

MM 246 AUTOMOTIVE GEAR SYSTEM EFFICIENCY, Manual Transmission



Photograph includes optional equipment

GENERAL DESCRIPTION

The apparatus is table top unit for studying an automotive gear system efficiency under different gear ratios and speeds.

The system uses a manual automotive gear. The input shaft is driven a motor dynamometer via a belt and pulleys. Speed is controlled by an inverter. The output shaft is attached to an eddy current absorber dynamometer.

The system requires outside water supply for water brake absorber cooling. The unit is a bench top with adjustable footings.

TYPICAL EXPERIMENTS

- Input power, output power and efficiency.
- Effect of speed and load on efficiency.

TECHINCAL DATA

- Gear box : Good used 5 speed manual automotive gear.
- Speed control : 4.0 kW inverter.
- Maximum shaft input speed : 6000 rpm.
- Power measurement :
 - Torques : Digital display for input and output shafts.
 - Speeds : Digital display for input and output shafts.
- Power supply : 380 V, 3 Ph, 50 Hz. Other power supply is available on request.

OPTIONAL EQUIPMENT

- MM245-003 Water brake absorber instead of eddy current absorber.
- MM245-050 Computer Interface
This includes computer interface unit and software for data display and analysis by computer (separately supplied).

No	Weight (N)	y (m)	t (s)	T (N.m)	a (m/s ²)	α (rad/s ²)	I (kg.m ²)	Remarks
1	110	0.45	0.91	2.75	1.087	43.47	0.0639	
2	110	0.45	0.95	2.75	1.041	41.62	0.0661	
3	110	0.54	0.9	2.75	1.111	44.44	0.0619	

Net (unpacked) shipping dimensions WxLxH
Net weight

: 70 x 135 x 65 cm
: Approx. 125 kg

