

**Specifications of Eddy Current Dynamometer: (Quantity: One unit)****General Description:**

1. System should provide multi-mode operation facility from constant torque, constant speed(rpm) and open loop power measurement.
2. Should be adequately sensitive to changes power, speed and torque measurements.
3. Should produce torque and power characteristics at different constant speed in the normal operation conditions of the dynamometer.
4. Should provide safety control procedures while any accident like dry running of system.
5. Should provide data logging capability including software compatible with windows PC.
6. Should have manual controls and display for user understanding.
7. Please tick the technical specification and other requirements that the vendor is able to comply or not-comply with.
8. Optional items are not part of technical/commercial evaluation criteria.

**Technical Specifications:**

S.No.	Specification	Comply	Not-Comply
1	Control technique: Based on Eddy current principle.		
2	Maximum Power: 30kW		
3	Maximum Torque: 100 Nm		
4	Speed(rpm) range: 1000rpm to 3000 rpm.		
5	Bi-directional operating capability.		
6	Water as medium for cooling excess heat in the system.		
7	Weighing system check equipment for periodic checking of accuracy of load cell.		
8	Inlet water pressure switch to avoid dry running of system.		
9	Data Acquisition rate: Greater than or equal to 1kHz.		
10	Accuracy: +/- 1% or better for all sensors in the system.		
11	Precision: +/- 1% or better for all sensors in the system.		
12	Measurement triggering: Both internal and external.		
13	Operating temperature: 25-55°C.		
14	Humidity: 50-100% RH.		
15	Operation voltage: 240 VAC, 50 Hz.		
16	Latest upgraded Licensed Software should be installed based on user customization. Software to be installed in Windows 10 operating platform.		

**Other Requirements:**

S.No.	Specification	Comply	Not-Comply
1	Cardan/Connecting/Propeller Shaft with the protective casing.		
2	Water filter for the system.		
3	Control Display Unit.		
4	Latest calibration certificates for the sensors attached in the system.		
5	Warranty: At least 1 year. Warranty should apply after the satisfactory installation and commissioning.		
6	Service support record: The supplier should have installed and maintained similar systems in India since last five years. Please provide customer references.		
7	Provide the technical specification compliance table and graphs with values.		
8	Installation of the system should happen in 15-30 days from the date of delivery.		

**Optional Items:**

1. Please give options of extended warranty of 1, 3 and 5 years.
2. Please give us options for annual maintenance and servicing of dynamometer.