



# AIP-CDM 48" – 4Motor

## Emission Chassis Dynamometer



The product CDM-48/4-mot is created in a modular design, which opens a wide range of configuration possibilities.

The general data is providing an overview of the basic technical data of each product range. More information is explained in the detailed technical specification.

CDM-48 Product Data	CDM-48L/4-mot
<b>General Data</b>	
Vehicle Type	FWD/RWD/4W
Max. Test Speed	D 260 km/h 220
Max. Power total test stand (absorbing operation)	kW 260 kW
Max. Power total test stand Overload (absorbing operation)	
Max. Power per Roll (absorbing operation)	130kW@130-260 km/h
Max. Power per Roll (overload 60s, absorbing operation)	200kW@130-260 km/h
Max. Tractive Force per Roll (absorbing operation)	3,600 N
Max. Tractive Force per Roll (overload 60s, absorb. operation)	5,400 N
Min. Vehicle inertia simulation 2WD (acceleration limited by max. force)	600 kg
Max. Vehicle inertia simulation 2WD (acceleration limited by max. force)	6500 kg
Min. Vehicle inertia simulation 4WD (acceleration limited by max. force)	750 kg
Max. Vehicle inertia simulation 4WD (acceleration limited by max. force)	6500 kg
Road Load Increment	0,45 kg
Max. Vehicle axle load	4,000
<b>Roll</b>	
Roll diameter	(48") 1,219.2
Roll width	mm 700 mm
Roll inside track	900 mm
Roll outside track	2,300 mm
<b>Wheel Base Adjustment</b>	
Wheel Base Adjustment System 3 / 1800mm	1,800 - 4,200 mm
Wheel Base Adjustment Increment	+/-1 mm
<b>Power Supply</b>	
Electric Power Supply (3x400-420V, 50-60Hz)	280 KW
Pressed Air Supply	6-10
<b>Ambient Conditions</b>	
Ambient Temperature	(+5°C to 45°C)
Ambient Humidity (not condensed)	Max. 95%
<b>Control Cabinet</b>	
Dimension (length x height x depth)	1,800x2,200x600 mm
Weight	650 ka
<b>Power Cabinet</b>	
Dimension (length x height x depth)	3,200x2,600x600 mm
Weight	2,100 ka
<b>DSU</b>	
Dimension (length x height x depth)	400 x300x150 mm
Weight	50 ka
<b>DSU (Extended)</b>	
Dimension (length x height x depth)	500 x500x300 mm
Weight	100 ka
<b>Interface Box</b>	
Dimension (length x height x depth)	500 x500x300 mm
Weight	100 ka

### A.0.2 Dynamic & Accuracies per Roll

Response Time (EPA requests <100ms)	approx. 50 ms
Accuracy of speed measurement	0.01 km/h
Accuracy of time measurement (totaling 1000s)	+/- 0.1 % f.s.
Resolution of time measurement	1 ms
Accuracy of traction force measurement	+/- 0.05 % f.s.
Repeatability of traction force measurement	0.02 % f.s.
Accuracy of acceleration measurement	+/- 0.002 m/s <sup>2</sup>
Accuracy of distance measurement	1 m
Resolution of distance measurement	+/- 1 m
Accuracy of speed constant controlling	0.05 km/h
Accuracy of torque constant controlling	0.2% f.s.
Accuracy of inertia simulation	0.5% f.s.
Accuracy of parasitic loss compensation (per roll) < @100 km/h	2.5 N
Accuracy of 4WD-roll synchronization (patented)	+/- 0.06 km/h

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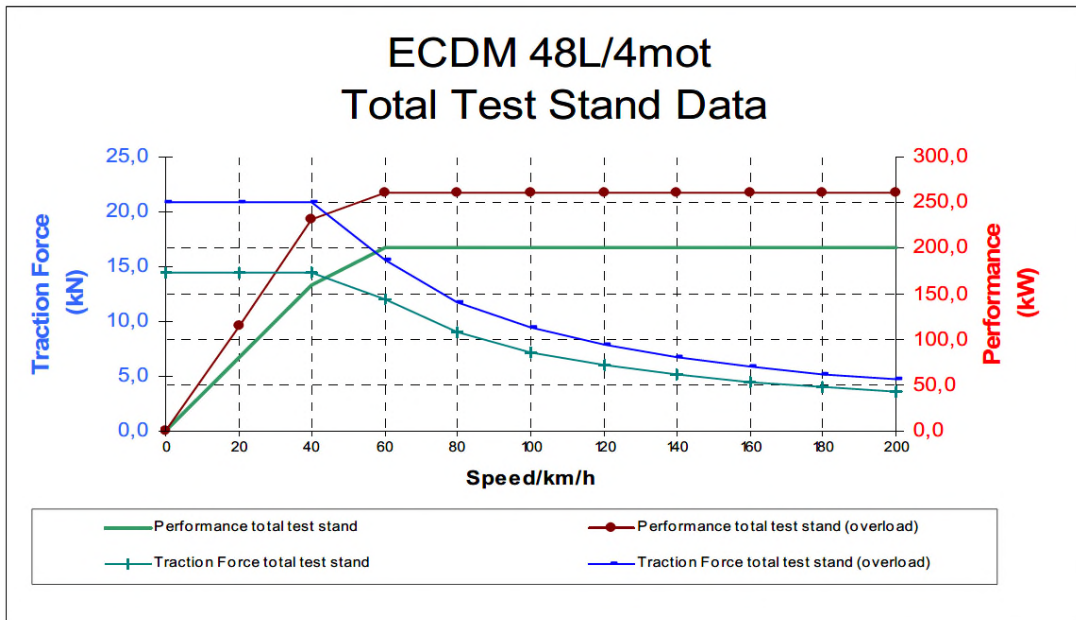
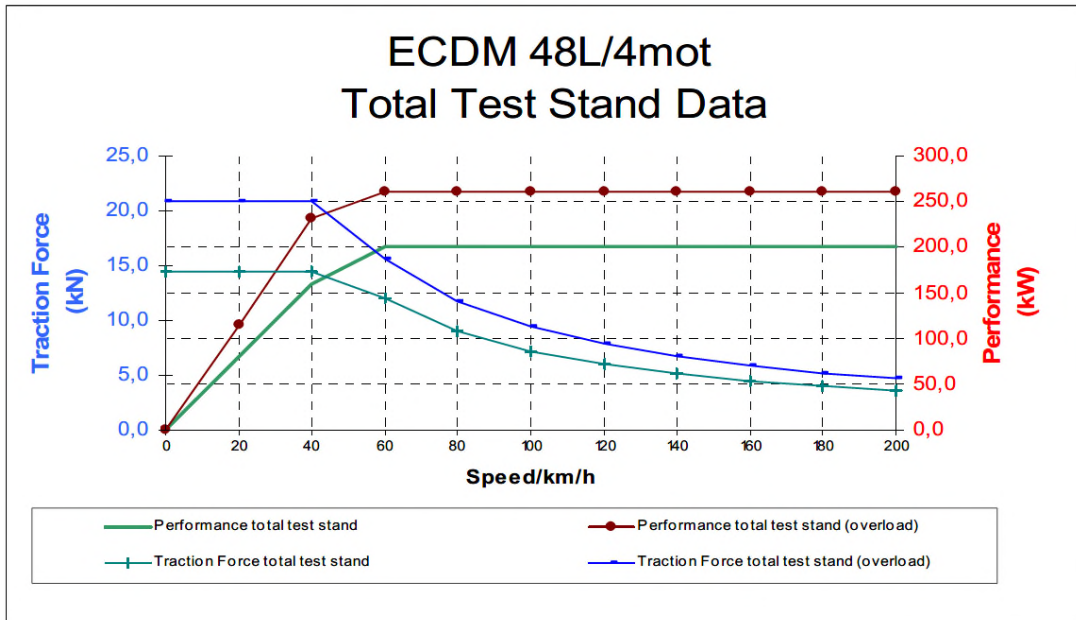
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The performance diagram shows the characteristics of the dyno in normal and overload operating conditions.

## Definition of Overload Capability

The overload capability (max. overload duration) is specified as max. 60 sec within 300 sec interval. It is possible to split the overload capability within this interval, e.g. 3 x 20 s (for acceleration operation).



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