo' 2'2'2' Bo'                                  |
| <b>Number of vehicles</b>           | 5                                               |
| <b>Commissioning</b>                | 2022                                            |
| <b>Seats</b>                        | 167                                             |
| Fixed seats                         | 147                                             |
| Fold-up seats / Tip up seats        | 20                                              |
| <b>Standing capacity</b>            | 160 (4 pass./m <sup>2</sup> )                   |
| <b>Floor height</b>                 |                                                 |
| Low floor                           | 600 mm                                          |
| High floor                          | 1145 mm / 1245 mm                               |
| <b>Access door width</b>            | 1300 mm                                         |
| <b>Compressive strength</b>         | 1500 kN                                         |
| <b>Length between the buffers</b>   | 66 800 mm                                       |
| <b>Vehicle width</b>                | 2820 mm                                         |
| <b>Vehicle height</b>               | 4120 mm                                         |
| <b>Wheelbase of bogies</b>          |                                                 |
| Motor bogie                         | 2700 mm                                         |
| Trailer bogie                       | 2700 mm                                         |
| <b>Driving wheel diameter (new)</b> | 870 mm                                          |
| <b>Bogie wheel diameter (new)</b>   | 760 mm                                          |
| <b>Continuous power at wheels</b>   | 700 kW                                          |
| <b>Maximum power at wheels</b>      | 1200 kW (Boost mode)                            |
| <b>Starting effort</b>              | 160 kN                                          |
| <b>Starting acceleration</b>        | 0.91 m/s <sup>2</sup> (0–30 km/h in Boost mode) |