

CZ LOKO

Locomotion Excellence®

DualShunter 2000



DualShunter 2000 DC

Bimodal variant of the successful diesel locomotive EffiShunter 1000, with unification of several components.



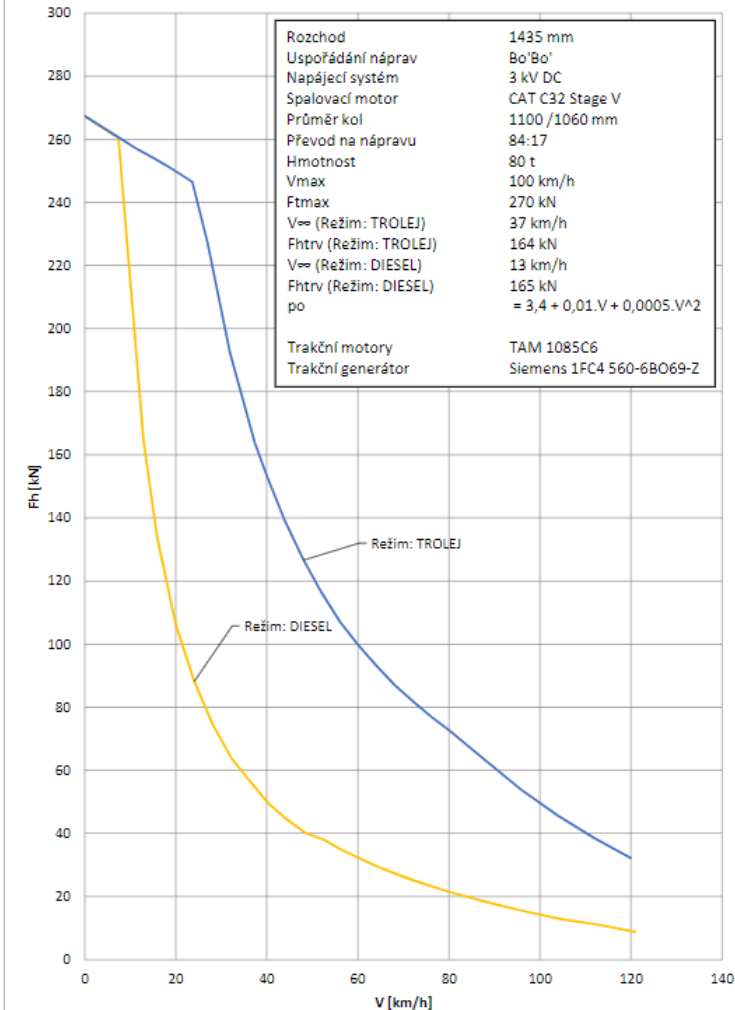
Description

- dual locomotive for medium-heavy line service and shunting on 1435 mm gauge lines,
- electric power transmission - AC/AC, electric auxiliary drives,
- maximum speed - 100 km/h (hauled 120 km/h),
- diesel combustion engine power - 895 kW (stage V, HVO ready),
- 3kV DC overhead line power - 2 200 kW,
- weight in running condition - 80 tons,
- profil G1 according to EN 15273-2,
- national signaling system and predisposition for ETCS,
- compliance with TSIs and with national rules,
- energy recuperation in PANTOGRAPH mode.

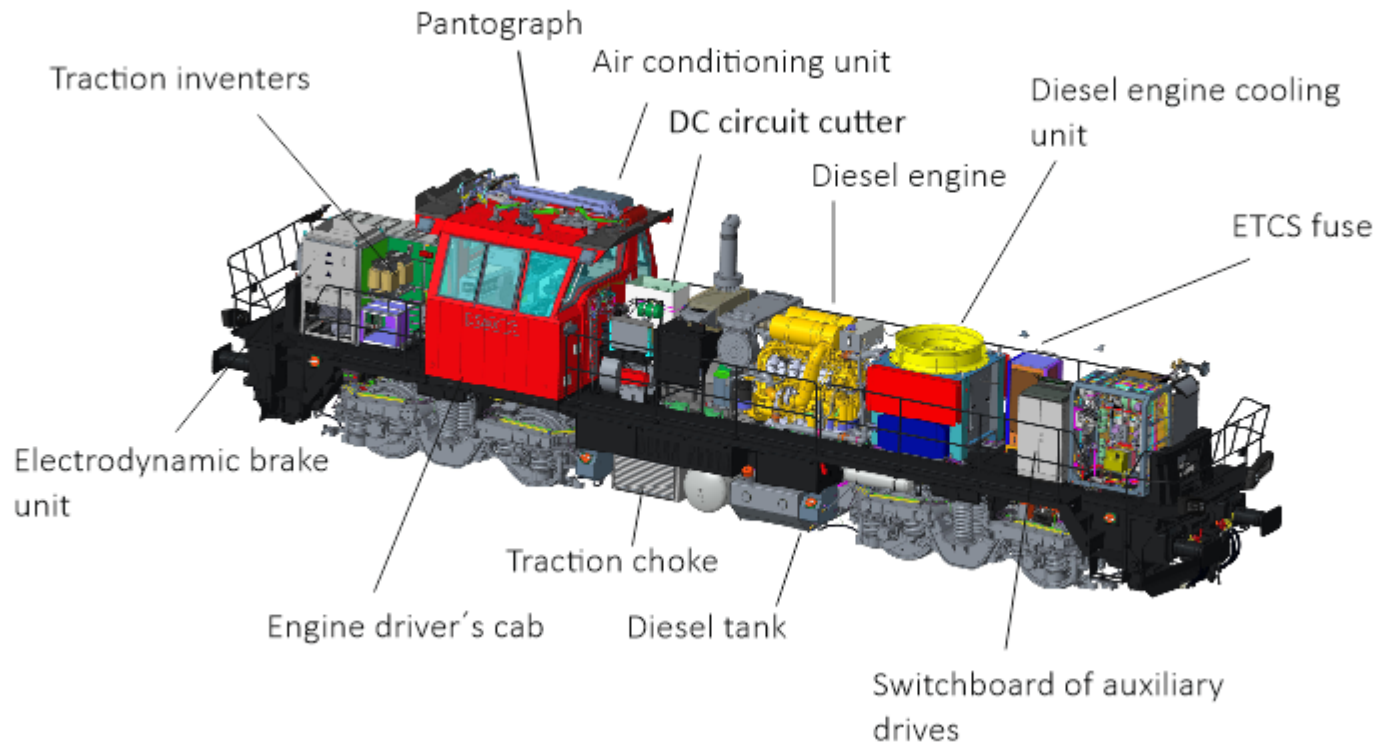
Traction

- Weight: 80 t
- Wheel arrangement: Bo'Bo'
- Maximum speed: 100 km/h
- Max. towing speed: 120 km/h
- Use: track and shunting
- Wheel diameter: 1100/1060 mm
- PANOT/ DIESEL power: 2200/895 kW
- Traction power: 2000/660 kW
- Power at wheel: 1755/590 kW
- Traction motors: TAM 1085C6
- Gear ratio: 84:17
- Max. tractive effort: 270 kN
- Continuous speed: 37,6/13,4 km/h
- Permanent tractive effort: 167 kN

Trakční charakteristika DualShunter2000
 $F_h = f(V)$



Main components



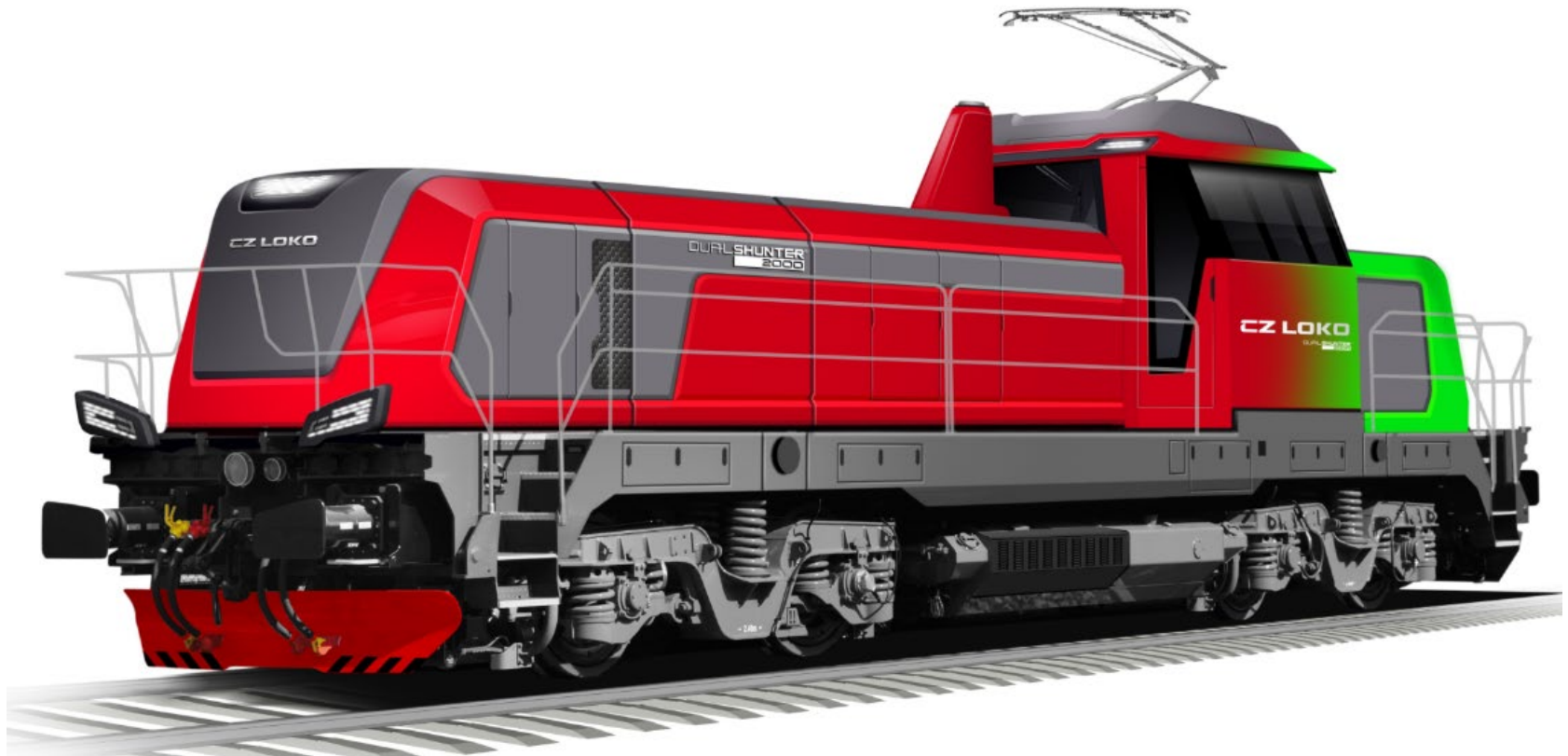
Functions

- Dynamic switch: change of mode between DIESEL and PANTO with locomotive in movement (it is necessary to provide preheating and aftercooling of diesel engine),
- EDB recuperation in PANTO mode
- multiple traction and control: two DS2000 without limitation, DS2000+ES1000 only in DIESEL mode,
- emergency range: in DIESEL mode on one bogie.



DualShunter 2000 AC

New platform using some elements from DS2000 DC.



Description

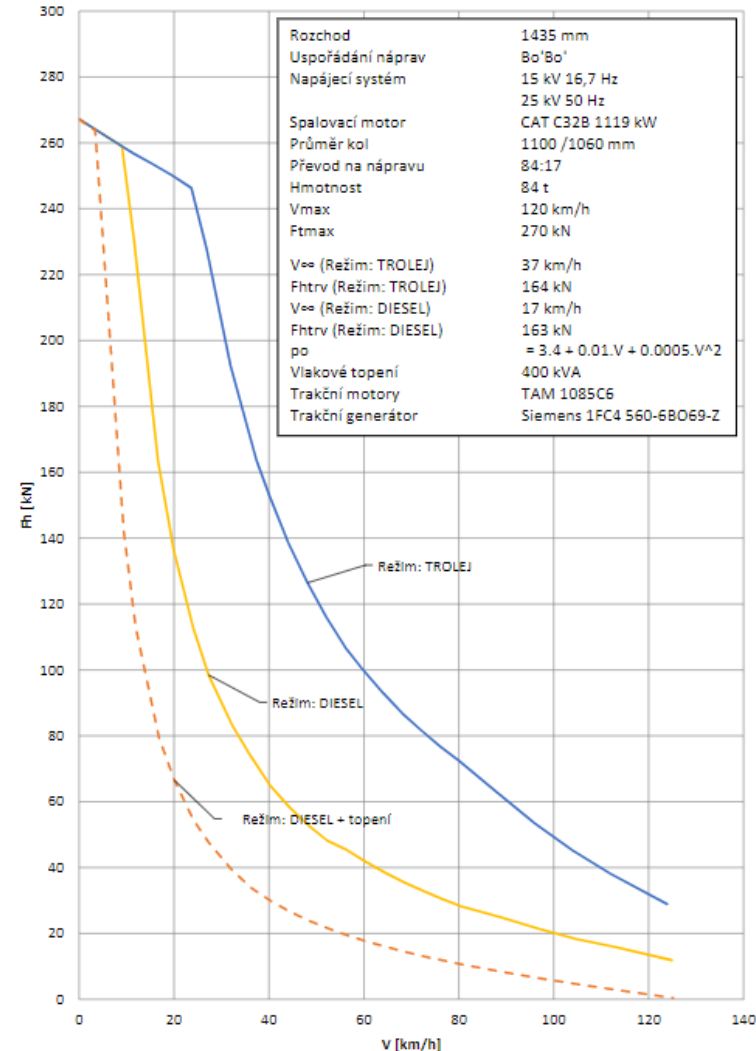
- dual-frequency locomotive for medium-heavy line service and shunting on 1435 mm gauge lines,
- electric power transmission - AC/AC,
- maximum speed 120 km/h,
- power of internal combustion engine - 1119 kW,
- trolley power - 2 200 kW (+ 400 kW for heating/air conditioning),
- design weight in operating condition - 80 (84) tons,
- vehicle outline G1 according to EN 15273-2,
- operation in climatic conditions according to temperature classes T2 and T3,
- national signalling system and preparation for ETCS,
- the locomotive complies with the TSIs in force at the same time,
- in dependent traction, it allows recovery of excess energy back to the contact line, or the energy is counteracted in the resistor.

DualShunter 2000 AC

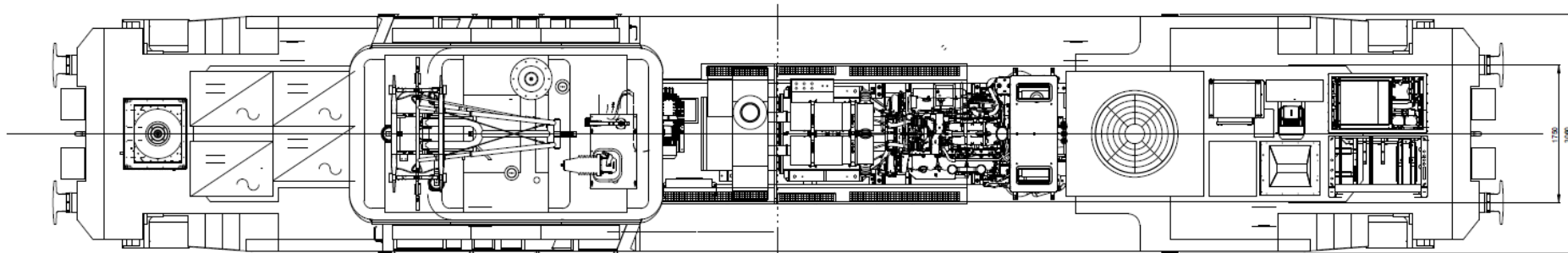
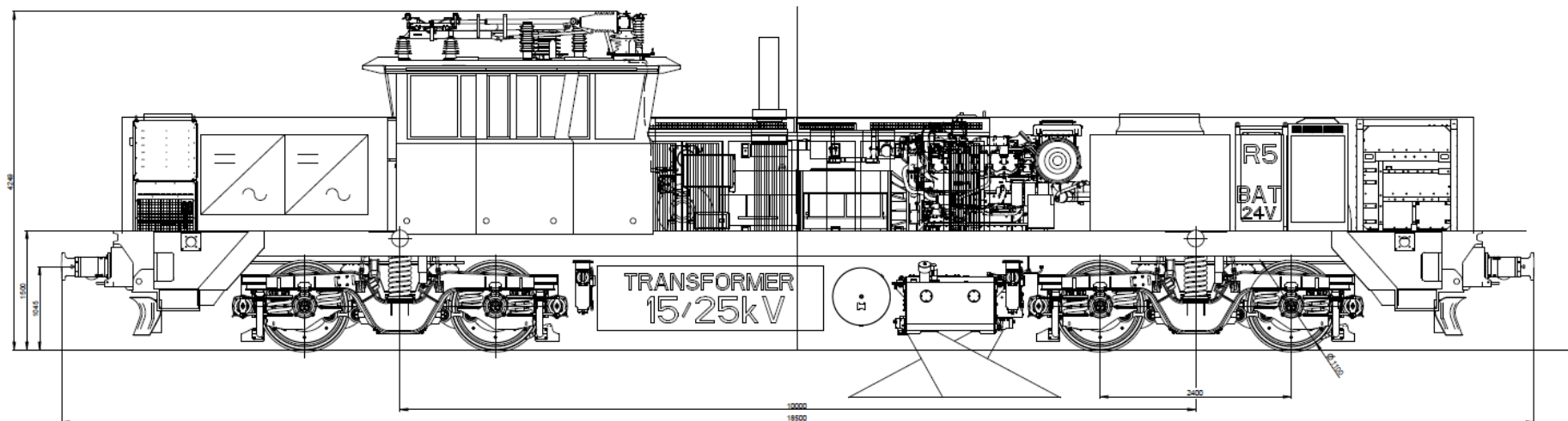
- Weight: 80 (84) t
- Wheel arrangement: Bo'Bo'
- Maximum speed: 120 km/h
- Use: track and shunting
- Wheel diameter: 1100/1060 mm
- PANTO/DIESEL power: 2200/1119 kW
- Traction power: 2000/870 kW
- Power at wheel: 1800/800 kW
- Traction motors: TAM 1085C6
- Gear ratio: 84:17
- Max. traction force: 270 kN
- Continuous speed (TR/DE): 37/17 km/h
- Permanent tractive effort: 164 kN

Trakční charakteristika DualShunter2000 AC

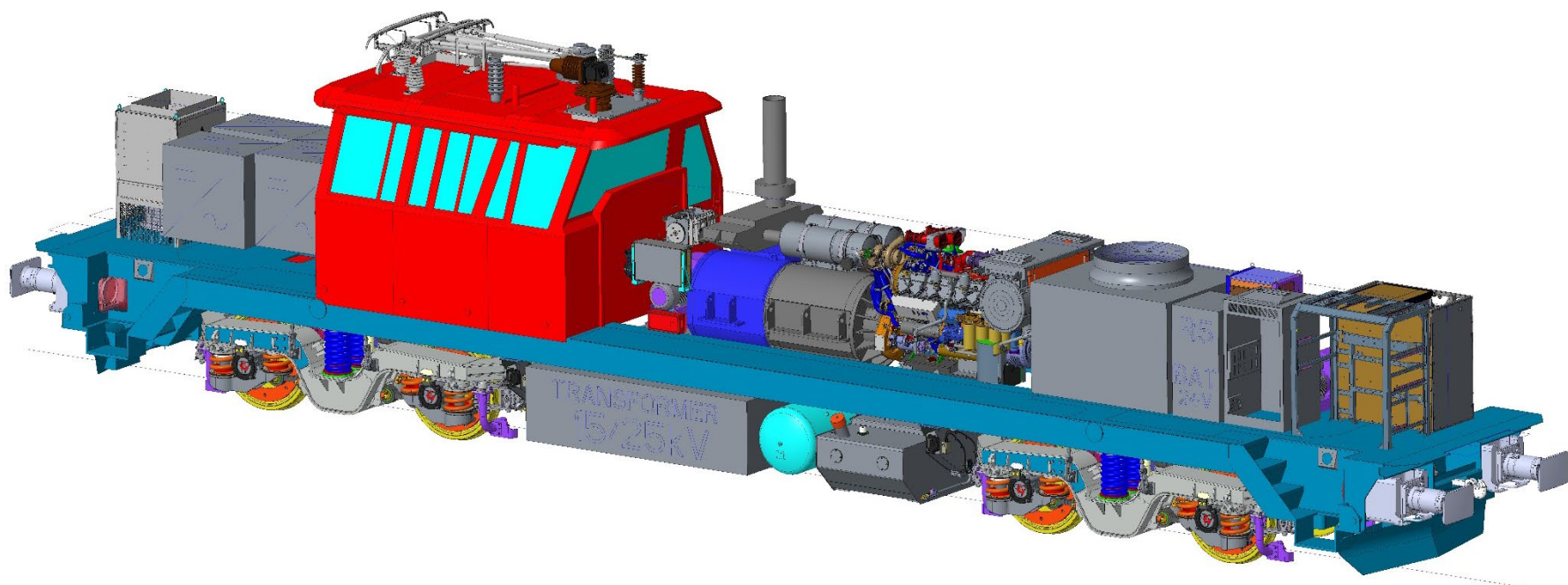
$F_h = f(V)$



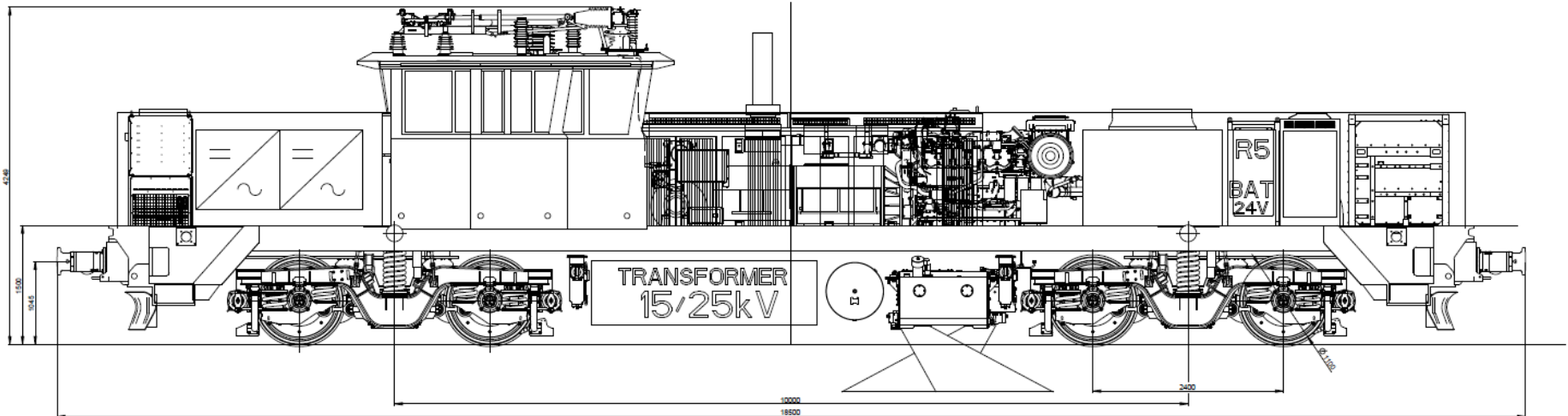
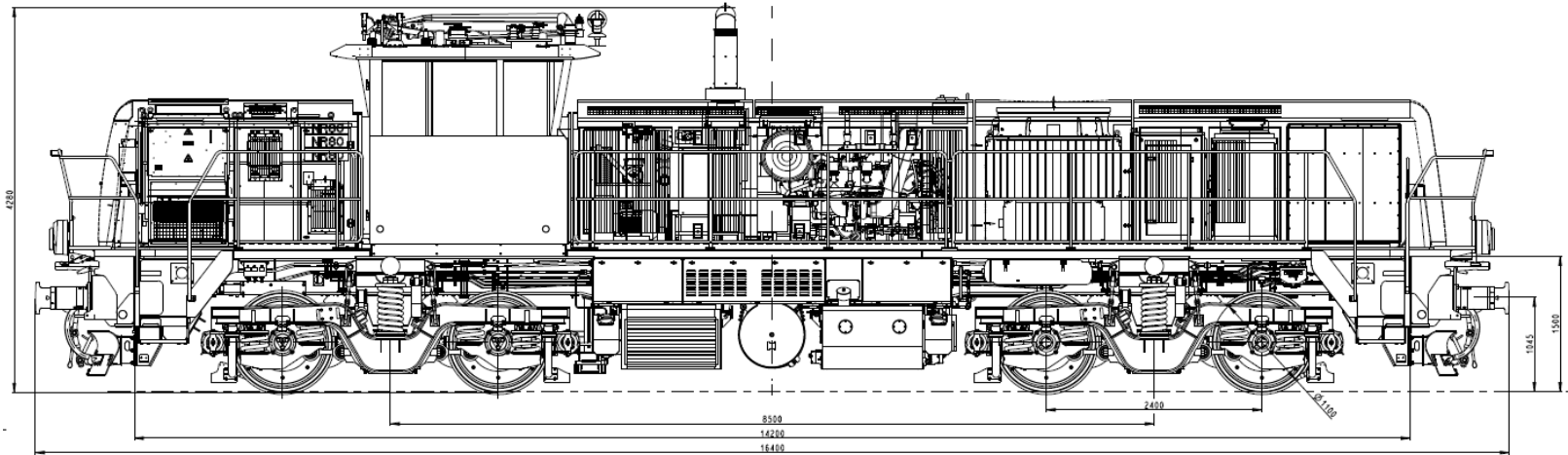
Study



Study



DualShunter 2000 DC and AC





THANK YOU