



*Electric Multiple Unit*  
**ETR.220 A.V.**

*SuperRapido MN*  
**“Freccia del Vesuvio”**  
*Milano C.le - Roma T.ni - Napoli C.le*





**LE 15232**          

### **ETR.225 AV - Original front windows, era IVa**

Perfect 1:87 scale reproduction of the electric multiple unit ETR.225 of the FS (type ETR.220 AV) with original front and side cabins' windows, as it was at the beginning of '70 years (era IVa). "Magnolia" green/fog grey livery with black bogies. All details comply with the historical setting: coach 3 in original state with kitchen, luggage van and post office, bogies type Z 1040 and Zpm 1040 with correct differences, accurate reproduction of the underframe panels on all coaches with new disposition for electric braking system and new aerators, doors' windows without frame, modern type lamps, third head lamp and front FS emblem, specific command desk for ETR.220 AV inside the cabins, original roof handrails, lounge on coach 4 with 5 single seats, phone cabin and additional window, reproduction of horizontal curtains, with Continuous Repetition Signalling devices, pantographs type 52 with curved skid blade. Destination plates for Rapido MN "Freccia del Vesuvio" Milano-Napoli and Milano C.-Roma T.ni. **LIMITED AND NUMBERED EDITION.**

#### **The era of the "SuperRapidi"**

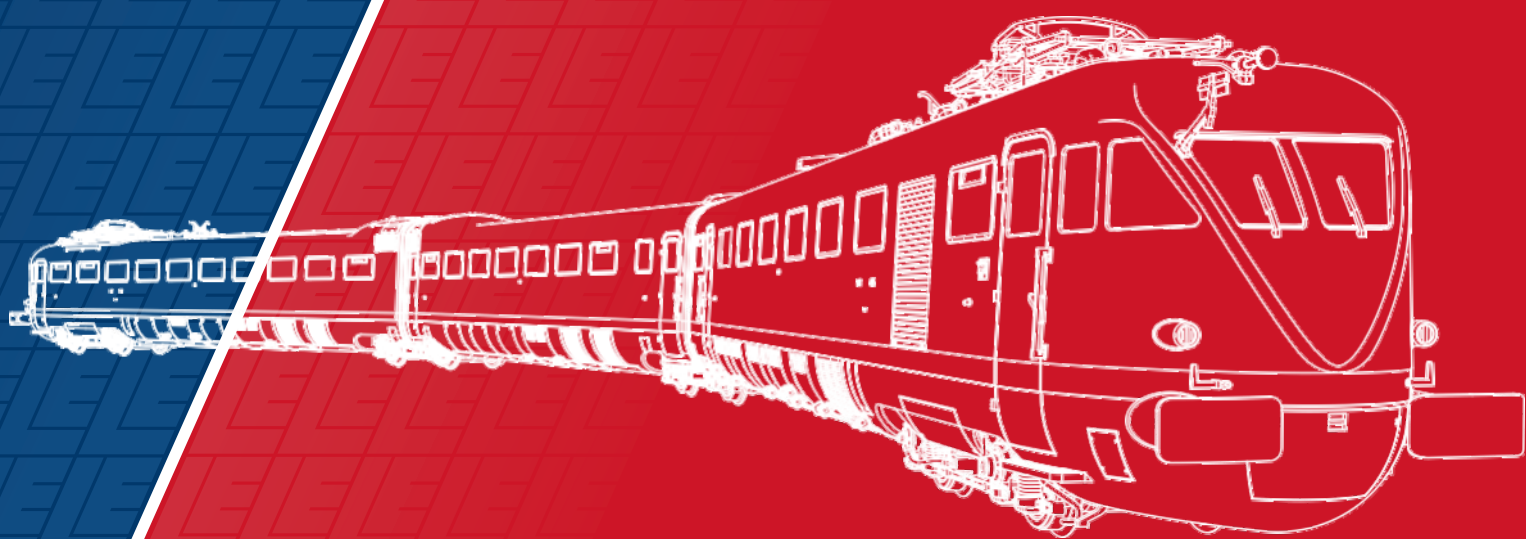
With the extension of "High Speed" services with top speed up to 180 km/h, introduced in 1969, the ETR fleet for these services (including at that time the three ETR.300 "Settebello" and the four ETR.250 "Arlecchino") was expanded between 1970 and 1972 with six ETR.220 called "AV" properly transformed, that, together with the new bogies and motors already installed on the ETR.220P, were fitted also with the electric braking system, the signalling repetition devices and a new "long" gear ratio 38/46, more suitable for high speeds. The fronts received also the rounded FS emblem with stripes, already used in other "top" rolling stock such as ALe 601 and E.444. The first trainset modified in this way was the ETR.236, previously transformed into ETR.220P, followed by the last five ETR.220 still in original state (in sequence ETR.224, 225, 223, 227, 229). First three "AV" trainsets had also a telephone cabin in the lounge of coach 4, disabled after short time but not removed. The six ETR.220 AV were used for the "Rapidi" services Milano-Bari and mainly for the "SuperRapidi" MN-NM "Freccia del Vesuvio" Milano-Napoli, in this case often in double composition between Milano and Roma with one ETR.250 or a second ETR.220 AV, until the transformation of these services into internal TEE "Adriatico" and "Vesuvio" with the new Gran Confort coaches, occurred in 1973.

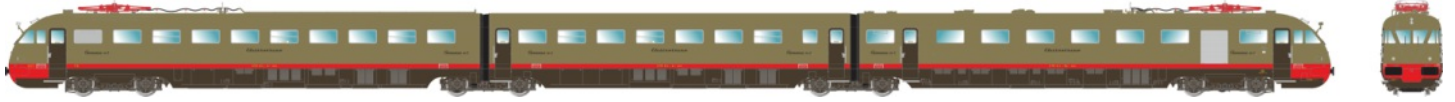
### **Electric Multiple Units ETR.220P / ETR.220 AV - TECHNICAL FEATURES valid for all models:**

<b>Scale</b>	H0 – 1:87
<b>Length</b>	1006 mm (complete composition)
<b>Digital / Sound predisposition</b>	<b>Plux22/NEM 658</b> decoder interface, with simplified access through dedicated removable cover under coach3. <b>23 mm rounded speaker installed by factory</b> inside coach 3 on all versions
<b>Motorization</b>	High performance 5-poles motor with flywheel, cardan shaft with transmission on one bogie of coach 3, completely hidden under the interiors reproduction. Four wheels with traction tyre
<b>Lights / electric system</b>	Head lights with wed/white LEDs with inversion according to the running direction, <b>interior lights by factory on all coaches</b> , possibility of independent command of third head lamp, red and white lights, interior lights of passengers areas and services areas in coach 3 in both analog (through DIP Switches) and digital mode (through decoder). Electric bus through all the elements, couplers with 8-poles connectors. ANALOG MODE ONLY: possibility of selective current pick-up from head coach only
<b>Pantographs</b>	Type 52 FS in photo-etched metal, extremely flat closed position
<b>Couplers</b>	With short-coupler cinematic between all elements and on both heads, with possibility of coupling with other rolling stock for multiple tractions (included rigid bar to couple two ETR.220 LE Models or bar with NEM 363 socket for other models)
<b>Minimum radius</b>	440 mm
<b>Notes</b>	Bodies realized by high precision and high quality plastic injection, correctly differentiated in details and decoration to reproduce properly all the features of the single trains. Bogies with high quality details, wheels' centre in Kevlar correctly differentiated between dummy and motor wheels, with exact reproduction of transmission system. Borders of intermediate coaches heads realized in flexible material. Underframe grills in photo-etched metal and accurate reproduction of fans and compressors with full decoration. Joint of Jakobs intermediate bogies accurately designed for easy assembly, perfect running in curves and realignment on the straights. Fully reproduced interiors on all elements, with several separate parts and details in photo-etched metal. Accurate curtains reproduction installed by factory. Cabins with control desk fully reproduced, accurate decoration of all devices. Reproduction of end-train table and included destination boards for different services. Model with partially mounted details, additional parts included in accessory bag.



*Electric Multiple Unit*  
**ETR.200**





**LE 15200** FS IIIb 722 DC Plux 22 NEM 658 NEM 363 440

**ETR.214 - "Castano/isabella" (dark brown/light brown) with red stripe, beginning of '60s years**

Perfect 1:87 scale reproduction of the electric multiple unit **ETR.214** second series of the FS, as it was at the beginning of '60 years (era IIIb). "Castano/isabella" (dark brown/light brown) livery with red stripe, silver shutter of luggage area in coach 3. All details comply with the historical setting: coaches 1 and 2 with partially openable windows, air vents on the roof at the definitive state, underframe grills of all coaches at definitive state, doors' windows with frame, trumpets on the fronts in inclined position, mirror on right side of the cabins, pantographs type 42LR with curved skid; inscriptions "Elettrotreno" and coach number in italic font on all coaches in dark brown with black shadow. **LIMITED AND NUMBERED EDITION.**



**LE 15210** FS III 722 DC Plux 22 NEM 658 NEM 363 440

**ETR.206 - Castano/isabella" with red stripe, "Stone" air conditioning system, '50s years**

Perfect 1:87 scale reproduction of the electric multiple unit **ETR.206** first series rebuilt of the FS, as it was during the '50s years (era III). "Castano/isabella" (dark brown/light brown) livery with red stripe, silver shutter of luggage area in coach 3. All details comply with the historical setting: coaches 1 and 2 with original fixed windows, accurate reproduction of "Stone" air conditioning devices with "hunches" on the roof and modified underframe grills disposition on coaches 1 and 2, air vents on the roof of coach 1 in original state, doors' windows with frame, trumpets on the fronts in horizontal position, mirror on right side of the cabins, pantographs type 42LR with curved skid for ETRs. **LIMITED AND NUMBERED EDITION.**

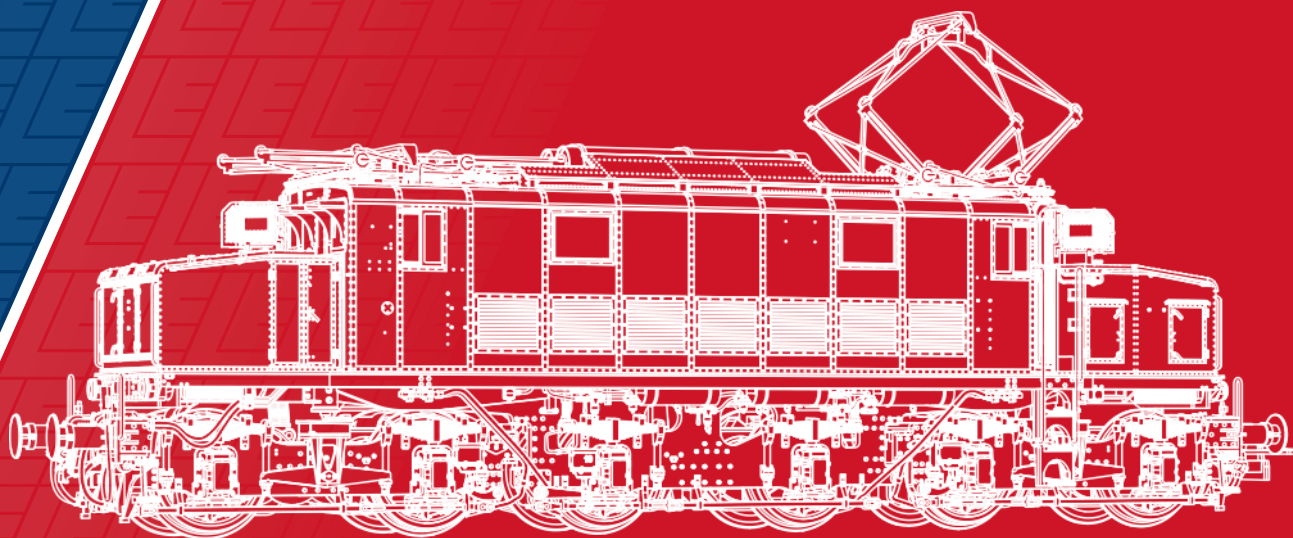
**Electric Multiple Units ETR.200 - TECHNICAL FEATURES valid for all models:**

<b>Scale</b>	H0 – 1:87
<b>Length</b>	722 mm (complete composition)
<b>Digital / sound predisposition</b>	<b>Plux22/NEM 658</b> decoder interface, with simplified access through dedicated removable cover under coach 3. <b>23 mm rounded speaker inside coach 3 installed BY FACTORY</b> on all versions
<b>Motorization</b>	High performance 5-poles motor with flywheel, cardan shaft with transmission on one bogie of coach 3, completely hidden under the interiors reproduction. Four wheels with traction tyre
<b>Lights / Electric system</b>	Head lights with red/white LEDs with inversion according to the running direction, <b>internal lights on cabins, all passengers areas and services on coach 3 by factory</b> , independent on/off command for head lights, all interior lights and services in both analog (through DIP Switch) and digital running (through decoder). Electric bus through all the elements, couplers with 8-poles connectors. <b>ANALOG MODE ONLY:</b> possibility of selective current pick-up from head coach only
<b>Pantographs</b>	Type 42L / 42LR FS (according to the versions) in photo-etched metal, extremely flat closed position
<b>Couplers</b>	With short-coupler cinematic between all elements and on head of coach 1, with possibility of coupling with other rolling stock for multiple tractions (included rigid bar to couple two ETR.200 <i>LE Models</i> or bar with NEM 363 socket for other models)
<b>Minimum radius</b>	440 mm (in "operational" configuration)
<b>Notes</b>	Bodies realized by high precision and high quality plastic injection, correctly differentiated in details and decoration to reproduce properly all the features of the single trains. Bogies with high quality details, intermediate bogies correctly differentiated from head bogies and in asymmetric position with respect to the coaches as in the reality, wheels' centre in Kevlar correctly differentiated between dummy and motor wheels, with exact reproduction of transmission system and spokes. Bellows of intermediate coaches heads realized in flexible material with full visible continuity. Joint of Jakobs intermediate bogies accurately designed for easy assembly, perfect running in curves and realignment on the straights. Fully reproduced interiors on all elements, with several separate parts and details in photo-etched metal. Accurate curtains reproduction installed by factory. Cabins with control desk fully reproduced and specific for ETR200, accurate decoration of all devices. Model provided by factory in operational configuration with short skirts; complete skirts, leaf springs for the bogies and additional parts included in accessory bag.



# *E.626*

*Second series*





**LE 20520** FS V/VI =DC 173 21MTC NEM NEM

**LE 20520S** SOUND

**E.626.059 - "Grigio pietra/castano" (light grey/dark brown), Trieste Campo Marzio museum**

Perfect 1:87 scale reproduction of the electric locomotive E.626.059 2nd series of the FS, constructor TIBB (Tecnomasio Italiano Brown Boveri), as it was during the '90s-2000s years (era V-VI) after the restoration by the Trieste Campo Marzio Museum. "Grigio pietra/castano" (light grey/dark brown) livery, pantographs Type 32.

**LIMITED AND NUMBERED EDITION.**

All details comply with the historical setting: central body, front boxes and side windows in original state, original wooden cabin doors, mechanic compressor with rod on third axle, command of mechanic tachometer with short rod, old type Hasler tachometer and reproduction of doors for corridor and AT room with different position between the two cabins, old type air couplers, REC couplers, modern type buffers and old type lamps, dark brown snowplough.



**LE 20521** FS IIIb =DC 173 21MTC NEM NEM

**LE 20521S** SOUND

**E.626 2nd series - Castano/isabella, era IIIb**

Perfect 1:87 scale reproduction of the electric locomotive E.626 2nd series of the FS, as it was during the '60s years (era IIIb). "Castano/isabella" (dark brown/light brown) livery, pantographs Type 32.

**LIMITED AND NUMBERED EDITION**

All details comply with the historical setting: central body, front boxes and side windows in original state, original wooden cabin doors, mechanic compressor with rod on third axle, command of mechanic tachometer with short rod, old type Hasler tachometer and reproduction of doors for corridor and AT room with different position between the two cabins, old type air couplers, REC couplers, old type buffers and lamps.



**LE 20522** FS IV =DC 173 21MTC NEM NEM

**LE 20522S** SOUND

**E.626 2nd series - Castano/isabella, epoca IV**

Perfect 1:87 scale reproduction of the electric locomotive E.626 2nd series of the FS, as it was during the '70s years (era IV). "Castano/isabella" (dark brown/light brown) livery, pantographs Type 32.

**LIMITED AND NUMBERED EDITION**

All details comply with the historical setting: central body, front boxes and side windows in original state, original wooden cabin doors, mechanic compressor with rod on third axle, command of mechanic tachometer with short rod, old type Hasler tachometer and reproduction of doors for corridor and AT room with different position between the two cabins, old type air couplers, REC couplers, modern type buffers and lamps.



**LE 20523** FS IVb =DC 173 21MTC NEM NEM

**LE 20523S** SOUND

**E.626 2nd series - Castano/isabella, era IVb**

Perfect 1:87 scale reproduction of the electric locomotive E.626 2nd series of the FS, as it was during the '80s years (era IVb). "Castano/isabella" (dark brown/light brown) livery, pantographs Type 32.

**LIMITED AND NUMBERED EDITION**

All details comply with the historical setting: central body, front boxes and side windows in original state, rebuilt metallic cabin doors, mechanic compressor with rod on third axle, command of mechanic tachometer with short rod, old type Hasler tachometer and reproduction of doors for corridor and AT room with different position between the two cabins, old type air couplers, modern type buffers and lamps.



# Gr.851





**LE 21274** FS IIIb 103,5 [DC] [21MTC NEW 02] [NEM] [NEM] [NEM] [NEM] [NEM]

**851.152 - Electric lamps, big snowplough, era IIIb**

Perfect 1:87 scale reproduction of the steam locomotive 851.152 of the FS, constructor "Officine Meccaniche (OM) di Napoli", as it was during the era IIIb ('60s years). Black livery with red/brown chassis, raised electric lamps on the front, big front snowplough reproduced in all its details, front air hoses realistically applied over the snowplough, raised rear markings on red background, closed central rear window.

**LIMITED AND NUMBERED EDITION**

All other details comply with the historical setting: smooth rear cabin wall, complete side visors of the cabin, chimney with conic base, modern buffers, wooden high coal box, additional coal boxes inside the cabin, whistle on front cabin wall, rear side windows partially obscured, 5 rear lamp supports, "accident prevention" and weights inscriptions. Rear electric lamps provided in accessory bag.

Even though after the Second World War the 851 were almost exclusively dedicated to shunting services, some units still performed line services on some relations, as it was in the Rovigo area where some machines assigned to the Padova depot were used for passenger and freight services between Rovigo and Padova and, most of all, on the Rovigo-Chioggia, the last real "reign" for the 851s on line services. Until the second half of '60 years here it was possible to see these reliable locotenders pulling quite heavy freight trains and local passenger trains composed of two or three 2-axes coaches ("Corbellini" or "Tipo 1936") and one post/luggage coach type DUI with wooden body. In winter times, they were often fitted with the big shield-shaped snowplough on the front, which made their aspect much more massive.



**LE 21275** FS IIIa 103,5 [DC] [21MTC NEW 02] [NEM] [NEM] [NEM] [NEM] [NEM]

**851.167 - Oil lamps, fuel oil tanks, era IIIa**

Perfect 1:87 scale reproduction of the steam locomotive 851.167 of the FS, constructor "Costruzioni Meccaniche di Saronno", as it was during the era IIIa ('50s years). Black livery with red/brown chassis, big oil lamps, two fuel oil tanks placed between chimney and sandbox, raised rear markings on red background and old type buffers.

**LIMITED AND NUMBERED EDITION**

All other details comply with the historical setting: smooth rear cabin wall, reduced side visors of the cabin, chimney with conic base, wooden high coal box, additional coal boxes inside the cabin, fuel oil burners over the fire chamber, whistle on front cabin wall, rear side windows partially obscured and handles under the buffers in black colour.

Between 1947 and 1957, 27 units of the Group 851 were experimentally fitted with mixed coal/fuel oil burning system, to reduce consumptions and simplify the work of the stokers, heavily occupied during shunting services. These machines received two big tanks for fuel oil, placed over the boiler between chimney and sandbox or beside the dome, and a burner placed over the opening of the fire chamber to burn oil during active service, while during the parking periods the normal coal burning was used. Many of these units were scrapped with still the oil burning system installed, while others, including the 167 assigned to Bologna depot, at the end of the experimentation were re-converted to the standard coal burning.



**LE 21276** FS IIIa 103,5 [DC] [21MTC NEW 02] [NEM] [NEM] [NEM] [NEM] [NEM]

**851.160 - Oil lamps, fuel oil tanks, era IIIa**

Perfect 1:87 scale reproduction of the steam locomotive 851.160 of the FS, constructor "Costruzioni Meccaniche di Saronno", as it was during the era IIIa ('50s years). Black livery with red/brown chassis, big oil lamps, two fuel oil tanks placed between chimney and sandbox, small raising for coal box, raised rear markings on red background and old type buffers.

**LIMITED AND NUMBERED EDITION**

All other details comply with the historical setting: smooth rear cabin wall, reduced side visors of the cabin, old type chimney with rounded base, additional coal boxes inside the cabin, fuel oil burners over the fire chamber, original whistle on cabin roof, transparent rear side windows and handles under the buffers in black colour.

Among the 27 experimental units of the 851 group transformed between 1947 and 1957 with mixed coal/fuel oil combustion, there was also the 851 160 that received the two oil tanks in advanced position, between chimney and sandbox, same as several others modified units. Moreover, it showed a small rising over the front coal box that increased its capacity but did not cover the front left window, allowing a better view to the train driver, and it kept some details such as chimney, buffers and whistle in their original state.



**LE 21277** FS III 103,5 [DC] [21MTC NEW 02] [NEM] [NEM] [NEM] [NEM] [NEM]

**851.191 - Oil lamps, big snowplough, era III**

Perfect 1:87 scale reproduction of the steam locomotive 851.191 of the FS, constructor "Officine Meccaniche di Saronno", as it was during the era III ('50s-'60s years). Black livery with red/brown chassis, raised oil lamps on the front, big front snowplough reproduced in all its details, front air hoses realistically applied over the snowplough, high metallic coal box and rear markings on buffer beam. **LIMITED AND NUMBERED EDITION**

All other details comply with the historical setting: smooth rear cabin wall, reduced side visors of the cabin, chimney with conic base, old type buffers, additional coal boxes inside the cabin, original whistle on cabin roof, transparent rear side windows, 4 rear lamp supports and weights inscriptions. Rear oil lamps provided in accessory bag.

Several 851s received during the time a raising for the coal box over the left water tank; it was handcrafted and could have different shapes and dimensions between the various machines, often covering the front left window of the cabin and, in some cases, it was realized in metal, as the one installed on the 851.191. This machine was also predisposed to receive the big shield-shaped snowplough that was installed during winter times according to necessities, and same as several other units it maintained also the original buffers and the old whistle on cabin's roof.